

Upland data point wcuk018\_u soil sample

| Project/Site:SERP  | City/County: C  | WAREN WANN  | 00/20/20                                |
|--|---|---|---|
| Applicant/Owner: DOMINION  | Oity/county   |   | Sampling Date: 08/27/20                 |
| Investigator(s): J. Sいをエアでをス   | Section, Township   | Range: NA   | Sampling Point: _WLUKOLE                |
| Landform (hillslope, terrace, etc.): STREAM 3  | . 11/1  | convex, none): $\begin{tabular}{ll} \begin{tabular}{ll} tab$      | 13                                      |
| 01   | Lat: 37.360584815   | Long: 78. 3717844L  | Slope (%): 1-3                          |
| Soil Map Unit Name:  | Jan 2 107 % Stories   | -   |   |
| Are climatic / hydrologic conditions on the site typic   |   | INVVI classification in D   | ation: NA                               |
| Are Vegetation, Soil, or Hydrology   |   |   |   |
| Are Vegetation Soil or Hydrology   | naturally problematic?  | If it is a set of the | resent? Yes No                          |
| SUMMARY OF FINDINGS – Attach site  | TEXEL COMPLET IS TO 25  | lf needed, explain any answer   | s in Remarks.)                          |
| SUMMARY OF FINDINGS – Attach site  | e map showing sampling poir   | it locations, transects.  | important features, etc.                |
| Charles where NA A and I am I am   |   |   | , |
| Hydric Soil Present? Yes Hydric Soil Present? Yes  | No Is the Samp  | led Area  | /                                       |
| Wetland Hydrology Present? Yes   | No within a We  | etland? Yes   | _ No                                    |
|  | No  |   | <u> </u>                                |
| RSTABLESHED.   | IN STREAM STOE WETC   | AND LAVEED BY   | ALTERATION                              |
| OF FLOW DUE TO PASTURE   | ROAD AND UNDERILZE  | D EULUERN A   | U 3 CRETERIA                            |
| MET.   |   |   | e *                                     |
| PHOTOS: 103-0ZI  | 3 TO 0215 (SOIL,  | NO  |   |
| HYDROLOGY  | (3.20.)   |   |   |
| Wetland Hydrology Indicators:  |   |   |   |
| Primary Indicators (minimum of one is required; ch   | peak all that apply   |   | ors (minimum of two required)           |
|  |   | Surface Soil C  |   |
|  | True Aquatic Plants (B14)   | Sparsely Vege   | etated Concave Surface (B8)             |
| _  | Hydrogen Sulfide Odor (C1)  Oxidized Phizophores on Living P                              | Drainage Patt   | erns (B10)                              |
| tank and a second secon | <ul><li>Oxidized Rhizospheres on Living R</li><li>Presence of Reduced Iron (C4)</li></ul> |   |   |
|  | Recent Iron Reduction in Tilled Soil  | Dry-Season W  |   |
| Drift Deposits (B3)  | Thin Muck Surface (C7)  |   |   |
| Algal Mat or Crust (B4)  | Other (Explain in Remarks)  | Saturation vis  | ible on Aerial Imagery (C9)             |
| Iron Deposits (B5)   |   | Geomorphic P  |   |
| Inundation Visible on Aerial Imagery (B7)  |   | Shallow Aquita  |   |
| Water-Stained Leaves (B9)  |   | Microtopograp   |   |
| Aquatic Fauna (B13)  |   | FAC-Neutral T   |   |
| Field Observations:  | /   |   |   |
| Surface Water Present? Yes No!   | Depth (inches): NA  |   |   |
| Water Table Present? Yes No  | Depth (inches):   |   |   |
| Saturation Present? Yes No   | Depth (inches):   | Wetland Hydrology Present   | ? Yes No                                |
| Describe Recorded Data (stream gauge, monitoring   | ng well, aerial photos, previous inspection   | ons) if available:  |   |
| NA   | , and proceed moposition  | no), ii avallable.  |   |
| Remarks:   |   | · ·   |   |
| HYDROLULY CRETERI  | A MEI.  |   |   |
|  |   |   |   |
|  |   |   | •                                       |
|  |   |   |   |
|  |   |   | e)                                      |
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|  |   |   |   |
|  |   |   | ,                                       |
|  |   |   | · •                                     |
| The second secon | i i i i i i i i i i i i i i i i i i i   | *   |   |
|  |   |   |   |

| Tron Stratum (Blatains 518                              | Absolute    | Dominant    | Indicator | Dominance Test worksheet:   |             |
|---|-------------|-------------|-----------|---|-------------|
| Tree Stratum (Plot size: 5 'R )  1. NA                  | % Cover     |             |           | Number of Dominant Species  |             |
|   |             |             |           | That Are OBL, FACW, or FAC:   | _ (A)       |
| 2   |             |             |           | Total Number of Dominant  |             |
| 3   |             |             |           | Species Across All Strata: 7  | _ (B)       |
| 456   |             | -           |           | Percent of Dominant Species That Are OBL, FACW, or FAC:   | _ (A/B)     |
| O   |             | = Total Cov |           | Prevalence Index worksheet:   | . %         |
| 500/ - 51-1 1   |             |             |           | Total % Cover of: Multiply by:  |             |
| 50% of total cover:<br>Sapling Stratum (Plot size:S'R ) | 20% of      | total cover | ·         | OBL species x 1 =   | ,           |
|   |             |             |           | FACW species x 2 =  |             |
|   |             |             |           | FAC species x 3 =   |             |
|   |             |             |           | FACU species x 4 =  |             |
| 3   |             |             |           | UPL species x 5 =   |             |
|   |             | ·           |           | Column Totals:(A)   |             |
| i   |             |             |           |   |             |
| S   |             |             |           | Prevalence Index = B/A =  |             |
| •   |             | Total Cov   |           | Hydrophytic Vegetation Indicators:  |             |
| 50% of total cover:                                     | 20% of      | total cover |           | 1 - Rapid Test for Hydrophytic Vegetation   |             |
| Shrub Stratum (Plot size: 5'R)                          | -           |             | _         | 2 - Dominance Test is >50%  |             |
| . SAULY NIGRA   |             |             | OBL       | 3 - Prevalence Index is ≤3.01   |             |
| 2   |             |             |           | 4 - Morphological Adaptations <sup>1</sup> (Provide su  | pporting    |
| 3   |             |             |           | data in Remarks or on a separate sheet  |             |
|   |             |             |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Expl   | ain)        |
| 5   |             |             |           | Indicator of had to be a second   | -           |
| •   |             |             |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology be present, unless disturbed or problematic. | must        |
|   | =           | Total Cov   | er ·      | Definitions of Five Vegetation Strata:  | <del></del> |
| 50% of total cover:                                     | 20% of t    | otal cover: | -         | · · · · · · · · · · · · · · · · · · ·   |             |
| lerb Stratum (Plot size: 5'R)                           |             |             |           | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and               | 3 in        |
| IMPATIENS CAPENSIS                                      | 80.         | <u> </u>    | FAUN      | (7.6 cm) or larger in diameter at breast height (I  | OBH).       |
| BOEHMEREA CYLINDRICA                                    | 30          | 4           | FACW      | Sapling – Woody plants, excluding woody vines   | _           |
| MICROSTICCION UTMINEUM                                  | 30          | γ           | FAC       | approximately 20 ft (6 m) or more in height and than 3 in. (7.6 cm) DBH.                                  | iess        |
|   |             |             |           | Shrub – Woody plants, excluding woody vines,  |             |
|   |             |             |           | approximately 3 to 20 ft (1 to 6 m) in height.  |             |
|   |             |             |           | Herb – All herbaceous (non-woody) plants, inclu   | adba as     |
|   |             |             |           | herbaceous vines, regardless of size, and wood  | v           |
|   |             |             | -         | plants, except woody vines, less than approximate   | ately 3     |
| 0   |             |             |           | ft (1 m) in height.   | ,           |
| 1   |             |             |           | Woody vine - All woody vines, regardless of he  | eight.      |
|   | 140 =       | Total Cove  | er        |   |             |
| 50% of total cover:7                                    |             |             | 70        |   |             |
| /oody Vine Stratum (Plot size:5 'R                      | 20 /8 01 10 | nai cover   |           |   |             |
| 410   |             |             |           |   |             |
| NA  |             |             |           |   |             |
|   |             |             |           |   |             |
|   |             |             |           |   |             |
|   |             |             |           |   |             |
|   |             | T-4-1-C     |           | Hydrophytic   |             |
|   | =           | Total Cove  | er e      | Vegetation  |             |
| 50% of total cover:                                     |             | tal cover:_ |           | Present? Yes No   |             |

CRITTULIA MET.

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

SMALL PLOY JIK DIE TO SILE OF WESLAMS.

| Profile Des            | cription: (Describe                        | to the de   | pth needed to | document t                    | he indicato   | or or confin | m the absence             | of indicators                | npling Po    | int: _   | 00011017 |
|------------------------|--|-------------|---------------|-------------------------------|---------------|--------------|---------------------------|------------------------------|--------------|----------|----------|
| Depth                  | Matrix                                     |             |               | Redox Fea                     |               |              | iii dio absolice          | or indicators                | .,           |          |          |
| (inches)               | Color (moist)                              | %           | Color (moi    |                               |               |              | Texture                   |                              | Remarks      |          |          |
| 0.5-7                  | JOYRYII                                    | 60          | 7,5412 4      | 116 30                        |               | PL           | FINE S.                   | ANDY LO                      | 4M           |          |          |
|                        |  |             | 2.546         | 12 10                         | D             | _ m          | COARSÍ                    | SAND                         |              |          |          |
| 4-18                   | 2,57 4/1                                   | 50          |               |                               | _             | _            | FINISA                    | tnoy co.                     | 4m           | 7        | STRATIF  |
|                        | 2.57 6/2                                   | 40          | 7.5 YR        | 4/6 1                         | 10 C          | M            | CDARJE                    | LOAMY                        | SAND         | 7        | LAYEY    |
|                        |  |             |               |                               |               |              |                           |                              |              |          |          |
|                        |  |             |               |                               |               |              |                           |                              |              |          |          |
|                        |  |             |               |                               |               |              |                           |                              |              |          |          |
|                        |  |             |               |                               |               |              |                           |                              |              |          |          |
|                        |  |             |               | <u> </u>                      |               |              |                           |                              |              |          |          |
|                        |  | - :         |               |                               |               |              |                           |                              |              |          |          |
| -                      |  |             |               |                               |               |              |                           |                              |              |          |          |
| <sup>1</sup> Type: C=C | oncentration, D=Dep                        | oletion, RM | =Reduced Mat  | rix, MS=Mas                   | ked Sand G    | Frains.      | <sup>2</sup> Location: PL | _=Pore Lining,               | M=Matrix.    |          |          |
| Hydric Soil            |  |             |               |                               |               |              |                           | tors for Prob                |              | Iric So  | ils³:    |
| Histosol               | i (A1)<br>pipedon (A2)                     |             |               | urface (S7)                   | · (00)        | ·            |                           | cm Muck (A10                 |              | 7)       |          |
|                        | istic (A3)                                 |             | Polyval       | lue Below So<br>ark Surface ( | urface (S8) ( | (MLRA 147    | , 148) C                  | oast Prairie Re              |              |          |          |
| Hydroge                | en Sulfide (A4)                            |             | Loamy         | Gleyed Mat                    | rix (F2)      | 147, 140)    | Di                        | (MLRA 147, '<br>edmont Flood |              | T40\     |          |
| ✓ Stratified           | d Layers (A5)                              |             |               | ed Matrix (F3                 |               |              |                           | (MLRA 136, 1                 |              | - 19)    |          |
|                        | uck (A10) (LRR N)                          |             |               | Dark Surfac                   |               |              |                           | ery Shallow Da               |              | (TF12)   |          |
| Depleted               | d Below Dark Surfac                        | e (A11)     |               | ed Dark Surf                  |               |              | 0                         | ther (Explain in             | n Remarks)   | ,        |          |
|                        | ark Surface (A12)<br>⁄lucky Mineral (S1) ( | PPN         |               | Depressions                   | . ,           | (LDD N       |                           |                              |              |          | İ        |
|                        | 4 147, 148)                                | -IXIX IX,   |               | anganese Ma<br>RA 136)        | asses (F12)   | (LKK N,      |                           |                              |              |          |          |
|                        | Gleyed Matrix (S4)                         |             |               | Surface (F1                   | 3) (MLRA 1    | 36, 122)     | 3Indi                     | cators of hydro              | nhytic yeae  | tation : | and      |
|                        | Redox (S5)                                 |             | Piedmo        | ont Floodplai                 | n Soils (F19  | ) (MLRA 14   | <b>18</b> ) wet           | land hydrolog                | / must be pr | esent.   | and      |
|                        | Matrix (S6)                                |             | Red Pa        | rent Materia                  | l (F21) (MLI  | RA 127, 14   |                           | ess disturbed                |              |          |          |
| Type:                  | Layer (if observed)                        |             |               |                               |               |              |                           |                              |              |          |          |
| Depth (inc             | - 7.                                       |             |               |                               | ,i            | ٠<br>٠       |                           |                              | /            |          |          |
| Remarks:               |  |             |               |                               | <u> </u>      | )<br>        | Hydric Soil               | Present? Y                   | es _V_       | No _     |          |
| Tremains.              | SURVEY                                     | EXTENT      |               |                               | V             | _/           |                           |                              |              |          | _        |
|                        |  |             |               |                               | F             | IRLD R       | VAD                       |                              |              |          | 4        |
|                        |  |             |               | •                             |               | 7            |                           |                              |              |          | 1,       |
| 120                    | 4  |             |               | (1.30)                        | O . A         | 1            |                           |                              |              |          | · N      |
|                        |  |             |               | W CO K                        | 218-U         | 10 / w       | 1cv1618e_                 | $\omega$                     |              |          |          |
|                        |  |             |               |                               | ₩             | 70           |                           |                              |              |          |          |
| J                      |  |             |               | WWKOIG                        | ew @          |              |                           | * -,                         |              |          |          |
| _                      |  |             |               |                               | [v]           | 1            |                           |                              |              |          |          |
|                        | _  | -           |               |                               |               |              |                           |                              |              |          |          |
|                        |  |             |               |                               | 1             |              |                           |                              |              |          |          |
|                        |  |             |               |                               |               | _            |                           |                              |              |          |          |
|                        |  |             |               |                               |               |              |                           | _                            |              | _#       |          |
|                        |  |             |               |                               |               | )            |                           |                              |              | d-       | -        |
|                        |  |             |               |                               |               | 1 4          |                           |                              |              |          |          |
|                        |  |             |               |                               | (             | 7,           |                           |                              |              |          |          |
|                        |  |             |               |                               | \             | 7 5          |                           |                              |              |          | 0        |
|                        |  |             |               |                               |               | Scoke42      |                           |                              |              |          |          |
|                        |  |             |               |                               |               | 1 5          |                           |                              |              |          |          |
| ,                      |  | کر          | URVEY FEX     | utent                         |               | / *          |                           |                              |              |          |          |
|                        |  |             |               |                               | ) <b>/</b>    |              |                           |                              |              |          |          |
|                        |  |             |               |                               | ,             |              |                           |                              |              |          | 1.       |



Wetland data point wcuk018e\_w facing North



Wetland data point wcuk018e\_w facing South



Wetland data point wcuk018e\_w soil sample

| Project/Site: SERP City/County: CUMBER LAND Sampling Date: 08/27/20  |
|--|
| Applicant/Owner: DOMINION State: VA Sampling Point: WCUKOI   |
| Investigator(s): 5 SWEITZER B. GRIFFITH Section, Township, Range: NA   |
| Landform (hillslope, terrace, etc.): TERRAGE Local relief (concave, none): CONVEX Slope (%): O   |
| Subregion (LRR or MLRA): LRR P Lat: 37.360530596 Long: 78.371630535 Datum: NA0198  |
| Soil Map Unit Name: PALVLET - WATTREE COMPLEX, 15 TO 25 % SLOPES NWI classification: NA  |
| 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   |
| And Manufallian Collins  |
| ( and the state of |
| SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.  |
| Hydrophytic Vegetation Present? Yes No   |
| Hydric Soil Present? Yes No Is the Sampled Area within a Wetland? Yes No   |
| Wetland Hydrology Present? Yes No  |
| Remarks:   |
| PLOT LIES BETWEEN WCUROIS AND WCHKOIS SHARED UPLAND  |
| PLOT.  |
| PHOTO 100 -0216 TO 100-0218  |
| 70 700-0218  |
| HYDROLOGY  |
| Wetland Hydrology Indicators:  Secondary Indicators (minimum of two required)  |
| Primary Indicators (minimum of one is required; check all that apply)  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 Soils (C6) 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) Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5) Geomorphic Position (D2)  |
| Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)  |
| Water-Stained Leaves (B9) 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):  |
| Saturation Present? Yes No/ Depth (inches): Wetland Hydrology Present? Yes No/   |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  |
| MA   |
| Remarks:   |
|  |
| NO INDICATORS OF WETLAND HYDROLOGY OBSERVED.   |
|  |
|  |
|  |
|  |
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|  |
|  |
|  |
|  |

| Absolute % Cover 3.5 2 6 / 0 / 0 7 7 20% of | Species  Y  W  N   | t Indicator Status FACU FAC FAC FAC | Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  (B)   |
|---|--|-------------------------------------|---|
| 35<br>20<br>10<br>10                        | Y<br>N<br>N  | FACU<br>FAC<br>FAC                  | That Are OBL, FACW, or FAC: (A)  Total Number of Dominant   |
| 75  | N  | FAC                                 | Total Number of Dominant  |
| 75  | N  | FAC                                 |   |
| 75  |  |                                     | Species Across All Strata: (B)  |
| 75<br>7 20% of                              | = Total Co   |                                     |   |
| 7 20% 01                                    | = Total Co   |                                     | Percent of Dominant Species 73  |
| 7<br>7 20% of                               | = Total Co   |                                     | That Are OBL, FACW, or FAC: (A/B)   |
| 7 20% of                                    |  |                                     | Prevalence Index worksheet:   |
| <b>₹</b> _ 20% of                           | - Total Co   | ver                                 | Total % Cover of: Multiply by:  |
|   | f total cove   | r: <u>//</u> 5                      | OBL species x 1 =   |
| _   |  |                                     | FACW species x 2 =  |
| 15  | . <u>Y</u> _   |                                     |   |
| 15  | 9  | FAC                                 | FAC species x 3 =   |
| 10  | Y  | FAL                                 | FACU species x 4 =  |
| 5   | N  |                                     | UPL species x 5 =   |
|   |  | 7.00                                | Column Totals: (A) (B)  |
|   |  |                                     | Provolonce Index - D/A -  |
| 45  | - Total Co   |                                     | Prevalence Index = B/A =  |
| ,   |  |                                     | Hydrophytic Vegetation Indicators:  |
| 20% of                                      | total cover  | r: /-                               | 1 - Rapid Test for Hydrophytic Vegetation   |
|   |  | _                                   | √ 2 - Dominance Test is >50%  |
|   |  |                                     | 3 - Prevalence Index is ≤3.0 <sup>1</sup>   |
| 10  |  | FAC                                 | 4 - Morphological Adaptations (Provide supporting   |
| 10  | <u> </u>   | FAC                                 | data in Remarks or on a separate sheet)   |
| _5_   | $_{\sim}$  | FACU                                | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 5   | N  | FACU                                |   |
|   |  |                                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 40  | = Total Cov  | /er                                 | be present, unless disturbed or problematic.  |
|   |  |                                     | Definitions of Five Vegetation Strata:  |
| 20% of                                      | total cover  | :                                   | Tree – Woody plants, excluding woody vines,   |
|   |  | - 4                                 | approximately 20 ft (6 m) or more in height and 3 in  |
|   |  |                                     | (7.6 cm) or larger in diameter at breast height (DBH).  |
|   | <u>y</u>   |                                     | Sapling – Woody plants, excluding woody vines,  |
| 20  | <u> </u>   | UPL                                 | approximately 20 ft (6 m) or more in height and less  |
|   |  |                                     | than 3 in. (7.6 cm) DBH.  |
|   |  |                                     | Shrub – Woody plants, excluding woody vines,  |
|   |  |                                     | approximately 3 to 20 ft (1 to 6 m) in height.  |
|   |  |                                     | Herb – All herbaceous (non-woody) plants, including   |
|   |  |                                     | herbaceous vines, regardless of size, and woody   |
|   |  |                                     | plants, except woody vines, less than approximately 3   |
|   |  |                                     | ft (1 m) in height.   |
|   |  |                                     | Woody vine - All woody vines, regardless of height.   |
| 100 -                                       | Total Con  | or                                  |   |
|   |  |                                     | •   |
| 20% of t                                    | total cover:   | 10                                  |   |
| 7 ~   | \1   |                                     |   |
| 30  | . у  | 1-AC                                |   |
|   |  |                                     | ·   |
|   |  |                                     |   |
|   |  |                                     |   |
|   |  |                                     |   |
| 30  | Total O  |                                     | Hydrophytic   |
| _   |  | - 1                                 | Vegetation Present? Yes No  |
|   | #5<br>20% of<br>20% of<br>10<br>10<br>10<br>20% of<br>20% of<br>30 | /5                                  | 75 Y FAC 70 Y FAC |

FOR

PLOT

MEET

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

DOMINANCE

HYDROPHYTIC VECETATION

| Profile Desc   | ription: (Describe                       | to the dept | h needed to docu  | ment the i    | ndicator           | or confirn | n the absence o | of indicators.)                         |                  |   |
|--|--|-------------|-------------------|---------------|--------------------|------------|-----------------|---|------------------|---|
| Depth .  | Matrix                                   |             |                   | ox Features   |                    |            |                 |   | i                |   |
| (inches)   | Color (moist)                            | %           | Color (moist)     | %             | _Type <sup>1</sup> | _Loc²      | Texture         |   | narks            |   |
| <u>0-11</u>  | 7.5Y 4/3                                 | 700         | - Manual I        | . <del></del> |                    |            | BRADY low       |   |                  |   |
| 11-18  | 7.5 4 1 3                                | 99          | 104R5/1           |               | $\mathcal{D}_{-}$  | <u>M</u>   | 5-rady loa      | <u>m</u>                                |                  |   |
|  |  |             |                   |               |                    |            |                 |   |                  |   |
|  |  |             |                   |               |                    |            |                 |   |                  |   |
|  |  |             |                   |               |                    |            |                 |   |                  |   |
| Access to the last of the last |  | · ·······   |                   | <del></del>   |                    | ,          |                 |   |                  |   |
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|  |  |             |                   |               | •                  | · ——       |                 |   |                  |   |
|  | *  |             |                   |               |                    | · ——       |                 |   |                  |   |
|  |  |             | ·                 |               | <del>:</del>       |            |                 | -                                       |                  | ·                                       |
|  |  |             |                   |               |                    |            |                 |   |                  |   |
|  | oncentration, D=Dep                      | letion, RM= | Reduced Matrix, M | 1S=Masked     | Sand Gr            | ains.      |                 | .=Pore Lining, M=I<br>tors for Problema |                  | :103,                                   |
| Hydric Soil I  | •  |             | المساء المساء     | - (07)        |                    |            |                 |   | =                | us :                                    |
| Histosol   | (A1)<br>ipedon (A2)                      |             | Dark Surfac       |               | ca (S8) (N         | Ν ΒΔ 147   |                 | cm Muck (A10) (M<br>past Prairie Redox  |                  |   |
| Black Hi   |  |             | Thin Dark S       |               |                    |            |                 | (MLRA 147, 148)                         | (110)            | -                                       |
|  | n Sulfide (A4)                           |             | Loamy Gley        |               |                    | , ,        |                 | edmont Floodplair                       | Solls (F19)      |   |
| Stratified   | Layers (A5)                              |             | Depleted M        |               |                    |            |                 | (MLRA 136, 147)                         |                  |   |
|  | ck (A10) (LRR N)                         |             | Redox Dark        |               |                    |            |                 | ery Shallow Dark S                      |                  | *************************************** |
|  | l Below Dark Surfac<br>ark Surface (A12) | e (A11)     | Depleted Da       |               |                    |            | 0               | ther (Explain in Re                     | marks)           |   |
|  | lucky Mineral (S1) (I                    | LRR N.      | Iron-Manga        |               |                    | LRR N.     |                 |   |                  |   |
|  | (147, 148)                               |             | MLRA 1            |               | (*, (              |            |                 |   | •                |   |
|  | leyed Matrix (S4)                        |             | Umbric Surf       |               | MLRA 13            | 16, 122)   | ³(ndid          | cators of hydrophy                      | tic vegetation a | and                                     |
|  | edox (S5)                                |             | Piedmont Fi       | -             |                    |            | -               | land hydrology mu                       | •                | {                                       |
|  | Matrix (S6)                              |             | Red Parent        | Material (F   | 21) (MLR           | A 127, 14  | 7) unle         | ess disturbed or pr                     | oblematic.       |   |
| Type:  | ayer (if observed):                      |             | ;                 |               |                    |            |                 |   |                  |   |
| Depth (inc   | , , ,                                    |             |                   |               |                    | •          | Hydric Soil i   | Brogent? Voc                            | No               | <b>/</b>                                |
| Remarks:   | лез),                                    |             |                   |               |                    | -          | nyunc 3011      | riesenti les_                           |                  |   |
| •  |  | l s         | 0 F W             | ETLA          | A JID              | ,          | د الح           | - 0 - 5 10 11                           | rn.              |   |
| No   | INDICA                                   | UND         | 0F W              | EILA          | ,03                | > 1        | رعان            | OBSERVI                                 |                  |   |
|  |  |             |                   |               |                    |            |                 |   |                  | ŀ                                       |
|  |  |             |                   |               | •                  |            |                 |   |                  |   |
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| -  | . ·                                      |             |                   |               |                    |            |                 |   |                  | 1                                       |
|  |  |             |                   |               | ^                  |            |                 |   |                  |   |
|  | SEE                                      | HUTCH       | W No              | CUK O         | 18e_               | ,W         | DATA F          | or M                                    |                  |   |
|  |  | •           | - ,               |               |                    |            | •               |   | •                |   |
|  |  |             |                   |               |                    |            |                 |   |                  |   |
|  |  |             |                   |               |                    |            |                 |   |                  |   |
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|  |  |             |                   |               |                    |            |                 |   |                  |   |
|  | •  |             |                   |               |                    |            |                 |   |                  |   |
|  |  |             |                   |               |                    |            |                 |   |                  |   |
|  |  |             | ,                 |               |                    |            | •               |   |                  |   |



Upland data point wcuk018\_u facing North



Upland data point wcuk018\_u facing South



Upland data point wcuk018\_u soil sample

| Project/Site: SE Reliability Project City/County: NA/Cumberland Sampling Date: 08/5/201   |
|---|
| Applicant/Owner: Daninion Transmission State: VA Sampling Point: WCUKO13  |
| Investigator(s): W. Mudin J. Dean Section, Township, Range: NA  |
| Landform (hillslope, terrace, etc.): bort-onland Local relief (concave, convex, none): concave Slope (%): 1-2   |
| Subregion (LRR or MLRA): LRR P Lat: 37.344115109 Long: -78,343061369 Datum: NAD 198   |
| Soil Map Unit Name: Chewacla and Monacan soils 0 to 2% stopes freg. Flood NWI classification: PFOIC   |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)   |
| Are Vegetation Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No   |
| Are Vegetation Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)   |
| SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.   |
| Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland?   |
| Remarks: This area is a forested wetland system that about SCIKO23 on   |
| willing / downline sides some reliet disturbance from ford crossing nearby  |
| Remarks: This area is a forested wetland system that about SCUKO23 on upline/downline sides, some relict disturbance from ford crossing nearby Green creek observed, All 3 criteria met. Area is a wetland.   |
| PHOTOS #100-0522 to 0526 Soils, N.E.S.W (w/m conera)  |
| HYDROLOGY   |
| Wetland Hydrology Indicators:  Secondary Indicators (minimum of two required)   |
| Primary Indicators (minimum of one is required; check all that apply)  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 from Reduction in Tilled Soils (C6) Crayfish Burrows (C8)   |
| □ Drift Deposits (B3) □ Thin Muck Surface (C7) □ Saturation Visible on Aerial Imagery (C9)  |
| Algal Mat or Crust (B4)   |
| Iron Deposits (B5)  |
| frundation Visible on Aerial Imagery (B7)   |
|   |
| Water-Stained Leaves (B9)Microtopographic Relief (D4)   |
| Water-Stained Leaves (B9)  ☐ Aquatic Fauna (B13)  ☐ Aquatic Fauna (B13)   |
| Aquatic Fauna (B13) FAC-Neutral Test (D5) Field Observations:   |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Yes No Depth (inches): 14   |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Yes No Depth (inches): NA  Water Table Present?  Yes No Depth (inches): NA  |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA   |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Saturation Present?  Yes No Depth (inches): NA  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA   |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present? Yes No Depth (inches): NA  Water Table Present? Yes No Depth (inches): NA  Saturation Present? Yes No Depth (inches): NA  Saturation Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |
| Aquatic Fauna (B13)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches): NA  Saturation Present?  Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No Depth (inches): NA  Wetland Hydrology Present? Yes No No Depth (inches): NA  Wetland Hydrology Present? Yes No               |

| Tree Stratum (Plot size: 30 ft)                                | Absolute            |                  | Indicator      | Dominance Test worksheet:   |
|--|---------------------|------------------|----------------|---|
| 1. Platanus excedentalis                                       | % Cover<br>20       | Species?         |                | Number of Dominant Species That Are OBL, FACW, or FAC: 10 (A)                                       |
| 2. Acer rubrum   | 30                  |                  | FACW           | That Are OBL, FACW, or FAC:(A)  |
|  | 30                  | · <del> }-</del> | FAC            | Total Number of Dominant  |
| 3. Quercus alba<br>4. Liquidanhar Styraciflua                  |                     |                  | FACU           | Species Across All Strata: (B)  |
|  | _10_                |                  | FAC            | Percent of Dominant Species   |
| 5. Asimina trilona   |                     |                  | FAC            | That Are OBL, FACW, or FAC: 77% (A/B)   |
| 6. Climus américana  | 40                  |                  | FACW           | Prevalence Index worksheet:   |
|  |                     | = Total Co       |                | Total % Cover of: Multiply by:  |
| 50% of total cover: 67.  | 5 20% of            | total cove       | : <u>27</u>    | OBL species x 1 =   |
| Sapling Stratum (Plot size: 15 Fr )                            |                     |                  |                | FACW species 115 x 2 = 230  |
| 1. Quercus velutina  | 15                  | <u>Y</u>         | NI             | FAC species $102 \times 3 = 306$  |
| 2. Asimina triloba   | 5                   |                  | FAC            |   |
| 3. Fraxinus pennsylvanica                                      | _10                 | . <u> </u>       | FACW           | 370.  |
| 4  |                     |                  |                | ***************************************   |
| 5  |                     |                  |                | Column Totals: <u>306</u> (A) <u>727</u> (B)  |
| 6.   |                     |                  |                | Prevalence Index = B/A = 2.38   |
|  | ිරීත                | = Total Co       | ver            | Hydrophytic Vegetation Indicators:  |
| 50% of total cover:  |                     | total cover      | •              | 1 - Rapid Test for Hydrophytic Vegetation   |
| Shrub Stratum (Plot size: 15 ft                                | 2076 51             | total cove       |                | 2 - Dominance Test is >50%  |
| 1. Juniperus Virginiana  | 2                   |                  | FACU           | 3 - Prevalence Index is ≤3.0¹   |
| 2. Asimina tricia  |                     |                  |                | 4 - Morphological Adaptations (Provide supporting   |
|  |                     |                  | FAC            | data in Remarks or on a separate sheet)   |
| 3. Quarcus velution  |                     | <del>- 7</del> - | - <del>N</del> | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 4. Lindera benzoin   |                     | <del>- \</del>   | <u>FAC</u>     |   |
| 5. Carpinus caroliniana  | 5                   | <u> </u>         | FAC            | ¹Indicators of hydric soil and wetland hydrology must   |
| 6  | -2                  |                  |                | be present, unless disturbed or problematic.  |
|  |                     | = Total Co       |                | Definitions of Five Vegetation Strata:  |
| 50% of total cover:  | 20% of              | total cover      | <u>. 44</u>    | Trae Woody plants analyding magdy since   |
| Herb Stratum (Plot size: 10 ft )                               |                     |                  |                | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.   |
| 1. Juneus effusus  | _35                 | Y                | FACW           | (7.6 cm) or larger in diameter at breast height (DBH).  |
| 2. Dicharthelium clandestimm                                   | 2                   |                  | FAC            | Sapling – Woody plants, excluding woody vines,  |
| 3. Microstegium Vimineum                                       | 30                  | Y                | FAC            | approximately 20 ft (6 m) or more in height and less  |
| 4. Mimalus Cingens   | 5                   | •                | 036            | than 3 in. (7.6 cm) DBH.  |
| 5. Carex Turida  | 40                  | 7                | 084            | Shrub – Woody plants, excluding woody vines,  |
| 6. Glyeria Striato   |                     |                  | OBL            | approximately 3 to 20 ft (1 to 6 m) in height.  |
| 7. Persicaria pensylvanica                                     | 5                   |                  | FACW           | Harb All borbaccous (non-woody) plants including  |
| 8. Boehmeria cylindrica  |                     |                  | FACW           | Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody |
| 9. Lobelia inflata   | ·2_                 |                  | FAW            | plants, except woody vines, less than approximately 3   |
| 10.  |                     |                  | 1100           | ft (1 m) in height.   |
| 11.  |                     |                  |                | Woody vine – All woody vines, regardless of height.   |
| 11.  | -2ú                 | = Total Co       |                |   |
| / ==   |                     | = 10tal Co       | ver            |   |
| 50% of total cover: 67  Woody Vine Stratum (Plot size: 30 ft ) | 20% of              | total cover      | 26.3           |   |
| Woody Vine Stratum (Plot size: 20 ft)                          |                     | <b>V</b>         |                |   |
| 1. Vitis rotunditolia  | _5                  |                  | FAC            |   |
| 2  |                     |                  |                |   |
| 3  |                     |                  |                |   |
| 4  |                     |                  |                |   |
| 5  |                     | *******          |                | Hudrophytia   |
|  | _5                  | = Total Co       | ver            | Hydrophytic<br>Vegetation   |
| 50% of total cover: 2.3  |                     |                  | I              | Present? Yes No No  |
| Remarks: (Include photo numbers here or on a separate s        |                     |                  |                | 1,777   |
| Hydrophytic Vegetation criteria                                |                     |                  |                |   |
| Habriolinia and continue cities                                | , , , , , , , , , , | •                |                |   |

| Profile Desc           | ription: (Describe t                     | to the dept  | h needed to docum                     | ent the in | ndicator          | or confirm | the absence of indicators.)                       |        |
|------------------------|--|--------------|---------------------------------------|------------|-------------------|------------|---|--------|
| Depth                  | Matrix                                   |              |                                       | Features   |                   |            |   |        |
| (inches)               | Color (moist)                            | %            | Color (moist)                         | %          | Type <sup>1</sup> | _Loc²      | Texture Remarks                                   |        |
| 0-7                    | 104R 4/1                                 | _70_         | 7.54R 5/8                             | 15         | C                 | PL         | Sardy clay lown                                   |        |
|                        |  |              | 54R416                                | 15         | $\overline{c}$    | PL         |   |        |
|                        | COMP Hills                               | 1 0          |                                       |            |                   | - Marie    | Sandy clay lown Mixed M                           | atrix  |
| 7-16                   | 10 YR 4/1                                | 60           |                                       |            |                   |            | SANBY CITY 10004 3.11 XEV 191                     | aring  |
|                        | 10 YR 6/1                                | 40           |                                       |            |                   |            |   |        |
| 16-20                  | 10 YR 6/3                                | 50           | -AKE                                  |            | . 200             |            | sandy clay loan Mixed M                           | Matrix |
| , -                    | 104R5/2                                  | 50           | <i>~</i>                              | -29        | we "              | and a      | ′ (   |        |
|                        | 10 11-0 /                                |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              | -                                     |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
| <sup>1</sup> Tyne: C=C | oncentration D=Deni                      | letion RM=   | Reduced Matrix, MS                    | =Masked    | Sand Gr           | ains.      | <sup>2</sup> Location: PL=Pore Lining, M=Matrix.  |        |
| Hydric Soil            |  | ionori, rati | TOGGGGG THEIRIN, INC                  | maonas     |                   |            | Indicators for Problematic Hydric S               | oils³: |
| Histosol               |  |              | Dark Surface                          | (S7)       |                   |            | 2 cm Muck (A10) (MLRA 147)                        |        |
|                        | pipedon (A2)                             |              | Polyvalue Bel                         |            | ce (S8) (N        | 1LRA 147,  |   |        |
|                        | istic (A3)                               |              | Thin Dark Sur                         |            |                   |            | (MLRA 147, 148)                                   | ļ      |
| ☐ Hydroge              | en Sulfide (A4)                          |              | ☐ J∡6amy Gleye                        | d Matrix ( | F2)               |            | Piedmont Floodplain Soils (F19)                   |        |
| Stratifie              | d Layers (A5)                            |              | Depleted Mat                          | rix (F3)   |                   |            | (MLRA 136, 147)                                   |        |
|                        | ıck (A10) (LRR N)                        |              | Redox Dark S                          |            | •                 |            | Very Shallow Dark Surface (TF12                   | 2)     |
|                        | d Below Dark Surface                     | e (A11)      | Depleted Darl                         |            |                   |            | Other (Explain in Remarks)                        |        |
|                        | ark Surface (A12)                        | DO M         | Redox Depre                           |            |                   | L DD M     | ·   |        |
|                        | Aucky Mineral (S1) (L                    | _RR N,       | Iron-Mangane MLRA 136                 |            | es (F12) (        | LKK N,     |   |        |
|                        | <b>A 147, 148)</b><br>Gleyed Matrix (S4) |              | Umbric Surfa                          | •          | MIDA 13           | 6 122)     | <sup>3</sup> Indicators of hydrophytic vegetation | n and  |
|                        | Redox (S5)                               |              | Piedmont Flo                          |            |                   |            |   |        |
|                        | Matrix (S6)                              |              | Red Parent M                          |            |                   |            |   | "      |
|                        | Layer (if observed):                     |              | <del></del>                           | ·          |                   |            |   |        |
| Type:                  | NA .                                     |              |                                       |            |                   |            |   |        |
| Depth (in              | ľ A                                      |              |                                       |            |                   |            | Hydric Soil Present? Yes No                       |        |
| Domarke                |  |              | · · · · · · · · · · · · · · · · · · · |            |                   |            |   |        |
| Kemans.                | Index cole                               | colle        | eria is mu                            | ب آب       |                   |            |   |        |
| 1                      | Ayune son                                | ) Citie      | ena 13 Pu                             |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            | •   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
| -                      |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            | •   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |
|                        |  |              |                                       |            |                   |            |   |        |



Wetland data point wcuk013f\_w facing North



Wetland data point wcuk013f\_w facing East



Wetland data point wcuk013f\_w soil sample

| Project/Site: SE Reliability Project City/County: NA/comberland Sampling Date: 08/05/2014  |
|--|
| Applicant/Owner: Dominion Transmission State: VA Sampling Point: WOUKO13-4   |
| Investigator(s): W. Medlin, J. Dean Section, Township, Range: NA   |
| Lendform (hillslope, terrace, etc.): \\\ \text{\lambda} \text{\lambda} \text{\local relief (concave, convex, none): \\\ \text{\convex} \text{\local relief (concave, convex, none): \\\\ \text{\convex} \local relief (concave, convex, none): \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\  |
| Subregion (LRR or MLRA): LRR P Lat: 37.344085826 Long: -78.342884308 Datum: NAD 1983   |
| Soil Map Unit Name: Chewacla and Monacon soils 0 to 2% slages freq. Flexibelini Upland   |
| 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 Soll , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)   |
| SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.  |
|  |
| Hydrophytic Vegetation Present? Yes No Is the Sampled Area   |
| Hydric Soil Present? Yes No Wetland? Yes No  |
| Wetland Hydrology Present? Yes No.   |
| Remarks: This area is an upland hillslope riparian forest adjacent to clearcut   |
| All 3 citeria are not meta Area is not a wetland.  |
| We a compared to the talk of t |
|  |
| PHOTOS #100-0527 to 0531 soils, N.E.SW (WEM camera)  |
| HYDROLOGY  |
| Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)   |
| Primary Indicators (minimum of one is required; check all that apply)  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 from (C4) Dry-Season Water Table (C2)   |
| Sediment Deposits (B2)  Recent Iron Reduction in Tilled Soils (C6)  Crayfish Burrows (C8)  |
| Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4)  |
| iron Deposits (B5) Geomorphic Position (D2)  |
| Inundation Visible on Aerial Imagery (B7)  |
| Water-Stained Leaves (139) Microtopographic Reilef (D4)  |
| Aquatic Fauna (B13) FAC-Neutral Test (D5)  |
| Field Observations:  |
| Surface Water Present? Yes No Depth (inches):  |
| Water Table Present? Yes Depth (inches):   |
| Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Little No |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  |
| NA   |
|  |
| Remarks: Hydrology criteria is not met.  |
|  |
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| i i  |

| Tree Stratum (Plot size: 30 ft-)  | Absolute Dominant Indicator                               | Dominance Test worksheet:   |
|---|---|---|
| Tree Stratum (Plot size: 50 1 T   | % Cover Species? Status                                   | Number of Dominant Species That Are OBL, FACW, or FAC: 2- (A)   |
| 1. Fagus grandifolia<br>2. Quercus alba   | 70 Y FACU   | . I machie obe, thow, a tho:  |
| 3. Pinus echinata   | 20 NI   | 1 Total Number of Dominant Cr   |
| 4. Quercus falcata  | 50 Y FACU   | . Species Across Ail Streta.  |
| 5   |   | Percent of Dominant Species   |
| 6.  |   | That Are OBL, FACW, or FAC: 22 /o (A/B)   |
| 0   | 240 = Total Cover   | Prevalence Index worksheet:   |
|   |   | Total % Cover of: Multiply by:  |
| 50% of total cover: 124   | 2 20% of total cover: 48                                  | Obc species x12   |
| Sepling Stratum (Plot size: 15 ft)  1. Juniperus Virginiana                         | ν Γον. <b>1</b>   | FACW speciesO x 2 =O  |
| 1. Juniperus Vilginiana.  | 25 Y FAC  |   |
| 2. Liquidanbir styraciflua  | <u> 28   1   FAC</u>                                      | FACU species 239 x4=956   |
| [ 3,  |   | UPL species O x5 = +0 0   |
| 4   |   | Column Totals: 266 (A) 1037 (B)   |
| 5   |   | 3 90  |
| 6   | · · · · · · · · · · · · · · · · · · ·                     | Prevalence Index = B/A = 3.90   |
|   | 40 = Total Cover  | Hydrophytic Vegetation Indicators:  |
| 50% of total cover:   | 20% of total cover: 3                                     | 1 - Rapid Test for Hydrophytic Vegetation   |
| Shrub Stratum (Plot size: 15 ft )   |   | 2 - Dominance Test is >50%  |
| Shrub Stratum (Plot size: 15 ft)  1. Juniperus Virginiana                           | 5 Y FACU  |   |
| F-1   |   | 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)                         |
| <b>3.</b>   |   | Problematic Hydrophylic Vegetation (Explain)  |
| 5   |   | •   |
| 6   |   | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic. |
| - C   | = Total Cover   | _ · _ · _ · _ · _ · _ · _ · _ · _ · · _ · · _ · · _ · · _ · · _ ·           |
| 700/ 263421   | 5 20% of total cover:                                     | Definitions of Five Vegetation Strata:  |
|   |   | Tree – Woody plants, excluding woody vines,   |
| Herb Stratum (Plot size: 10 fit )   | -2. wim   | approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).      |
| 2. Dichartheliam laxiflorum   |   |   |
| 3. Vaccinium angustifolium  | S Y FACU  |   |
| 4. Liquidanbar styraciflus  | 2 Y FAC   | than 3 in. (7.6 cm) DBH.  |
|   |   | 1   |
| 5,  |   | Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in helght.                       |
| 6,  |   | ·  ''   |
| 7,  |   | Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody               |
| 8,  |   | plants, except woody vines, less than approximately 3   |
| 9   |   | · It (1 m) in height.   |
| 10  | ·   | Woody vine - All woody vines, regardless of height.   |
| l 11,   |   | ,,,   |
|   | 0 1/  | · · · · · · · · · · · · · · · · · · ·   |
|   | 911 = Total Cover   |   |
| 50% of total cover: _ \   | 911 = Total Cover<br>5 20% of total cover: 1.8            |   |
| 50% of total cover: <u> </u>  |   |   |
| 50% of total cover: _ \   | 5 20% of lotal cover: 1.8                                 |   |
| 50% of total cover: 4.  | <u>\$</u> 20% of lotal cover: 1. \$                       |   |
| 50% of total cover: <u> </u>  | <u>\$</u> 20% of total cover: 1.\$                        |   |
| 50% of total cover: 4.  Woody Vine Stratum (Plot size: 30 f+ )  1. NA  2.           | 5 20% of total cover: 1. 8                                |   |
| 50% of total cover: 4.  Woody Vine Stratum (Plot size: 30 F4 )  1. NA  23.          | \$\frac{20\%}{20\%}\$ of total cover: \frac{1.\%}{20\%}\$ | Hudrophytic   |
| 50% of total cover: 4. <u>Woody Vine Stratum</u> (Plot size: 30 ft)  1. NA  2  3  4 | 5 20% of total cover: 1.8                                 | Hydrophytic Vegetation  |
| 50% of total cover: 4.  Woody Vine Stratum (Plot size: 30 ft )  1. NA  2            | 5 20% of total cover: 1. \$                               |   |
| 50% of total cover: 4.  Woody Vine Stratum (Plot size: 30 ft)  1. NA  2             | 5 20% of total cover: 1. \$                               | Vegetation  |
| 50% of total cover: 4.  Woody Vine Stratum (Plot size: 30 ft )  1. NA  2            | 5 20% of total cover: 1. \$                               | Vegetation Present? Yes No.   |

| 1                                       | - '                                      | to the dept |                               |   |                   | or confirm | n the absence of indicators.)  |
|---|--|-------------|-------------------------------|---|-------------------|------------|--|
| Depth<br>(inches)                       | Matrix<br>Color (moist)                  | %           | Redo:<br>Color (moist)        | x Features<br>%                         | Type <sup>1</sup> | Loc2       | Texture Remarks  |
| 0-5                                     | 10YR 6/3                                 | 100         | COIOI (IIIOISI)               | (¥                                      |                   | ,          | Fire Sandy loan Some organic du  |
| 5-16                                    | 10 YR 7/6                                | 90          | 10YR 5/8                      | 10                                      | $\overline{c}$    | M          | fsL  |
| 16-20                                   | 104R7/6                                  | 80          | 10YR5/8                       | 20                                      | <u> </u>          |            | Fine sandy lows  |
| 16-10                                   | 011-719                                  | _00         | 10 14~915                     | _20_                                    |                   |            | +171E 2017 10104   |
|   |  |             |                               |   |                   |            |  |
| *************************************** | <b></b>                                  |             |                               |   |                   |            |  |
|   |  |             | *                             | *************************************** |                   |            |  |
|   |  |             | <del></del>                   |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
|   |  |             |                               | <u> </u>                                |                   |            |  |
|   |  | -           |                               |   |                   |            |  |
|   | oncentration, D=Dep                      | letion, RM= | Reduced Matrix, MS            | S=Masked                                | Sand Gra          | ins.       | <sup>2</sup> Location: PL=Pore Lining, M=Matrix.   |
| Hydric Soil                             |  |             | PT = 1 = 1                    | (07)                                    |                   |            | Indicators for Problematic Hydric Soils <sup>3</sup> :   |
| Histosol                                | (A1)<br>olpedon (A2)                     |             | ☐ Dark Surface ☐ Polyvalue Be |   | re (SB) (M        | II RA 147. | 2 cm Muck (A10) (MLRA 147)<br>, 148) Coast Prairie Redox (A16)   |
| 1 : :                                   | istic (A3)                               |             | Thin Dark Su                  |   |                   |            | (MLRA 147, 148)  |
| ☐ Hydroge                               | en Sulfide (A4)                          |             | Loamy Gleye                   |   | F2)               |            | Piedmont Floodplain Soils (F19)  |
|   | d Layers (A5)                            |             | Depleted Mai                  |   | e)                |            | (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  |
|   | ick (A10) (LRR N)<br>d Below Dark Surfac | e (A11)     | Redox Dark :                  |   |                   |            | Other (Explain in Remarks)   |
|   | ark Surface (A12)                        |             | Redox Depre                   |   |                   |            | Annual Control of the |
|   | /lucky Mineral (S1) (I                   | LRR N,      | tron-Mangan                   |   | es (F12) (I       | .RR N,     |  |
|   | A 147, 148)<br>Gleyed Matrix (S4)        |             | MLRA 13  Umbric Surfa         |   | 2 P ACI 180       | E 122\     | <sup>3</sup> Indicators of hydrophytic vegetation and  |
|   | Redox (S5)                               |             | Piedmont Flo                  |   |                   |            |  |
| Stripped                                | Matrix (S6)                              |             | Red Parent N                  |   |                   |            | ·  |
| 1                                       | Layer (if observed):                     |             |                               |   |                   |            |  |
| Type:<br>Depth (in                      |  |             | <del></del>                   |   |                   |            | Hydric Soil Present? Yes No No   |
| Remarks:                                | cnes): 10/                               |             |                               |   |                   |            | Hydric Soli Flesence Tes No  |
| Remarks:                                | Hidric e.                                | te co       | teria is                      | wat                                     | 4404              |            |  |
|   | hidoric ser                              | (1) (1)     | ICIA IS                       | 7101                                    | we i              | •          |  |
|   |  |             |                               |   |                   |            |  |
|   | •  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
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|   |  |             |                               |   |                   |            |  |
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|   |  |             |                               |   |                   |            |  |
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|   |  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |
|   |  |             |                               |   |                   |            |  |



Upland data point wcuk013\_u facing East



Upland data point wcuk013\_u facing South



Upland data point wcuk013\_u soil sample

| Project/Site: SE Reliability Project City/County: NA/Comberland Sampling Date: 08/05/2014   |
|---|
| Applicant/Owner: Dominion Transmission State: VA Sampling Point: WCUKO12 S  |
| Investigator(s): W. Media J. Dear Section, Township, Range: NA  |
| Landform (hillslope, terrace, etc.): See Daye Stope Local relief (concave, convex, none): Corcave Stope (%): 2-4  |
| Subregion (LRR or MLRA): LRR P J Lat: 37. 343956962 Long: -78. 342 \$317 329 Datum: NAD 198   |
| Soil Map Unit Name: Pointexter - Wedowee complex, 7 to 15% slopes NWI classification: PSS   |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)   |
| Are Vegetation Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No   |
| Are Vegetation Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  |
|   |
| SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.   |
| Hydrophytic Vegetation Present? Yes No Is the Sampled Area  |
| Hydric Soil Present? Yes No within a Wetland? Yes No No   |
| Wetland Hydrology Present? Yes No No  |
| Remarks: This area is a scrub-shrub hillside seepage wetland that is VERY   |
| don't all hadron the Die 12 of the Color on had rate than   |
| dense w/ undergrowth. Delinection of this feature required extra time due to thick vegetation, groundwater offears perched due to clay agritarial   |
| due to thick vegetation, groundwater affects perched due to clay agritary. All 3 criteria met. Area is a wetland. Surre 100-0509 to 05/3  |
| THE S CITIZENT MEANS a WETLAND. PHOTOS 100-0509 to 05/3   |
| HYDROLOGY Soils, N.E, S, W (WIM camera)   |
| Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)  |
| Primary Indicators (minimum of one is required; check all that apply)  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 Soils (C6)  Crayfish Burrows (C8)   |
| ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Saturation Visible on Aerial Imagery (C9)  |
| Algal Mat or Crust (B4)   |
| Iron Deposits (B5)  |
| Inundation Visible on Aerial Imagery (B7)   |
| Water-Stained Leaves (B9) Microtopographic Relief (D4)  |
| Aquatic Fauna (B13) FAC-Neutral Test (D5)   |
| Field Observations:   |
| Surface Water Present? Yes  |
| Trace research to serve the server that the server the server the server that the server the server the server the server that the server the server that the |
| Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (includes capillary fringe)  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  |
|   |
| Hydrology criteria Met.   |
|   |
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| 2-5:  |   | Dominant      |  | Dominance Test worksheet:   |
|---|---|---------------|--|---|
| Tree Stratum (Plot size: 30 FV )  | % Cover S                               |               |  | Number of Dominant Species  |
| 1. NA   |   |               |  | That Are OBL, FACW, or FAC: (A)   |
| 2   |   |               |  | T. 144 1 55 1 1   |
| 3   |   |               |  | Total Number of Dominant Species Across All Strata:  (B)  |
|   |   |               |  | Species Across Air Strata   |
| 4   |   |               |  | Percent of Dominant Species   |
| 5   |   |               |  | That Are OBL, FACW, or FAC: 100 % (A/B)   |
| 6   |   |               | ,  |   |
|   | = 7                                     | Total Cov     | er   | Prevalence Index worksheet:   |
|   |   |               |  | Total % Cover of:Multiply by:   |
| 50% of total cover:   | 20% 01 to                               | gai cover;    |  | OBL species 70 x1= 70   |
| Sapling Stratum (Plot size: 15 ft )   |   |               |  | FACW species x 2 =  |
| 1. NA   |   |               |  | FAC species 45 x 3 = 135  |
| 2   |   |               |  |   |
| 3   |   |               |  | FACU species  |
| l   |   |               |  | UPL species O x 5 = O   |
| 4   |   |               |  | Column Totals: 185 (A) 375 (B)  |
| 5   |   |               |  | 2.62  |
| 6   |   |               |  | Prevalence Index = B/A = 2.03   |
|   | = 7                                     | Total Cov     | er   | Hydrophytic Vegetation Indicators:  |
|   |   |               |  | Rapid Test for Hydrophytic Vegetation   |
| 50% of total cover:   | 20% 01 10                               | nai cover:    |  | 2- Dominance Test is >50%   |
| Shrub Stratum (Plot size: 15 FF   | 1°9 a                                   | V             | _  |   |
| 1. Salix nigra  | <u> </u>                                | Y             | OBV  | 3 - Prevalence Index is ≤3.0¹   |
| 1. Salix nigra 2. Rubus arversis  | _30                                     | Y             | FAC  | 4 - Morphological Adaptations (Provide supporting   |
| 3 Licia de adras traligi foro   | i5                                      | -             | FACU   | data in Remarks or on a separate sheet)   |
| 3. Liriodendron tuisfifera<br>4. Carpinus caroliniana   |   |               |  | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
|   |   |               |  |   |
| 5   |   |               |  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 6,  |   |               |  | be present, unless disturbed or problematic.  |
|   | # 1 m                                   |               |  | , , , , , , , , , , , , , , , , , , ,   |
|   | <u>-80</u> = 1                          | Total Cove    | er   | Definitions of Five Vegetation Strate:  |
| 500% of state I server 40   |   |               |  | Definitions of Five Vegetation Strata:  |
| 50% of total cover:   |   |               |  | Tree – Woody plants, excluding woody vines,   |
| Herb Stratum (Plot size: 10 Ft )  | 20% of to                               | tal cover:    | lG   | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.   |
| Herb Stratum (Plot size: 10 Ft )  1. Jun Cus effusus  | 20% of to                               | tal cover:    | 16<br>FACU   | Tree – Woody plants, excluding woody vines,   |
| Herb Stratum (Plot size: 10 ft)  1. Junius effusus  2. Dainaultus (Large of   | 20% of tol                              | tal cover:    | lG   | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  |
| Herb Stratum (Plot size: 10 ft)  1. Junius effusus  2. Dainaultus (Large of   | 20% of tol                              | tal cover:    | 16<br>FAW<br>03L                                       | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines,  |
| Herb Stratum (Plot size: 10 ft)  1. Jun Cus effusus  2. Minuius Tingens  3. Carex lurida  | 20% of tol                              | otal cover:   | 16<br>FACU<br>OBL<br>OBL                               | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  |
| Herb Stratum (Plot size: 10 ft)  1. Junius effusus  2. Mimulus Tingens  3. Carex lurida  4. Bochmeria cylindrica  | 20% of tol<br>45<br>5<br>35<br>10       | otal cover:   | FACUL<br>OBL<br>OBL<br>FACUL                           | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |
| Herb Stratum (Plot size: 10 ft)  1. Incus effusus  2. Minnius Magas  3. Carex lurida  4. Bochmeria cylindrica  5. Zalix Nigra   | 20% of tol<br>45<br>5<br>35<br>10<br>15 | Y             | FACUL<br>OBL<br>OBL<br>FACUL<br>OBL                    | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines,  |
| Herb Stratum (Plot size: 10 ft)  1. Jun Cus effusus  2. Minnius Tingens  3. Carex lurida  4. Bochmeria cylindrica   | 20% of tol<br>45<br>5<br>35<br>10<br>15 | Y             | FACUL<br>OBL<br>OBL<br>FACUL<br>OBL                    | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |
| Herb Stratum (Plot size: 10 ft)  1. Junius effusus  2. Minuius Cingeas  3. Carex lurida  4. Bochmeria cylindrica  5. Zalix Nigra  6.  | 20% of tol<br>45<br>5<br>35<br>10<br>15 | Y             | FACUL<br>OBL<br>OBL<br>FACUL<br>OBL                    | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.   |
| Herb Stratum (Plot size: 16 ft)  1. Inacus effusus  2. Mimulus Cingens  3. Carex Iurida  4. Bochmeria cylindrica  5. Zalix Nigra  6   | 20% of tol<br>45<br>5<br>35<br>10<br>15 | Y             | FACUL<br>OBL<br>OBL<br>FACUL<br>OBL                    | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines,  |
| Herb Stratum (Plot size: 16 ft)  1. Inacias effusias  2. Minuius Cingeas  3. Carex lurida  4. Bochmeria cylindrica  5. Ealix Nigra  6.  7.  8.  | 20% of tol<br>45<br>5<br>35<br>10<br>15 | Y             | FACUL<br>OBL<br>OBL<br>FACUL<br>OBL                    | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3  |
| Herb Stratum (Plot size: 10 ft)  1. Jun Cus effusus  2. Minnius Cingens  3. Carex Iurida  4. Bochmeria cylindrica  5. Exity Nigra  6.  7.  8.  9.   | 20% of tol                              | Y             | FACUL<br>OBL<br>OBL<br>FACUL<br>OBL                    | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody  |
| Herb Stratum (Plot size: 16 ft)  1. Inacias effusias  2. Minuius Cingeas  3. Carex lurida  4. Bochmeria cylindrica  5. Ealix Nigra  6.  7.  8.  | 20% of tol                              | Y             | FACUL<br>OBL<br>OBL<br>FACUL<br>OBL                    | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft)  1. Jun Cus effusus  2. Minnius Cingens  3. Carex Iurida  4. Bochmeria cylindrica  5. Exity Nigra  6.  7.  8.  9.   | 20% of tol                              | Y             | FACUL<br>OBL<br>OBL<br>OBL<br>OBL                      | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3  |
| Herb Stratum (Plot size: 10 ft)  1. Junius effusus  2. Minuius Cingens  3. Carex lurida  4. Bochmeria cylindrica  5. Zalix Nigra  6.  7.  8.  9.  10.   | 20% of tol                              | Y             | FACUL<br>OBL<br>OBL<br>OBL<br>OBL                      | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 16 ft)  1. Inacus effusus  2. Mimulus Cingeas  3. Carex lurida  4. Bochmeria cylindrica  5. Salix nigra  6.  7.  8.  9.  10.  11.  | 20% of tol<br>45<br>5<br>35<br>10<br>15 | Y Total Cover | FACU<br>OBL<br>OBL<br>FACU<br>OBL                      | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 16 ft)  1. Inacins effusins  2. Minuins Cingens  3. Carex Inrida  4. Bochmeria cylindrica  5. Salix nigra  6   | 20% of tol<br>45<br>5<br>35<br>10<br>15 | Y Total Cover | FACU<br>OBL<br>OBL<br>FACU<br>OBL                      | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 16 ft )  1. Jun (113 effusus )  2. Minuius (ingens )  3. Carex lurida 4. Bochmeria cylindrica 5. Ealix Night 6.    7.   8.   9.   10.   11.   50% of total cover: 55   Woody Vine Stratum (Plot size: 30 ft )                  | 20% of tol                              | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL               | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
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| Herb Stratum (Plot size: 16 ft)  1. Jhacias effusus  2. Minuius Cingeas  3. Carex lurida  4. Bochmeria cylindrica  5. Salix nigra  6  | 20% of tol                              | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL               | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 16 ft)  1. Jhacias effusus  2. Minuius Cingeas  3. Carex lurida  4. Bochmeria cylindrica  5. Salix nigra  6  | 20% of tol                              | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL               | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 16 ft)  1. Inacus effusus  2. Minuius Cingens  3. Carex Iurida  4. Bochmeria cylindrica  5. Zalix nigra  6.  7.  8.  9.  10.  11.  50% of total cover: 55  Woody Vine Stratum (Plot size: 30 ft)  1. Conice(a japonica  2.  3. | 20% of tol                              | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 16 ft)  1. Jhacias effusus  2. Minuius Cingeas  3. Carex lurida  4. Bochmeria cylindrica  5. Salix nigra  6  | 20% of tol                              | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 16 ft)  1. Inacus effusus  2. Minuius Cingens  3. Carex Iurida  4. Bochmeria cylindrica  5. Zalix nigra  6.  7.  8.  9.  10.  11.  50% of total cover: 55  Woody Vine Stratum (Plot size: 30 ft)  1. Conice(a japonica  2.  3. | 20% of tol                              | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>FACUL<br>OBL<br>OBL      | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine – All woody vines, regardless of height. |
| Herb Stratum (Plot size: 16 ft)  1. Inacus effusus  2. Minuius Cingens  3. Carex Iurida  4. Bochmeria cylindrica  5. Zalix nigra  6.  7.  8.  9.  10.  11.  50% of total cover: 55  Woody Vine Stratum (Plot size: 30 ft)  1. Conice(a japonica  2.  3. | 20% of tol                              | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>FACUL<br>OBL<br>OBL      | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 16 ft)  1. Inacias effusias  2. Minuius Cingens  3. Carex lurida  4. Bochmeria cylindrica  5. Salix nigra  6   | 20% of told 15                          | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine – All woody vines, regardless of height. |
| Herb Stratum (Plot size: 16 ft)  1. Inacias effusias  2. Minuius Cingens  3. Carex lurida  4. Bochmeria cylindrica  5. Salix nigra  6   | 20% of tol                              | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine – All woody vines, regardless of height. |
| Herb Stratum (Plot size: 16 ft )  1. Jhacias effusus  2. Minuius Cingeas  3. Carex lurida  4. Bochmeria cylindrica  5. Salix nigra  6   | 20% of tol                              | Total Cover:  | FACUL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL<br>OBL | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine – All woody vines, regardless of height. |

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|---|---------------------------------------|---------------------------------------|--------------------------|-------------|-------------------|---------------------|-----------------------------|-------------------------------------|----------------------------------|--|
| Depth   | Matrix                                |                                       |                          | Features    | }                 |                     | _                           |                                     | ,                                |  |
| (inches)  | Color (moist)                         | %                                     | Color (moist)            | %           | Type <sup>1</sup> | Loc <sup>2</sup>    | <u>Texture</u>              | Ren                                 | narks                            |  |
| 0-1   | 1016 5/5                              | 00                                    | 4 200 <sup>10</sup>      |             |                   | harten and a second | Muck _                      |                                     |                                  |  |
|   | 10YR 5/1                              | 100                                   |                          |             |                   |                     | sandy lan                   |                                     | <u> </u>                         |  |
| 12-20   | 104R 5/1                              | 95                                    | 10 YR 6/6                | _5_         | <u> </u>          | <u> M</u>           | clay                        | <u>d2156</u>                        | layer                            |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     | <u></u>                          |  |
|   |                                       |                                       | .03                      |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             | ·                 |                     |                             |                                     |                                  |  |
|   | •                                     | · · · · · · · · · · · · · · · · · · · |                          |             |                   | •                   |                             |                                     |                                  |  |
|   |                                       |                                       |                          | <u> </u>    |                   |                     |                             | 11.0.000                            |                                  |  |
| 1Type: C-C  | oncentration, D=Dep                   | lation PM-                            | Poducod Matrix MS        | -Maskod     | Sand Gra          |                     | <sup>2</sup> Location: PL=I | Pore Lining M≂N                     | Matrix                           |  |
| Hydric Soil   |                                       | iedon, ixivi-                         | reduced matrix, mo       | -ivid3KC0   | Suna Ore          | 3013.               |                             |                                     | ntic Hydric Soils <sup>3</sup> : |  |
| Histosol  | (A1)                                  |                                       | Dark Surface             | (S7)        |                   |                     | 2 cm                        | n Muck (A10) <b>(M</b>              | LRA 147)                         |  |
| Histic E  | pipedon (A2)                          |                                       | Polyvalue Bel            |             |                   |                     | · · ·                       | st Prairie Redox                    | (A16)                            |  |
| I <del></del>   | istic (A3)                            |                                       | Thin Dark Su             |             | -                 | 47, 148)            | , ,                         | /ILRA 147, 148)                     | Saile (E10)                      |  |
|   | en Sulfide (A4)<br>d Layers (A5)      |                                       | Loamy Gleye Depleted Mat |             | 1-2)              |                     |                             | lmont Floodplain<br>//LRA 136, 147) | 1 2085 (1. 19)                   |  |
| I ====  | uck (A10) (LRR №)                     |                                       | Redox Dark S             |             | 6)                |                     |                             | / Shallow Dark S                    | Surface (TF12)                   |  |
| ·   | d Below Dark Surface                  | e (A11)                               | Depleted Dar             |             |                   |                     | Othe                        | er (Explain in Re                   | marks)                           |  |
|   | ark Surface (A12)                     | DD M                                  | Redox Depre              |             |                   | I DD N              |                             |                                     |                                  |  |
|   | Mucky Mineral (S1) (L<br>A 147, 148)  | IKK IV,                               | MLRA 136                 |             | 35 (F 12) (       | LRR N,              | •                           |                                     |                                  |  |
|   | Gleyed Matrix (S4)                    |                                       | Umbric Surface           | •           | MLRA 13           | 6, 122)             | ³Indica                     | itors of hydrophy                   | tic vegetation and               |  |
| 1   | Redox (S5)                            |                                       | Piedmont Flo             |             |                   |                     |                             | nd hydrology mi                     | · ·                              |  |
|   | i Matrix (S6)<br>Layer (if observed): |                                       | Red Parent N             | laterial (F | 21) (MLR          | A 127, 147          | ') unles                    | s disturbed or pr                   | oblematic.                       |  |
| 1   | Layer (11 observed):                  |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
| , , ,   | iches): 12 i ac                       | hes                                   |                          |             |                   |                     | Hvdric Soil Pr              | esent? Yes_                         | No 🔲                             |  |
| <del></del>   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   | Hydric Soil                           | s cri                                 | teria mer                | r. A        | + 12              | " Ø                 | of depth                    | n, a de-                            | imperetrable                     |  |
| 0   | aquitord wa                           | 5 en                                  | countered.               | This        | 5 lay             | ier v               | Jus not                     | totally                             | imperetrable                     |  |
| but   | nonetheles                            | 8 15                                  | perchina w               | later       |                   |                     |                             | '                                   | ,                                |  |
|   |                                       |                                       | \                        | , ,         |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
| ,   |                                       |                                       |                          |             |                   | -                   |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
|   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
| L   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |
| 1   |                                       |                                       |                          |             |                   |                     |                             |                                     |                                  |  |



Wetland data point wcuk012s\_w facing North



Wetland data point wcuk012s\_w facing East



Wetland data point wcuk012s\_w soil sample

| Project/Site: SE Reliability Project City/Cour  | ity: NA/Comberland Sampling Date: 68/05/20   |
|---|--|
| Applicant/Owner: Dominion Transmission  | State: VA Sampling Point: WCUK012  |
|   | Township, Range: NA  |
| Landform (hillstope, terrace, etc.): Nillstope Local relief   | concave, convex, none): Convex Slope (%): 4-6  |
| Subregion (LRR or MLRA): LRR P Lat: 37.34397282   | Long: <u>-78.342532076</u> Datum: <u>NAD 198</u>   |
| Soll Map Unit Name: Poindexter - Wedowee complex, 7 to 1  | 5% slopes NWI classification: Upland   |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes   | No (If no, explain in Remarks.)  |
| Are Vegetation Solt , or Hydrology significantly disturbed  | ? Are "Normal Circumstances" present? Yes No No  |
| Are Vegetation Soil , or Hydrology naturally problematic  | (If needed, explain any answers in Remarks.)   |
| SUMMARY OF FINDINGS – Attach site map showing sample  | ing point locations, transects, important features, etc.   |
| Hydric Soil Present?  Wetland Hydrology Present?  Remarks: This series is a series of the series of | the Sampled Area thin a Wetland?  Yes No   |
| last to it was Asso is down intid.  | 1 a dead All 2 anishania   |
| last 10-15 years. Area is dense w/ shr<br>are not met. Area is not a wetland.   | ubs, young nees. All scrienia  |
|   |  |
| PHOTOS 100-0514 to 0518 Soils, N.E.S.   | W (WIM comera)   |
| HYDROLOGY   |  |
| Wetland Hydrology Indicators:   | Secondary Indicators (minimum of two required)   |
| Primary Indicators (minimum of one is required; check all that apply)   | Surface Soli Cracks (B6)   |
| Surface Water (A1) True Aquatic Plants (B1/   |  |
| High Water Table (A2) Hydrogen Sulfide Odor (   | in the second se |
| Saturation (A3) Oxidized Rhizospheres of  | The state of the s |
| Water Marks (B1) Presence of Reduced Iro  |  |
| Sediment Deposits (B2)  Recent Iron Reduction in  This Marek Surface (C7)   | Tilled Soils (C6) Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)   |
| Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat, or Crust (B4) Other (Explain in Remark  |  |
| Iron Deposits (B5)  | Geomorphic Position (D2)   |
| Inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)  |
| Water-Stained Leaves (B9)   | 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):   |  |
| Saturation Present? Yes No Depth (inches):  | Wetland Hydrology Present? Yes No No   |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous  | is inspections), if available:   |
| NA  |  |
| Remarks:  |  |
| Hydrology criteria is not met.  |  |
|   | ·  |
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| <b>VEGETATION</b> ( | Five S | trata) _ i | ice c | cientific | names of   | nlants. |
|---------------------|--------|------------|-------|-----------|------------|---------|
| VEGETATION          | rive o | uata) – t  | ノシピ シ | GRANGING  | Hailies vi | highto  |

| 7× C.L  |             |  | Indicator   | Dominance Test worksheet:   |
|---|-------------|--|-------------|---|
| Tree Stratum (Plot size: 30 F+ )                      | % Cover     |  |             | Number of Dominant Species  |
| 1, NA   |             |  | -           | That Are OBL, FACW, or FAC:(A)  |
| 2   |             | <del>- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1</del> |             | Total Number of Dominant  |
| 3   |             |  |             | Species Across All Strata: (B)  |
| 4   |             |  |             |   |
|   |             |  |             | Percent of Dominant Species That Are OBL, FACW, or FAC: 29% (A/B)                                     |
| 5   |             |  |             | That Are OBL, FACW, or FAC: 21/0 (A/B)  |
| 6   |             |  |             | Prevalence Index worksheet:   |
|   | · · · ·     | ■ Total Cor  | ver         | Total % Cover of: Multiply by:  |
| 50% of total cover;                                   | 20% of      | total cover  | r:          | OBL species O x1=   |
| Sapling Stratum (Plot size: 15 FV )                   |             |  |             |   |
|   |             |  |             |   |
| 2 Hyssa Sylvation                                     |             |  |             | FAC species 66 x3 = 180   |
|   |             |  |             | FACU species <u>i05</u> x 4 = <u>420</u>  |
| 3   |             |  |             | UPL speciesO x 5 =O   |
| 4   |             |  |             | Column Totals: 165 (A) 600 (B)  |
| 5   |             |  |             |   |
| 6   |             |  |             | Prevalence Index = B/A = 3.64   |
|   |             |  |             | Hydrophytic Vegetation Indicators:  |
| , root stand some                                     |             |  |             | 1 - Rapid Test for Hydrophytic Vegetation   |
| 50% of total cover:                                   | 20% 01      | total cove   |             | 2 - Dominance Test is >50%  |
| Shrub Stratum (Plot size: 15 f.)                      | 146         | V  |             | 3 - Prevalence Index is ≤3.0¹   |
| 1. Nyssa sylvatica                                    | <u>40</u>   | <u> </u>   | FAC         | <del> </del>  |
| 2. Quercus veluting                                   | 3ర          | <u>Y_</u>  | JIEACO      | 4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)            |
| 3. Primus Secotina                                    | 15          |  | FALU        | Problematic Hydrophytic Vegetation (Explain)  |
| 1. Quercus alba                                       |             | <u> </u>   | FACU        | Problematic Flydrophytic Vegetation (Explain)   |
| 5. Carya tomentosa                                    | 25          |  | NI          |   |
| 6. Licio dendros tulipitera                           | 15          |  | FACU        | Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.     |
| 7. Pinns tarda 20 FAC                                 | 175         | = Total Co   |             |   |
|   |             |  |             | Definitions of Five Vegetation Strata:  |
| 50% of total cover:                                   | 7.3 20% of  | total cove   | L: 32       | Tree - Woody plants, excluding woody vines,   |
| Herb Stratum (Plot size: 10 F+                        |             |  | ٠           | approximately 20 ft (6 m) or more in height and 3 in.   |
| 1. Juniperus virginiana                               | 10          | Y  | FACU        | (7.6 cm) or larger in diameter at breast height (DBH).  |
| 2. Enonymus andricanus                                | 5           |  | FAC         | Sapling - Woody plants, excluding woody vines,  |
| 3. Quelcus alba                                       | _15_        | Y  | EACU        | approximately 20 ft (6 m) or more in height and less  |
| 4. Polystichum acrostichoides                         | 5"          |  | FACU        | than 3 in. (7.6 cm) DBH.  |
|   |             |  |             | Shrub - Woody plants, excluding woody vines,  |
| 5,  |             |  |             | approximately 3 to 20 ft (1 to 6 m) in height.  |
| 6   | <u> </u>    |  | <del></del> | , ,   |
| 7   |             |  |             | Herb – All herbaceous (non-woody) plants, including   |
| B   |             |  |             | herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 |
| 9   |             |  |             | ft (1 m) in height.   |
| 10  | -           |  |             |   |
| 11  |             |  |             | Woody vine - All woody vines, regardless of height.   |
| ***************************************               | 35          | ≃ Total Co   | ver         |   |
| 50% of total cover: _/7.                              |             |  |             |   |
|   | 20% 01 حر   | total cove   | r:          |   |
| Woody Vine Stratum (Plot size: 30 ft )                |             | ~/   | ~~ \        |   |
| 1. Parthenocissus quinque Folia                       | _ 15        | <u> </u>   | FACU        |   |
| 2. Lonicera japonica                                  | 15          | <u> </u>   | EAC         |   |
| 3.  |             |  |             |   |
| 4.  |             |  |             |   |
| ·-  | <del></del> | · <del></del>                                      |             |   |
| Y   | ·Z,5)       | = Total Co   |             | Hydrophytic   |
|   |             |  |             | Vegetation Present? Yes No  |
| 50% of total cover:                                   |             | total cove   | r: <b></b>  | 100   |
| Remarks: (Include photo numbers here or on a separate | sheet.)     |  | *           |   |
| Hydrophytic Vegetation crite                          | cia is      | <b>not</b>   | Met.        |   |
| <u></u>   |             |  |             |   |

| Profile Desc | ription: (Describe t  | o the dept      | th needed to docur            | nent the i  | ndicator                                | or confirm | n the absence of indicators.)                          |  |  |  |  |  |  |
|--------------|---|-----------------|-------------------------------|-------------|---|------------|--|--|--|--|--|--|--|
| Depth        | Matrix  | Texture Remarks |                               |             |   |            |  |  |  |  |  |  |  |
| (inches)     | Color (moist)   | <u>%</u>        | Color (moist)                 | _%          | _Type¹_                                 | Loc²       |  |  |  |  |  |  |  |
| 0-11         | 10YR 4/3  | 100             |                               |             |   |            |  |  |  |  |  |  |  |
| 11-20        | 104R-7/6  | 75              | 104R5/8                       |             | <u> </u>                                | M          | sandy clay loam gravel                                 |  |  |  |  |  |  |
|              |   | ,               |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   | -          |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               | <del></del> |   | ,          | ,  |  |  |  |  |  |  |
|              |   |                 | <u> </u>                      | **          | •                                       |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   | •          |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 | -                             |             | *************************************** |            |  |  |  |  |  |  |  |
| ·            |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              | <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. |                 |                               |             |   |            |  |  |  |  |  |  |  |
| Hydric Soil  |   |                 |                               | /mml        |   |            | Indicators for Problematic Hydric Soils <sup>3</sup> : |  |  |  |  |  |  |
| Histosol     |   |                 | ☐ Dark Surface ☐ Polyvalue Be |             | co (SB) (N                              | 11 DA 147  | 148) Coast Prairie Redox (A16)                         |  |  |  |  |  |  |
| Black H      | olpedon (A2)  |                 | Thin Dark Su                  |             |   |            | (MLRA 147, 148)  |  |  |  |  |  |  |
|              | n Sulfide (A4)  |                 | Loamy Gleye                   |             |   | 17, 110,   | Piedmont Floodplain Soils (F19)                        |  |  |  |  |  |  |
|              | l Layers (A5)   |                 | Depleted Ma                   |             |   |            | (MLRA 136, 147)  |  |  |  |  |  |  |
|              | ick (A10) (LRR N)   |                 | Redox Dark                    |             |   |            | ☐ Very Shallow Dark Surface (TF12)                     |  |  |  |  |  |  |
| · — ·        | l Below Dark Surface  | (Λ11 <b>)</b>   | Depleted Da                   |             |   |            | Other (Explain in Remarks)                             |  |  |  |  |  |  |
|              | ark Surface (A12)   |                 | Redox Depre                   |             |   |            |  |  |  |  |  |  |  |
|              | tucky Mineral (S1) (L<br><b>\ 147, 148)</b>   | KIK N,          | Iron-Mangan MLRA 13           |             | es (r 12) (                             | LIKK IV,   |  |  |  |  |  |  |  |
| · —          | sleyed Matrix (S4)  |                 | Umbric Surfa                  |             | MLRA 13                                 | 6. 122)    | <sup>3</sup> Indicators of hydrophytic vegetation and  |  |  |  |  |  |  |
|              | tedox (S5)  |                 | Piedmont Flo                  |             |   |            |  |  |  |  |  |  |  |
|              | Matrix (S6)   |                 | Red Parent I                  |             |   |            |  |  |  |  |  |  |  |
|              | .ayer (if observed):  |                 |                               |             |   |            |  |  |  |  |  |  |  |
| Туре:        |   | ***********     | <u>_</u>                      |             |   |            |  |  |  |  |  |  |  |
| Depth (in    | ches); <u>NA</u>  | ·····           | <del></del>                   |             |   |            | Hydric Soil Present? Yes No No                         |  |  |  |  |  |  |
| Remarks:     |   | 1.              | * 1                           | £           |   |            |  |  |  |  |  |  |  |
|              | Hydric soi  | 15 C            | sitesia is                    | not         | Met                                     | J          |  |  |  |  |  |  |  |
|              | •   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              | •   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            | ***************************************                |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            | 1  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              | •   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              | •   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              | •   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            | · ·  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
| ,            |   |                 |                               |             |   |            |  |  |  |  |  |  |  |
|              |   |                 |                               |             | •                                       |            |  |  |  |  |  |  |  |



Upland data point wcuk012\_u facing East



Upland data point wcuk012\_u facing South



Upland data point wcuk012\_u soil sample

| Project/Site: SE Reliability Project City/County: N  | A/Cumberland Sampling Date: 08/04/2019  |
|--|---|
| Applicant/Owner: Dominion Transmission   | State: VA Sampling Point: WCOKON  |
| Investigator(s): W. Medlin J. Dean Section, Townsh   | ıip, Range:   |
| Landform (hillslope, terrace, etc.): Dottom and drain Local relief (concave  | e, convex, none): Concave Slope (%): 1-2  |
| Subregion (LRR or MLRA): LRR P Lat: 37, 337999512  | Long: -78.336265047 Datum: NAD 198  |
| Soil Map Unit Name: Poindexter-Wedower complex, 15 to 25 % stop  |   |
| Are climatic / hydrologic conditions on the site typical for this time of year? Yes  |   |
| 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 po  |   |
| Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes No  Is the Sa within a with | mpled Area<br>Wetland? Yes No   |
| Remarks: This area is a forested wetland drainage only feature and has abrupt boundaries W/ adja Stream SCUKO:20 (intermittent). All 3 criteria  | that is situated within a trough, cent upland HW Forest, Wetland abouts met. Area is a wetland. |
| PHOTOS \$100-0475 to 0479 soils, N,E,S,N   |   |
| HYDROLOGY  |   |
| Wetland Hydrology Indicators:  | Secondary Indicators (minimum of two required)  |
| Primary Indicators (minimum of one is required; check all that apply)  | 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  | g 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 Surface (C7)   | Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4) Other (Explain in Remarks)   | Stunted or Stressed Plants (D1)   |
| Iron Deposits (B5)   | Geomorphic Position (D2)  |
| /inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)   |
| ✓ Water-Stained Leaves (B9)  | Microtopographic Relief (D4)  |
| Aquatic Fauna (B13)  | FAC-Neutral Test (D5)   |
| Field Observations:  | ·   |
| Surface Water Present? Yes No Depth (inches): 5 <sup>1</sup> A   |   |
| Water Table Present? Yes No Depth (inches): NA   |   |
| Saturation Present? Yes No Depth (inches): O (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insper  | Wetland Hydrology Present? Yes No   |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspir  | · · · · · · · · · · · · · · · · · · ·   |
| Remarks: Hydrology Criteria Met.   |   |
| Hydrology Criteria Mer.  |   |
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| 2 6  | Absolute    | Dominant                                      | Indicator                               | Dominance Test worksheet:  |
|--|-------------|---|---|--|
| Tree Stratum (Plot size: 30 ft )                         | % Cover     | Species?                                      |   | Number of Dominant Species 5   |
| 1. Acer rubrum   | <u> 50</u>  | <u> </u>                                      | FAC                                     | That Are OBL, FACW, or FAC:(A)   |
| 2. Lignidanbar styraciflua                               | 40_         | Y   | FAC                                     | Total Mumber of Deminost   |
| 3. Platonus occidentalis                                 | 10          |   | FACW                                    | Total Number of Dominant Species Across All Strata: (B)  |
| 4. Fagus granditolia                                     |             | Y   | FALL                                    | ` .  |
| 5. Quorcus alba  |             |   | FACU                                    | Percent of Dominant Species That Are OBL, FACW, or FAC:  7 / (A/B)   |
| 6  |             |   | 71100                                   | That Are OBL, FACW, or FAC: (A/B)  |
|  |             |   |   | Prevalence Index worksheet:  |
| 7  | 1166        |   |   | Total % Cover of: Multiply by:   |
| Sapling Stratum (Plot size: 15 ft )                      | 173         | = Total Cov                                   | er er                                   | OBL species x1 = 15  |
| 1 A  | 15          | <b>Y</b>                                      | Ca,                                     | FACW species $30 \times 2 = 60$  |
| 1. Acar cubrum   | - <u></u>   |   | FACAL                                   | FAC species 240 x3 = 720   |
| 2. tagus granditolia                                     |             | <u>, , , , , , , , , , , , , , , , , , , </u> | FACU                                    |  |
| 3  |             |   |   | FACU species <u>80</u> x4 = 320  |
| 4  |             |   |   | UPL species O x 5 = O  |
| 5  |             |   |   | Column Totals: <u>365</u> (A) <u>1115</u> (B)  |
| 6  |             |   |   | ,  |
| 7.   |             |   |   | Prevalence Index = B/A = 3.05  |
|  | 30          | = Total Cov                                   | or                                      | Hydrophytic Vegetation Indicators:   |
| Shrub Stratum (Plot size: 15 ft )                        |             | ··· rotal Gov                                 | . C1                                    |  |
| 1. Carpinus caroliniana                                  | 40          | $\forall$                                     | FAC                                     | 2 - Dominance Test is >50%   |
| 2. Liridandron tulipitera                                |             |   | FACU.                                   | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| · • • • • • • • • • • • • • • • • • • •                  | 10          |   | FAC                                     | 4 - Morphological Adaptations¹ (Provide supporting   |
| 3. Acer rubrum   |             |   |   | data in Remarks or on a separate sheet)  |
| 4. Quercus alba  |             |   | FACU                                    | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 5  |             |   |   | The state of the s |
| 6  |             |   |   | 1 to disaste up of to addisposit and professor discount and professor and  |
| 7  |             |   |   | <sup>1</sup> Indicators of hydric soil and wetland hydrology must<br>be present, unless disturbed or problematic.  |
|  | (00         | = Total Cov                                   | er                                      | Definitions of Five Vegetation Strata:   |
| Herb Stratum (Plot size: 10 ft) 1. Microstegium Vimineum | <del></del> |   | _                                       | Deminions of Five vegetation strata.   |
| 1. Microstegium vimineum                                 | 75          | <u>Y</u>                                      | FAC                                     | Tree – Woody plants, excluding woody vines,  |
| 2. Glyceria striata                                      | 15          |   | 036                                     | approximately 20 ft (6 m) or more in height and 3 in.  |
| 3. Boehmeria cylindrica                                  | 15          |   | FACW                                    | (7.6 cm) or larger in diameter at breast height (DBH).   |
| 4. Quercus alba  |             | F   | FACU                                    | Sapling – Woody plants, excluding woody vines,   |
| 5. Fraxinus pennsylvanica                                |             |   | FACW                                    | approximately 20 ft (6 m) or more in height and less   |
| 1 1  |             |   | 5 71000                                 | than 3 in. (7.6 cm) DBH.   |
| 6  |             |   |   | Shrub - Woody plants, excluding woody vines,   |
| 7  |             |   |   | approximately 3 to 20 ft (1 to 6 m) in height.   |
| 8  |             |   |   | Have All havengeness (non-woods) plants including  |
| 9  |             | ***************************************       | •                                       | Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody  |
| 10   |             |   |   | plants, except woody vines, less than approximately 3  |
| 11   |             |   |   | ft (1 m) in height.  |
| 12.  |             |   |   | Woody vine - All woody vines, regardless of height.  |
| * *************************************                  | i20 :       | <br>≃ Total Cov                               | er                                      | Trooty Visite 7 iii Woody Visites, regulatess of fleight.  |
| Woody Vine Stratum (Plot size: 30 F+ )                   | 1824        | 10141 001                                     | <u>`</u>                                |  |
| 1. Parthenocissus quinquefolia                           | 10          | Υ.  | FACU                                    |  |
| 2  |             |   | 7 1 1 60                                |  |
| 2.   |             |   | *************************************** | ,  |
| 3  |             |   |   | Hydrophytic  |
| 4  |             |   |   | Vegetation   |
| 5  |             |   |   | Present? Yes V No  |
|  | 10          | = Total Cov                                   | er                                      |  |
| Remarks: (Include photo numbers here or on a separate    | abaat \     |   |   |  |
| 4.1  | Sneet.)     |   |   |  |
|  |             | .i  |   |  |
| Hydrophytic vegetation criteria                          |             | 4.  |   |  |
| rydiophyric vegetation Criteria                          |             | 4.  |   |  |

| Profile Desc            | ription: (Describe t                       | o the dep        | th needed to docun          | nent the i                             | indicator | or confirm  | the absence of indica            | itors.)                          |              |   |
|-------------------------|--|------------------|-----------------------------|--|-----------|-------------|----------------------------------|----------------------------------|--------------|---|
| Depth                   | Matrix                                     | Loc <sup>2</sup> | Texture                     | Rema                                   | arko      | 1           |                                  |                                  |              |   |
| (inches)                | Color (moist)<br>10 YR 中/3                 | <u>%</u><br>85   | 7.54R5/B                    | %_<br>15                               | Type¹ C   | M/PL        |                                  | _                                | _            | C. C. F.A.                              |
| 0-4                     |  |                  |                             | <u> 18</u>                             |           | <del></del> | _sudy lown                       | JONA                             | organie      | <u>corre</u> n                          |
| 4-15                    | 10YR 5/1                                   | 70_              | 54R4/6                      |  |           |             | Sardy loan                       | oxidi                            | عدا ما       |   |
| 15-20                   | 104R 6/1                                   | <u>80</u>        | 54R4/6                      | 20_                                    |           | PL          | Sardy clay lown                  | OXIG                             | zea (ast     | channel                                 |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           | ,           |                                  |                                  |              |   |
|                         |  |                  | <b></b>                     |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  | -         |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             | ·                                |                                  |              |   |
|                         |  |                  |                             | •                                      |           |             |                                  |                                  |              |   |
| <sup>1</sup> Type: C=Ce | oncentration, D=Depl                       | <br>etion, RM:   | =Reduced Matrix, MS         | ====================================== | d Sand Gr | ains.       | <sup>2</sup> Location: PL=Pore L | ining, M=M                       | atrix.       |   |
| Hydric Soil             |  |                  |                             |  |           |             | Indicators for                   | Problemat                        | ic Hydric S  | oils³:                                  |
| Histosol                |  |                  | Dark Surface                |  |           |             | 2 cm Muck                        |                                  |              |   |
|                         | pipedon (A2)                               |                  | Polyvalue Be                |  |           |             |                                  |                                  | A16)         |   |
| Black Hi                | stic (A3)<br>in Sulfide (A4)               |                  | Thin Dark Su<br>Loamy Gleye |  |           | 47, 148)    | (MLRA<br>Piedmont I              | <b>147, 148)</b><br>Floodplain ( | Soils (F19)  |   |
|                         | i Layers (A5)                              |                  | Depleted Mar                |  | (*)       |             |                                  | 136, 147)                        | ( )          |   |
|                         | ick (A10) (LRR N)                          |                  | Redox Dark S                |  |           |             |                                  |                                  | ırface (TF12 | )                                       |
|                         | d Below Dark Surface                       | (A11)            | Depleted Dar                |  |           |             | Other (Exp                       | lain in Rem                      | narks)       |   |
|                         | ark Surface (A12)<br>lucky Mineral (S1) (L | RR N.            | Redox Depre<br>Iron-Mangan  |  |           | LRR N.      |                                  |                                  |              |   |
| -                       | \ 147, 148)                                |                  | MLRA 13                     |  | ( , (     | ,           |                                  |                                  |              |   |
|                         | Bleyed Matrix (S4)                         |                  | Umbric Surfa                |  |           |             | <sup>3</sup> Indicators of       |                                  |              |   |
|                         | Redox (S5)                                 |                  | Piedmont Flom Red Parent N  |  |           |             |                                  |                                  | t be present | .,                                      |
|                         | Matrix (S6) Layer (if observed):           |                  | Red Paleik ii               | natenai (r                             | ZI) (WILK | A 127, 147  | ) dilless disto                  | rbed of pro                      | biemano.     |   |
|                         | NA   |                  |                             |  |           |             |                                  |                                  |              |   |
|                         | ches): NA                                  |                  |                             |  |           |             | Hydric Soil Present              | ? Yes                            | <u>i</u> No  |   |
| Romarks:                |  |                  |                             | i                                      |           |             | <b>1</b>                         |                                  |              |   |
| '                       | Hydric soils                               | crit             | eria is M                   | et,                                    |           |             |                                  |                                  |              |   |
|                         | •  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             | •                                |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              | *************************************** |
|                         |  |                  |                             |  | -         |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |
|                         |  |                  |                             |  |           |             |                                  |                                  |              |   |



Wetland data point wcuk011f\_w facing South



Wetland data point wcuk011f\_w facing West



Wetland data point wcuk011f\_w soil sample

|  | State: VA Sampling Point: WWK Of N. Range: NA convex, none): CONVEX Slope (%): 3~6 Long: 78,336156618 Datum: NAD 198 pcs NWI classification: Upland  |
|--|--|
| SUMMARY OF FINDINGS – Attach site map showing sampling point   |  |
| Hydrophytic Vegetation Present?  Hydrophytic Vegetation Present?  Yes No No Within a Westland Hydrology Present?  Remarks: This area is an upland hillstope in a HW force gully features are nearly. All 3 criteria are not me | st w/ Mature trees. Several upland<br>et. Area is not a wetland.   |
| PHOTOS #100-0480 to 0484 soils, N,E,S,W (  | Wim camera)  |
| Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply)  Surface Water (A1)   | Secondary Indicators (minimum of two required)  Surface Soll Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Roots (C3) Moss Trim Lines (B16)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Microtopographic Relief (D4)  FAC-Neutral Test (D5) |
| Saturation Present? Yes No Depth (Inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect  | Wetland Hydrology Present? Yes No ✓  |
| Remarks: Hydrology criteria is not met.  |  |

|   | Absolute         | Dominani                                | Indicator                               | Dominance Test worksheet:  |
|---|------------------|---|---|--|
| Tree Stratum (Plot size: 30 ft )                        | % Cover          |   |   |  |
| 1. Quercus alba   | 2.5              | Y                                       | FACU                                    | Number of Dominant Species That Are OBL, FACW, or FAC:3(A)   |
| 2. Querous rubra  | 20               |   | FACU                                    |  |
| 3. Fagus grandifolia                                    | 30               | ~                                       | FACU                                    | Total Number of Dominant   |
| 4. Carya tomentosa                                      | <u> 15</u>       |   | NI                                      | Species Across Ali Strata: (B)   |
|   |                  |   |   | Percent of Dominant Species  |
| 5. Liquidanbar styraciflua                              | 40_              | <u> </u>                                | FAC                                     | That Are OBL, FACW, or FAC: 27% (A/B)  |
| 6. Acer rubrum  | 15               |   | FAC                                     | Prevalence Index worksheet:  |
| 7   |                  |   |   | Total % Cover of: Multiply by:   |
| and and the second                                      | 145.             | ≃ Total Co                              | ver                                     | OBL species x1= O  |
| Sapling Stratum (Plot size: 15 ft)                      |                  | ~                                       | <b>.</b>                                | ·  |
| 1. Nyssa sylvatica                                      | <u>i5</u>        |   | FAC                                     | THE STATE OF THE S |
| 2. Celtis occidentalis                                  |                  |   | FACU                                    |  |
| 3. Fagus grandifolia                                    | 45_              | <u> </u>                                | FACU                                    | FACU species 252 x4= 1008  |
| 4,  |                  |   |   | UPL species O x 5 = O  |
| 5   |                  |   |   | Column Totals: 352 (A) 1393 (B)  |
| 6   |                  |   |   | 3 (5   |
| 7.  |                  |   |   | Prevalence Index = B/A = 3.65  |
|   | <u>ως</u> :      | = Total Co                              | /Ar                                     | Hydrophytic Vegetation Indicators:   |
| Shrub Stratum (Plot size: 15 f+                         |                  |   |   | 1 - Rapid Test for Hydrophyllc Vegetation  |
| 1. Fagus arandifolia                                    | 30               | <u> </u>                                | FACU                                    | 2 - Dominance Test is >50%   |
| 2. Liquidan Dar Styraciflus                             | 10               |   | FAC                                     | 3 - Prevalence Index is ≤3.0¹  |
| 3. Cornus Florida                                       | 20               | Y                                       | FACU                                    | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 4. Juniperus Virginiana                                 | 5                |   | FACU                                    | data in Remarks or on a separate sheet)  |
| 5. Quercus falcata                                      |                  |   | FACU                                    | Problematic Hydrophytic Vegetation¹ (Explain)  |
|   | 15               |   |   |  |
| 6. Acer phrum   | <u> </u>         |   | FAC                                     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 7. Viburnum prinifolium                                 |                  |   |   | be present, unless disturbed or problematic.   |
| Herb Stratum (Plot size: 10 ft)                         | <u>88</u> :      | = Total Co                              | <b>/</b> ег                             | Definitions of Five Vegetation Strata:   |
|   | 100              | · V                                     | C 4                                     | me Net   |
| 1. Rubus argutus  | <u>- 20</u><br>5 |   | FALU                                    | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.  |
| 2. Elymus Virginians                                    |                  | ·····                                   | FACW                                    | (7.6 cm) or larger in diameter at breast height (DBH).   |
| 3. Enonymus americanus                                  | 5                |   | FAC                                     | Coulting Meady stanta analysisa was shrulas  |
| 4. Quercus alba   | <u> 10 </u>      |   | FACU                                    | Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less  |
| 5. Quercus falcata                                      | 5                |   | FACU                                    | than 3 in. (7.6 cm) DBH.   |
| 6. Polystichum acrostichoides                           | 5_               |   | FACU                                    |  |
| 7. Cornus florida                                       | 15               | <u> </u>                                | FACU                                    | Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  |
| 8   |                  |   |   | approximation of the Edit (1 to 5 m) in magnitude  |
| 9   |                  | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Herb - All herbaceous (non-woody) plants, including  |
| 10  |                  |   |   | herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3  |
| 11  |                  |   |   | ft (1 m) in height.  |
|   |                  |   |   |  |
| 12,   | <u>(05</u> =     |   |   | Woody vine - All woody vines, regardless of height.  |
| Woody Vine Stratum (Plot size: 30 F-F )                 | (\alpha \gamma = | = total Cov                             | /ег                                     |  |
| 1. Parthenocissus quinquefolia                          | 15               | V                                       | FAW                                     |  |
|   | 10               | $\neg$                                  | FAC                                     |  |
| 2. Lonicera japonica                                    | <u> </u>         |   | FAU                                     |  |
| 3   |                  |   |   | Hydrophytic  |
| 4   |                  |   |   | Vegetation   |
| 5   |                  |   |   | Present? Yes No  |
|   | 55 =             | Total Cov                               | er/                                     |  |
| Remarks: (Include photo numbers here or on a separate s | heet.)           |   |   | Management of the Control of the Con |
|   |                  | 1.                                      |   |  |
| Hydrophytic vegetation Criteria i                       | 5 not 1          | vilt,                                   |   |  |
| , , , , , , , , , , , , , , , , , , ,                   |                  |   |   |  |
|   |                  |   |   |  |

| Profile Desc    | cription: (Describe                | to the depti   | needed to docum                       | ent the i                             | ndicator o      | or confirm          | n the absence  | of indicate               | ors.)   |   |
|-----------------|------------------------------------|----------------|---------------------------------------|---------------------------------------|-----------------|---------------------|----------------|---------------------------|---|---|
| Depth           | Matrix                             |                |                                       | Features                              |                 | 2                   | T t            |                           | Damanda   |   |
| (inches)<br>0-5 | Color (moist) 10YR 3/4             | <u> </u>       | Color (molst)                         |                                       | Type '          | _Loc <sup>2</sup> _ | Texture        | _                         | Remarks   | - |
| -               |                                    | 100            |                                       | ***                                   |                 |                     | Sandy loa      |                           |   |   |
| 5-18            | 104R5/6                            | 100 .          |                                       |                                       | ,               |                     | tine sandy     | law                       | gravelly  |   |
|                 |                                    | · ·            | · · · · · · · · · · · · · · · · · · · |                                       |                 |                     |                |                           | · · · · · · · · · · · · · · · · · · ·           |   |
|                 |                                    |                | -                                     |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
| -               |                                    |                |                                       |                                       |                 |                     | <u></u>        |                           |   | _ |
|                 |                                    |                |                                       |                                       |                 |                     |                | •                         |   | — |
| 17              |                                    |                | 2-4                                   |                                       |                 | <del></del>         | 2i appliant Di |                           | no Manhabit                                     | — |
| Hydric Soll     | oncentration, D=Dep                | letion, Rivi=1 | reduced iviatrix, IVIS                | =wasked                               | Sano Gra        | ıns.                |                |                           | ng, M=Matrix.<br>roblematic Hydric Solis³:      |   |
| Histosol        |                                    |                | Dark Surface                          | (S7)                                  |                 |                     |                |                           | A10) (MLRA 147)                                 | l |
|                 | pipedon (A2)                       |                | Polyvalue Bel                         |                                       | e (\$8) (M      | LRA 147,            |                |                           | Redox (A16)                                     |   |
| Black H         | istic (A3)                         |                | Thin Dark Sur                         | face (S9)                             | (MLRA 1         | 47, 148)            |                | (MLRA 14                  | 7, 148)   |   |
|                 | en Sulfide (A4)                    |                | Loamy Gleyed                          |                                       | <del>-</del> 2) |                     | p              |                           | oodplain Soils (F19)                            |   |
| . —             | d Layers (A5)<br>uck (A10) (LRR N) |                | Depleted Mate<br>Redox Dark S         |                                       | 2)              |                     | V              | MLRA 13)<br>Wolled Street | 6, 147)<br>/ Dark Surface (TF12)                |   |
|                 | d Below Dark Surface               | e (A11)        | Depleted Dark                         | •                                     | •               |                     |                |                           | in in Remarks)                                  |   |
|                 | ark Surface (A12)                  |                | Redox Depres                          |                                       |                 |                     |                | ` .                       | ,   |   |
| 1               | Aucky Mineral (S1) (L              | .RR N,         | Iron-Mangane                          |                                       | s (F12) (L      | .RR N,              |                |                           |   | ĺ |
|                 | A 147, 148)                        |                | MLRA 136                              |                                       | #1 ES 46        | * 400\              | 3:             | aalaua af bi              |   |   |
| Sandy C         | Sleyed Matrix (S4)                 |                | Umbric Surfac                         |                                       |                 |                     |                |                           | ydrophytic vegetation and logy must be present, |   |
|                 | Matrix (S6)                        |                | Red Parent M                          |                                       |                 |                     |                |                           | ed or problematic.                              | - |
| Restrictive     | Layer (if observed):               |                |                                       | · · · · · · · · · · · · · · · · · · · |                 |                     | Ť              |                           |   |   |
| Type: 🤻         | lock/gravel/f                      | ardpan         |                                       |                                       |                 |                     | İ              |                           |   |   |
| Depth (In       | ches): 14                          |                |                                       |                                       |                 |                     | Hydric Soil    | Present?                  | Yes No  |   |
| Remarks:        | 11 1 2 2 2 2                       | 1              |                                       | . 1                                   | 4 3             | . દા                |                |                           |   |   |
|                 | Hydric Soils                       | criter         | ia is not                             | Met.                                  | A+~18           | s" a                | gravel /       | ock/1                     | hardpan was                                     |   |
| EVCON.          | ntered and                         | soils o        | could not k                           | e sar                                 | roled -         | Furth               | ZC.            |                           | ,   | ļ |
| _               |                                    |                |                                       |                                       | 1               |                     | •              |                           |   | 1 |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   | İ |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   | } |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   | į |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   | 1 |
| •               |                                    |                |                                       |                                       |                 |                     |                |                           |   | 1 |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |
|                 |                                    |                |                                       |                                       |                 |                     |                |                           |   |   |



Upland data point wcuk011\_u facing South



Upland data point wcuk011\_u facing West



Upland data point wcuk011\_u soil sample

| Project/Site: Atlantic Coast Pipe                                      | line                 | City/C                      | county: Cumberland         |   | Sampling Date: 10/24/2014                             |
|--|----------------------|-----------------------------|----------------------------|---|---|
| Applicant/Owner: Dominion  |                      | ·                           |                            | State: VA   | Sampling Date: 10/24/2014  Sampling Point: wcua002f_w |
| Investigator(s): GB, TP  |                      |                             | on, Township, Range: No    |   | - ,   |
| Landform (hillslope, terrace, etc.                                     |                      |                             |                            |   | Slope (%): 1  |
| Subregion (LRR or MLRA): P   | L                    | at: 37.33451172             | Long: -78.                 | 33810652  | Datum: WGS 1984                                       |
| Soil Map Unit Name: Chewacla   | and Monacan soils,   | 0 to 2 percent slopes, from | equently flooded           | NWI classificat                                       | tion: None  |
| Are climatic / hydrologic condition                                    |                      |                             |                            |   |   |
| Are Vegetation, Soil   |                      |                             |                            |   |   |
| Are Vegetation, Soil   |                      |                             |                            |   |   |
| SUMMARY OF FINDING   |                      |                             |                            |   |   |
|  |                      |                             | 1 31                       |   |   |
| Hydrophytic Vegetation Preser  |                      | No<br>No                    | Is the Sampled Area        |   |   |
| Hydric Soil Present? Wetland Hydrology Present?                        |                      | No                          | within a Wetland?          | Yes   | No  |
| Remarks:   | 163                  |                             |                            |   |   |
| HYDROLOGY  |                      |                             |                            |   |   |
| Wetland Hydrology Indicator  | ·e-                  |                             |                            | Secondary Indicate                                    | ors (minimum of two required)                         |
| Primary Indicators (minimum o  |                      | eck all that annly)         |                            | Surface Soil C  |   |
| Surface Water (A1)   | Tone is required, em | True Aquatic Plants (       | R14)                       |   | tated Concave Surface (B8)                            |
| High Water Table (A2)  | _                    | Hydrogen Sulfide Od         |                            | ✓ Drainage Patte                                      |   |
| Saturation (A3)  |                      | Oxidized Rhizospher         |                            | Moss Trim Line  |   |
| Water Marks (B1)   |                      | Presence of Reduced         |                            |   | ater Table (C2)                                       |
| Sediment Deposits (B2)   | _                    | _ Recent Iron Reduction     | n in Tilled Soils (C6)     | Crayfish Burro  | ws (C8)   |
| Drift Deposits (B3)  | _                    | _ Thin Muck Surface (C      | 27)                        | Saturation Visi                                       | ble on Aerial Imagery (C9)                            |
| Algal Mat or Crust (B4)  | _                    | _ Other (Explain in Rer     | narks)                     |   | essed Plants (D1)                                     |
| Iron Deposits (B5)   |                      |                             |                            | Geomorphic P  |   |
| Inundation Visible on Aeria  |                      |                             |                            | Shallow Aquita  |   |
| <ul><li>Water-Stained Leaves (B9</li><li>Aquatic Fauna (B13)</li></ul> | <b>'</b> )           |                             |                            | <ul><li>Microtopograp</li><li>FAC-Neutral T</li></ul> |   |
|  |                      |                             |                            | FAC-Neutral 1   | esi (D5)  |
| Field Observations: Surface Water Present?                             | Van No V             | Depth (inches):             |                            |   |   |
| Water Table Present?   | Yes No               |                             | 14                         |   |   |
| Saturation Present?  | Yes No               |                             | 9 Wetland b                | lydrology Present                                     | ? Yes ✔ No  |
| (includes capillary fringe)  | 163 110              | Deptil (illelies)           | Wetland I                  | lydrology i resem                                     | 16510   |
| Describe Recorded Data (stream   | am gauge, monitorin  | g well, aerial photos, pre  | vious inspections), if ava | ilable:   |   |
| Domorko  |                      |                             |                            |   |   |
| Remarks:   |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |
|  |                      |                             |                            |   |   |

| Sampling P | oint: wcua002f_ | w |
|------------|-----------------|---|
|------------|-----------------|---|

| 00  | Absolute | Dominant      |          | Dominance Test worksheet:  |
|---|----------|---------------|----------|--|
| Tree Stratum (Plot size:)                               |          | Species?      | Status   | Number of Dominant Species   |
| 1. Betula nigra   | 25       | Yes           | FACW     | That Are OBL, FACW, or FAC: 9 (A)  |
| 2. Platanus occidentalis                                | 20       | Yes           | FACW     | Total Number of Deminent   |
| 3. Salix nigra  | 10       | No            | OBL      | Total Number of Dominant Species Across All Strata:  9 (B)   |
| Acer negundo  | 5        | No            | FAC      | Openies / toross / tir etrata.   |
| "   |          |               |          | Percent of Dominant Species  |
| 5   |          |               |          | That Are OBL, FACW, or FAC:100 (A/B)   |
| 6   |          |               |          | Prevalence Index worksheet:  |
| 7   |          |               |          |  |
|   | 60       | = Total Cove  |          | Total % Cover of: Multiply by:  OBL species 28 x 1 = 28  |
| 50% of total cover: 30                                  | 20% of   | total cover:  | 12       | ODL species  |
| Sapling/Shrub Stratum (Plot size: 15                    |          |               |          | FACW species x 2 =   |
| 1 Lindera benzoin                                       | 25       | Yes           | FAC      | FAC species58  |
| 2. Alnus serrulata                                      | 15       | Yes           | OBL      | FACU species0 x 4 =0   |
| 3. Acer negundo   | 5        | No            | FAC      | UPL species0   |
|   |          |               |          | 165 360  |
| 4. Fraxinus pennsylvanica                               | 5        | No            | FACW     | Column Totals: (A) (B)   |
| 5   |          |               |          | Prevalence Index = B/A = 2.18  |
| 6   |          |               |          | Trevalence mack = B/Tt =   |
| 7   |          |               |          | Hydrophytic Vegetation Indicators:   |
|   |          |               |          | 1 - Rapid Test for Hydrophytic Vegetation  |
| 8   |          |               |          | ✓ 2 - Dominance Test is >50%   |
| 9   | 50       |               |          | ✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| 25  |          | = Total Cove  | er<br>10 | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 50% of total cover: 25                                  | 20% of   | total cover:_ | 10       | data in Remarks or on a separate sheet)  |
| Herb Stratum (Plot size: 5                              |          |               |          |  |
| 1. Carex comosa   | 3        | Yes           | OBL      | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2. Boehmeria cylindrica                                 | 2        | Yes           | FACW     |  |
| 3. Elymus virginicus                                    | 2        | Yes           | FACW     | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
|   |          |               |          | be present, unless disturbed or problematic.   |
| 4   |          |               |          | Definitions of Four Vegetation Strata:   |
| 5   |          |               |          | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or  |
| 6   |          |               |          | more in diameter at breast height (DBH), regardless of   |
| 7   |          |               |          | height.  |
| 8   |          |               |          |  |
| 9   |          |               |          | Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| ·   |          |               |          | m) tall.   |
| 10  |          |               |          | ,  |
| 11  | 7        |               |          | Herb – All herbaceous (non-woody) plants, regardless   |
| 25  |          | = Total Cove  |          | of size, and woody plants less than 3.28 ft tall.  |
| 50% of total cover: <u>3.5</u>                          | 20% of   | total cover:_ | 1.4      | Woody vine – All woody vines greater than 3.28 ft in   |
| Woody Vine Stratum (Plot size:)                         |          |               |          | height.  |
| 1. Vitis riparia  | 25       | Yes           | FACW     | _  |
| 2. Lonicera japonica                                    | 15       | Yes           | FAC      |  |
| 3. Smilax rotundifolia                                  | 8        | No            | FAC      |  |
| 4   |          |               |          |  |
| 4   |          |               |          | Hydrophytic  |
| 5   |          |               |          | Vegetation   |
|   |          | = Total Cove  |          | Present? Yes No No   |
| 50% of total cover: 24                                  | 20% of   | total cover:_ | 9.6      |  |
| Remarks: (Include photo numbers here or on a separate s | heet.)   |               |          |  |
|   |          |               |          |  |
|   |          |               |          |  |
|   |          |               |          |  |
|   |          |               |          |  |
|   |          |               |          |  |
|   |          |               |          |  |
|   |          |               |          |  |
|   |          |               |          |  |

| 0-12   7.5YR 4/2   70   7.5YR 4/6   30   C   PL/M   SICL     12-20   7.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     2-20   7.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     3-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     4-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   3.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   5.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   5.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL     5-20   5.5YR 4/1   90   7.5YR 4/6   5.0H3   T.3H3    | Depth    | <u>Matrix</u> | 0/             |                     | ox Features  | S T 1             | 1 2              | <b>-</b> .               | <b>5</b>                               |
|--|----------|---------------|----------------|---------------------|--------------|-------------------|------------------|--------------------------|--|
| 12-20   7.5YR 4/1   90   7.5YR 4/6   10   C   PL/M   CL  | (inches) | Color (moist) | <u>%</u><br>70 | Color (moist)       | 30           | Type <sup>1</sup> | Loc <sup>2</sup> | Texture                  | Remarks                                |
| ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  **Coraction: PL=Pore Lining, M=Matrix.**  **Indicators for Problematic Hydric Soils**  Indicators for Problematic Hydric Soils*    Histosol (A1)   | 0-12     | 7.51R 4/2     |                | 7.51R 4/0           |              |                   | PL/IVI           |                          |  |
| Histosol (A1)  | 12-20    | 7.5YR 4/1     | 90             | 7.5YR 4/6           | 10           | C                 | PL/M             | CL                       |  |
| Histosol (A1)  |          |               |                |                     |              |                   | <del></del>      |                          |  |
| Histosol (A1)  |          |               |                |                     |              |                   |                  |                          |  |
| Histosol (A1)  |          |               |                |                     |              |                   |                  |                          |  |
| Histosol (A1)  |          |               | <u> </u>       |                     |              |                   | <u> </u>         |                          |  |
| Histosol (A1)  |          |               |                |                     |              |                   | -                |                          |  |
| Histosol (A1)  |          |               |                |                     |              |                   |                  |                          |  |
| Histosol (A1)  |          |               | letion, RM     | l=Reduced Matrix, M | S=Masked     | Sand Gr           | ains.            | <sup>2</sup> Location: P | PL=Pore Lining, M=Matrix.              |
| Histic Epipedon (A2)   |          |               |                | Davis Courtes       | - (07)       |                   |                  |                          |  |
| Black Histic (A3)  |          |               |                |                     |              | ال (S2) <u>(ا</u> | /II RΔ 1/47      |                          |  |
| Hydrogen Sulfide (A4) Stratified Layers (A5)  2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Depth (inches):  Depth (inches):  Loamy Gleyed Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F2) MLRA 136, 147) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Depleted Dark Surface (F7) Other (Explain in Remarks)  Negrous Piedmont Floodplain Soils (F12) (LRR N, MLRA 136, 122)  Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present? Yes No  |          |               |                |                     |              |                   |                  | 140) (                   |  |
| Stratified Layers (A5)  2 cm Muck (A10) (LRR N)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1) (LRR N,  MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Stripped Matrix (S6)  Depleted Matrix (F3)  Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Strictive Layer (if observed):  Type:  Depth (inches):  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Dark Surface (F7)  Medicators (F7)  Other (Explain in Remarks)  Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present? Yes  No  Hydric Soil Present? Yes  No   |          |               |                |                     | , ,          | •                 | 147, 140)        | F                        |  |
| 2 cm Muck (A10) (LRR N)  |          |               |                |                     | ,            | _)                |                  | <u> </u>                 |  |
| Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) Stripped Matrix (S6) Depth (inches):  Depth (inches):  Depleted Dark Surface (F7) Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Deple |          |               |                |                     |              | 6)                |                  | \                        |  |
| Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) |          |               | e (A11)        |                     | •            | •                 |                  |                          |  |
|  |          |               | O (/ (/ / /    |                     |              | . ,               |                  | _ `                      | Stror (Explain in Romano)              |
| MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Wetland hydrology must be present, Red Parent Material (F21) (MLRA 127, 147) Wetrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No   |          |               | RR N.          |                     |              |                   | I RR N.          |                          |  |
| Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)  Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  Strictive Layer (if observed): Type: none Depth (inches): Hydric Soil Present? Yes No   |          |               |                |                     |              | 75 (I IZ) (       |                  |                          |  |
| Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic.    Stripped Matrix (S6)  |          |               |                |                     | •            | MI DA 13          | RE 122\          | 3Inc                     | dicators of hydrophytic vegetation and |
| Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  **Estrictive Layer (if observed):  Type: none  Depth (inches): Hydric Soil Present? Yes No  |          |               |                |                     |              |                   |                  |                          |  |
| Strictive Layer (if observed):  Type: none  Depth (inches): Hydric Soil Present? Yes No  |          |               |                |                     |              |                   |                  |                          |  |
| Type:  |          |               | -              | Red Parent          | Materiai (F2 | 21) (WLK          | A 127, 147       | un                       | niess disturbed or problematic.        |
| Depth (inches): No   |          |               | •              |                     |              |                   |                  |                          |  |
| marks:   |          |               |                |                     |              |                   |                  | Hydric Soil              | I Present? Yes No                      |
|  | emarks:  |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |
|  |          |               |                |                     |              |                   |                  |                          |  |



Photo 1
Wetland data point WCUA002f\_w facing southwest



**Photo 2**Wetland data point WCUA002f\_w facing northeast

| Project/Site: Atlantic Coast Pip  | peline                     | City/C                    | ounty: Cumberland          |                    | Sampling Date: 10/24/2014               |  |
|---|----------------------------|---------------------------|----------------------------|--------------------|---|--|
| Applicant/Owner: Dominion   |                            |                           |                            | State: VA          | Sampling Point: wcua002_u               |  |
| Investigator(s): GB, TP Section, Township, Range: No PLSS in this area  |                            |                           |                            |                    |   |  |
| Landform (hillslope, terrace, etc.): hummock Local relief (concave, convex, none): microtopography Slope (%): 3 |                            |                           |                            |                    |   |  |
| Culturation (LDD on MLDA). P  | J.,                        | Local reli                | er (concave, convex, no    | 33799163           | 5 Slope (%)                             |  |
| Subregion (LRR or MLRA):  | La<br>a and Monacan soils( | to 2 percent slopes fre   | Long: _ · · ·              |                    | Datum: WGS 1984 cation: None            |  |
|   |                            |                           |                            |                    |   |  |
| Are climatic / hydrologic conditi   |                            |                           |                            |                    |   |  |
| Are Vegetation, Soil  | , or Hydrology             | significantly distur      | bed? Are "Norma            | I Circumstances"   | present? Yes No                         |  |
| Are Vegetation, Soil  | , or Hydrology             | naturally problema        | atic? (If needed, e        | explain any answe  | ers in Remarks.)                        |  |
| SUMMARY OF FINDING  | GS – Attach site ı         | map showing sam           | pling point location       | ons, transects     | s, important features, etc.             |  |
| Lludenhutic Vanatation Ducas  |                            | Nie                       |                            |                    |   |  |
| Hydrophytic Vegetation Present?   | mi! res <u>▼</u>           | No<br>No <b>✓</b>         | Is the Sampled Area        |                    | 1                                       |  |
| Wetland Hydrology Present?  | Yes ✓                      | No                        | within a Wetland?          | Yes                | No                                      |  |
| Remarks:  |                            |                           |                            |                    |   |  |
| Upland data point taken on flo  | odplain hummock for a      | a saturated to temporari  | y flooded PFO wetland l    | located on floodpl | ain of Green Creek                      |  |
| HYDROLOGY   |                            |                           |                            |                    |   |  |
| Wetland Hydrology Indicato  | ors:                       |                           |                            | Secondary Indica   | ators (minimum of two required)         |  |
| Primary Indicators (minimum   | of one is required; che    | ck all that apply)        |                            | Surface Soil       | Cracks (B6)                             |  |
| Surface Water (A1)  | _                          | _ True Aquatic Plants (l  | B14)                       | Sparsely Ve        | getated Concave Surface (B8)            |  |
| High Water Table (A2)   |                            | _ Hydrogen Sulfide Odd    |                            | Drainage Pa        | itterns (B10)                           |  |
| Saturation (A3)   |                            | _ Oxidized Rhizosphere    |                            | Moss Trim L        |   |  |
| Water Marks (B1)  |                            | _ Presence of Reduced     |                            |                    | Water Table (C2)                        |  |
| Sediment Deposits (B2)  | _                          | _ Recent Iron Reductio    |                            | Crayfish Bur       |   |  |
| Drift Deposits (B3)   |                            | _ Thin Muck Surface (C    |                            |                    | isible on Aerial Imagery (C9)           |  |
| Algal Mat or Crust (B4) Iron Deposits (B5)  | _                          | Other (Explain in Ren     | iaiks)                     |                    | tressed Plants (D1) Position (D2)       |  |
| Inundation Visible on Aer   | rial Imagery (R7)          |                           |                            | Shallow Aqu        |   |  |
| Water-Stained Leaves (B   |                            |                           |                            |                    | aphic Relief (D4)                       |  |
| Aquatic Fauna (B13)   | ,                          |                           |                            | FAC-Neutra         | • |  |
| Field Observations:   |                            |                           |                            |                    | ,                                       |  |
| Surface Water Present?  | Yes No                     | Depth (inches):           |                            |                    |   |  |
| Water Table Present?  |                            | Depth (inches):           |                            |                    |   |  |
| Saturation Present?   |                            | Depth (inches):           |                            | Hydrology Prese    | nt? Yes 🗸 No                            |  |
| (includes capillary fringe)   |                            | _ , , , , _ ,             |                            |                    |   |  |
| Describe Recorded Data (stre  | am gauge, monitoring       | weii, aeriai priotos, pre | vious inspections), ir ava | allable:           |   |  |
| Remarks:  |                            |                           |                            |                    |   |  |
|   |                            |                           |                            |                    |   |  |
|   |                            |                           |                            |                    |   |  |
|   |                            |                           |                            |                    |   |  |
|   |                            |                           |                            |                    |   |  |
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|   |                            |                           |                            |                    |   |  |
|   |                            |                           |                            |                    |   |  |
|   |                            |                           |                            |                    |   |  |
|   |                            |                           |                            |                    |   |  |

| Sampling | Point: wcua002_ | u |
|----------|-----------------|---|
| Sambling | Point: Woddooz_ | ۰ |

| •  | Absolute | Dominant Ir                   | ndicator | Dominance Test worksheet:   |
|--|----------|-------------------------------|----------|---|
| Tree Stratum (Plot size:)                                |          |                               | Status   | Number of Dominant Species _  |
| 1. Liriodendron tulipifera                               | 25       | Yes                           | FACU     | That Are OBL, FACW, or FAC:5 (A)  |
| 2. Betula nigra  | 20       | Yes                           | FACW     | Total Number of Dominant  |
| 3. Acer negundo  | 5        | No No                         | FAC      | Species Across All Strata: 6 (B)  |
| 4. Liquidambar styraciflua                               | 5        | No                            | FAC      | 、,  |
| 5  |          |                               |          | Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3333333 (A/B)  |
| 6  |          |                               | _        | That Ale OBL, FACW, OF FAC.   |
| 7.   |          |                               |          | Prevalence Index worksheet:   |
| r  | 55       | Total Cavar                   |          | Total % Cover of: Multiply by:  |
| 50% of total cover: 27.5                                 |          | = Total Cover<br>total cover: | 11       | OBL species4 x 1 =4   |
| 15   | 20 /6 01 | iolai cover                   |          | FACW species 30 x 2 = 60  |
| Sapling/Shrub Stratum (Plot size:)  1 Lindera benzoin    | 25       | Yes                           | FAC      | FAC species 98 x 3 = 294  |
| **   | 10       | Yes                           | FAC      | FACU species 25 x 4 = 100   |
| 2. Acer negundo  |          |                               |          | 0 0   |
| 3. Betula nigra  | 6        | No                            | FACW     | UPL species $\begin{array}{c} 0 \\ 157 \\ \end{array}$ $\begin{array}{c} x \ 5 = \\ 458 \\ \end{array}$               |
| 4. Salix nigra   | 4        | No                            | OBL      | Column Totals: (A) (B)  |
| 5  |          |                               |          | Prevalence Index = B/A = 2.91   |
| 6  |          |                               |          | 1 Tevalence mack = B/Tt =   |
| 7  |          |                               |          | Hydrophytic Vegetation Indicators:  |
| 8  |          |                               |          | 1 - Rapid Test for Hydrophytic Vegetation   |
| 9.   |          |                               |          | 2 - Dominance Test is >50%  |
| <u>.                                    </u>             | 45       | = Total Cover                 |          | ✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup>   |
| 50% of total cover:22.5                                  |          | total cover:                  | 9        | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting  |
| Herb Stratum (Plot size: 5 )                             | 20 /0 01 | total cover                   |          | data in Remarks or on a separate sheet)   |
| 1 Microstegium vimineum                                  | 15       | Yes                           | FAC      | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 2. Boehmeria cylindrica                                  | 4        | No                            | FACW     |   |
|  |          |                               |          | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 3. Verbesina alternifolia                                | 3        | No                            | FAC      | be present, unless disturbed or problematic.  |
| 4  |          |                               |          | Definitions of Four Vegetation Strata:  |
| 5  | -        |                               |          | _   |
| 6  |          |                               |          | <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of |
| 7  |          |                               |          | height.   |
| 8.   |          |                               |          |   |
| 9  |          |                               |          | Sapling/Shrub – Woody plants, excluding vines, less   |
| 10.  |          |                               |          | than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.   |
|  |          |                               |          | ,   |
| 11   | 22       |                               |          | Herb – All herbaceous (non-woody) plants, regardless  |
| 50% of total cover: 11                                   |          | = Total Cover                 | 4.4      | of size, and woody plants less than 3.28 ft tall.   |
| 0070 01 total 00001.                                     | 20% 01   | total cover:                  |          | Woody vine – All woody vines greater than 3.28 ft in  |
| vvoody vine diratum (i lot size)                         | 25       | Voo                           | FAC      | height.   |
| 1. Lonicera japonica                                     | 25       | Yes                           | FAC      |   |
| 2. Campsis radicans                                      | 5        | No No                         | FAC      |   |
| 3. Toxicodendron radicans                                | 5        | No                            | FAC      |   |
| 4  |          |                               |          | Hydrophytic   |
| 5  |          |                               |          | Vegetation  |
|  | 35       | = Total Cover                 | •        | Present? Yes No   |
| 50% of total cover: 17.5                                 |          | total cover:                  | 7        |   |
| Remarks: (Include photo numbers here or on a separate si |          |                               |          |   |
| (morado proto namboro noto or on a coparato o            | ,        |                               |          |   |
|  |          |                               |          |   |
|  |          |                               |          |   |
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|  |          |                               |          |   |
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|  |          |                               |          |   |

Sampling Point: wcua002\_u

| Depth                            | Matrix                     |                | Redox Features                                     |                          |  |
|----------------------------------|----------------------------|----------------|--|--------------------------|--|
| (inches)                         | Color (moist)              | %              | Color (moist) % Type <sup>1</sup> Loc <sup>2</sup> | <u>Texture</u>           | Remarks  |
| 0-8                              | 7.5YR 3/3                  | 100            |  | SL                       |  |
| 8-20                             | 7.5YR 4/3                  | 100            |  | SL                       |  |
|                                  | -                          | - <del></del>  |  |                          | •  |
|                                  |                            |                |  |                          |  |
|                                  |                            |                |  |                          |  |
|                                  |                            |                |  |                          |  |
|                                  | -                          |                |  |                          |  |
|                                  |                            |                |  | <u> </u>                 |  |
|                                  |                            |                |  |                          |  |
|                                  |                            |                |  |                          |  |
|                                  |                            |                |  |                          |  |
|                                  |                            |                |  |                          | <u>.</u> ,   |
|                                  |                            |                |  |                          |  |
| vpe: C=C                         | oncentration, D=Der        | oletion, RM=Re | educed Matrix, MS=Masked Sand Grains.              | <sup>2</sup> Location: I | PL=Pore Lining, M=Matrix.                          |
|                                  | Indicators:                | ,              | ,            | Indio                    | cators for Problematic Hydric Soils <sup>3</sup> : |
| _ Histosol                       | I (A1)                     |                | Dark Surface (S7)                                  |                          | 2 cm Muck (A10) (MLRA 147)                         |
|                                  | pipedon (A2)               |                | Polyvalue Below Surface (S8) (MLRA 147             |                          | Coast Prairie Redox (A16)                          |
|                                  | istic (A3)                 |                | Thin Dark Surface (S9) (MLRA 147, 148)             |                          | (MLRA 147, 148)                                    |
|                                  | en Sulfide (A4)            |                | Loamy Gleyed Matrix (F2)                           |                          | Piedmont Floodplain Soils (F19)                    |
|                                  | d Layers (A5)              |                | Depleted Matrix (F3)                               |                          | (MLRA 136, 147)                                    |
|                                  | uck (A10) <b>(LRR N)</b>   |                | Redox Dark Surface (F6)                            | ,                        | Very Shallow Dark Surface (TF12)                   |
|                                  | d Below Dark Surfac        | e (A11)        | Depleted Dark Surface (F7)                         |                          | Other (Explain in Remarks)                         |
|                                  | ark Surface (A12)          | ( ) ( )        | Redox Depressions (F8)                             | _                        | - · · · · · · · · · · · · · · · · · · ·            |
|                                  | Mucky Mineral (S1) (       | LRR N.         | Iron-Manganese Masses (F12) (LRR N,                |                          |  |
|                                  | A 147, 148)                | ,              | MLRA 136)  |                          |  |
|                                  | Gleyed Matrix (S4)         |                | Umbric Surface (F13) (MLRA 136, 122)               | <sup>3</sup> ln          | dicators of hydrophytic vegetation and             |
|                                  | Redox (S5)                 |                | Piedmont Floodplain Soils (F19) (MLRA 1            |                          | vetland hydrology must be present,                 |
|                                  | d Matrix (S6)              |                | Red Parent Material (F21) (MLRA 127, 14            |                          | nless disturbed or problematic.                    |
|                                  |                            |                |  | ,                        |  |
|                                  |                            | :              |  |                          |  |
| estrictive                       | Layer (if observed)        | :              |  |                          |  |
| estrictive I                     | Layer (if observed)<br>one | :              | _  | Hvdric So                | il Present? Yes No ✔                               |
| Type: no                         | Layer (if observed)<br>one | :              | _  | Hydric So                | il Present? Yes No                                 |
| Restrictive I<br>Type: no        | Layer (if observed)<br>one | :              | _<br>_   | Hydric So                | il Present? Yes No <u> </u>                        |
| Type: no                         | Layer (if observed)<br>one | :              |  | Hydric So                | il Present? Yes No <u> </u>                        |
| estrictive In Type: no Depth (in | Layer (if observed)<br>one | :              | _  | Hydric So                | il Present? Yes No <u> </u>                        |
| estrictive In Type: no Depth (in | Layer (if observed)<br>one | :              |  | Hydric So                | il Present? Yes No 🗸                               |
| Type: no                         | Layer (if observed)<br>one | :              | _  | Hydric So                | il Present? Yes No 🗸                               |
| Type: no                         | Layer (if observed)<br>one | :              | _  | Hydric So                | il Present? Yes No 🗸                               |
| estrictive In Type: no Depth (in | Layer (if observed)<br>one | :              |  | Hydric So                | il Present? Yes No 🗸                               |
| Type: no                         | Layer (if observed)<br>one | :              |  | Hydric So                | il Present? Yes No 🗸                               |
| estrictive In Type: no Depth (in | Layer (if observed)<br>one | :              |  | Hydric So                | il Present? Yes No 🗸                               |
| estrictive In Type: no Depth (in | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| estrictive In Type: no Depth (in | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| estrictive In Type: no Depth (in | Layer (if observed)<br>one |                | _  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                | _  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| estrictive In Type: no Depth (in | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No V                               |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |
| Type: no                         | Layer (if observed)<br>one |                |  | Hydric So                | il Present? Yes No                                 |



Photo 1 Upland data point WCUA002\_u facing southwest



Photo 2
Upland data point WCUA002\_u facing northeast

| Project/Site: Southeast Reliablity Project                                     | City/County: NA/Cumberland Sampling Date: 7/31/2014  |
|--|--|
| Applicant/Owner: Dominion Transmission   | State: VA Sampling Point: wcuk008f_v   |
| Investigator(s): W. Medlin, J. Sweitzer, J. Dean                               | Section, Township, Range: NA   |
| •  | cal relief (concave, convex, none): concave Slope (%): 0-1                                       |
| Subregion (LRR or MLRA): LRR P Lat: 37.3304135                                 | 516 Long: -78.324659658 Datum: NAD 83  |
| Soil Map Unit Name: Chewacla and Monacan soils, 0 to 2%                        | slopes, frequently flooded NWI classification: PFO1A   |
| Are climatic / hydrologic conditions on the site typical for this time of year | ear? Yes 🗸 No (If no, explain in Remarks.)   |
| Are Vegetation Soil , or Hydrology significantly                               |  |
| Are Vegetation Soil , or Hydrology naturally pro                               | oblematic? (If needed, explain any answers in Remarks.)  |
| SUMMARY OF FINDINGS – Attach site map showing                                  | sampling point locations, transects, important features, etc.                                    |
| Hydrophytic Vegetation Present? Yes No   |  |
| Hydric Soil Present?  Yes   No   | Is the Sampled Area within a Wetland? Yes No   |
| Wetland Hydrology Present? Yes V No  |  |
| Remarks:   |  |
| This area is Piedmont floodplain depression that actively                      | y receives flooding and groundwater input (seasonally). All 3                                    |
| criteria met. Area is a wetland.   |  |
|  |  |
| Photos #100-0360 to 0364(WLM camera)   |  |
| HYDROLOGY  |  |
| Wetland H>drolog>dndicators:   | Secondary Indicators (minimum of two required)   |
| Primary Indicators (minimum of one is required; check all that apply)          | Surface Soil Cracks (B6)   |
| Surface Water (A1) True Aquatic P  | <u> </u>   |
| High Water Table (A2) Hydrogen Sulfi   | <u> </u>   |
| I <b>—</b>   | spheres on Living Roots (C3) Moss Trim Lines (B16)   |
|  | educed Iron (C4) Dry-Season Water Table (C2) Eduction in Tilled Soils (C6) Crayfish Burrows (C8) |
| Drift Deposits (B3)  |  |
| Algal Mat or Crust (B4)  Other (Explain  |  |
| ☐ Iron Deposits (B5)   | Geomorphic Position (D2)   |
| Inundation Visible on Aerial Imagery (B7)                                      | Shallow Aquitard (D3)  |
| Water-Stained Leaves (B9)  | 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                                      |  |
| Saturation Present? Yes No Depth (inches (includes capillary fringe)           | ): Wetland H: drolog: Present? Yes No  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photo            |  |
| NA   |  |
| Remarks:   |  |
| Hydrology criteria met.  |  |
|  |  |
|  |  |
|  |  |
|  |  |
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|  |  |
|  |  |

# **VEGETATION** Five Strata Use scientific names of plants.

| 204   | Absolute | Dominant     | Indicator | Dominance Test worksheet:   |
|---|----------|--------------|-----------|---|
| Tree Stratum (Plot size: 30ft )   |          | Species?     |           | Number of Dominant Species  |
| 1. Fraxinus pennsylvanica   | 40       | Y            | FACW      | That Are OBL, FACW, or FAC: 7 (A)   |
| 2. Ulmus americana  | 80       | <u>Y</u>     | FACW      | Total Number of Dominant  |
| <sub>3.</sub> Betula nigra  | 40       | <u>Y</u>     | FACW      | Species Across All Strata: 7 (B)  |
| 4. Salix nigra  | 20       |              | OBL       |   |
| 5   |          |              |           | Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/                                     |
| 6.  |          |              |           | That Are OBL, I ACW, OF I AC.   |
| ·   | 180      | = Total Cov  |           | Prevalence Index worksheet:   |
| 00  |          |              |           | Total % Cover of: Multiply by:  |
| 50% of total cover: <u>90</u>   | 20% of   | total cover: | 36        | OBL species 22 x 1 = 22   |
| Sapling Stratum (Plot size: 15ft )  |          |              |           | FACW species 165 x 2 = 330  |
| 1. NA   |          |              |           | FAC species 140 x 3 = 420   |
| 2   |          |              |           | FACU species $\frac{1}{5}$ $x = 4$  |
| 3   |          |              |           | · ·   |
| 4   |          |              |           | UPL species x 5 =   |
| 5   |          |              |           | Column Totals: <u>332</u> (A) <u>792</u> (E   |
|   |          |              |           | Prevalence Index = B/A = 2.39   |
| 6   |          |              |           |   |
|   |          | = Total Cov  | er        | H: droph: tic Vegetation Indicators:  |
| 50% of total cover:   | 20% of   | total cover: |           | 1 - Rapid Test for Hydrophytic Vegetation   |
| Shrub Stratum (Plot size: 15ft)   |          |              |           | 2 - Dominance Test is >50%  |
| 1. Lindera benzoin  | 15       | Υ            | FAC       | 3 - Prevalence Index is ≤3.0 <sup>1</sup>   |
| 2. Acer negundo   | 5        |              | FAC       | 4 - Morphological Adaptations (Provide supporti   |
| 3. Rubus arvensis   | 20       | Y            | FAC       | data in Remarks or on a separate sheet)   |
| 4   |          |              |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
|   |          |              |           |   |
| 5   |          |              |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must                                   |
| 6   |          |              |           | be present, unless disturbed or problematic.  |
|   | 40       | = Total Cov  | er        | Definitions of Five Vegetation Strata:  |
| 50% of total cover: <u>20</u>   | 20% of   | total cover: | 8         |   |
| Herb Stratum (Plot size: 10ft )   |          |              |           | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.   |
| 1. Anemone virginiana   | 5        |              | FACU      | (7.6 cm) or larger in diameter at breast height (DBH).  |
| 2. Microstegium vimineum  | 80       | Y            | FAC       |   |
| 3. Peltandra virginica  | 2        | <del>-</del> | OBL       | Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less |
| 4. Lobelia cardinalis   | 5        |              | FACW      | than 3 in. (7.6 cm) DBH.  |
|   | 5        |              |           |   |
| <sub>5.</sub> Acer negundo  | <u>5</u> |              | FAC       | Shrub – Woody plants, excluding woody vines,  |
| 6   |          |              |           | approximately 3 to 20 ft (1 to 6 m) in height.  |
| 7   |          |              |           | Herb - All herbaceous (non-woody) plants, including   |
| 8   |          |              |           | herbaceous vines, regardless of size, and woody   |
| 9   |          |              |           | plants, except woody vines, less than approximately ft (1 m) in height.                             |
| 10  |          |              |           | it (1 m) in noight.   |
| 11.   |          |              |           | <b>Wood:</b> vine – All woody vines, regardless of height.  |
|   | 97       | = Total Cov  |           |   |
| 40.5  |          |              |           |   |
| 50% of total cover: <u>48.5</u>   | 20% of   | total cover: | 19.4      |   |
| Woody Vine Stratum (Plot size: 30ft )   |          |              |           |   |
| 1. Toxicodendron radicans   | 15       | <u>Y</u>     | FAC       |   |
| 2   |          |              |           |   |
| 3   |          |              |           |   |
| 4   |          |              |           |   |
|   |          |              |           |   |
| 5   | 15       | T.: 12       |           | H: droph: tic   |
|   |          | = Total Cov  |           | Vegetation Present? Yes ✓ No No   |
| 50% of total cover: 7.5   |          |              | 2         | Present? Yes V No No  |
|   | 20% of   | total cover: | <u>3</u>  |   |
| Remarks: (Include photo numbers here or on a separate s                             |          | total cover: | 3         |   |
| Remarks: (Include photo numbers here or on a separate s<br>Vegetation criteria met. |          | total cover: | 3         |   |

Sampling Point: wcuk008f\_w

| Profile Desc   | ription: =Describe       | to the dep  | oth needed to docur          | nent the i  | indicator         | or confirn       | n the absence  | of indicators.>   |
|----------------|--------------------------|-------------|------------------------------|-------------|-------------------|------------------|----------------|---|
| Depth          | Matrix                   |             | Redo                         | x Feature   | s                 |                  |                |   |
| (inches)       | Color (moist)            | %           | Color (moist)                | %           | Type <sup>1</sup> | Loc <sup>2</sup> | <u>Texture</u> | <u>Remarks</u>  |
| 0-6            | 7.5YR 4/3                | 80          | 5YR 4/6                      | 20          | <u>C</u>          | <u>PL</u>        | Clay loam      |   |
| 6-18           | 7.5YR 5/2                | 70          | 5YR 5/8                      | 15          | С                 | PL               | Clay loam      | Mixed matrix  |
|                |                          |             | 5YR 4/6                      | 15          | С                 | PL               |                | Mixed matrix  |
| 18-24          | 10YR 5/1                 | 75          | 5YR 5/8                      | 25          | С                 | PL               | Clay loam      |   |
|                | 10111071                 |             | 0111070                      |             | <del>-</del>      | · <del></del>    | <u> </u>       |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          | - ——        |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                | •                        |             |                              |             |                   |                  |                |   |
|                | -                        |             |                              |             | -                 |                  |                |   |
| 1              |                          | DM          | De de ce d'Alexande          |             | 1616-             |                  | 21             |   |
| H: dric Soil I |                          | oletion, RM | =Reduced Matrix, MS          | >=Masked    | Sand Gr           | ains.            |                | _=Pore Lining, M=Matrix. ators for Problematic H: dric Soils <sup>3</sup> : |
|                |                          |             | Dork Curfoso                 | (C7)        |                   |                  | _              |   |
| Histosol       | oipedon (A2)             |             | ☐ Dark Surface☐ Polyvalue Be | . ,         | ra (82) <b>-1</b> | /II DΔ 1/17      |                | cm Muck (A10) <b>■MLRA 147</b> > oast Prairie Redox (A16)                   |
| Black His      | •                        |             | Thin Dark Su                 |             |                   |                  | , 140/ 0       | =MLRA 147, 148>   |
|                | n Sulfide (A4)           |             | Loamy Gleye                  |             |                   | 147, 140>        | ☐ Pi           | iedmont Floodplain Soils (F19)  |
|                | Layers (A5)              |             | Depleted Ma                  |             | (· —)             |                  |                | ≢MLRA 136, 147>   |
|                | ck (A10) <b>LRR N</b> >  |             | Redox Dark                   |             | <sup>-</sup> 6)   |                  | <u></u> ∨•     | ery Shallow Dark Surface (TF12)   |
| Depleted       | l Below Dark Surfac      | e (A11)     | Depleted Dar                 | k Surface   | e (F7)            |                  | <u></u> □ 0    | ther (Explain in Remarks)   |
|                | ırk Surface (A12)        |             | Redox Depre                  |             |                   |                  |                |   |
|                | lucky Mineral (S1) =     | LRR N,      | ☐ Iron-Mangan                |             | es (F12) =        | ŁRR N,           |                |   |
|                | 147, 148>                |             | MLRA 13                      |             |                   |                  | 3, ,,          |   |
|                | leyed Matrix (S4)        |             | Umbric Surfa                 |             |                   |                  |                | icators of hydrophytic vegetation and tland hydrology must be present,      |
|                | edox (S5)<br>Matrix (S6) |             | ☐ Piedmont Flo               |             |                   |                  |                | ess disturbed or problematic.   |
|                | _a: er ⊨if observed>     | ,           | Red Falentin                 | nateriai (i | ZI) HVILIN        | IA 121, 14       | 1> uiii        | ess disturbed of problematic.   |
| Type: NA       |                          | •           |                              |             |                   |                  |                |   |
| J              | ches):                   |             |                              |             |                   |                  | H: dric Soil   | Present? Yes No No  |
| Remarks:       | <u> </u>                 |             |                              |             |                   |                  | Ti. dile 30ii  | Present: res No   |
| Hy             | dric soils criteri       | a met.      |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |
|                |                          |             |                              |             |                   |                  |                |   |

| Project/Site: Dominion Southeast Reliability Project                  | City/County: Cumberland             | <u> </u>               | Sampling Date: 07/31/2014      |
|---|-------------------------------------|------------------------|--------------------------------|
| Applicant/Owner: Dominion Transmission                                |                                     | State: VA              | Sampling Point: wcuk008_u      |
| Investigator(s): J. Sweitzer, W. Medlin                               | Section, Township, Range            | e: <u>NA</u>           |                                |
| Landform (hillslope, terrace, etc.): Floodplain terrace               | Local relief (concave, convex       | x, none): none         | Slope (%): 0-                  |
| Subregion (LRR or MLRA): LRR P Lat: 37.331                            | 302157 Long:                        | 78.325275258           | Datum: NAD 1983                |
| Soil Map Unit Name: Chewacla and Monacan soils, 0 to 2 per            | cent slopes, frequently flooded     | NWI classific          | ation: Upland                  |
| Are climatic / hydrologic conditions on the site typical for this tir |                                     |                        |                                |
| Are Vegetation, Soil, or Hydrology sign                               |                                     |                        |                                |
| Are Vegetation, Soil, or Hydrology natu                               |                                     | ded, explain any answe |                                |
| SUMMARY OF FINDINGS – Attach site map sh                              |                                     |                        |                                |
| Hydrophytic Vegetation Present? Yes ✓ No                              |                                     |                        |                                |
| Hydric Soil Present? Yes No   | I IS the Sampled A                  | rea<br>? Yes           | No✓                            |
| Wetland Hydrology Present? Yes No                                     |                                     | . 163                  | _ 110                          |
| Remarks:  |                                     |                        |                                |
| Photos 104-4695 to 4699 Soils, N, S, E, W (J. Sweitzer Came           | ra)                                 |                        |                                |
|   |                                     |                        |                                |
| Upland plot established on a floodplain terrace.                      |                                     |                        |                                |
|   |                                     |                        |                                |
| HYDROLOGY   |                                     |                        |                                |
| Wetland Hydrology Indicators:   |                                     | Secondary Indica       | tors (minimum of two required) |
| Primary Indicators (minimum of one is required; check all that        | apply)                              | Surface Soil           | Cracks (B6)                    |
| Surface Water (A1) True Ad  | quatic Plants (B14)                 | Sparsely Veç           | getated Concave Surface (B8)   |
| High Water Table (A2) Hydrog  | en Sulfide Odor (C1)                | Drainage Pat           | tterns (B10)                   |
| Saturation (A3) Oxidize   | d Rhizospheres on Living Roots (    | (C3) Moss Trim Li      | ines (B16)                     |
|   | ce of Reduced Iron (C4)             |                        | Water Table (C2)               |
|   | Iron Reduction in Tilled Soils (C6  | ·                      |                                |
|   | uck Surface (C7)                    |                        | sible on Aerial Imagery (C9)   |
|   | Explain in Remarks)                 |                        | tressed Plants (D1)            |
| Iron Deposits (B5)  |                                     | ✓ Geomorphic           |                                |
| Inundation Visible on Aerial Imagery (B7)                             |                                     | Shallow Aqui           |                                |
| Water-Stained Leaves (B9) Aquatic Fauna (B13)                         |                                     | FAC-Neutral            | aphic Relief (D4)              |
| Field Observations:   |                                     | I AC-Neutiai           | 1631 (00)                      |
| Surface Water Present? Yes No ✓ Depth                                 | (inches):                           |                        |                                |
| Water Table Present? Yes No Depth                                     | (inches):                           |                        |                                |
| Saturation Present? Yes No ✓ Depth                                    |                                     | and Hydrology Presen   | nt? Yes No ✓                   |
| (includes capillary fringe)   |                                     | , 0,                   | it: 165 NO                     |
| Describe Recorded Data (stream gauge, monitoring well, aeri           | al photos, previous inspections), i | if available:          |                                |
| NA Remarks:   |                                     |                        |                                |
|   |                                     |                        |                                |
| No indicators of wetland hydrology.                                   |                                     |                        |                                |
|   |                                     |                        |                                |
|   |                                     |                        |                                |
|   |                                     |                        |                                |
|   |                                     |                        |                                |
|   |                                     |                        |                                |
|   |                                     |                        |                                |
|   |                                     |                        |                                |
|   |                                     |                        |                                |
|   |                                     |                        |                                |
|   |                                     |                        |                                |

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

| · ·  | Absolute    | Dominant Ir   | ndicator   | Dominance Test worksheet:  |
|--|-------------|---------------|------------|--|
| Tree Stratum (Plot size: 30 ft R )                         |             | Species?      |            |  |
| 1 Liquidambar styraciflua                                  | 70          |               | FAC        | Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)   |
| 2. Acer rubrum   | 30          |               | FAC        | That Ale OBL, I ACW, OIT AC.   |
| 3. Fraxinus pennsylvanica                                  | 30          | <u> </u>      |            | Total Number of Dominant   |
| 3. Traxillus perinsylvanica                                |             | <u> </u>      | FACW       | Species Across All Strata: 7 (B)   |
| 4  |             |               |            | Description of Description   |
| 5  |             |               |            | Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)  |
| 6  |             |               |            | That Ale OBE, I AOW, OI I AO.  |
| _  |             |               |            | Prevalence Index worksheet:  |
| 1  | 120         |               |            | Total % Cover of: Multiply by:   |
|  |             | = Total Cove  |            | OBL species x 1 =  |
| 50% of total cover: 65                                     | 20% of      | total cover:  | 26         | 1  |
| Sapling/Shrub Stratum (Plot size: 15 ft R                  |             |               |            | FACW species x 2 =   |
| 1. Lindera benzoin   | 60          | Y             | FAC        | FAC species x 3 =  |
| 2. Celtis occidentalis                                     | 20          | Υ             | FACU       | FACU species x 4 =   |
| 3. Liriodendron tulipifera                                 | 10          |               | FAC        | UPL species x 5 =  |
| 4 Carpinus caroliniana                                     | 10          |               | FACU       | Column Totals: (A) (B)   |
|  |             |               |            | Goldmin Totals (71) (B)  |
| 5  |             |               |            | Prevalence Index = B/A =   |
| 6  |             |               |            |  |
| 7  |             |               | _          | Hydrophytic Vegetation Indicators:   |
|  |             |               |            | 1 - Rapid Test for Hydrophytic Vegetation  |
| 8  |             |               |            | ✓ 2 - Dominance Test is >50%   |
| 9  |             |               |            | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
|  |             | = Total Cove  |            | 4 - Morphological Adaptations (Provide supporting  |
| 50% of total cover: 50                                     | 20% of      | total cover:  | 20         | 1  |
| Herb Stratum (Plot size: 5 FT R )                          |             |               |            | data in Remarks or on a separate sheet)  |
| 1 Microstegium vimineum                                    | 50          | Υ             | FAC        | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2. Rubus argutus   | 15          | <u> </u>      | FACU       |  |
| 3 Fragaria virginiana                                      | 5           |               | FACU       | <sup>1</sup> Indicators of hydric soil and wetland hydrology must                                      |
| 3. Tragana virginiana                                      |             |               | 1700       | be present, unless disturbed or problematic.   |
| 4  |             |               |            | Definitions of Four Vegetation Strata:   |
| 5  |             |               |            |  |
| 6  |             |               |            | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or  |
| ·  |             |               |            | more in diameter at breast height (DBH), regardless of   |
| 7  |             |               |            | height.  |
| 8  |             |               |            | Sapling/Shrub – Woody plants, excluding vines, less  |
| 9  |             |               |            | than 3 in. DBH and greater than or equal to 3.28 ft (1   |
| 10   |             |               |            | m) tall.   |
| 11.  |             |               |            | Horb. All harbaccous (non woody) plants, regardless  |
|  | 70          | = Total Cove  |            | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover:35                                      |             | total cover:_ | 14         | or size, and woody plants less than 6.20 it tall.  |
| 20 Ft D  | 20 /6 01    | total cover   |            | Woody vine – All woody vines greater than 3.28 ft in   |
| vvoody vine dilatum (i lot size)                           | E           | N             | EAC        | height.  |
| 1. Campsis radicans  | 5           | N             | FAC        |  |
| 2. Toxicodendron radicans                                  | 20          | <u> </u>      | FAC        |  |
| 3. Parthenocissus quinquefolia                             | 5           | N             | FAC        |  |
| 4  |             |               |            |  |
|  |             |               |            | Hydrophytic  |
| 5  |             |               |            | Vegetation   Present?   Yes No   |
|  |             | = Total Cove  | _          | Present? Yes V No No   |
| 50% of total cover:15                                      | 20% of      | total cover:  | 6          |  |
| Remarks: (Include photo numbers here or on a separate s    | heet.)      |               |            |  |
| Vegetation passes dominance test. Vegetation consists of t | vpical well | drained piedn | nont flood | dplain species.  |
|  | ,,          |               |            |  |
|  |             |               |            |  |
|  |             |               |            |  |
|  |             |               |            |  |
|  |             |               |            |  |
|  |             |               |            |  |
|  |             |               |            |  |
|  |             |               |            |  |

Sampling Point: wcuk008\_u

| Profile Des      | cription: (Describe t                     | o the de        | oth needed to docur       | ment the i     | ndicator            | or confirm       | n the absence               | of indic    | cators.)                                       |
|------------------|---|-----------------|---------------------------|----------------|---------------------|------------------|-----------------------------|-------------|--|
| Depth            | Matrix                                    |                 |                           | x Feature      | s                   |                  |                             |             |  |
| (inches)<br>0-10 | Color (moist)<br>10YR 5/4                 | <del>%</del> 70 | Color (moist)<br>10YR 5/2 | <u>%</u><br>10 | Type <sup>1</sup> D | Loc <sup>2</sup> | <u>Texture</u><br>Silt Loam | NA          | Remarks  |
| 0-10             | NA NA                                     | NA NA           | 7.5YR 4/6                 | 20             |                     |                  | Silt Loam                   | NA          |  |
| 10-20            | 10YR 5/4                                  | 70              | 7.5YR 5/8                 | 20             | <del>C</del>        |                  | Silt Loam                   | Mottle      | <u> </u>                                       |
| 10-20            | NA NA                                     | NA NA           | 5YR 4/6                   | 18             | <del>C</del>        |                  | Silt Loam                   | Mottle      |  |
| 10-20            | - NA                                      |                 | 51K 4/0                   |                |                     | IVI              | Siit Loaiii                 | Mottle      | 5  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  | Concentration, D=Depl                     | etion, RM       | =Reduced Matrix, M        | S=Masked       | Sand Gra            | ains.            |                             |             | Lining, M=Matrix.                              |
| •                | Indicators:                               |                 |                           |                |                     |                  |                             |             | r Problematic Hydric Soils <sup>3</sup> :      |
| Histoso          |   |                 | Dark Surface              |                |                     |                  |                             |             | ck (A10) <b>(MLRA 147)</b>                     |
|                  | pipedon (A2)                              |                 | Polyvalue Be              |                |                     |                  | , 148) C                    |             | airie Redox (A16)                              |
| _                | listic (A3)                               |                 | Thin Dark Su              |                |                     | 47, 148)         | -                           |             | 147, 148)                                      |
|                  | en Sulfide (A4)                           |                 | Loamy Gleye               |                | F2)                 |                  | <u> </u>                    |             | Floodplain Soils (F19)                         |
|                  | d Layers (A5)<br>uck (A10) <b>(LRR N)</b> |                 | Depleted Ma               |                | -C)                 |                  | ν.                          | -           | <b>. 136, 147)</b><br>Ilow Dark Surface (TF12) |
|                  | ed Below Dark Surface                     | (Δ11)           | Redox Dark Depleted Da    |                |                     |                  |                             |             | φlain in Remarks)                              |
|                  | ark Surface (A12)                         | (// (/ )        | Redox Depre               |                |                     |                  | _ `                         | Zillei (LZ  | cpiairi ir Nemarks)                            |
| _                | Mucky Mineral (S1) <b>(L</b>              | RR N            | Iron-Mangan               |                |                     | RR N             |                             |             |  |
|                  | A 147, 148)                               | 1414 14,        | MLRA 13                   |                | 00 (1 12) (1        |                  |                             |             |  |
|                  | Gleyed Matrix (S4)                        |                 | Umbric Surfa              |                | MLRA 13             | 6. 122)          | <sup>3</sup> Inc            | licators of | of hydrophytic vegetation and                  |
|                  | Redox (S5)                                |                 | Piedmont Flo              |                |                     |                  |                             |             | drology must be present,                       |
|                  | d Matrix (S6)                             |                 | Red Parent I              |                |                     |                  |                             |             | curbed or problematic.                         |
|                  | Layer (if observed):                      |                 |                           |                |                     |                  | <del>Í</del>                |             | ,  |
| Type: N          |   |                 |                           |                |                     |                  |                             |             |  |
|                  | nches): NA                                |                 | <u> </u>                  |                |                     |                  | Hydric Soil                 | Presen      | t? Yes No <u>√</u>                             |
| Remarks:         |   |                 |                           |                |                     |                  |                             |             |  |
| No indicators    | s of hydric soils observ                  | ed due to       | o high chroma matrix      | to 20".        |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |
|                  |   |                 |                           |                |                     |                  |                             |             |  |



Wetland data point wcuk008f\_w facing North



Wetland data point wcuk008f\_w facing East



Upland data point wcuk008\_u facing North



Upland data point wcuk008\_u facing South



Wetland data point wcuk008f\_w soil sample



Upland data point wcuk008\_u soil sample

| Project/Site: Southeast Reliability Project  | City/County: NA/Cumberland Sampling Date: 07/31/14               |
|--|--|
| Applicant/Owner: Dominion Transmission   | State: VA Sampling Point: wcuk010e_v                             |
| Investigator(s): W. Medlin, J. Sweitzer, J. Dean   | Section, Township, Range: NA                                     |
| Landform (hillslope, terrace, etc.): historic impoundment L  | Local relief (concave, convex, none): concave Slope (%): NA      |
| Subregion (LRR or MLRA): LRR P Lat: 37.330413  |  |
| Soil Map Unit Name: Watery sandy loam 15 to 25 percent s   | slopes NWI classification: PEM1C                                 |
| Are climatic / hydrologic conditions on the site typical for this time of  |  |
| Are Vegetation Soil , or Hydrology significant   | tly disturbed? Are "Normal Circumstances" present? Yes No        |
| Are Vegetation, Soil, or Hydrology naturally r   | problematic? (If needed, explain any answers in Remarks.)        |
| SUMMARY OF FINDINGS – Attach site map showin   | ng sampling point locations, transects, important features, etc. |
| Hydrophytic Vegetation Present? Yes No No  | le the Complet Area  |
| Hydric Soil Present? Yes V   | Is the Sampled Area within a Wetland? Yes No                     |
| Wetland Hydrology Present? Yes ✓ No  | į   — — —  |
| Remarks:   |  |
| This area is a historic impoundment/pond that has bee  | en breached and has filled in with sediment enough to create a   |
| freshwater marsh. All three criteria are met. Area is a v  | wetland.   |
| *Dhataa 400 0270 ta 0200 (M/I M aarrana)   |  |
| *Photos 100-0376 to 0380 (WLM camera)  |  |
| HYDROLOGY  |  |
| Wetland Hydrology Indicators:  | Secondary Indicators (minimum of two required)                   |
| Primary Indicators (minimum of one is required; check all that apply   | Surface Soil Cracks (B6)   |
| Surface Water (A1)   | <u> </u>   |
|  | Ifide Odor (C1) Drainage Patterns (B10)                          |
| 1 <del>-</del>   | zospheres on Living Roots (C3) Moss Trim Lines (B16)             |
|  | Reduced Iron (C4)  |
| Drift Deposits (B3)  Recent from Recent fr |  |
| 1 =  | in in Remarks) Stunted or Stressed Plants (D1)                   |
| ☐ Iron Deposits (B5)   | Geomorphic Position (D2)   |
| Inundation Visible on Aerial Imagery (B7)  | Shallow Aquitard (D3)  |
| Water-Stained Leaves (B9)  | Microtopographic Relief (D4)                                     |
| Aquatic Fauna (B13)  | FAC-Neutral Test (D5)  |
| Field Observations:  |  |
| Surface Water Present? Yes V No Depth (inche   |  |
| Water Table Present? Yes V No Depth (inche   |  |
| Saturation Present? Yes  No Depth (inche (includes capillary fringe)   | es): 0 Wetland Hydrology Present? Yes V No                       |
| Describe Recorded Data (stream gauge, monitoring well, aerial pho  | otos, previous inspections), if available:                       |
| NA   |  |
| Remarks:   |  |
| Hydrology criteria is met.   |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

| 00.6   | Absolute | Dominant     | Indicator | Dominance Test worksheet:  |          |
|--|----------|--------------|-----------|--|----------|
| Tree Stratum (Plot size: 30 ft radius ) 1. NA        | % Cover  | Species?     | Status    | Number of Dominant Species That Are OBL, FACW, or FAC: 2 (       | A)       |
| 2  |          |              |           | Total Number of Dominant Species Across All Strata: 2 (6         | В)       |
| 4  |          |              |           |  | -,       |
| 5  |          |              |           | Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (    | A/B)     |
| 6  |          | = Total Cov  |           | Prevalence Index worksheet:                                      |          |
|  |          |              |           | Total % Cover of: Multiply by:                                   |          |
| 50% of total cover:                                  | 20% of   | total cover: |           | OBL species 100 x 1 = 100  |          |
| Sapling Stratum (Plot size: 15 ft radius             |          |              |           | FACW species $15$ x 2 = $30$                                     |          |
| 1. NA  |          |              |           | FAC species 60 x 3 = 180   |          |
| 2  |          |              |           | FACU species $0 \times 4 = 0$                                    |          |
| 3  |          |              |           |  |          |
| 4  |          |              |           |  | <i>-</i> |
| 5  |          |              |           | Column Totals: <u>175</u> (A) <u>310</u>                         | (B)      |
| 6  |          |              |           | Prevalence Index = B/A = 1.77                                    |          |
|  |          | = Total Cov  | er        | Hydrophytic Vegetation Indicators:                               |          |
| 50% of total cover:                                  | 20% of   | total cover: |           | 1 - Rapid Test for Hydrophytic Vegetation                        |          |
| Shrub Stratum (Plot size: 15 ft radius               |          | •            |           | 2 - Dominance Test is >50%                                       |          |
| 1. NA  |          |              |           | 3 - Prevalence Index is ≤3.0 <sup>1</sup>                        |          |
| 2  |          |              |           | 4 - Morphological Adaptations (Provide suppo                     | rting    |
|  |          |              |           | data in Remarks or on a separate sheet)                          | 3        |
| 3  |          |              |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)        |          |
| 4  |          |              |           |  |          |
| 5  |          |              |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology mu: | st       |
| 6  |          |              |           | be present, unless disturbed or problematic.                     |          |
|  |          | = Total Cov  |           | Definitions of Five Vegetation Strata:                           |          |
| 50% of total cover:                                  | 20% of   | total cover: |           | Tree – Woody plants, excluding woody vines,                      |          |
| Herb Stratum (Plot size: 10 ft radius                |          |              |           | approximately 20 ft (6 m) or more in height and 3 in             | 1.       |
| <sub>1.</sub> Persicaria sagittatum                  | 50       | <u>Y</u>     | OBL       | (7.6 cm) or larger in diameter at breast height (DBH             | l).      |
| 2. Microstegium vimineum                             | 60       | <u>Y</u>     | FAC       | Sapling – Woody plants, excluding woody vines,                   |          |
| 3. Glyceria striata                                  | 45       | <u>Y</u>     | OBL       | approximately 20 ft (6 m) or more in height and less             | 5        |
| 4. Impatiens capensis                                | 15       |              | FACW      | than 3 in. (7.6 cm) DBH.   |          |
| <sub>5.</sub> Lycopus americanus                     | 5        |              | OBL       | Shrub – Woody plants, excluding woody vines,                     |          |
| 6.   |          |              |           | approximately 3 to 20 ft (1 to 6 m) in height.                   |          |
| 7  |          |              |           | Herb – All herbaceous (non-woody) plants, includir               | na       |
|  |          |              |           | herbaceous vines, regardless of size, and woody                  | ig       |
| 8  |          |              |           | plants, except woody vines, less than approximatel               | y 3      |
| 9  |          |              |           | ft (1 m) in height.  |          |
| 10   |          |              |           | Woody vine – All woody vines, regardless of heigh                | ıt.      |
| 11   | 475      |              |           | <b>,</b> , , , , , , , , , , , , , , , , , ,                     |          |
|  | 175      | = Total Cov  | er        |  |          |
| 50% of total cover: <u>87.5</u>                      | 20% of   | total cover: | 35        |  |          |
| Woody Vine Stratum (Plot size: 30 ft radius )  1. NA |          |              |           |  |          |
|  |          |              |           |  |          |
| 2  |          |              |           |  |          |
| 3  |          |              |           |  |          |
|  |          |              |           |  |          |
| 4  |          |              |           |  |          |
| 4  |          |              |           | Hydrophytic  |          |
| 4  |          | = Total Cov  | er        | Hydrophytic Vegetation   |          |
| 5  |          | = Total Cov  |           |  |          |
| 4  |          | = Total Cov  |           | Vegetation -   |          |

Sampling Point: wcuk010e\_w

| Profile Desc            | ription: (Describe       | to the de    | oth needed to docum           | nent the    | indicator           | or confirm       | the absence              | of indicators.)   |
|-------------------------|--------------------------|--------------|-------------------------------|-------------|---------------------|------------------|--------------------------|---|
| Depth                   | Matrix                   |              | Redo                          | x Feature   | es                  |                  |                          |   |
| (inches)                | Color (moist)            | %            | Color (moist)                 | %           | Type <sup>1</sup> _ | Loc <sup>2</sup> | <u>Texture</u>           | Remarks   |
| 0-6                     | 10YR 4/1                 | 65           | 5YR 4/6                       | 35          | <u>C</u>            | <u>PL</u>        | SCL                      | SCL - sandy clay loam; mica   |
| 6-10                    | 10YR 4/1                 | 85           | 5YR 4/6                       | 15          | С                   | PL               | SCL                      |   |
| 10-20                   | 2.5Y 3/1                 | 100          |                               |             |                     |                  | SL                       | SL - sandy loam   |
|                         | 2.01 0/1                 |              |                               |             |                     |                  |                          | <u></u>   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          | - ——         |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
| <sup>1</sup> Type: C=Co | ncentration D=Den        | letion RM    | =Reduced Matrix, MS           | S=Masker    | d Sand Gr           | ains             | <sup>2</sup> Location: P | L=Pore Lining, M=Matrix.  |
| Hydric Soil             |                          | iction, ixiv | I-Reduced Matrix, Mc          | J-Masket    | u Sanu On           | JII 13.          |                          | ators for Problematic Hydric Soils <sup>3</sup> :                           |
| Histosol                |                          |              | Dark Surface                  | (\$7)       |                     |                  |                          | cm Muck (A10) <b>(MLRA 147)</b>   |
|                         | oipedon (A2)             |              | Polyvalue Be                  |             | ace (S8) <b>(N</b>  | ILRA 147.        |                          | Coast Prairie Redox (A16)   |
| Black Hi                |                          |              | Thin Dark Su                  |             |                     |                  | ,                        | (MLRA 147, 148)   |
|                         | n Sulfide (A4)           |              | Loamy Gleye                   |             |                     | , ,              | <b>□</b> P               | iedmont Floodplain Soils (F19)  |
| ☐ Stratified            | l Layers (A5)            |              | ✓ Depleted Ma                 | trix (F3)   |                     |                  |                          | (MLRA 136, 147)   |
| _                       | ck (A10) (LRR N)         |              | Redox Dark                    | ,           | ,                   |                  |                          | ery Shallow Dark Surface (TF12)   |
|                         | d Below Dark Surfac      | e (A11)      | Depleted Dar                  |             |                     |                  | <b>□</b> c               | other (Explain in Remarks)  |
| =                       | ark Surface (A12)        |              | Redox Depre                   |             |                     |                  |                          |   |
|                         | lucky Mineral (S1) (I    | _RR N,       | Iron-Mangan                   |             | ses (F12) <b>(</b>  | LRR N,           |                          |   |
|                         | A 147, 148)              |              | MLRA 13                       |             | (1.11. D. 1.40      |                  | 3,                       |   |
|                         | leyed Matrix (S4)        |              | Umbric Surfa                  |             |                     |                  |                          | licators of hydrophytic vegetation and<br>etland hydrology must be present, |
|                         | edox (S5)<br>Matrix (S6) |              | ☐ Piedmont Flo ☐ Red Parent N |             |                     |                  |                          | less disturbed or problematic.  |
|                         | _ayer (if observed):     |              | Red Falelit is                | nateriai (i | Z1) (IVILK          | A 127, 147       | T un                     | iess disturbed of problematic.  |
| Type: be                |                          |              |                               |             |                     |                  |                          |   |
| j. <u> </u>             | ches): 20                |              |                               |             |                     |                  | Hydric Soil              | Present? Yes Vo No  |
|                         | nes). <u>20</u>          |              | <del></del>                   |             |                     |                  | Hydric Soil              | Present? Yes No No  |
| Remarks: H              | dric soils criteria      | a is met.    | At 20 inches dep              | oth. a be   | edrock la           | ver was          | encountere               | ed.   |
| •                       | ,                        |              | •                             | ,           |                     | •                |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |
|                         |                          |              |                               |             |                     |                  |                          |   |



Wetland data point wcuk010e\_w facing South



Wetland data point wcuk010e\_w facing West

| Project/Site: Dominion Southeast Reliability Project   | City/County: Cumb                     | perland                     | _ Sampling Date: 07/31/2014          |  |  |  |  |
|--|---------------------------------------|-----------------------------|--------------------------------------|--|--|--|--|
| Applicant/Owner: Dominion Transmission   |                                       |                             | Sampling Point: wcuk010_u            |  |  |  |  |
|  | Section, Township                     |                             |                                      |  |  |  |  |
| Landform (hillslope, terrace, etc.): Hillslope   | Local relief (concave,                | convex, none): none         | Slope (%):10-15                      |  |  |  |  |
| Subregion (LRR or MLRA): LRR P Lat:  | 37.330374852                          | Long: 78.324504719          | Datum: NAD 1983                      |  |  |  |  |
| Soil Map Unit Name: Wateree sandy loam, 15 to 25 pe  |                                       | NWI classif                 |                                      |  |  |  |  |
| Are climatic / hydrologic conditions on the site typical for   | or this time of year? Yes N           | lo (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? (              | lf needed, explain any answ | ers in Remarks.)                     |  |  |  |  |
| SUMMARY OF FINDINGS – Attach site m  | ap showing sampling poir              | nt locations, transect      | s, important features, etc.          |  |  |  |  |
| Hydrophytic Vegetation Present? Yes  | No_ ✓ In the Some                     | alad Assa                   |                                      |  |  |  |  |
|  | - No ✓ Is the Sam<br>within a We      | oled Area<br>otland? Yes    | No <u> </u>                          |  |  |  |  |
|  | _ No✓                                 |                             |                                      |  |  |  |  |
| Remarks:   |                                       |                             |                                      |  |  |  |  |
| Photos 104-4704 to 4708 Soils, N, S, E, W (J. Sweitze Upland point established on a hillslope. This site was not met. Area is not a wetland. | •                                     | r pond was created by impo  | ounding a stream. All three criteria |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
| HYDROLOGY  |                                       |                             |                                      |  |  |  |  |
| Wetland Hydrology Indicators:  |                                       | Secondary Indic             | cators (minimum of two required)     |  |  |  |  |
| Primary Indicators (minimum of one is required; check  | k all that apply)                     | Surface So                  |                                      |  |  |  |  |
| Surface Water (A1)   |                                       |                             |                                      |  |  |  |  |
|  | Hydrogen Sulfide Odor (C1)            |                             | atterns (B10)                        |  |  |  |  |
| Saturation (A3)  | Oxidized Rhizospheres on Living F     | Roots (C3) Moss Trim        | Lines (B16)                          |  |  |  |  |
| Water Marks (B1)   | Presence of Reduced Iron (C4)         | Dry-Seasor                  | n Water Table (C2)                   |  |  |  |  |
| Sediment Deposits (B2)   | Recent Iron Reduction in Tilled So    | ils (C6) Crayfish Bu        | ırrows (C8)                          |  |  |  |  |
| Drift Deposits (B3)  | Thin Muck Surface (C7)                | Saturation \                | Visible on Aerial Imagery (C9)       |  |  |  |  |
| Algal Mat or Crust (B4)  | Other (Explain in Remarks)            | Stunted or                  | Stressed Plants (D1)                 |  |  |  |  |
| Iron Deposits (B5)   |                                       | Geomorphi                   | c Position (D2)                      |  |  |  |  |
| Inundation Visible on Aerial Imagery (B7)  |                                       | Shallow Aq                  | uitard (D3)                          |  |  |  |  |
| Water-Stained Leaves (B9)  |                                       | Microtopog                  | raphic Relief (D4)                   |  |  |  |  |
| Aquatic Fauna (B13)  |                                       | FAC-Neutra                  | al Test (D5)                         |  |  |  |  |
| Field Observations:  |                                       |                             |                                      |  |  |  |  |
| · ·  | Depth (inches):                       |                             |                                      |  |  |  |  |
|  | Depth (inches):                       |                             | ,                                    |  |  |  |  |
| Saturation Present? Yes No _▼  | Depth (inches):                       | Wetland Hydrology Prese     | ent? Yes No_ ✓                       |  |  |  |  |
| Describe Recorded Data (stream gauge, monitoring v   | vell, aerial photos, previous inspect | ions), if available:        |                                      |  |  |  |  |
| Remarks:   |                                       |                             |                                      |  |  |  |  |
| No indicators of wetland hydrology.  |                                       |                             |                                      |  |  |  |  |
| No indicators of wetland flydrology.   |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |
|  |                                       |                             |                                      |  |  |  |  |

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

| /EGETATION (Four Strata) – Use scientific n             | ames of       | plants.       |                | Sampling Point: wcuk010_u   |
|---|---------------|---------------|----------------|---|
| Tree Streture (Diet size) 30 ft R                       | Absolute      | Dominant I    |                | Dominance Test worksheet:   |
| Tree Stratum (Plot size:)  1. Quercus rubra             | % Cover<br>40 | Species? Y    | Status<br>FACU | Number of Dominant Species That Are OBL FACW or FAC: 1 (A)        |
| 1. Quercus rubra<br>2. Fagus grandifolia                | 40            | <u> </u>      | FACU           | That Are OBL, FACW, or FAC: (A)                                   |
|   |               |               |                | Total Number of Dominant  |
| 3. Liriodendron tulipifera                              | 10            | N             | FACU           | Species Across All Strata: 3 (B)                                  |
| 4. Juniperus virginiana                                 | 10            | <u>N</u>      | FACU           | Percent of Dominant Species                                       |
| 5. Fraxinus pennsylvanica                               | 10            | N             | FACW           | That Are OBL, FACW, or FAC:33 (A/B)                               |
| 6. Juglans Nigra  | 10            | N             | FACU           |   |
| 7 <sub>.</sub> Liquidambar styraciflua                  | 10            | N             | FAC_           | Prevalence Index worksheet:                                       |
|   | 130           | = Total Cove  | r              | Total % Cover of: Multiply by:                                    |
| 50% of total cover: 65                                  | 20% of        | total cover:_ | 26             | OBL species x 1 =   |
| Sapling/Shrub Stratum (Plot size: 15 ft R )             |               |               |                | FACW species x 2 =  |
| 1. <u>NA</u>  | NA            | NA_           | NA             | FAC species x 3 =   |
| 2   |               |               |                | FACU species x 4 =  |
| 3   |               |               |                | UPL species x 5 =   |
| 4.  |               |               |                | Column Totals: (A) (B)  |
| 5   |               |               |                | 5   |
| 3   |               |               |                | Prevalence Index = B/A =  |
| 7   |               |               |                | Hydrophytic Vegetation Indicators:                                |
| B   |               |               |                | 1 - Rapid Test for Hydrophytic Vegetation                         |
| 9.  |               |               |                | 2 - Dominance Test is >50%  |
| J   |               | = Total Cove  |                | 3 - Prevalence Index is ≤3.0 <sup>1</sup>                         |
| 50% of total cover:                                     |               |               |                | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting    |
| Herb Stratum (Plot size: 5 FT R )                       | 20 /0 01      | total cover   |                | data in Remarks or on a separate sheet)                           |
| 1 Microstegium vimineum                                 | 80            | Υ             | FAC            | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         |
| 1<br>2 <sub>.</sub> Persicaria maculosa                 | 10            | N             | FACW           |   |
| 3. Boehmeria cylindrica                                 | 10            |               | FACW           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must |
| 3. Acer negundo   | 5             | N             | FACW           | be present, unless disturbed or problematic.                      |
| 4. Acer negunuo   |               |               | TACVV          | Definitions of Four Vegetation Strata:                            |
| 5   |               |               |                | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or           |
| 6   |               |               |                | more in diameter at breast height (DBH), regardless of            |
| 7   |               |               |                | height.   |
| 8   |               |               |                | Sapling/Shrub – Woody plants, excluding vines, less               |
| 9   |               |               |                | than 3 in. DBH and greater than or equal to 3.28 ft (1            |
| 10  |               |               |                | m) tall.  |
| 11  |               |               |                | Herb – All herbaceous (non-woody) plants, regardless              |
|   | 105           | = Total Cove  | r              | of size, and woody plants less than 3.28 ft tall.                 |
| 50% of total cover: 53                                  | 20% of        | total cover:_ | 21             | Weeds sine All weeds since greater than 2.29 ft in                |
| Woody Vine Stratum (Plot size:30 Ft R)                  |               |               |                | Woody vine – All woody vines greater than 3.28 ft in height.      |
| 1Toxicodendron radicans                                 | 2             | Y             | FAC            | g.m.  |
| 2.  |               |               |                |   |
| 3.  |               |               |                |   |
| 4   |               |               |                |   |
| 5.  | -             |               |                | Hydrophytic Vegetation  |
| J   |               | = Total Cove  |                | Present? Yes No   |
| 50% of total cover: 1                                   |               | total cover:_ |                |   |
|   |               | total cover   |                |   |
| Remarks: (Include photo numbers here or on a separate s | neet.)        |               |                |   |
| Vegetation fails dominance test.                        |               |               |                |   |
|   |               |               |                |   |
|   |               |               |                |   |
|   |               |               |                |   |
|   |               |               |                |   |
|   |               |               |                |   |
|   |               |               |                |   |

Sampling Point: wcuk010\_u

| Profile Desc  | ription: (Describe t           | o the dep | th needed to docur  | nent the i | ndicator           | or confirm       | the absence of indicators.)                            |
|---------------|--------------------------------|-----------|---------------------|------------|--------------------|------------------|--|
| Depth         | Matrix                         |           | Redo                | x Feature: | S                  |                  |  |
| (inches)      | Color (moist)                  | <u>%</u>  | Color (moist)       | %          | _Type <sup>1</sup> | Loc <sup>2</sup> | Texture Remarks  |
| 0-14          | 7.5YR 3/4                      | 100       | NA                  | NA         | NA                 | NA               | sandy clay loam w/ gravel                              |
| 14-18         | 5YR 3/4                        | 100       | NA                  | NA NA      | NA                 | NA NA            | sandy clay loam w/ gravel                              |
|               |                                |           |                     |            |                    |                  | Sandy Slay ISan Wy graver                              |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
| 1             |                                |           |                     |            |                    |                  |  |
|               | ncentration, D=Deple           | etion, RM | =Reduced Matrix, MS | S=Masked   | Sand Gra           | ains.            | <sup>2</sup> Location: PL=Pore Lining, M=Matrix.       |
| Hydric Soil I | ndicators:                     |           |                     |            |                    |                  | Indicators for Problematic Hydric Soils <sup>3</sup> : |
| Histosol      | (A1)                           |           | Dark Surface        |            |                    |                  | 2 cm Muck (A10) (MLRA 147)                             |
| Histic Ep     | ipedon (A2)                    |           | Polyvalue Be        | low Surfa  | ce (S8) <b>(N</b>  | ILRA 147,        | 148) Coast Prairie Redox (A16)                         |
| Black Hi      | stic (A3)                      |           | Thin Dark Su        | rface (S9) | (MLRA 1            | 47, 148)         | (MLRA 147, 148)  |
| Hydroge       | n Sulfide (A4)                 |           | Loamy Gleye         | d Matrix ( | F2)                |                  | Piedmont Floodplain Soils (F19)                        |
| Stratified    | Layers (A5)                    |           | Depleted Mat        | trix (F3)  |                    |                  | (MLRA 136, 147)  |
| 2 cm Mu       | ck (A10) (LRR N)               |           | Redox Dark S        | Surface (F | 6)                 |                  | Very Shallow Dark Surface (TF12)                       |
| Depleted      | l Below Dark Surface           | (A11)     | Depleted Dar        | k Surface  | (F7)               |                  | Other (Explain in Remarks)                             |
| Thick Da      | rk Surface (A12)               |           | Redox Depre         | ssions (F  | 8)                 |                  |  |
| Sandy M       | lucky Mineral (S1) <b>(L</b> l | RR N,     | Iron-Mangan         | ese Mass   | es (F12) (         | LRR N,           |  |
| MLRA          | 147, 148)                      |           | MLRA 13             | 6)         |                    |                  |  |
|               | leyed Matrix (S4)              |           | Umbric Surfa        |            | MLRA 13            | 6, 122)          | <sup>3</sup> Indicators of hydrophytic vegetation and  |
|               | edox (S5)                      |           | Piedmont Flo        |            |                    |                  |  |
|               | Matrix (S6)                    |           | Red Parent N        |            |                    |                  |  |
|               | ayer (if observed):            |           |                     |            |                    |                  |  |
| Type: NA      |                                |           |                     |            |                    |                  |  |
| Depth (inc    |                                |           |                     |            |                    |                  | Hydric Soil Present? Yes No _ ✓                        |
|               |                                |           |                     |            |                    |                  | Tryunc don't resent: Tes No                            |
| Remarks:      |                                |           |                     |            |                    |                  |  |
| No indicators | of hydric soils observ         | ed due to | high chroma matrix  | to 20".    |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |
|               |                                |           |                     |            |                    |                  |  |



Upland data point wcuk010\_u facing North



Upland data point wcuk010\_u facing South



Wetland data point wcuk010e\_w soil sample



Upland data point wcuk010\_u soil sample

| Project/Site: Southeast Reliability Project                                    | City/County: NA/Cumberland Sampling Date: 07/31/14  |
|--|---|
| Applicant/Owner: Dominion Transmission   | State: VA Sampling Point: wcuk009f_w  |
| Investigator(s): W. Medlin, J. Sweitzer, J. Dean                               | Section, Township, Range: NA  |
| •  | ocal relief (concave, convex, none): <u>concave</u> Slope (%): <u>0-2</u>   |
| Subregion (LRR or MLRA): LRR P Lat: 37.3309818                                 | 862 Long: -78.324017295 Datum: NAD 1983   |
| Soil Map Unit Name: Chewacla and Monacan soils, 0 to 2 pe                      |   |
| Are climatic / hydrologic conditions on the site typical for this time of year |   |
|  | y disturbed? Are "Normal Circumstances" present? Yes  No  |
| Are Vegetation Soil , or Hydrology naturally pr                                | roblematic? (If needed, explain any answers in Remarks.)  |
| SLIMMARY OF FINDINGS – Attach site man showing                                 | g sampling point locations, transects, important features, etc.   |
| Sommart of Thebres - Attach site map showing                                   | g sampling point locations, transcets, important reatures, etc.   |
| Hydrophytic Vegetation Present? Yes No No                                      | - Is the Sampled Area   |
| Hydric Soil Present? Yes ✓ No No   | within a Wetland? Yes No  |
| Wetland Hydrology Present? Yes ✓ No  |   |
| Remarks:   |   |
|  | small streams flowing through it and seasonal saturation/flooding and is abrupt. All three criteria are met. Area is a wetland. |
| Tior long duration. The boundary with the adjacent uplan                       | u is abrupt. All tiffee criteria are met. Area is a wetland.  |
| *Photos 100-0371 to 0375 (WLM camera)  |   |
| HYDROLOGY  |   |
| Wetland Hydrology Indicators:  | Secondary Indicators (minimum of two required)  |
| Primary Indicators (minimum of one is required; check all that apply)          | <b>—</b> • • • • • • • • • • • • • • • • • • •  |
| Surface Water (A1)   |   |
| High Water Table (A2)  Hydrogen Sulfi  | <u> </u>  |
|  | ospheres on Living Roots (C3) Moss Trim Lines (B16)   |
| 1 <del></del>  | 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)  | face (C7) Saturation Visible on Aerial Imagery (C9)   |
| Algal Mat or Crust (B4)  | in Remarks)   |
| Iron Deposits (B5)   | Geomorphic Position (D2)  |
| Inundation Visible on Aerial Imagery (B7)                                      | Shallow Aquitard (D3)   |
| Water-Stained Leaves (B9)  | 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                                      |   |
| Saturation Present? Yes No Depth (inches (includes capillary fringe)           | S): Wetland Hydrology Present? Yes No   |
| Describe Recorded Data (stream gauge, monitoring well, aerial photo            | os, previous inspections), if available:  |
| NA   |   |
| Remarks:   |   |
| Hydrology criteria is met.   |   |
|  |   |
|  |   |
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| 20 ft madius   | Absolute          | Dominant                          |  | Dominance Test worksheet:   |
|--|-------------------|-----------------------------------|--|---|
| Tree Stratum (Plot size: 30 ft radius  |                   | Species?                          | Status   | Number of Dominant Species  |
| 1. Liquidambar styraciflua   | 40                | Y                                 | FAC  | That Are OBL, FACW, or FAC: 8 (A)   |
| 2. Fraxinus pennsylvanica  | 60                | <u>Y</u>                          | FACW   | Total Number of Dominant  |
| 3. Ulmus americana   | 30                | <u>Y</u>                          | FACW   | Species Across All Strata: 9 (B)  |
| 4. Liriodendron tulipifera   | 15                |                                   | FACU   | Based of Basicant Consider  |
| 5  |                   |                                   |  | Percent of Dominant Species That Are OBL, FACW, or FAC: 89 (A/B)  |
| 6.   |                   |                                   |  | That the GBE, The W, of the   |
|  | 145               | = Total Cov                       | <u></u>  | Prevalence Index worksheet:   |
| 50% of total cover: <u>72.5</u>  |                   |                                   |  | Total % Cover of: Multiply by:  |
|  | 20% 01            | total cover:                      |  | OBL species 0 x 1 = 0   |
| Sapling Stratum (Plot size: 15 ft radius 1. Acer negundo   | 40                | V                                 | FAC  | FACW species 110 x 2 = 220  |
|  |                   | <u>Y</u>                          |  | FAC species 235 x 3 = 705   |
| 2  |                   |                                   |  | FACU species 45 x 4 = 180   |
| 3  |                   |                                   |  | UPL species $0 	 x 5 = 0$   |
| 4  |                   |                                   |  | Column Totals: 390 (A) 1105 (B)   |
| 5  |                   |                                   |  |   |
| 6  |                   |                                   |  | Prevalence Index = B/A = 2.83   |
|  | 40                | = Total Cov                       | er   | Hydrophytic Vegetation Indicators:  |
| 50% of total cover: <u>20</u>  | 20% of            | total cover:                      | 8  | 1 - Rapid Test for Hydrophytic Vegetation   |
| Shrub Stratum (Plot size: 15 ft radius   | 2070 01           | total cover.                      |  | 2 - Dominance Test is >50%  |
| 1 Acer negundo   | 30                | Υ                                 | FAC  | 3 - Prevalence Index is ≤3.0 <sup>1</sup>   |
| 2 Lindera benzoin  | 30                | Y                                 | FAC  | 4 - Morphological Adaptations (Provide supporting   |
| 3. Ilex decidua  | 15                | <u> </u>                          | FACW   | data in Remarks or on a separate sheet)   |
|  | 15                |                                   | FAC  | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 4. Carpinus caroliniana  |                   |                                   | FAC  |   |
| 5  |                   |                                   |  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 6  |                   |                                   |  | be present, unless disturbed or problematic.  |
|  | 90                | = Total Cov                       | er   | Definitions of Five Vegetation Strata:  |
|  |                   |                                   |  | Definitions of Five vegetation strata.  |
| 50% of total cover: 45   | 20% of            | total cover:                      |  | _   |
| 50% of total cover: 45  Herb Stratum (Plot size: 10 ft radius )  | 20% of            | total cover:                      |  | Tree – Woody plants, excluding woody vines,   |
| Herb Stratum (Plot size: 10 ft radius  |                   |                                   |  | _   |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  | 50                | total cover:                      | 18<br>FAC  | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana                             | 50<br>10          |                                   | FAC FACU   | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines,  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica    | 50                |                                   | 18<br>FAC  | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana                             | 50<br>10          |                                   | FAC FACU   | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50<br>10          |                                   | FAC FACU   | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines,  |
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| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50 10 5           |                                   | FAC FACU   | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50 10 5           |                                   | FACUFACW   | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50<br>10<br>5     | Y                                 | FACUFACW   | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50<br>10<br>5     | Y                                 | FACUFACW   | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50<br>10<br>5<br> | Y                                 | FAC FACU FACW                                      | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50<br>10<br>5<br> | Y                                 | FAC FACU FACW FACW FACW FACW FAC FAC               | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50<br>10<br>5<br> | Y                                 | FAC FACU FACW                                      | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
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| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50<br>10<br>5<br> | Y                                 | FAC FACU FACW FACW FACW FACW FAC FAC               | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
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| Herb Stratum (Plot size: 10 ft radius )  1. Microstegium vimineum  2. Anemone virginiana  3. Boehmeria cylindrica  4 | 50<br>10<br>5<br> | = Total Cover:  Y Y  Total Cover: | FAC FACU FACW ———————————————————————————————————— | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine – All woody vines, regardless of height. |
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Sampling Point: wcuk009f\_w

SOIL

| Profile Desc            | cription: (Describe                              | to the dep  | th needed to docun       | nent the i | ndicator                 | or confirm       | the absence of            | of indicators.)                                 |
|-------------------------|--|-------------|--------------------------|------------|--------------------------|------------------|---------------------------|---|
| Depth                   | Matrix   |             | Redox                    | k Feature  | S                        |                  |                           |   |
| (inches)                | Color (moist)                                    | %           | Color (moist)            | <u>%</u>   | <u>Type</u> <sup>1</sup> | Loc <sup>2</sup> | Texture                   | Remarks   |
| 0-12                    | 10YR 4/2   | 60          | 7.5YR 4/6                | 40         | С                        | PL               | silty clay                |   |
| 12-20                   | 7.5YR 5/2  | 70          | 5YR 4/6                  | 30         | С                        | PL               | silty clay                |   |
|                         |  |             |                          |            |                          |                  |                           |   |
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|                         |  |             |                          |            |                          |                  |                           |   |
| <sup>1</sup> Type: C=Co | oncentration, D=Dep                              | letion, RM: | =Reduced Matrix, MS      | =Masked    | I Sand Gra               | ains.            | <sup>2</sup> Location: PL | =Pore Lining, M=Matrix.                         |
| Hydric Soil I           |  |             | ,                        |            |                          | · · · ·          |                           | ors for Problematic Hydric Soils <sup>3</sup> : |
| Histosol                | (A1)   |             | ■ Dark Surface           | (S7)       |                          |                  | <b></b> 2 c               | cm Muck (A10) <b>(MLRA 147)</b>                 |
| =                       | pipedon (A2)                                     |             | Polyvalue Be             | low Surfa  | ce (S8) <b>(N</b>        | ILRA 147,        |                           | past Prairie Redox (A16)                        |
| Black Hi                | stic (A3)  |             | Thin Dark Su             | rface (S9) | (MLRA 1                  | 47, 148)         | _                         | (MLRA 147, 148)                                 |
|                         | en Sulfide (A4)                                  |             | Loamy Gleye              |            | F2)                      |                  | ☐ Pie                     | edmont Floodplain Soils (F19)                   |
|                         | d Layers (A5)                                    |             | ✓ Depleted Mat           |            |                          |                  |                           | (MLRA 136, 147)                                 |
|                         | ick (A10) (LRR N)                                | (0.4.4)     | Redox Dark S             |            |                          |                  |                           | ry Shallow Dark Surface (TF12)                  |
|                         | d Below Dark Surfac<br>ark Surface (A12)         | e (A11)     | Depleted Dar Redox Depre |            |                          |                  | Oti                       | her (Explain in Remarks)                        |
| _                       | fik Sunace (A12)<br>Iucky Mineral (S1) <b>(L</b> | DD N        | Iron-Mangane             |            |                          | DD N             |                           |   |
| -                       | 147, 148)  | -IXIX IN,   | MLRA 136                 |            | C3 (1 12) <b>(</b>       | LIXIX IN,        |                           |   |
|                         | Gleyed Matrix (S4)                               |             | Umbric Surfa             |            | (MLRA 13                 | 6. 122)          | <sup>3</sup> Indio        | cators of hydrophytic vegetation and            |
|                         | Redox (S5)                                       |             | Piedmont Flo             |            |                          |                  |                           | land hydrology must be present,                 |
|                         | Matrix (S6)                                      |             | Red Parent M             |            |                          |                  |                           | ess disturbed or problematic.                   |
|                         | Layer (if observed):                             |             |                          |            |                          |                  |                           |   |
| Type: NA                | 4  |             |                          |            |                          |                  |                           |   |
| Depth (inc              | ches): NA  |             |                          |            |                          |                  | Hydric Soil F             | Present? Yes 🔽 No 🔲                             |
| Remarks:                |  | . : 4       |                          |            |                          |                  |                           |   |
| н                       | ydric soils criteria                             | a is met.   |                          |            |                          |                  |                           |   |
|                         |  |             |                          |            |                          |                  |                           |   |
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|                         |  |             |                          |            |                          |                  |                           |   |
|                         |  |             |                          |            |                          |                  |                           |   |



Wetland data point wcuk009f\_w facing North



Wetland data point wcuk009f\_w facing East

| Project/Site: Dominion Southeast Reliability Project  | City/County: Cumberland          |                        | _ Sampling Date: 07/31/2014     |  |  |  |
|---|----------------------------------|------------------------|---------------------------------|--|--|--|
| Applicant/Owner: Dominion Transmission  |                                  | State: VA              | Sampling Point: wcuk009_u       |  |  |  |
| Investigator(s): J. Sweitzer, W. Medlin   | Section, Township, Range         | . <u>NA</u>            |                                 |  |  |  |
|   | Local relief (concave, convex,   | none): none            | Slope (%):_5-10                 |  |  |  |
| Subregion (LRR or MLRA): LRR P Lat: 37.33087  | 7956 Long: _ <sup>7</sup>        | 78.323958326           | Datum: NAD 1983                 |  |  |  |
| Soil Map Unit Name: Chewacla and Monacan soils, 0 to 2 percent                              | t slopes, frequently flooded     | NWI classifi           | cation: Upland                  |  |  |  |
| Are climatic / hydrologic conditions on the site typical for this time                      |                                  |                        |                                 |  |  |  |
| Are Vegetation, Soil, or Hydrology signific   | antly disturbed? Are "Nor        | mal Circumstances"     | present? Yes No                 |  |  |  |
| Are Vegetation, Soil, or Hydrology natural  | y problematic? (If neede         | ed, explain any answe  | ers in Remarks.)                |  |  |  |
| SUMMARY OF FINDINGS – Attach site map show  | ing sampling point loca          | ations, transects      | s, important features, etc.     |  |  |  |
| Hydrophytic Vegetation Present? Yes Nov   | ,                                |                        |                                 |  |  |  |
| Hydric Soil Present? Yes No▼  | Is the Sampled Are               |                        | No✓                             |  |  |  |
| Wetland Hydrology Present? Yes No ✓   | within a Wetland?                | res                    | NO                              |  |  |  |
| Remarks:  | <u> </u>                         |                        |                                 |  |  |  |
| Photos 104-4700 to 4703 Soils, N, S, E, W (J. Sweitzer Camera)                              |                                  |                        |                                 |  |  |  |
| ,   |                                  |                        |                                 |  |  |  |
| Upland point established on a hillslope leading to a floodplain/toe                         | -of-slope wetland.               |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
| HYDROLOGY   |                                  |                        |                                 |  |  |  |
| Wetland Hydrology Indicators:   |                                  | Secondary Indic        | ators (minimum of two required) |  |  |  |
| Primary Indicators (minimum of one is required; check all that ap                           | ply)                             | 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 F  | Rhizospheres on Living Roots (C  | 3) Moss Trim L         | ines (B16)                      |  |  |  |
| Water Marks (B1) Presence   | of Reduced Iron (C4)             | Dry-Season             | Water Table (C2)                |  |  |  |
| Sediment Deposits (B2) Recent Iro   | n Reduction in Tilled Soils (C6) | Crayfish Bu            | rrows (C8)                      |  |  |  |
| Drift Deposits (B3) Thin Muck   | Surface (C7)                     | Saturation V           | /isible on Aerial Imagery (C9)  |  |  |  |
| Algal Mat or Crust (B4) Other (Exp  | plain in Remarks)                | Stunted or S           | Stressed Plants (D1)            |  |  |  |
| Iron Deposits (B5)  |                                  | Geomorphic             | Position (D2)                   |  |  |  |
| Inundation Visible on Aerial Imagery (B7)   |                                  | Shallow Aqu            | , ,                             |  |  |  |
| Water-Stained Leaves (B9)   |                                  |                        | raphic Relief (D4)              |  |  |  |
| Aquatic Fauna (B13)   |                                  | FAC-Neutra             | I Test (D5)                     |  |  |  |
| Field Observations:   |                                  |                        |                                 |  |  |  |
| Surface Water Present? Yes No Depth (in   |                                  |                        |                                 |  |  |  |
| Water Table Present? Yes No ✓ Depth (in   |                                  |                        |                                 |  |  |  |
| Saturation Present? Yes No _✓ Depth (in   | ches): Wetlar                    | nd Hydrology Prese     | nt? Yes No✓                     |  |  |  |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial) | hotos previous inspections) if   | available <sup>.</sup> |                                 |  |  |  |
| NA  | motos, previous mopeodoris), m   | available.             |                                 |  |  |  |
| Remarks:  |                                  |                        |                                 |  |  |  |
| No indicators of wetland hydrology.   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
|   |                                  |                        |                                 |  |  |  |
| 1   |                                  |                        |                                 |  |  |  |

| Sampling Point, wcuk009 | ampling | Point: | wcuk009_ | _ι |
|-------------------------|---------|--------|----------|----|
|-------------------------|---------|--------|----------|----|

|   | Absolute | Dominant      | Indicator | Dominance Test worksheet:  |
|---|----------|---------------|-----------|--|
| Tree Stratum (Plot size:30 ft R)                        |          | Species?      | Status    |  |
| 1 Fagus grandifolia                                     | 70       |               | FACU      | Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)  |
| 2 Liriodendron tulipifera                               | 40       |               | FACU      | That Are OBE, I AOW, OF I AO.  |
| 3. Quercus rubra  | 20       |               | FACU      | Total Number of Dominant   |
|   |          |               |           | Species Across All Strata: (B)   |
| 4. Carya sp.  | 20       | N             | NI        | Develop of Deminant Charles  |
| 5   |          |               |           | Percent of Dominant Species That Are OBL, FACW, or FAC:  (A/B)   |
| 6   |          |               |           | That Aic OBE, I AOW, OI I AO.  |
|   |          |               |           | Prevalence Index worksheet:  |
| 7   | 120      |               |           | Total % Cover of: Multiply by:   |
|   |          | = Total Cove  |           | OBL species x 1 =  |
| 50% of total cover: 65                                  | 20% of   | total cover:_ | 26        |  |
| Sapling/Shrub Stratum (Plot size: 15 ft R )             |          |               |           | FACW species x 2 =   |
| 1. Asimina triloba                                      | 30       | Y             | FAC       | FAC species x 3 =  |
| 2. Fagus grandifolia                                    | 5        | N             | FACU      | FACU species x 4 =   |
| 3. Carpinus caroliniana                                 | 20       | N             | FACU      | UPL species x 5 =  |
|   |          |               |           |  |
| 4   |          |               |           | Column Totals: (A) (B)   |
| 5   |          |               |           | Prevalence Index = B/A =   |
| 6   |          |               |           | Hydrophytic Vegetation Indicators:   |
| 7   |          |               |           |  |
| 8   |          |               |           | 1 - Rapid Test for Hydrophytic Vegetation  |
|   |          |               |           | 2 - Dominance Test is >50%   |
| 9   |          |               |           | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| 20  |          | = Total Cove  |           | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 50% of total cover: 28                                  | 20% of   | total cover:_ |           | data in Remarks or on a separate sheet)  |
| Herb Stratum (Plot size: 5 FT R )                       |          |               |           | •  |
| 1. Polystichum acrostichoides                           | 10       | Y             | FACU      | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2 Amphicarpaea bracteata                                | 5        | Y             | FAC       |  |
|   |          |               |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must                                      |
| 3   |          |               |           | be present, unless disturbed or problematic.   |
| 4   |          |               |           | Definitions of Four Vegetation Strata:   |
| 5   |          |               |           |  |
| 6   |          |               |           | <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or   |
|   |          |               |           | more in diameter at breast height (DBH), regardless of height.   |
| 7   |          |               |           | neight.  |
| 8   |          |               |           | Sapling/Shrub – Woody plants, excluding vines, less  |
| 9   |          |               |           | than 3 in. DBH and greater than or equal to 3.28 ft (1   |
| 10  |          |               |           | m) tall.   |
| 11  |          |               |           | Herb All barbassaya (nan uyaadu) nlanta ragardlaas   |
|   | 15       | = Total Cove  |           | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 8                                   |          | total cover:  | 3         | or size, and woody plants loss than 6.25 it tall.  |
| 20 Ft D   | 20 /0 01 | total cover   |           | Woody vine - All woody vines greater than 3.28 ft in   |
| vvoody ville Stratum (i lot size)                       | _        | V             | E40       | height.  |
| 1. Lonicera japonica                                    | 5        | Y             | FAC       |  |
| 2. Smilax bona-nox                                      | 5        | Y             | FACU      |  |
| 3.  |          |               |           |  |
|   |          |               |           |  |
| -   |          |               |           | Hydrophytic  |
| j   |          |               |           | Vegetation<br>  Present? Yes No ✓  |
|   | 30       | = Total Cove  | _         | Present? Yes No  |
| 50% of total cover: 15                                  | 20% of   | total cover:_ | 6         |  |
| Remarks: (Include photo numbers here or on a separate s | heet.)   |               |           |  |
| Vegetation fails dominance test.                        | ,        |               |           |  |
| Vegetation fails dominarios test.                       |          |               |           |  |
|   |          |               |           |  |
|   |          |               |           |  |
|   |          |               |           |  |
|   |          |               |           |  |
|   |          |               |           |  |
|   |          |               |           |  |
|   |          |               |           |  |
| <b>.</b>  |          |               |           |  |

Sampling Point: wcuk009\_u

| Profile Des   | cription: (Describe t    | o the de  | oth needed to docur | nent the i  | ndicator          | or confirm       | the absence    | of indicators.)          |            |
|---------------|--------------------------|-----------|---------------------|-------------|-------------------|------------------|----------------|--------------------------|------------|
| Depth         | Matrix                   |           |                     | x Features  |                   |                  |                |                          |            |
| (inches)      | Color (moist)            | <u>%</u>  | Color (moist)       | · <u> </u>  | Type <sup>1</sup> | Loc <sup>2</sup> | <u>Texture</u> | Remark                   |            |
| 0-13          | 10YR 3/1                 | 50        | NA                  | NA<br>———   | NA                | NA_              | sandy Loam     | w/ gravel and organic    | C          |
| 0-13          | 10YR 5/6                 | 50        | NA                  | NA_         | NA                | NA               | sandy Loam     | w/ gravel                |            |
| 13-18         | 10YR 4/6                 | 70        | NA                  | NA_         | NA                | NA_              | sandy Loam     | w/ gravel                |            |
| 13-18         | 10YR 3/1                 | 30        | NA                  | NA_         | NA                | NA_              | sandy Loam     | w/ gravel and organic    | <u>c</u>   |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             | -                 |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               | oncentration, D=Depl     | etion, RM | =Reduced Matrix, MS | S=Masked    | Sand Gra          | ains.            |                | L=Pore Lining, M=Matr    |            |
| Hydric Soil   |                          |           | D 10 f              | (07)        |                   |                  |                | ators for Problematic    | -          |
| Histoso       |                          |           | Dark Surface        |             | (00) (8)          | U DA 447         |                | cm Muck (A10) (MLRA      | -          |
|               | pipedon (A2)             |           | Polyvalue Be        |             |                   |                  | 148) C         | oast Prairie Redox (A1   | 16)        |
|               | istic (A3)               |           | Thin Dark Su        |             |                   | 47, 148)         | П              | (MLRA 147, 148)          | -ile (Ε10) |
|               | en Sulfide (A4)          |           | Loamy Gleye         |             | F2)               |                  | _ P            | iedmont Floodplain So    | ills (F19) |
|               | d Layers (A5)            |           | Depleted Ma         |             | ·0\               |                  |                | (MLRA 136, 147)          | (TE40)     |
|               | uck (A10) <b>(LRR N)</b> | (444)     | Redox Dark          |             |                   |                  |                | ery Shallow Dark Surfa   |            |
|               | d Below Dark Surface     | e (A11)   | Depleted Dar        |             |                   |                  | _ 0            | ther (Explain in Rema    | rks)       |
| _             | ark Surface (A12)        |           | Redox Depre         |             |                   |                  |                |                          |            |
|               | Mucky Mineral (S1) (L    | RR N,     | Iron-Mangan         |             | es (F12) <b>(</b> | LRR N,           |                |                          |            |
|               | A 147, 148)              |           | MLRA 13             |             |                   |                  | 3              |                          |            |
|               | Gleyed Matrix (S4)       |           | Umbric Surfa        |             |                   |                  |                | icators of hydrophytic v |            |
|               | Redox (S5)               |           | Piedmont Flo        |             |                   |                  |                | tland hydrology must b   |            |
|               | d Matrix (S6)            |           | Red Parent N        | Material (F | 21) <b>(MLR</b>   | A 127, 147       | 7) unl         | less disturbed or proble | ematic.    |
|               | Layer (if observed):     |           |                     |             |                   |                  |                |                          |            |
| Type: N       | A NA                     |           |                     |             |                   |                  |                |                          | ,          |
| Depth (in     | iches): NA               |           |                     |             |                   |                  | Hydric Soil    | Present? Yes             | No         |
| Remarks:      |                          |           |                     |             |                   |                  |                |                          |            |
| No indicators | of hydric soils observ   | ed due to | high chroma matrix  | to 20".     |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |
|               |                          |           |                     |             |                   |                  |                |                          |            |



Upland data point wcuk009\_u facing West



Upland data point wcuk009\_u facing South



Wetland data point wcuk009f\_w soil sample



Upland data point wcuk009\_u soil sample

| Project/Site: Atlantic Coast Pipeline  |   | City/C  | ounty: Cumberland Cou                 | nty                   | Sampling Date: 9/28/2015       |  |  |
|--|---|---|---------------------------------------|-----------------------|--------------------------------|--|--|
| Applicant/Owner: DOMINION  |   | City/County: Cumberland County Sampling Date: 9/28/2015 State: VA Sampling Point: wcuc100 |                                       |                       |                                |  |  |
| Investigator(s): Team C Section, Township, Range: No PLSS in this area   |   |   |                                       |                       |                                |  |  |
| Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%):1   |   |   |                                       |                       |                                |  |  |
| Subregion (LRR or MLRA): P   |   | Long: -78.  | 31914515                              | Datum: WGS 1984       |                                |  |  |
| Subregion (LRR or MLRA): P Lat: 37.32687961 Long: -78.31914515 Datum: WGS 19 Soil Map Unit Name: Dogue fine sandy loam, 2 to 7 percent slopes, rarely flooded NWI classification: None |   |   |                                       |                       |                                |  |  |
| Are climatic / hydrologic conditions on tl   | ne site typical for th  | nis time of year? Y   | es No                                 | (If no, explain in Re | emarks.)                       |  |  |
| Are Vegetation, Soil, or   | Hydrology   | significantly disturl   | bed? Are "Normal                      | l Circumstances" p    | resent? Yes No                 |  |  |
| Are Vegetation, Soil, or   |   |   |                                       |                       |                                |  |  |
| SUMMARY OF FINDINGS – A  |   |   |                                       |                       |                                |  |  |
| Hydrophytic Vegetation Present?  | Yes _ 🗸   | No  |                                       |                       |                                |  |  |
| Hydric Soil Present?   | Yes   | No  | Is the Sampled Area within a Wetland? | Vos                   | No                             |  |  |
| Wetland Hydrology Present?   | Yes   | No  | within a Wetland:                     | 165                   | NO                             |  |  |
| LIVEROLOGY   |   |   |                                       |                       |                                |  |  |
| HYDROLOGY  |   |   |                                       |                       |                                |  |  |
| Wetland Hydrology Indicators:  | and the state of the state of   | Lith at an ab A   |                                       |                       | tors (minimum of two required) |  |  |
| Primary Indicators (minimum of one is  | •   |   | D4.4\                                 | Surface Soil          |                                |  |  |
| , ,  | Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface   |   |                                       |                       |                                |  |  |
| Saturation (A3)  | igh Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) aturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) |   |                                       |                       |                                |  |  |
| Water Marks (B1)   |   | esence of Reduced   |                                       | ·                     | Water Table (C2)               |  |  |
| Sediment Deposits (B2)   |   |   | n in Tilled Soils (C6)                | Crayfish Burr         |                                |  |  |
| Drift Deposits (B3)  |   | in Muck Surface (C  |                                       | · ·                   | sible on Aerial Imagery (C9)   |  |  |
| Algal Mat or Crust (B4)  | Oth   | her (Explain in Ren   | narks)                                | Stunted or St         | ressed Plants (D1)             |  |  |
| Iron Deposits (B5)   |   |   |                                       | Geomorphic            | Position (D2)                  |  |  |
| Inundation Visible on Aerial Image   | ery (B7)  |   |                                       | Shallow Aqui          |                                |  |  |
| Water-Stained Leaves (B9)  |   |   |                                       |                       | phic Relief (D4)               |  |  |
| Aquatic Fauna (B13)  |   |   |                                       | FAC-Neutral           | Test (D5)                      |  |  |
| Field Observations: Surface Water Present? Yes   | No V D  | epth (inches):  |                                       |                       |                                |  |  |
|  |   | epth (inches):<br>epth (inches):  |                                       |                       |                                |  |  |
|  |   | epth (inches):<br>epth (inches):  |                                       | lydrology Presen      | t? Yes No                      |  |  |
| (includes capillary fringe)  |   |   |                                       |                       | 11. 163 110                    |  |  |
| Describe Recorded Data (stream gaug  | je, monitoring well   | , aerial photos, pre  | vious inspections), if ava            | iilable:              |                                |  |  |
| Remarks:   |   |   |                                       |                       |                                |  |  |
| Nomano.  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |
|  |   |   |                                       |                       |                                |  |  |

#### **VEGETATION (Four Str**

|   | Absolute  | Dominant                            |                         | Dominance Test worksheet:   |
|---|---|-------------------------------------|-------------------------|---|
| ree Stratum (Plot size:)  | % Cover   | Species?                            | Status                  | Number of Dominant Species  |
|   |   |                                     |                         | That Are OBL, FACW, or FAC: 2 (A)   |
|   |   |                                     |                         | Total Number of Dominant  |
|   |   |                                     |                         | Species Across All Strata: 2 (B)  |
|   |   |                                     |                         | Percent of Dominant Species   |
|   |   |                                     |                         | That Are OBL, FACW, or FAC: 100 (A/B)   |
|   |   |                                     |                         |   |
|   |   |                                     |                         | Prevalence Index worksheet:   |
|   | 0   | = Total Cove                        | er                      | Total % Cover of: Multiply by:  |
| 50% of total cover:0  | 20% of  | total cover:                        | 0                       | OBL species 7 x 1 = 7   |
| apling/Shrub Stratum (Plot size:)   |   |                                     |                         | FACW species x 2 =  |
|   |   |                                     |                         | FAC species x 3 =   |
|   |   |                                     |                         | FACU species x 4 = 120  |
|   |   |                                     |                         | UPL species0 x 5 =0   |
|   |   |                                     |                         | Column Totals:(A)(B)  |
|   |   |                                     |                         | 2.00  |
|   |   |                                     |                         | Prevalence Index = B/A = 3.08   |
|   |   |                                     |                         | Hydrophytic Vegetation Indicators:  |
|   |   |                                     |                         | 1 - Rapid Test for Hydrophytic Vegetation   |
|   |   |                                     |                         | 2 - Dominance Test is >50%  |
|   | 0   | = Total Cove                        |                         | 3 - Prevalence Index is ≤3.0 <sup>1</sup>   |
| 50% of total cover:   |   | total cover:                        | 0                       | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting  |
| erb Stratum (Plot size: 5 )   | 2070 01   | total oover.                        |                         | data in Remarks or on a separate sheet)   |
| Echinochloa crus-galli  | 60  | Yes                                 | FAC                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| Setaria pumila  | 20  | Yes                                 | FAC                     |   |
|   | 15  | No                                  |                         |   |
| i ritolium pratense   |   | 110                                 | FACU                    | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
|   | · ———   |                                     | FACU                    | be present, unless disturbed or problematic.  |
| Trifolium hybridum  | 15  | No                                  | FACU                    |   |
| Trifolium hybridum<br>Persicaria hydropiper                               | 15  | No<br>No                            | FACU<br>OBL             | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  |
| Trifolium hybridum Persicaria hydropiper Rumex crispus                    | 15<br>7<br>5  | No<br>No<br>No                      | FACU<br>OBL<br>FAC      | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of  |
| Trifolium hybridum Persicaria hydropiper Rumex crispus Mentha arvensis    | 15  | No<br>No                            | FACU<br>OBL             | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or   |
| Trifolium hybridum Persicaria hydropiper Rumex crispus Mentha arvensis    | 15<br>7<br>5<br>5                                       | No<br>No<br>No                      | FACU<br>OBL<br>FAC      | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of  |
| Trifolium hybridum Persicaria hydropiper Rumex crispus Mentha arvensis    | 15<br>7<br>5<br>5                                       | No<br>No<br>No                      | FACU<br>OBL<br>FAC      | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1  |
| Trifolium hybridum Persicaria hydropiper Rumex crispus Mentha arvensis    | 15<br>7<br>5<br>5                                       | No<br>No<br>No                      | FACU<br>OBL<br>FAC      | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less   |
| Trifolium hybridum Persicaria hydropiper Rumex crispus Mentha arvensis    | 15<br>7<br>5<br>5                                       | No<br>No<br>No                      | FACU OBL FAC FACW       | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless   |
| Trifolium hybridum Persicaria hydropiper Rumex crispus Mentha arvensis    | 15<br>7<br>5<br>5                                       | No No No No Total Cove              | FACU OBL FAC FACW       | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.   |
| Trifolium hybridum  Persicaria hydropiper  Rumex crispus  Mentha arvensis | 15<br>7<br>5<br>5                                       | No No No No Total Cove              | FACU OBL FAC FACW       | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless   |
| Trifolium hybridum Persicaria hydropiper Rumex crispus Mentha arvensis    | 15<br>7<br>5<br>5<br>                                   | No No No No Total Covertotal cover: | FACU OBL FAC FACW  25.4 | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.   |
| Trifolium hybridum  Persicaria hydropiper  Rumex crispus  Mentha arvensis | 15<br>7<br>5<br>5<br>127<br>5 20% of                    | No No No No Total Covertotal cover: | FACU OBL FAC FACW  25.4 | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in         |
| Trifolium hybridum  Persicaria hydropiper  Rumex crispus  Mentha arvensis | 15<br>7<br>5<br>5<br>5<br>————————————————————————————— | No No No No Total Covertotal cover: | FACU OBL FAC FACW  25.4 | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in         |
| Trifolium hybridum  Persicaria hydropiper  Rumex crispus  Mentha arvensis | 15<br>7<br>5<br>5<br>                                   | No No No No Total Covertotal cover: | FACU OBL FAC FACW  25.4 | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in         |
| Trifolium hybridum  Persicaria hydropiper  Rumex crispus  Mentha arvensis | 15<br>7<br>5<br>5<br>                                   | No No No No Total Covertotal cover: | FACU OBL FAC FACW  25.4 | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height. |
| Persicaria hydropiper Rumex crispus Mentha arvensis  D                    | 15<br>7<br>5<br>5<br>5<br>————————————————————————————— | No No No No Total Covertotal cover: | FACU OBL FAC FACW  25.4 | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height. |
| Trifolium hybridum Persicaria hydropiper  Rumex crispus Mentha arvensis   | 15<br>7<br>5<br>5<br>5<br>127<br>5 20% of               | No No No No Total Covertotal cover: | FACU OBL FAC FACW  25.4 | be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height. |

| Depth           | Matrix   | 0/             |                           | x Features    | <del>.</del> - 1       | . 2              | <b>-</b> .               | Б   |
|-----------------|--|----------------|---------------------------|---------------|------------------------|------------------|--------------------------|---|
| (inches)<br>0-8 | Color (moist)<br>10 YR 3/1                         | <u>%</u><br>95 | Color (moist)<br>5 YR 3/4 | <u>%</u><br>5 | Type <sup>1</sup><br>C | Loc <sup>2</sup> | Texture<br>SCL           | Remarks   |
|                 | •  |                |                           |               |                        |                  |                          |   |
| 8-18            | 10 YR 5/1  | 98             | 10 YR 4/6                 | 2             | С                      | PL/M             | SL                       |   |
|                 |  |                |                           |               |                        |                  |                          |   |
|                 |  | _              |                           |               |                        |                  |                          |   |
|                 |  | -              |                           |               |                        |                  |                          |   |
|                 |  | _              |                           |               |                        |                  |                          |   |
|                 |  | _              |                           |               |                        |                  |                          |   |
|                 |  |                |                           |               |                        |                  |                          |   |
|                 |  | _              |                           |               |                        |                  |                          |   |
|                 |  | -              |                           |               |                        |                  |                          | -   |
|                 |  | _              |                           |               |                        |                  |                          |   |
|                 |  |                |                           |               |                        |                  |                          |   |
| ype: C=C        | oncentration, D=Dep                                | letion, RN     | I=Reduced Matrix, M       | S=Masked      | Sand Gra               | ains.            | <sup>2</sup> Location: P | PL=Pore Lining, M=Matrix.                         |
|                 | Indicators:  |                | ·                         |               |                        |                  | Indic                    | ators for Problematic Hydric Soils <sup>3</sup> : |
| _ Histosol      | (A1)   |                | Dark Surface              | e (S7)        |                        |                  | 2                        | 2 cm Muck (A10) (MLRA 147)                        |
| _ Histic Ep     | oipedon (A2)                                       |                | Polyvalue Be              | elow Surfac   | e (S8) <b>(N</b>       | ILRA 147,        | 148) (                   | Coast Prairie Redox (A16)                         |
| _ Black Hi      | stic (A3)  |                | Thin Dark S               | urface (S9)   | (MLRA 1                | 47, 148)         |                          | (MLRA 147, 148)                                   |
|                 | en Sulfide (A4)                                    |                | Loamy Gley                |               | <sup>-</sup> 2)        |                  | F                        | Piedmont Floodplain Soils (F19)                   |
|                 | d Layers (A5)                                      |                | ✓ Depleted Ma             | , ,           |                        |                  |                          | (MLRA 136, 147)                                   |
|                 | uck (A10) (LRR N)                                  |                | ✓ Redox Dark              | •             | •                      |                  |                          | /ery Shallow Dark Surface (TF12)                  |
|                 | d Below Dark Surfac                                | e (A11)        | Depleted Da               |               |                        |                  | _ (                      | Other (Explain in Remarks)                        |
|                 | ark Surface (A12)                                  | I DD N         | Redox Depr                |               |                        | DD N             |                          |   |
|                 | Mucky Mineral (S1) <b>(I</b><br><b>A 147, 148)</b> | LKK N,         | Iron-Mangar<br>MLRA 13    |               | s (F12) (              | LKK N,           |                          |   |
|                 | Gleyed Matrix (S4)                                 |                | Umbric Surfa              | •             | MIRA 13                | 6 122)           | <sup>3</sup> Inc         | dicators of hydrophytic vegetation and            |
|                 | Redox (S5)   |                | Piedmont Fl               |               |                        |                  |                          | etland hydrology must be present,                 |
|                 | Matrix (S6)  |                | Red Parent                |               |                        |                  |                          | nless disturbed or problematic.                   |
|                 | Layer (if observed):                               |                |                           | (, -          | ., (                   |                  | ,                        |   |
| Type:           | ,  |                |                           |               |                        |                  |                          |   |
|                 |  |                |                           |               |                        |                  | Hydric Soi               | l Present? Yes No                                 |
|                 | ches):   |                |                           |               |                        |                  | ,                        |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
|                 | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |
| Depth (inc      | ches):   |                |                           |               |                        |                  |                          |   |



Photo 1
Wetland data point WCUC100e\_w facing northeast



Photo 2
Wetland data point WCUC100e\_w facing southwest

| Project/Site: Atlantic Coast Pipeline  |  | City/County: C  | umberland County          | у                              | Sampling Date: 9/28/2015      |  |  |
|--|--|---|---------------------------|--------------------------------|-------------------------------|--|--|
| Applicant/Owner: DOMINION  |  | City/County: Cumberland County Sampling Date: 9/28/2015 State: VA Sampling Point: wcuc100 |                           |                                |                               |  |  |
|  | Investigator(s): Team C Section, Township, Range: No PLSS in this area |   |                           |                                |                               |  |  |
| Landform (hillslope, terrace, etc.): slight rise Local relief (concave, convex, none): none Slope (%): 6   |  |   |                           |                                |                               |  |  |
| Subregion (LRR or MLRA):   |  |   |                           |                                |                               |  |  |
| Subregion (LRR or MLRA): P Lat: 37.32703587 Long: -78.31905334 Datum: WGS 19.  Soil Map Unit Name: Dogue fine sandy loam, 2 to 7 percent slopes, rarely flooded NWI classification: None |  |   |                           |                                |                               |  |  |
| Are climatic / hydrologic conditions on the  | site typical for this tin  | ne of year? Yes   | No (If                    | no, explain in Re              | marks.)                       |  |  |
| Are Vegetation, Soil, or Hy  | drology signi  | ficantly disturbed?   | Are "Normal C             | ircumstances" pr               | esent? Yes V No               |  |  |
| Are Vegetation, Soil, or Hy  |  |   |                           |                                |                               |  |  |
| SUMMARY OF FINDINGS – Atta   |  |   |                           | -                              |                               |  |  |
| Hydrophytic Vegetation Present?  | Yes <u>✓</u> No_   |   |                           |                                |                               |  |  |
| Hydric Soil Present?   | Yes No   | 15 tile 3   | ampled Area<br>a Wetland? | Vos                            | No                            |  |  |
| Wetland Hydrology Present?   | Yes No   |   | a welland?                | 1es                            | _ NO                          |  |  |
|  |  |   |                           |                                |                               |  |  |
| HYDROLOGY  |  |   |                           |                                |                               |  |  |
| Wetland Hydrology Indicators:  |  |   | <u>s</u>                  | econdary Indicate              | ors (minimum of two required) |  |  |
| Primary Indicators (minimum of one is re   | quired; check all that   | apply)  |                           | _ Surface Soil C               |                               |  |  |
| Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surf   |  |   |                           |                                |                               |  |  |
| High Water Table (A2)  |  |   |                           |                                |                               |  |  |
| Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)   |  |   |                           |                                |                               |  |  |
| <pre> Water Marks (B1) Sediment Deposits (B2)</pre>  |  | ce of Reduced Iron (C4<br>Iron Reduction in Tilled  |                           | Dry-Season w<br>Crayfish Burro | /ater Table (C2)              |  |  |
| Orift Deposits (B3)  |  | iron Reduction in Tillectick Surface (C7)   |                           | -                              | ible on Aerial Imagery (C9)   |  |  |
| Algal Mat or Crust (B4)  |  | Explain in Remarks)   | <del>-</del>              |                                | essed Plants (D1)             |  |  |
| Iron Deposits (B5)   | (-   |   |                           | Geomorphic F                   |                               |  |  |
| Inundation Visible on Aerial Imagery   | (B7)   |   |                           | <br>Shallow Aquita             | ` '                           |  |  |
| Water-Stained Leaves (B9)  |  |   |                           | Microtopograp                  | phic Relief (D4)              |  |  |
| Aquatic Fauna (B13)  |  |   | <u>-</u>                  | _ FAC-Neutral T                | est (D5)                      |  |  |
| Field Observations:  |  |   |                           |                                |                               |  |  |
|  | No Depth   |   |                           |                                |                               |  |  |
|  | No Depth   |   |                           |                                |                               |  |  |
| (includes capillary fringe)  | No V Depth   |   | ,                         | drology Present                | ? Yes No                      |  |  |
| Describe Recorded Data (stream gauge, No hydrologic indicators present   | monitoring well, aeria   | al photos, previous insp  | pections), if availa      | ıble:                          |                               |  |  |
| Remarks:   |  |   |                           |                                |                               |  |  |
| Tromano.   |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |
|  |  |   |                           |                                |                               |  |  |

| Sampling | Point: wcuc100_u |
|----------|------------------|
| Sambling | Point: wede 100_ |

| 00  | Absolute | Dominant Ir   | ndicator      | Dominance Test worksheet:  |
|---|----------|---------------|---------------|--|
| Tree Stratum (Plot size:)                               | % Cover  | Species?      | <u>Status</u> | Number of Dominant Species   |
| 1   |          |               |               | That Are OBL, FACW, or FAC:1 (A)   |
| 2   |          |               |               | Total Number of Deminant   |
| 3   |          |               |               | Total Number of Dominant Species Across All Strata:  1 (B)   |
| 4   |          |               |               | Openies / toross / tir etrata.   |
|   |          |               |               | Percent of Dominant Species  |
| 5   |          |               |               | That Are OBL, FACW, or FAC:100 (A/B)   |
| 6   |          |               |               | Prevalence Index worksheet:  |
| 7   |          |               |               |  |
|   |          | = Total Cover |               | Total % Cover of: Multiply by:  OBL species 0 x 1 = 0  |
|   | 20% of   | total cover:  | 0             | ODL species  |
| Sapling/Shrub Stratum (Plot size: 15                    |          |               |               | FACW species x 2 =   |
| 1   |          |               |               | FAC species 90 x 3 = 270   |
|   |          |               |               | FACU species45 x 4 =180  |
| 2   |          |               |               | UPL species  |
| 3   |          |               |               | 135 450  |
| 4   |          |               |               | Column Totals:(A)(B)   |
| 5   |          |               |               | Prevalence Index = B/A =3.33   |
| 6   |          |               |               | Trevalence mack = B/TC =   |
| 7   |          |               |               | Hydrophytic Vegetation Indicators:   |
|   |          |               |               | 1 - Rapid Test for Hydrophytic Vegetation  |
| 8   |          |               |               | ✓ 2 - Dominance Test is >50%   |
| 9   | ^        |               |               | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| 0   | =        | = Total Cover |               | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 50% of total cover:0                                    | 20% of   | total cover:  | 0             | data in Remarks or on a separate sheet)  |
| Herb Stratum (Plot size:5                               |          |               |               |  |
| 1. Setaria pumila                                       | 90       | Yes           | FAC           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2. Trifolium pratense                                   | 15       | No            | FACU          |  |
| 3. Trifolium hybridum                                   | 15       | No            | FACU          | <sup>1</sup> Indicators of hydric soil and wetland hydrology must                                      |
| 4. Ambrosia artemisiifolia                              | 5        | No            | FACU          | be present, unless disturbed or problematic.   |
| 5 Cichorium intybus                                     | 5        | No            | FACU          | Definitions of Four Vegetation Strata:   |
| 6. Taraxacum officinale                                 |          | No            | FACU          | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or  |
| · · ·   |          |               |               | more in diameter at breast height (DBH), regardless of   |
| 7   |          |               |               | height.  |
| 8   |          |               |               | Sapling/Shrub – Woody plants, excluding vines, less  |
| 9   |          |               |               | than 3 in. DBH and greater than or equal to 3.28 ft (1   |
| 10  |          |               |               | m) tall.   |
| 11.   |          |               |               |  |
| · ··-   | 135 _    | = Total Cover |               | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 50% of total cover: 67.5                                |          | total cover:  |               | or size, and woody plants less than size it tall.  |
| 00/001 total 00/01.                                     | 20 /0 01 | total cover   |               | Woody vine – All woody vines greater than 3.28 ft in   |
| Woody Vine Stratum (Plot size:)                         |          |               |               | height.  |
| 1   |          |               |               |  |
| 2   |          |               |               |  |
| 3   |          |               |               |  |
| 4   |          |               |               |  |
| 5.  |          |               |               | Hydrophytic  |
| J   | 0 =      |               |               | Vegetation Present? Yes No   |
| 50% of total cover: 0                                   |          | = Total Cover | 0             | · · · · · · · · · · · · · · · · · · ·  |
| 30 % of total cover                                     |          | total cover:  |               |  |
| Remarks: (Include photo numbers here or on a separate s | heet.)   |               |               |  |
|   |          |               |               |  |
|   |          |               |               |  |
|   |          |               |               |  |
|   |          |               |               |  |
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|   |          |               |               |  |
|   |          |               |               |  |
|   |          |               |               |  |
|   |          |               |               |  |

| epth          | Matrix                      |              | Redox Features                        | <del></del> |                   |   |
|---------------|-----------------------------|--------------|---------------------------------------|-------------|-------------------|---|
| nches)        | Color (moist)               | %            | Color (moist) % Type <sup>1</sup> Lo  |             | xture             | Remarks                                 |
| 0-12          | 10 YR 3/4                   | 100          |                                       |             | SL<br>            |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             | <del></del>       |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       | 2,          |                   |   |
|               |                             | etion, RM=Re | educed Matrix, MS=Masked Sand Grains. | Loc         |                   | ining, M=Matrix.                        |
| ydric Soil II |                             |              |                                       |             |                   | Problematic Hydric Soils <sup>3</sup> : |
| _ Histosol (  |                             |              | Dark Surface (S7)                     |             |                   | k (A10) <b>(MLRA 147)</b>               |
|               | ipedon (A2)                 |              | Polyvalue Below Surface (S8) (MLR)    |             |                   | irie Redox (A16)                        |
| _ Black His   |                             |              | Thin Dark Surface (S9) (MLRA 147,     | 148)        |                   | 147, 148)                               |
|               | n Sulfide (A4)              |              | Loamy Gleyed Matrix (F2)              |             |                   | Floodplain Soils (F19)                  |
|               | Layers (A5)                 |              | Depleted Matrix (F3)                  |             |                   | 136, 147)                               |
|               | ck (A10) (LRR N)            |              | Redox Dark Surface (F6)               |             |                   | low Dark Surface (TF12)                 |
|               | Below Dark Surface          | ) (A11)      | Depleted Dark Surface (F7)            |             | Other (Ex         | plain in Remarks)                       |
|               | rk Surface (A12)            |              | Redox Depressions (F8)                |             |                   |   |
|               | ucky Mineral (S1) <b>(L</b> | .RR N,       | Iron-Manganese Masses (F12) (LRR      | N,          |                   |   |
|               | 147, 148)                   |              | MLRA 136)                             |             |                   |   |
|               | leyed Matrix (S4)           |              | Umbric Surface (F13) (MLRA 136, 13    |             |                   | f hydrophytic vegetation and            |
| _ Sandy Re    | edox (S5)                   |              | Piedmont Floodplain Soils (F19) (ML   | RA 148)     | wetland hy        | drology must be present,                |
| _ Stripped    | Matrix (S6)                 |              | Red Parent Material (F21) (MLRA 12    | 27, 147)    | unless dist       | urbed or problematic.                   |
| estrictive L  | ayer (if observed):         |              |                                       |             |                   |   |
| Type:         |                             |              |                                       |             |                   |   |
| Depth (inc    | hes):                       |              |                                       | Hvd         | Iric Soil Present | ? Yes No 🗸                              |
| emarks:       |                             |              | _                                     | ,           |                   |   |
| emarks.       |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |
|               |                             |              |                                       |             |                   |   |



Photo 1 Upland data point WCUC100\_u facing east



Photo 2 Upland data point WCUC100\_u facing north

| Project/Site: Southeast Reliability Project  | City/County: NA/Cumberland  | Sampling Date: <u>7/30/2014</u> |
|--|---|---------------------------------|
| Applicant/Owner: Dominion Transmission   | State: Va   | Sampling Point: wcuk007e_w      |
|  | Section, Township, Range: NA  | - 1 3                           |
|  | cal relief (concave, convex, none): concave                               | Slope (%): <u>0-3</u>           |
| Subregion (LRR or MLRA): LRR P Lat: 37.3268410   | 002 Long: <u>-78.315687863</u>  | Datum: NAD 83                   |
| Soil Map Unit Name: Doque, fine sandy loam, 2 to 7% slope  | s, rarely flooded NWI classifica  | tion: PEM1C                     |
| Are climatic / hydrologic conditions on the site typical for this time of year                   |   |                                 |
| Are Vegetation Soil , or Hydrology significantly   | disturbed? Are "Normal Circumstances" pro                                 | esent? Yes 🚺 No 🔣               |
| Are Vegetation , Soil , or Hydrology naturally pro   | oblematic? (If needed, explain any answers                                | s in Remarks.)                  |
| SUMMARY OF FINDINGS – Attach site map showing  | sampling point locations, transects,                                      | important features, etc.        |
|  |   |                                 |
| Hydrophytic Vegetation Present?  Yes V   | Is the Sampled Area   | l <sub>No</sub> $\square$       |
| Hydric Soil Present? Yes ✓ No Wetland Hydrology Present? Yes ✓ No                                | within a Wetland? Yes <u>✓</u>  | _ NO                            |
| Wetland Hydrology Present? Yes . ✓ L No L L Remarks:   |   |                                 |
| This is a headwater drainage in an agricultural field. Are                                       | a has been mowed. All 3 criteria met. A                                   | rea is a wetland                |
| This is a fleadwater drainage in an agricultural field. Are                                      | a has been mowed. All 5 chiena met. A                                     | ilea is a wellaliu.             |
|  |   |                                 |
| Photos #100-0347 to 0351   |   |                                 |
| HYDROLOGY  |   |                                 |
| Wetland Hydrology Indicators:  | Secondary Indicate  | ors (minimum of two required)   |
| Primary Indicators (minimum of one is required; check all that apply)                            | Surface Soil C  | , ,                             |
| Surface Water (A1) True Aquatic P  |   | etated Concave Surface (B8)     |
| High Water Table (A2)  Hydrogen Sulfin   |   |                                 |
| l <del></del>  | spheres on Living Roots (C3) Moss Trim Lin                                |                                 |
|  | educed Iron (C4) Dry-Season Widuction in Tilled Soils (C6) Crayfish Burro | Vater Table (C2)                |
| Drift Deposits (B3)  Thin Muck Surf  |   | ible on Aerial Imagery (C9)     |
| Algal Mat or Crust (B4)  Other (Explain  |   | essed Plants (D1)               |
| Iron Deposits (B5)   | Geomorphic P  |                                 |
| Inundation Visible on Aerial Imagery (B7)  | Shallow Aquita  |                                 |
| Water-Stained Leaves (B9)  |   | phic Relief (D4)                |
| Aquatic Fauna (B13)  | <b>✓</b> FAC-Neutral T  | Test (D5)                       |
| Field Observations:  |   |                                 |
| Surface Water Present? Yes No Depth (inches)   | ):  |                                 |
| Water Table Present? Yes No Depth (inches  | ):  |                                 |
| Saturation Present? Yes No V Depth (inches)  | : Wetland Hydrology Present   | ? Yes No                        |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photo | nrevious inspections) if available:                                       |                                 |
| NA   | o, providuo inopositorio, il avallazio.                                   |                                 |
| Remarks:   |   |                                 |
| Hydrology criteria met.  |   |                                 |
| Trydrology Griefia met.  |   |                                 |
|  |   |                                 |
|  |   |                                 |
|  |   |                                 |
|  |   |                                 |
|  |   |                                 |
|  |   |                                 |
|  |   |                                 |
|  |   |                                 |

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

|   | Absolute Dominant Indi  | icator Dominance Test worksheet:   |
|---|-------------------------|--|
| <u>Tree Stratum</u> (Plot size: <u>30ft</u> )           | % Cover Species? St     | tatus Number of Dominant Species   |
| 1. NA   |                         | That Are OBL, FACW, or FAC: 1 (A)  |
| 2   |                         |  |
|   |                         | Total Number of Dominant   |
| 3   |                         | Species Across All Strata: 1 (B)   |
| 4   |                         | Percent of Dominant Species  |
| 5   |                         | That Are OBL, FACW, or FAC: 100% (A/B)   |
| 6   |                         | (***,  |
|   | = Total Cover           | Prevalence Index worksheet:  |
|   |                         | Total % Cover of: Multiply by:   |
|   | 20% of total cover:     | OBL species 25 x 1 = 25  |
| Sapling Stratum (Plot size: 15ft )                      |                         |  |
| . NA  |                         | FACW species $80$ $\times 2 = 160$   |
|   |                         | FAC species <u>5</u> x 3 = <u>15</u>   |
| 2   |                         | FACU species 2 x 4 = 8   |
| 3   |                         | UPL species x 5 =  |
| 4   |                         | Column Totals: 112 (A) 208 (B)   |
| 5   |                         | Column Totals: 112 (A) 200 (B)   |
|   |                         | Prevalence Index = B/A = 1.85  |
| 6   |                         |  |
|   | = Total Cover           | Hydrophytic Vegetation Indicators:   |
| 50% of total cover:                                     | 20% of total cover:     | 1 - Rapid Test for Hydrophytic Vegetation  |
| Shrub Stratum (Plot size: 15ft )                        |                         | 2 - Dominance Test is >50%   |
|   |                         | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| 1. <u>NA</u>  |                         | <del></del>  |
| 2   |                         | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 3   |                         | data in Remarks or on a separate sheet)  |
| 4   |                         | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
|   |                         | <del></del>  |
| 5   |                         | Indicators of hydric soil and wetland hydrology must   |
| 6   |                         | be present, unless disturbed or problematic.   |
|   | = Total Cover           | Definitions of Five Vegetation Strata:   |
| FOO/ of total cover                                     | 20% of total cover:     |  |
|   | 20% or total cover:     | Tree – woody plants, excluding woody vines,  |
| Herb Stratum (Plot size: 10ft )                         |                         | approximately 20 ft (6 m) or more in height and 3 in.  |
| <sub>1.</sub> Juncus effusus                            |                         | ACW (7.6 cm) or larger in diameter at breast height (DBH).   |
| 2. Carex lupulina                                       | 20 O                    | BL Sapling – Woody plants, excluding woody vines,  |
| 3 Carex frankii   | 5 0                     | BL approximately 20 ft (6 m) or more in height and less  |
| 4. Dichabthelium clandestium                            |                         | than 3 in. (7.6 cm) DBH.   |
|   |                         | A 011  |
| <sub>5.</sub> Apocynum canabinium                       | 2 FA                    | ACU Shrub – Woody plants, excluding woody vines,   |
| 6   |                         | approximately 3 to 20 ft (1 to 6 m) in height.   |
| 7   |                         | Herb – All herbaceous (non-woody) plants, including  |
|   |                         | herbaceous vines, regardless of size, and woody  |
| 8   |                         | plants, except woody vines, less than approximately 3  |
| 9   |                         | ft (1 m) in height.  |
| 10. <u> </u>  |                         | No. of the State o |
| 11  |                         | Woody vine – All woody vines, regardless of height.  |
|   | 112 = Total Cover       |  |
| 50  |                         | 4  |
| 50% of total cover: <u>56</u>                           | 20% of total cover: 22. | <u>.4</u>  |
| Woody Vine Stratum (Plot size: 15ft )                   |                         |  |
| 1. NA   |                         |  |
|   |                         |  |
| 2   |                         |  |
| 3   |                         | <del></del>  |
| 4   |                         |  |
| 5   |                         |  |
|   | = Total Cover           | Hydrophytic  |
|   | <u> </u>                | Vegetation Present?  Yes   ✓ No  |
| 50% of total cover:                                     | 20% of total cover:     |  |
| Remarks: (Include photo numbers here or on a separate s | sheet.)                 | •  |
| Hydrophytic vegetation criteria met.                    |                         |  |
| ing an aprily the vegetation officina filet.            |                         |  |

Sampling Point: wcuk007e\_w

| Profile Desc           | cription: (Describe                             | to the dep   | th needed to docun        | nent the    | indicator                | or confirm       | the absence               | of indicators.)   |
|------------------------|---|--------------|---------------------------|-------------|--------------------------|------------------|---------------------------|---|
| Depth                  | Matrix  |              | Redox                     | x Feature   |                          |                  |                           |   |
| (inches)               | Color (moist)                                   | <u>%</u>     | Color (moist)             | %           | <u>Type</u> <sup>1</sup> | Loc <sup>2</sup> | <u>Texture</u>            | <u>Remarks</u>  |
| 0-6                    | 10YR 4/3  | 60           | 10YR 5/8                  | 40          | С                        | PL               | clay loam                 |   |
| 6-14                   | 10YR 6/1  | 60           | 10YR 5/8                  | 40          | С                        | PL               | clay                      |   |
| 14-20                  | 10YR 7/1  | 80           | 7.5YR 5/8                 | 20          | С                        | PL               | clay                      | dense   |
|                        |   | · <u></u>    |                           |             |                          |                  |                           |   |
|                        |   | · ——         |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
| <sup>1</sup> Type: C=C | oncentration D=Den                              | letion RM=   | Reduced Matrix, MS        | S=Masker    |                          | ains             | <sup>2</sup> Location: PI | L=Pore Lining, M=Matrix.                                      |
| Hydric Soil            |   | iotion, ravi | Troduced Matrix, Mc       | , wastet    | a dana di                | an 13.           | Indica                    | ators for Problematic Hydric Soils <sup>3</sup> :             |
| Histosol               | (A1)  |              | Dark Surface              | (S7)        |                          |                  | _                         | cm Muck (A10) (MLRA 147)                                      |
| Histic Ep              | oipedon (A2)                                    |              | Polyvalue Be              | low Surfa   |                          |                  |                           | oast Prairie Redox (A16)                                      |
|                        | stic (A3)                                       |              | Thin Dark Su              |             |                          | 47, 148)         | _                         | (MLRA 147, 148)   |
|                        | en Sulfide (A4)                                 |              | Loamy Gleye               |             | (F2)                     |                  | L Pi                      | iedmont Floodplain Soils (F19)                                |
|                        | d Layers (A5)                                   |              | Depleted Mat              |             | -c)                      |                  |                           | (MLRA 136, 147)   |
|                        | ick (A10) <b>(LRR N)</b><br>d Below Dark Surfac | ρ (Δ11)      | Redox Dark S Depleted Dar |             |                          |                  |                           | ery Shallow Dark Surface (TF12)<br>hther (Explain in Remarks) |
|                        | ark Surface (A12)                               | C (7111)     | Redox Depre               |             |                          |                  | ·                         | ther (Explain in Nemarks)                                     |
| _                      | Mucky Mineral (S1) (L                           | RR N,        | Iron-Mangane              |             |                          | LRR N,           |                           |   |
|                        | A 147, 148)                                     |              | MLRA 130                  |             |                          |                  |                           |   |
|                        | Gleyed Matrix (S4)                              |              | Umbric Surfa              |             |                          |                  |                           | icators of hydrophytic vegetation and                         |
|                        | Redox (S5)                                      |              | Piedmont Flo              |             |                          |                  |                           | tland hydrology must be present,                              |
|                        | Matrix (S6)  Layer (if observed):               |              | Red Parent N              | nateriai (F | (ZI) (IVILR              | A 127, 147       | ) uni                     | ess disturbed or problematic.                                 |
|                        | ense clay                                       |              |                           |             |                          |                  |                           |   |
|                        | ches): 20"-22"                                  |              |                           |             |                          |                  | Hydric Soil               | Present? Yes Vo No  |
| Pomarks:               |   |              |                           |             |                          |                  | ,                         |   |
| H                      | ydric soils criteria                            | a met.       |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |
|                        |   |              |                           |             |                          |                  |                           |   |



Wetland data point wcuk007e\_w facing East



Wetland data point wcuk007e\_w facing West

| Project/Site: Southeastern Reliability Project                  | City/County:                 | Cumberland                     | Sar                | mpling Date: 07/30/2014   |
|---|------------------------------|--------------------------------|--------------------|---------------------------|
| Applicant/Owner: Dominion Transmission                          |                              | Sta                            | ate: VA S          | Sampling Point: wcuk007_u |
|   | Section, Tov                 |                                |                    |                           |
| Landform (hillslope, terrace, etc.): Top of Swale               |                              |                                | none               | Slope (%): 0-2            |
| Subregion (LRR or MLRA): LRR P Lat: 37                          | .326895402                   | Long. 78.31574                 | 3721               | Datum: NAD 1983           |
| Soil Map Unit Name: Dogue fine sandy loam, 2 to 7 percent       | nt slopes, rarely flooded    |                                | NWI classification | Upland                    |
| Are climatic / hydrologic conditions on the site typical for th |                              |                                |                    |                           |
| Are Vegetation, Soil, or Hydrology                              |                              |                                |                    | ent? Yes <u>√</u> No      |
| Are Vegetation, Soil, or Hydrology                              |                              | (If needed, explai             | in any answers in  | Remarks.)                 |
| SUMMARY OF FINDINGS – Attach site map                           | showing sampling             | point locations,               | transects, im      | portant features, etc.    |
| Hydrophytic Vegetation Present? YesN                            | No <b>√</b>                  |                                |                    |                           |
| Hydric Soil Present? Yes N                                      | ls the                       | e Sampled Area<br>n a Wetland? | Yes                | No. ✓                     |
| Wetland Hydrology Present? Yes N                                |                              | n a wenand?                    | 162                | NO                        |
| Remarks:  |                              |                                |                    |                           |
| Photos 104-4663 to 4667 Soils, N, S, E, W (J. Sweitzer C        | amera)                       |                                |                    |                           |
|   |                              |                                |                    |                           |
| Upland plot established at the top of a swale in and agricu     | Itural field. All three crit | eria not met. Area is n        | ot a wetland.      |                           |
|   |                              |                                |                    |                           |
| HYDROLOGY   |                              |                                |                    |                           |
| Wetland Hydrology Indicators:                                   |                              |                                | -                  | (minimum of two required) |
| Primary Indicators (minimum of one is required: check all       | • • • •                      |                                | Surface Soil Crac  | , ,                       |
|   | e Aquatic Plants (B14)       |                                |                    | ed Concave Surface (B8)   |
|   | drogen Sulfide Odor (C1)     |                                | Drainage Patterns  |                           |
|   | dized Rhizospheres on L      |                                |                    |                           |
|   | sence of Reduced Iron (      |                                | Dry-Season Water   |                           |
|   | cent Iron Reduction in Til   |                                | Crayfish Burrows   |                           |
| <u> </u>  | n Muck Surface (C7)          |                                |                    | on Aerial Imagery (C9)    |
|   | er (Explain in Remarks)      |                                | Stunted or Stress  | , ,                       |
| Iron Deposits (B5)  |                              |                                | Geomorphic Posi    |                           |
| Inundation Visible on Aerial Imagery (B7)                       |                              |                                | Shallow Aquitard   |                           |
| Water-Stained Leaves (B9)                                       |                              | <del></del> -                  | Microtopographic   | ` ,                       |
| Aquatic Fauna (B13)   |                              |                                | FAC-Neutral Test   | : (D5)                    |
| Field Observations:   |                              |                                |                    |                           |
| Surface Water Present? Yes No ✓ _ De                            |                              |                                |                    |                           |
| Water Table Present? Yes No ✓ De                                |                              |                                |                    | ,                         |
| Saturation Present? Yes No _ ✓ De (includes capillary fringe)   | pth (inches):                | Wetland Hydro                  | ology Present?     | Yes No ✓                  |
| Describe Recorded Data (stream gauge, monitoring well,          | aerial photos, previous i    | nspections), if available      | ):                 |                           |
| NA  |                              |                                |                    |                           |
| Remarks:  |                              |                                |                    |                           |
| No indicators of wetland hydrology.                             |                              |                                |                    |                           |
|   |                              |                                |                    |                           |
|   |                              |                                |                    |                           |
|   |                              |                                |                    |                           |
|   |                              |                                |                    |                           |
|   |                              |                                |                    |                           |
|   |                              |                                |                    |                           |
|   |                              |                                |                    |                           |
|   |                              |                                |                    |                           |
|   |                              |                                |                    |                           |
|   |                              |                                |                    |                           |

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

| 30 ft D  |            |               |      |  |
|--|------------|---------------|------|--|
| 1. NA  | Absolute   | Dominant In   |      | Dominance Test worksheet:  |
|  | NA         | Species? NA   | NA   | Number of Dominant Species That Are ORL FACW or FAC: 1 (A)   |
| 2  | <u>INA</u> |               | INA  | That Are OBL, FACW, or FAC: (A)  |
|  |            |               |      | Total Number of Dominant   |
| 3  |            |               |      | Species Across All Strata: 2 (B)   |
| 4  |            |               |      | (2)  |
|  |            |               |      | Percent of Dominant Species That Are ORL FACING STACK  |
| 5  |            |               |      | That Are OBL, FACW, or FAC: (A/B)  |
| 6  |            |               |      | Dravalance Index weekshoots  |
| 7  |            |               |      | Prevalence Index worksheet:  |
|  | ;          | = Total Cover |      | Total % Cover of: Multiply by:   |
| 50% of total cover:  |            |               |      | OBL species x 1 =  |
| Sapling/Shrub Stratum (Plot size: 15 ft R )                      |            |               |      | FACW species x 2 =   |
|  | NA         | NA            | NA   | FAC species x 3 =  |
| 1. NA  | 11/1       |               | 11/  |  |
| 2  |            |               |      | FACU species x 4 =   |
| 3  |            |               |      | UPL species x 5 =  |
|  |            |               |      | Column Totals: (A) (B)   |
| 4  |            |               |      |  |
| 5  |            |               |      | Prevalence Index = B/A =   |
| 6  |            |               |      | Hydrophytic Vegetation Indicators:   |
| 7  |            |               |      |  |
|  |            |               |      | 1 - Rapid Test for Hydrophytic Vegetation  |
| 8  |            |               |      | 2 - Dominance Test is >50%   |
| 9  |            |               |      | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| <u>-</u>   | :          | = Total Cover |      | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 50% of total cover:  | _ 20% of   | total cover:  |      |  |
| Herb Stratum (Plot size: 5 FT R )                                |            |               |      | data in Remarks or on a separate sheet)  |
| Solanum carolinense  | 5          | N             | FACU | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2 Ambrosia artemisifolia   | 60         |               | FACU |  |
|  |            |               |      | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 3. Tritichum aestivum (stems only - planted cover crop)          | 50         | <u> </u>      | NI   | be present, unless disturbed or problematic.   |
| 4  |            |               |      | Definitions of Four Vegetation Strata:   |
| 5  |            |               |      | Definitions of Four Vegetation Strata.   |
|  |            |               |      | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or  |
| 6  |            |               |      | more in diameter at breast height (DBH), regardless of   |
| 7  |            |               |      | height.  |
| 8  |            |               |      |  |
| 9  |            |               |      | Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
|  |            |               |      | m) tall.   |
| 10   |            |               |      | m) tail.   |
| 11   |            |               |      | <b>Herb</b> – All herbaceous (non-woody) plants, regardless  |
| _  | 115 :      | = Total Cover |      | of size, and woody plants less than 3.28 ft tall.  |
| 50% of total cover: 58   | 20% of     | total cover:  | 23   |  |
|  | _          |               |      | <b>Woody vine</b> – All woody vines greater than 3.28 ft in  |
| 00.51.5  | _          |               |      | 1 '  |
| Woody Vine Stratum (Plot size: 30 Ft R )                         | ວ          | Υ             | FAC  | height.  |
| Woody Vine Stratum (Plot size: 30 Ft R )  1. Campsis radicans    | 5          | <u> </u>      | FAC  | 1 '  |
| Woody Vine Stratum (Plot size: 30 Ft R )                         |            | <u> </u>      | FAC  | 1 '  |
| Woody Vine Stratum (Plot size: 30 Ft R )  1. Campsis radicans    |            | <u> </u>      | FAC  | 1 '  |
| Woody Vine Stratum (Plot size: 30 Ft R )  1. Campsis radicans  2 |            | <u> </u>      | FAC  | height.  |
| Woody Vine Stratum (Plot size: 30 Ft R )  1. Campsis radicans  2 |            | <u> </u>      | FAC  | height.  Hydrophytic   |
| Woody Vine Stratum (Plot size: 30 Ft R )  1. Campsis radicans  2 |            |               |      | Hydrophytic Vegetation   |
| Woody Vine Stratum (Plot size: 30 Ft R )  1. Campsis radicans  2 | 5 :        | Y             |      | height.  Hydrophytic   |

Sampling Point: wcuk007\_u

| Profile Des            | cription: (Describe t  | o the dep | th needed to docu    | ment the i  | ndicator           | or confirn       | n the absence            | of indic  | ators.)                                   |
|------------------------|------------------------|-----------|----------------------|-------------|--------------------|------------------|--------------------------|-----------|---|
| Depth                  | Matrix                 |           | Redo                 | x Feature   | s                  |                  |                          |           |   |
| (inches)               | Color (moist)          | %         | Color (moist)        | %           | _Type <sup>1</sup> | Loc <sup>2</sup> | <u>Texture</u>           |           | Remarks                                   |
| 0-16                   | 2.5Y 5/4               | 100       | NA                   | NA          | NA                 | NA               | sandy Loan               | NA        |   |
| 16-20                  | 2.5Y 6/3               | 80        | 10YR 6/8             | 20          |                    |                  | olav Laam                | NA        | -   |
| 10-20                  | 2.51 0/3               |           | 1011000              |             |                    | IVI              | clay Loam                | INA       |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           | •   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
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|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
| <sup>1</sup> Type: C=C | oncentration, D=Depl   | etion, RM | =Reduced Matrix, M   | S=Masked    | Sand Gra           | ains.            | <sup>2</sup> Location: P | L=Pore I  | Lining, M=Matrix.                         |
| Hydric Soil            |                        | ·         |                      |             |                    |                  |                          |           | r Problematic Hydric Soils <sup>3</sup> : |
| Histoso                |                        |           | Dark Surface         | e (S7)      |                    |                  |                          |           | ck (A10) <b>(MLRA 147)</b>                |
|                        | pipedon (A2)           |           | Polyvalue Be         |             | ce (S8) <b>(N</b>  | II RΔ 147        |                          |           | airie Redox (A16)                         |
|                        | istic (A3)             |           | Thin Dark Su         |             |                    |                  |                          |           | 147, 148)                                 |
|                        | ` '                    |           |                      |             |                    | 41, 148)         | -                        | •         | •   |
|                        | en Sulfide (A4)        |           | Loamy Gleye          |             | r2)                |                  | <u> </u>                 |           | Floodplain Soils (F19)                    |
|                        | d Layers (A5)          |           | Depleted Ma          |             | -0)                |                  |                          |           | . 136, 147)                               |
|                        | uck (A10) (LRR N)      | (4.44)    | Redox Dark           |             |                    |                  |                          |           | llow Dark Surface (TF12)                  |
|                        | d Below Dark Surface   | e (A11)   | Depleted Da          |             |                    |                  |                          | ther (Ex  | plain in Remarks)                         |
|                        | ark Surface (A12)      |           | Redox Depre          |             |                    |                  |                          |           |   |
|                        | Mucky Mineral (S1) (L  | RR N,     | Iron-Mangan          |             | es (F12) <b>(</b>  | LRR N,           |                          |           |   |
|                        | A 147, 148)            |           | MLRA 13              |             |                    |                  | 2                        |           |   |
|                        | Gleyed Matrix (S4)     |           | Umbric Surfa         |             |                    |                  |                          |           | of hydrophytic vegetation and             |
|                        | Redox (S5)             |           | Piedmont Flo         |             |                    |                  |                          |           | drology must be present,                  |
|                        | d Matrix (S6)          |           | Red Parent I         | Material (F | 21) <b>(MLR</b>    | A 127, 14        | <b>7</b> ) un            | less dist | urbed or problematic.                     |
|                        | Layer (if observed):   |           |                      |             |                    |                  |                          |           |   |
| Type: N/               | A                      |           |                      |             |                    |                  |                          |           |   |
|                        | ches): NA              |           |                      |             |                    |                  | Hydric Soil              | Present   | t? Yes No✓                                |
| Remarks:               |                        |           | <del></del>          |             |                    |                  | 1                        |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
| No indicators          | of hydric soils observ | ed. Soils | compacted and likely | y regularly | cultivated         |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
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|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
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|                        |                        |           |                      |             |                    |                  |                          |           |   |
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|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |
|                        |                        |           |                      |             |                    |                  |                          |           |   |



Upland data point wcuk007\_u facing North



Upland data point wcuk007\_u facing East



Wetland data point wcuk007e\_w soil sample



Upland data point wcuk007\_u soil sample

| Project/Site: Southeast Reliability Project  | City/County: NA/Cumberland Sampling Date: 07/30/14              |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|--|
| Applicant/Owner: Dominion Transmission State: VA Sampling Point: wcukt                         |   |  |  |  |  |  |  |  |  |
| Investigator(s): W. Medlin, J. Sweitzer, J. Dean Section, Township, Range: NA                  |   |  |  |  |  |  |  |  |  |
|  | ocal relief (concave, convex, none): concave Slope (%): NA      |  |  |  |  |  |  |  |  |
| Subregion (LRR or MLRA): LRR P Lat: 37.324070  |   |  |  |  |  |  |  |  |  |
| Soil Map Unit Name: Chewacla and Monacan soils, 0 to 2 p                                       | percent slopes, freq. flooded NWI classification: PEM1C         |  |  |  |  |  |  |  |  |
| Are climatic / hydrologic conditions on the site typical for this time of y                    | /ear? Yes _ ✓ No (If no, explain in Remarks.)                   |  |  |  |  |  |  |  |  |
| Are Vegetation Soil , or Hydrology significant   | ly disturbed? Are "Normal Circumstances" present? Yes No        |  |  |  |  |  |  |  |  |
| Are Vegetation, Soil, or Hydrology naturally p   | roblematic? (If needed, explain any answers in Remarks.)        |  |  |  |  |  |  |  |  |
| SUMMARY OF FINDINGS – Attach site map showin   | g sampling point locations, transects, important features, etc. |  |  |  |  |  |  |  |  |
| Hydrophytic Vegetation Present? Yes No   | Is the Sampled Area   |  |  |  |  |  |  |  |  |
| Hydric Soil Present? Yes ✓ No  | Is the Sampled Area within a Wetland? Yes Vo                    |  |  |  |  |  |  |  |  |
| Wetland Hydrology Present? Yes ✓ No  | <u> </u>  |  |  |  |  |  |  |  |  |
| Remarks:   | -   |  |  |  |  |  |  |  |  |
| This area is a large piedmont floodplain depression area with                                  | n multiple low pockets of hydrophytes.                          |  |  |  |  |  |  |  |  |
| The area is ditched and also has drainage swales, but wetlar                                   | · · · · · · · · · · · · · · · · · · ·                           |  |  |  |  |  |  |  |  |
| The area is grazed by cattle. The corresponding upland data                                    | -   |  |  |  |  |  |  |  |  |
| All three criteria are met. Area is a wetland. *Photos 100-033                                 | 8 to 0342 (WLM camera)  |  |  |  |  |  |  |  |  |
| HYDROLOGY  |   |  |  |  |  |  |  |  |  |
| Wetland Hydrology Indicators:  | Secondary Indicators (minimum of two required)                  |  |  |  |  |  |  |  |  |
| Primary Indicators (minimum of one is required; check all that apply                           |   |  |  |  |  |  |  |  |  |
| Surface Water (A1) True Aquatic  | <b>=</b>  |  |  |  |  |  |  |  |  |
|  | fide Odor (C1)  |  |  |  |  |  |  |  |  |
| I <b>—</b>   | cospheres on Living Roots (C3) Moss Trim Lines (B16)            |  |  |  |  |  |  |  |  |
|  | Reduced Iron (C4)   |  |  |  |  |  |  |  |  |
| Drift Deposits (B3)  Thin Muck Su  |   |  |  |  |  |  |  |  |  |
|  | n in Remarks) Stunted or Stressed Plants (D1)                   |  |  |  |  |  |  |  |  |
| Iron Deposits (B5)   | Geomorphic Position (D2)  |  |  |  |  |  |  |  |  |
| Inundation Visible on Aerial Imagery (B7)  | Shallow Aquitard (D3)   |  |  |  |  |  |  |  |  |
| Water-Stained Leaves (B9)  | ☐ Microtopographic Relief (D4)                                  |  |  |  |  |  |  |  |  |
| Aquatic Fauna (B13)  | FAC-Neutral Test (D5)   |  |  |  |  |  |  |  |  |
| Field Observations:  |   |  |  |  |  |  |  |  |  |
| Surface Water Present? Yes No Depth (inche   | s):   |  |  |  |  |  |  |  |  |
| Water Table Present? Yes No Depth (inche   | s):   |  |  |  |  |  |  |  |  |
| Saturation Present? Yes No Depth (inche  | S): Wetland Hydrology Present? Yes No                           |  |  |  |  |  |  |  |  |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial pho | tos, previous inspections), if available:                       |  |  |  |  |  |  |  |  |
| NA   | too, provide inspectione,, it distinates                        |  |  |  |  |  |  |  |  |
| Remarks:   |   |  |  |  |  |  |  |  |  |
| Hydrology criteria is met.   |   |  |  |  |  |  |  |  |  |
| ,  |   |  |  |  |  |  |  |  |  |
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|  |   |  |  |  |  |  |  |  |  |

|  | Absolute   | Dominant       | Indicator                              | Dominance Test worksheet:   |
|--|--|----------------|--|---|
| Tree Stratum (Plot size: 30 ft radius )  |  | Species?       |  | Number of Dominant Species  |
| 1. NA  |  |                |  | That Are OBL, FACW, or FAC: 2 (A)   |
| 2  |  |                |  | Total Number of Dominant  |
| 3  |  |                |  | Species Across All Strata: 2 (B)  |
| 4  |  |                |  |   |
| 5  |  |                |  | Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)   |
| 6  |  |                |  | Prevalence Index worksheet:   |
|  |  | = Total Cov    | er                                     | Total % Cover of: Multiply by:  |
| 50% of total cover:  | 20% of   | total cover    |  | OBL species $60$ $x 1 = 60$   |
| Sapling Stratum (Plot size: 15 ft radius   |  |                |  | FACW species 70   |
| 1. NA  |  |                |  | FAC species 0 x 3 = 0   |
| 2  |  |                |  | FACU species 15   |
| 3  |  |                |  | · -   |
| 4  |  |                |  |   |
| 5  |  |                |  | Column Totals: <u>145</u> (A) <u>260</u> (B)  |
| 6  |  |                |  | Prevalence Index = B/A = 1.79   |
|  |  | = Total Cov    | er                                     | Hydrophytic Vegetation Indicators:  |
| 50% of total cover:  | 20% of   | total cover    |  | ✓ 1 - Rapid Test for Hydrophytic Vegetation   |
| Shrub Stratum (Plot size: 15 ft radius   | 2070 0.  | total cover    |  | 2 - Dominance Test is >50%  |
| l  |  |                |  | 3 - Prevalence Index is ≤3.0 <sup>1</sup>   |
|  |  |                |  | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting  |
| 2  |  |                |  | data in Remarks or on a separate sheet)   |
| 3  |  |                |  | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)   |
| 4  |  |                |  |   |
| 5  |  |                |  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must   |
| 6  |  |                |  | be present, unless disturbed or problematic.  |
|  |  |                |  | are process, annual and an process.   |
|  |  | = Total Cov    | er                                     | Definitions of Five Vegetation Strata:  |
| 50% of total cover:  |  |                |  | Definitions of Five Vegetation Strata:  |
| Herb Stratum (Plot size: 10 ft radius )  | 20% of   |                |  | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines,   |
|  | 20% of   | total cover    |  | Definitions of Five Vegetation Strata:  |
| Herb Stratum (Plot size: 10 ft radius )  | 20% of   | total cover    |  | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  | 20% of   | total cover    | OBL                                    | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less   |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  | 20% of 40 70   | total cover    | OBL<br>FACW                            | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines,  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina   | 20% of 40 70 20  | total cover    | OBL<br>FACW<br>OBL                     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus                              | 20% of 40 70 20 5  | total cover    | OBL<br>FACW<br>OBL<br>FACU             | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less   |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus                              | 20% of 40 70 20 5  | total cover    | OBL<br>FACW<br>OBL<br>FACU             | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.   |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus                              | 20% of 40 70 20 5  | total cover    | OBL<br>FACW<br>OBL<br>FACU             | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus                              | 20% of 40<br>70<br>20<br>5   | total cover    | OBL<br>FACW<br>OBL<br>FACU             | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3  |
| Herb Stratum (Plot size: 10 ft radius )  1 Eleocharis obtusa  2 Persicaria pensylvanica  3 Carex lupulina  4 Schedonorus arundinaceus  5 Poa pratensis  6.  7.  8.  9. | 20% of 40<br>70<br>20<br>5<br>10   | total cover    | OBL<br>FACW<br>OBL<br>FACU             | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6         | 20% of 40<br>70<br>20<br>5<br>10   | total cover    | OBL<br>FACW<br>OBL<br>FACU             | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3  |
| Herb Stratum (Plot size: 10 ft radius )  1 Eleocharis obtusa  2 Persicaria pensylvanica  3 Carex lupulina  4 Schedonorus arundinaceus  5 Poa pratensis  6.  7.  8.  9. | 20% of 40<br>70<br>20<br>5<br>10   | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6         | 20% of 40<br>70<br>20<br>5<br>10   | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6         | 20% of 40<br>70<br>20<br>5<br>10   | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6         | 20% of 40<br>70<br>20<br>5<br>10   | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6         | 20% of 40<br>70<br>20<br>5<br>10   | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6         | 20% of 40 70 20 5 10   | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6         | 20% of 40 70 20 5 10 10 145 20% of 45 145 20% of 45 15 16 16 16 16 16 16 16 16 16 16 16 16 16  | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6         | 20% of 40 70 20 5 10 10 145 20% of 5 10 145 145 145 15 16 16 16 16 16 16 16 16 16 16 16 16 16  | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6.        | 20% of 40 70 20 5 10 10 145 20% of 5 10 145 145 145 15 16 16 16 16 16 16 16 16 16 16 16 16 16  | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine – All woody vines, regardless of height. |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6.        | 20% of 40 70 20 5 10 145 20% of 45 2 | Y<br>Y         | OBL<br>FACW<br>OBL<br>FACU<br>FACU     | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine – All woody vines, regardless of height. |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6         | 20% of 40 70 20 5 10   | = Total Covers | OBL<br>FACW<br>OBL<br>FACU<br>FACU<br> | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine – All woody vines, regardless of height. |
| Herb Stratum (Plot size: 10 ft radius )  1. Eleocharis obtusa  2. Persicaria pensylvanica  3. Carex lupulina  4. Schedonorus arundinaceus  5. Poa pratensis  6.        | 20% of 40 70 20 5 10   | = Total Covers | OBL<br>FACW<br>OBL<br>FACU<br>FACU<br> | Definitions of Five Vegetation Strata:  Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  Woody vine – All woody vines, regardless of height. |

Sampling Point: wcuk006e\_w1

| Profile Desc         | cription: (Describe                             | to the depth | needed to docum           | nent the ir | ndicator          | or confirm       | the absence         | of indicators.)   |
|----------------------|---|--------------|---------------------------|-------------|-------------------|------------------|---------------------|---|
| Depth                | Matrix  |              |                           | K Features  | 5 - 1             |                  |                     |   |
| (inches)<br>0-18     | Color (moist) 7.5YR 5/1                         | 70           | Color (moist) 7.5YR 5/8   | 30          | Type <sup>1</sup> | Loc <sup>2</sup> | <u>Texture</u> clay | Remarks very dense and compacted  |
| 0-10                 | 7.518 5/1                                       | - 10 -       | 7.51K 5/6                 | 30          |                   | <u></u>          | ciay                | very derise and compacted   |
|                      |   | . —— .       |                           |             |                   |                  |                     |   |
|                      |   | . —— .       |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      | -   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      | oncentration, D=Dep                             | letion, RM=F | Reduced Matrix, MS        | =Masked     | Sand Gra          | ains.            |                     | L=Pore Lining, M=Matrix.<br>ators for Problematic Hydric Soils <sup>3</sup> : |
| Hydric Soil Histosol |   |              | ■ Dark Surface            | (57)        |                   |                  | _                   | cm Muck (A10) (MLRA 147)  |
| ı <b>—</b>           | oipedon (A2)                                    |              | Polyvalue Be              |             | :e (S8) <b>(N</b> | II RA 147.       |                     | Coast Prairie Redox (A16)   |
| Black Hi             |   |              | Thin Dark Su              |             |                   |                  | ,                   | (MLRA 147, 148)   |
| 1 =                  | en Sulfide (A4)                                 |              | Loamy Gleye               |             | <sup>-</sup> 2)   |                  | ☐ P                 | iedmont Floodplain Soils (F19)  |
|                      | d Layers (A5)                                   |              | ✓ Depleted Mat            |             | ۵)                |                  | П.,                 | (MLRA 136, 147)   |
|                      | ıck (A10) <b>(LRR N)</b><br>d Below Dark Surfac | ω (Δ11)      | Redox Dark S Depleted Dar |             |                   |                  |                     | ery Shallow Dark Surface (TF12)<br>other (Explain in Remarks)                 |
| _ '                  | ark Surface (A12)                               | C (ATT)      | Redox Depre               |             |                   |                  | <b>–</b> •          | and (Explain in Remarks)  |
|                      | Mucky Mineral (S1) (I                           | LRR N,       | Iron-Mangane              |             |                   | LRR N,           |                     |   |
|                      | \ 147, 148)                                     |              | MLRA 136                  | •           |                   |                  | 2                   |   |
|                      | Gleyed Matrix (S4)<br>Redox (S5)                |              | Umbric Surfa              |             |                   |                  |                     | icators of hydrophytic vegetation and<br>tland hydrology must be present,     |
|                      | Matrix (S6)                                     |              | ☐ Piedmont Flo            |             |                   |                  |                     | less disturbed or problematic.  |
|                      | Layer (if observed):                            | :            |                           |             |                   |                  | <del>,</del>        | Р. С. С. С. С. С. С. С. С. С. С. С. С. С.                                     |
| Type: N              | 4   |              |                           |             |                   |                  |                     |   |
| Depth (in            | ches): NA                                       |              | _                         |             |                   |                  | Hydric Soil         | Present? Yes Vo No  |
| Remarks:             | ydric soils criteria                            | a is met.    |                           |             |                   |                  |                     |   |
|                      | , 4.1.0 00.10 01.101.11                         |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |
|                      |   |              |                           |             |                   |                  |                     |   |



Wetland data point wcuk006e\_w1 facing Northwest



Wetland data point wcuk006e\_w1 facing Northeast



Wetland data point wcuk006e\_w1 soil sample

| Project/Site: Dominion Southeast Reliability Project                          | City/Cou                      | inty: Cumberland         |                      | _ Sampling Date: 07/30/2014     |
|---|-------------------------------|--------------------------|----------------------|---------------------------------|
| Applicant/Owner: Dominion   |                               |                          | _ State: VA          | Sampling Point: wcuk006e_w2     |
|   | Section,                      | Township, Range: N       |                      |                                 |
| Landform (hillslope, terrace, etc.): Ditch                                    |                               |                          |                      | Slope (%): 0                    |
|   |                               |                          |                      | Datum: NAD 1983                 |
| Soil Map Unit Name: Wehadkee sandy loam, 0 to 2                               | percent slopes, frequently    | flooded                  | NWI classifi         | cation: PEM1K                   |
| Are climatic / hydrologic conditions on the site typical                      | for this time of year? Yes    | No                       | (If no, explain in I | Remarks.)                       |
| Are Vegetation, Soil, or Hydrology  |                               |                          |                      | present? Yes No                 |
| Are Vegetation, Soil, or Hydrology  |                               |                          | explain any answ     | ·                               |
| SUMMARY OF FINDINGS – Attach site   |                               |                          |                      |                                 |
|   | No .                          |                          | ·                    |                                 |
|   |                               | the Sampled Area         | V /                  | No                              |
| l -   |                               | vithin a Wetland?        | Yes                  | No                              |
| Remarks:  |                               |                          |                      |                                 |
| Photos 104-4660 soil, 4661 N, 4662 S (J. Sweitzer                             | Camera)                       |                          |                      |                                 |
| The corresponding upland data point for this feature                          | e is wcuk006_u (see data ¡    | oackage for wcuk006e     | e_w1). Wetland p     | oint located in ditch through   |
| cattle pasture.   |                               |                          |                      |                                 |
|   |                               |                          |                      |                                 |
| HYDROLOGY   |                               |                          |                      |                                 |
| Wetland Hydrology Indicators:   |                               |                          | Secondary Indic      | ators (minimum of two required) |
| Primary Indicators (minimum of one is required: che                           | eck all that apply)           |                          | Surface Soi          |                                 |
| ✓ Surface Water (A1)  | _ True Aquatic Plants (B1     | 4)                       |                      | egetated Concave Surface (B8)   |
| ✓ High Water Table (A2)   | _ Hydrogen Sulfide Odor       | •                        | ✓ Drainage Pa        |                                 |
|   | Oxidized Rhizospheres         |                          |                      |                                 |
|   | Presence of Reduced Ir        |                          |                      | Water Table (C2)                |
| Sediment Deposits (B2)  | Recent Iron Reduction i       |                          | Crayfish Bu          |                                 |
| Drift Deposits (B3)   | _ Thin Muck Surface (C7)      | )                        | ✓ Saturation \       | /isible on Aerial Imagery (C9)  |
| Algal Mat or Crust (B4)   | Other (Explain in Rema        | rks)                     | Stunted or S         | Stressed Plants (D1)            |
| Iron Deposits (B5)  |                               |                          | ✓ Geomorphic         | Position (D2)                   |
| ✓ Inundation Visible on Aerial Imagery (B7)                                   |                               |                          | Shallow Aqu          | uitard (D3)                     |
| Water-Stained Leaves (B9)   |                               |                          |                      | raphic Relief (D4)              |
| ✓ Aquatic Fauna (B13)   |                               |                          | ✓ FAC-Neutra         | l Test (D5)                     |
| Field Observations:   | 4                             |                          |                      |                                 |
| Surface Water Present? Yes No   |                               | <u> </u>                 |                      |                                 |
|   | Depth (inches):0              | <u> </u>                 |                      | ,                               |
| Saturation Present? Yes ✓ No  | Depth (inches):0              | Wetland I                | Hydrology Prese      | nt? Yes <u> </u>                |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring | g well, aerial photos, previo | ous inspections), if ava | ailable:             |                                 |
| NA  |                               |                          |                      |                                 |
| Remarks:  |                               |                          |                      |                                 |
| Several primary and secondary indicators of wetland                           |                               |                          | ditch. Ditch receive | ves water from Appomattox River |
| during flood events and surface water from surround                           | ding uplands during rain ev   | rents.                   |                      |                                 |
|   |                               |                          |                      |                                 |
|   |                               |                          |                      |                                 |
|   |                               |                          |                      |                                 |
|   |                               |                          |                      |                                 |
|   |                               |                          |                      |                                 |
|   |                               |                          |                      |                                 |
|   |                               |                          |                      |                                 |
|   |                               |                          |                      |                                 |
|   |                               |                          |                      |                                 |

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

|   |              | plants.             |           | Sampling Point: wcuk006e_w   |
|---|--------------|---------------------|-----------|--|
| Tree Stratum (Plot size:30 ft R)                            |              | Dominant I Species? |           | Dominance Test worksheet:  Number of Dominant Species  |
| 1. NA   |              | NA_                 | NA_       | That Are OBL, FACW, or FAC:(A)   |
| 2,  |              |                     |           | Total Number of Dominant Species Across All Strata: (B)  |
| 4   |              |                     |           |  |
| 5   |              |                     |           | Percent of Dominant Species That Are OBL, FACW, or FAC: (A/E   |
| 6   |              |                     |           | Prevalence Index worksheet:  |
| 7   |              | = Total Cove        |           | Total % Cover of: Multiply by:   |
| 50% of total cover:   |              |                     |           | OBL species x 1 =  |
| Sapling/Shrub Stratum (Plot size: 15 ft R )                 |              |                     |           | FACW species x 2 =   |
| I. NA   | NA           | NA                  | NA        | FAC species x 3 =  |
| 2   |              |                     |           | FACU species x 4 =   |
| 3   |              |                     |           | UPL species x 5 =  |
| 4   |              |                     |           | Column Totals: (A) (B  |
| 5   |              |                     |           | Prevalence Index = B/A =   |
| 5   | . ———        |                     |           | Hydrophytic Vegetation Indicators:   |
| 7   |              |                     |           | ✓ 1 - Rapid Test for Hydrophytic Vegetation  |
| B   |              |                     |           | 2 - Dominance Test is >50%   |
| 9   |              |                     |           | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
|   |              | = Total Cove        |           | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 50% of total cover:   | 20% of       | total cover:_       |           | data in Remarks or on a separate sheet)  |
| Herb Stratum (Plot size:5 FLK)  1 Juncus effusus            | 40           | Υ                   | OBL       | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| '. <u> </u>   | 30           | <u> </u>            | FACW      |  |
| 2 <sub>.</sub> Scirpus cyperinus<br>3. Eleocharis sp.       | 5            |                     | NI        | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 3. Glyceria striata   | 5            |                     | OBL       | be present, unless disturbed or problematic.   |
| 4. <u> </u>   |              |                     |           | Definitions of Four Vegetation Strata:   |
| 5   |              |                     |           | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of  |
| 6   |              |                     |           | more in diameter at breast height (DBH), regardless of height.   |
| 8   |              |                     |           | neight.  |
| 9   |              |                     |           | Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 |
| 10  |              |                     |           | m) tall.   |
| 11  |              |                     |           | Hank All books assure (non-succedus) relatite responding   |
| · ·   | 80           | = Total Cove        |           | Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.     |
| 50% of total cover: <u>40</u>                               |              | total cover:_       |           | We should be All and the state of the COO file.  |
| Woody Vine Stratum (Plot size: 30 Ft R )                    |              |                     |           | <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.  |
| 1. NA   |              |                     |           | •  |
| 2   |              |                     |           |  |
| 3   |              |                     |           |  |
| 4   |              |                     |           | Hydrophytic  |
| 5   |              |                     |           | Vegetation   |
|   |              | = Total Cove        |           | Present? Yes No  |
| 50% of total cover:   |              | total cover:_       |           |  |
| Remarks: (Include photo numbers here or on a separate s     | sheet.)      |                     |           |  |
| Vegetation passes rapid test for hydrophytic vegetation. Ve | egetation is | somewhat im         | pacted by | y cattle grazing in ditch.   |
|   |              |                     |           |  |
|   |              |                     |           |  |
|   |              |                     |           |  |
|   |              |                     |           |  |
|   |              |                     |           |  |

Sampling Point: wcuk006e\_w2

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|---|---|-----------|---------------------|--------------------|--------------------|------------------|--------------------------|--|--|--|--|
| Depth   | Matrix  |           |                     | Features           |                    |                  |                          |  |  |  |  |
| (inches)  | Color (moist)   | %         | Color (moist)       | <u>%</u>           | Type <sup>1</sup>  | Loc <sup>2</sup> | <u>Texture</u>           | Remarks                                |  |  |  |
| 0-4   | 5Y 5/1  | 60        | GLEY 3/1            | 10                 | D                  | M                | sandy Clay               | Mixed matrix                           |  |  |  |
| 0-4   |   |           | 7.5YR 4/6           | 30                 | C                  | PL/M             | sandy Clay               | Mixed matrix                           |  |  |  |
| 4-18  | 5Y 5/2  | 60        | GLEY 3/1            | 30                 | D                  | M                | sandy Clay               | Mixed matrix                           |  |  |  |
| 4-18  |   |           | 7.5YR 4/6           | 10                 | C                  | PL               | sandy Clay               | Mixed matrix                           |  |  |  |
| 18-20   | 5Y 5/1  | 40        | 7.5YR 4/6           | 10                 | C                  | M                | sandy Clay               | Mixed matrix                           |  |  |  |
| 18-20   | 5Y 5/2  | 40        | 7.5YR 4/6           | 10                 | C                  | М                | sandy Clay               | Mixed matrix                           |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
| ¹Type: C=Co   | oncentration, D=Depl  | etion, RM | =Reduced Matrix, MS | <br>-Masked        | Sand Gra           | ins.             | <sup>2</sup> Location: P | L=Pore Lining, M=Matrix.               |  |  |  |
|   | <sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  PL=Pore Lining, M=Matrix.  Indicators for Problematic Hydric Soils <sup>3</sup> : |           |                     |                    |                    |                  |                          |  |  |  |  |
| Histosol  | (A1)  |           | Dark Surface (      | (S7)               |                    |                  | 2                        | cm Muck (A10) (MLRA 147)               |  |  |  |
| Histic Ep   | pipedon (A2)  |           | Polyvalue Beld      |                    | ce (S8) <b>(M</b>  | LRA 147,         | <b>148)</b> C            | Coast Prairie Redox (A16)              |  |  |  |
| Black Hi  | stic (A3)   |           | Thin Dark Surf      | face (S9)          | (MLRA 1            | 47, 148)         |                          | (MLRA 147, 148)                        |  |  |  |
| Hydroge   | n Sulfide (A4)  |           | Loamy Gleyed        | l Matrix (F        | F2)                |                  | P                        | riedmont Floodplain Soils (F19)        |  |  |  |
|   | d Layers (A5)   |           | ✓ Depleted Matr     | ix (F3)            |                    |                  |                          | (MLRA 136, 147)                        |  |  |  |
| 2 cm Mu   | ıck (A10) (LRR N)   |           | Redox Dark S        | urface (F          | 6)                 |                  | ∨                        | ery Shallow Dark Surface (TF12)        |  |  |  |
| Depleted  | d Below Dark Surface  | (A11)     | Depleted Dark       | Surface            | (F7)               |                  | <u> </u>                 | Other (Explain in Remarks)             |  |  |  |
| Thick Da  | ark Surface (A12)   |           | Redox Depres        | sions (F8          | 3)                 |                  |                          |  |  |  |  |
| Sandy M   | lucky Mineral (S1) <b>(L</b>  | RR N,     | Iron-Mangane        | se Masse           | es (F12) <b>(L</b> | .RR N,           |                          |  |  |  |  |
| MLRA  | \ 147, 148)   |           | MLRA 136            | )                  |                    |                  |                          |  |  |  |  |
| Sandy G   | Gleyed Matrix (S4)  |           | Umbric Surfac       | e (F13) <b>(</b> I | MLRA 136           | 6, 122)          | <sup>3</sup> Ind         | licators of hydrophytic vegetation and |  |  |  |
| Sandy R   | Redox (S5)  |           | Piedmont Floo       | dplain So          | oils (F19) (       | MLRA 14          | <b>8</b> ) we            | etland hydrology must be present,      |  |  |  |
|   | Matrix (S6)   |           | Red Parent Ma       |                    |                    |                  |                          | less disturbed or problematic.         |  |  |  |
| Restrictive I   | _ayer (if observed):  |           |                     |                    |                    |                  |                          |  |  |  |  |
| Type: NA  | \   |           | <u></u>             |                    |                    |                  |                          | ,                                      |  |  |  |
|   | ches): NA   |           |                     |                    |                    |                  | Hydric Soil              | Present? Yes <u>√</u> No               |  |  |  |
| Remarks:  |   |           |                     |                    |                    |                  |                          |  |  |  |  |
| One indicator   | of hydric soils observ  | ed: Deple | eted Matrix (F3)    |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |
|   |   |           |                     |                    |                    |                  |                          |  |  |  |  |



Wetland data point wcuk006e\_w2 facing West



Wetland data point wcuk006e\_w2 facing East



Wetland data point wcuk006e\_w2 soil sample

| Project/Site: Southeast Reliability Project   | City/County: NA/Cumberland Sampling Date: 07/30/14                       |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Applicant/Owner: Dominion Transmission  | State: VA Sampling Point: wcuk006_u                                      |  |  |  |  |  |  |
| Investigator(s): W. Medlin, J. Sweitzer, J. Dean Section, Township, Range: NA       |  |  |  |  |  |  |  |
|   | ocal relief (concave, convex, none): flat Slope (%): NA                  |  |  |  |  |  |  |
| Subregion (LRR or MLRA): LRR P Lat: 37.324242                                       |  |  |  |  |  |  |  |
| Soil Map Unit Name: Chewacla and Monacan soils, 0 to 2 p                            |  |  |  |  |  |  |  |
| Are climatic / hydrologic conditions on the site typical for this time of y         |  |  |  |  |  |  |  |
|   | y disturbed? Are "Normal Circumstances" present? Yes No                  |  |  |  |  |  |  |
| Are Vegetation, Soil, or Hydrology naturally pr                                     | roblematic? (If needed, explain any answers in Remarks.)                 |  |  |  |  |  |  |
| SUMMARY OF FINDINGS – Attach site map showing                                       | g sampling point locations, transects, important features, etc.          |  |  |  |  |  |  |
| Hydrophytic Vegetation Present? Yes No  | - Is the Sampled Area  |  |  |  |  |  |  |
| Hydric Soil Present? Yes No ✓   | within a Wetland? Yes No   |  |  |  |  |  |  |
| Wetland Hydrology Present? Yes No. ✓  | -  |  |  |  |  |  |  |
| Remarks:  |  |  |  |  |  |  |  |
|   | f the Appomattox River situated between a linear ditch and a depression. |  |  |  |  |  |  |
|   | corresponds to both wcuk006e_w1 and wcuk006e_w2. None of the             |  |  |  |  |  |  |
| three criteria is met. Area is not a wetland. *Photos 100-0338 to 0342 (WLM camera) |  |  |  |  |  |  |  |
| FIIOLOS 100-0000 to 0042 (WEW Gamera)   |  |  |  |  |  |  |  |
| HYDROLOGY   |  |  |  |  |  |  |  |
| Wetland Hydrology Indicators:   | Secondary Indicators (minimum of two required)                           |  |  |  |  |  |  |
| Primary Indicators (minimum of one is required; check all that apply)               |  |  |  |  |  |  |  |
| Surface Water (A1)  True Aquatic F  |  |  |  |  |  |  |  |
| High Water Table (A2)  Hydrogen Sulf  |  |  |  |  |  |  |  |
| l <b>—</b>  | ospheres on Living Roots (C3) Moss Trim Lines (B16)                      |  |  |  |  |  |  |
|   | reduced Iron (C4)  |  |  |  |  |  |  |
| Drift Deposits (B3)  Thin Muck Sun  |  |  |  |  |  |  |  |
| Algal Mat or Crust (B4)  Other (Explain   | _  |  |  |  |  |  |  |
| Iron Deposits (B5)  | Geomorphic Position (D2)   |  |  |  |  |  |  |
| Inundation Visible on Aerial Imagery (B7)   | Shallow Aquitard (D3)  |  |  |  |  |  |  |
| Water-Stained Leaves (B9)   | Microtopographic Relief (D4)   |  |  |  |  |  |  |
| Aquatic Fauna (B13)   | FAC-Neutral Test (D5)  |  |  |  |  |  |  |
| Field Observations:   |  |  |  |  |  |  |  |
| Surface Water Present? Yes No Depth (inches   |  |  |  |  |  |  |  |
| Water Table Present? Yes No V Depth (inches   |  |  |  |  |  |  |  |
| Saturation Present? Yes No Depth (inches  | S): Wetland Hydrology Present? Yes No No                                 |  |  |  |  |  |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial phot                  | tos, previous inspections), if available:                                |  |  |  |  |  |  |
| NA  |  |  |  |  |  |  |  |
| Remarks:  |  |  |  |  |  |  |  |
| Hydrology criteria is not met.  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |
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|   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |

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

Tree Stratum (Plot size: 30 ft radius )

Sapling Stratum (Plot size: 15 ft radius

Shrub Stratum (Plot size: 15 ft radius

1. NA

1. NA

1. NA

Sampling Point: wcuk006\_u Absolute Dominant Indicator Dominance Test worksheet: % Cover Species? Status **Number of Dominant Species** That Are OBL, FACW, or FAC: **Total Number of Dominant** 2 (B) Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: \_\_\_ (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species \_\_\_\_\_ x 1 =\_\_\_\_ FACW species \_\_\_\_\_ x 2 =\_\_\_\_ FAC species \_\_\_\_\_ x 3 =\_\_\_\_ FACU species \_\_\_\_\_ x 4 =\_\_\_\_ UPL species \_\_\_\_\_ x 5 =\_\_\_\_ Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B) Prevalence Index = B/A =\_\_\_ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

| 5   |            | _                             |      | be present, unless disturbed or problematic.  |
|---|------------|-------------------------------|------|---|
|   |            | _ = Total Co                  | ver  | Definitions of Five Vegetation Strata:  |
| 50% of total cover:<br>Herb Stratum (Plot size: 10 ft radius )                                    | 20%        | of total cover                | :    | Tree – Woody plants, excluding woody vines,   |
| Festuca arundinacea   | 70         | Υ                             | FACU | approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  |
| Solanum carolinense   | 10         |                               | FACU | Carling Mandhuplanta avaluding woods vince  |
| Poa pratensis   | 70         | Y                             | FACU | Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  |
| ÷   |            |                               | _    | Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.   |
| 7.<br>  |            |                               |      | Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. |
| 10  |            | _                             |      | Woody vine – All woody vines, regardless of height.   |
| 50% of total cover: 75  Noody Vine Stratum (Plot size: 15 ft radius )                             | 150<br>20% | = Total Cov<br>of total cover |      |   |
| l,  | _          | _                             |      |   |
| 3.  |            |                               |      |   |
| 4   |            |                               |      |   |
| 5   |            | = Total Co                    | ver  | Hydrophytic<br>Vegetation   |
| 50% of total cover:   | 20%        | of total cover                | :    | Present? Yes No ✓   |
| Remarks: (Include photo numbers here or on a separate lydrophytic vegetation criteria is not met. | sheet.)    |                               |      |   |
| S Army Corps of Engineers   |            |                               |      | Eastern Mountains and Piedmont – Version 2.0  |

\_\_\_\_ = Total Cover

\_\_\_\_\_ = Total Cover

50% of total cover: \_\_\_\_\_ 20% of total cover:\_

50% of total cover: \_\_\_\_\_ 20% of total cover:\_\_\_

Sampling Point: wcuk006\_u

| Profile Desc   | ription: (Describe                             | to the dep  | th needed to docun        | nent the    | indicator         | or confirn       | n the absence | of indicators.)   |
|----------------|--|-------------|---------------------------|-------------|-------------------|------------------|---------------|---|
| Depth          | Matrix   |             |                           | x Feature   | es                |                  |               |   |
| (inches)       | Color (moist)                                  | %           | Color (moist)             | %           | Type <sup>1</sup> | Loc <sup>2</sup> | Texture       | Remarks   |
| 0-11           | 7.5YR 4/4                                      | 90          | 7.5YR 5/6                 | 10          | C                 | <u>M</u>         | clay          |   |
| 11-17          | 10YR 4/4                                       | 70          | 7.5YR 5/8                 | 30          | С                 | <u>M</u>         | clay          |   |
| 17-20          | 10YR 5/3                                       | 75          | 10YR 5/6                  | 25          | С                 | М                | clay          |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             | • ——              |                  |               |   |
| l ———          |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
| l              |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
| 1- 0.0         |  |             |                           |             |                   |                  | 2             |   |
|                |  | pletion, RM | =Reduced Matrix, MS       | S=Maske     | d Sand Gi         | ains.            | Location: Pl  | L=Pore Lining, M=Matrix.  Itors for Problematic Hydric Soils <sup>3</sup> : |
| Hydric Soil    |  |             |                           | (0=)        |                   |                  | _             |   |
| Histosol       |  |             | Dark Surface              | ` '         | (0.0) (           |                  |               | cm Muck (A10) (MLRA 147)  |
|                | oipedon (A2)                                   |             | Polyvalue Be Thin Dark Su |             |                   |                  | , 148)        | oast Prairie Redox (A16)  |
| Black Hi       |  |             |                           |             |                   | 147, 148)        |               | (MLRA 147, 148)   |
|                | en Sulfide (A4)                                |             | Loamy Gleye               |             | (FZ)              |                  | <b>—</b> P    | iedmont Floodplain Soils (F19)  |
|                | d Layers (A5)                                  |             | Depleted Mat Redox Dark S |             | F6)               |                  |               | (MLRA 136, 147)<br>ery Shallow Dark Surface (TF12)                          |
|                | ıck (A10) <b>(LRR N)</b><br>d Below Dark Surfa | 00 (411)    | Depleted Dark             |             | •                 |                  |               | ther (Explain in Remarks)   |
|                | ark Surface (A12)                              | ce (ATT)    | Redox Depre               |             |                   |                  |               | ther (Explain in Remarks)   |
| _              | Mucky Mineral (S1)                             | (I DD N     | Iron-Mangan               |             |                   | (I DD N          |               |   |
|                | 147, 148)                                      | (LKK N,     | MLRA 130                  |             | 565 (1 12)        | (LKK N,          |               |   |
|                | Gleyed Matrix (S4)                             |             | Umbric Surfa              |             | (MI DA 1          | 36 122)          | 3Ind          | icators of hydrophytic vegetation and                                       |
|                | Redox (S5)                                     |             | Piedmont Flo              |             |                   |                  |               | tland hydrology must be present,  |
|                | Matrix (S6)                                    |             | Red Parent M              |             |                   |                  |               | ess disturbed or problematic.   |
|                | Layer (if observed                             | ):          |                           | iatoriai (i | · / <b>(···-</b>  |                  | 7, <u> </u>   | ose distance of presidentation  |
| Type: NA       |  | , .         |                           |             |                   |                  |               | <u></u>   |
|                | ches): NA                                      |             |                           |             |                   |                  | Hydric Soil   | Present? Yes No V   |
| Remarks:       |  |             |                           |             |                   |                  | 1             |   |
| H <sub>2</sub> | ydric soils criter                             | ia is not r | net.                      |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
| l              |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
| l              |  |             |                           |             |                   |                  |               |   |
| l              |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |
| l              |  |             |                           |             |                   |                  |               |   |
|                |  |             |                           |             |                   |                  |               |   |



Upland data point wcuk006\_u facing Northwest



Upland data point wcuk006\_u facing Northeast



Upland data point wcuk006\_u soil sample

| Project/Site: Southeast Reliability Project  | _ City/County: NA/Cumberland   | _ Sampling Date: <u>07/30/14</u> |
|--|--|----------------------------------|
| Applicant/Owner: Dominion Transmission   | State: VA  | Sampling Point: wcuk005e_w       |
| Investigator(s): W. Medlin, J. Sweitzer, J. Dean   | _ Section, Township, Range: NA   |                                  |
|  | Local relief (concave, convex, none): concave                          | Slope (%): NA                    |
| Subregion (LRR or MLRA): LRR P Lat: 37.321980  |  | Datum: NAD 1983                  |
| Soil Map Unit Name: Riverview and Tuckahoe soils, 0 to 2% slopes                               | occassionally flooded NWI classifi                                     | cation: PEM1C                    |
| Are climatic / hydrologic conditions on the site typical for this time of                      |  |                                  |
| Are Vegetation Soil , or Hydrology significant   | tly disturbed? Are "Normal Circumstances"                              | present? Yes ✓ No                |
| Are Vegetation Soil , or Hydrology naturally p   | problematic? (If needed, explain any answe                             | ers in Remarks.)                 |
|  |  |                                  |
| SUMMARY OF FINDINGS – Attach site map showir   | ig sampling point locations, transects                                 | s, important features, etc.      |
| Hydrophytic Vegetation Present? Yes No   | 1  |                                  |
| Hydrophytic Vegetation Present? Yes Y No Hydric Soil Present? Yes Y No No                      | Is the Sampled Area within a Wetland? Yes                              | No                               |
| Wetland Hydrology Present? Yes V No  | 1 within a wettand: res  |                                  |
| Remarks:   | <u>.t                                     </u>                         |                                  |
| This area is an emergent floodplain depression that ap   | onears to hold water frequently for long o                             | turation. The area is            |
| grazed and trampled by cattle. All three criteria are me                                       |  |                                  |
|  |  |                                  |
| *Photos 100-0328 to 0332 (WLM camera)  |  |                                  |
| LIVEROLOGY   |  |                                  |
| HYDROLOGY  |  |                                  |
| Wetland Hydrology Indicators:  |  | ators (minimum of two required)  |
| Primary Indicators (minimum of one is required; check all that apply                           |  |                                  |
| Surface Water (A1)  True Aquatic   | <u> </u>   | egetated Concave Surface (B8)    |
|  | Ilfide Odor (C1) Drainage Pazospheres on Living Roots (C3) Moss Trim L | etterns (B10)                    |
|  | · · · · · · · · · · · · · · · ·  | Water Table (C2)                 |
|  | Reduction in Tilled Soils (C6)   |                                  |
| Drift Deposits (B3)  Thin Muck St  |  | isible on Aerial Imagery (C9)    |
|  |  | Stressed Plants (D1)             |
| Iron Deposits (B5)   |  | Position (D2)                    |
| Inundation Visible on Aerial Imagery (B7)  | <b>✓</b> Shallow Aqu   | uitard (D3)                      |
| Water-Stained Leaves (B9)  | ☐ Microtopogr  | aphic Relief (D4)                |
| Aquatic Fauna (B13)  | <b>✓</b> FAC-Neutra  | l Test (D5)                      |
| Field Observations:  |  |                                  |
| Surface Water Present? Yes No Depth (inches  | es):   |                                  |
| Water Table Present? Yes No Depth (inche   | es):   |                                  |
| Saturation Present? Yes No Depth (inche  | es): Wetland Hydrology Prese   | nt? Yes V No                     |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial pho | btos, previous inspections), if available:                             |                                  |
| NA   | ,  |                                  |
| Remarks:   |  |                                  |
| Hydrology criteria is met.   |  |                                  |
| Try are logy of tend to mot.   |  |                                  |
|  |  |                                  |
|  |  |                                  |
|  |  |                                  |
|  |  |                                  |
|  |  |                                  |
|  |  |                                  |
|  |  |                                  |
|  |  |                                  |

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

|   | Absolute | Dominant      | Indicator | Dominance Test worksheet:  |
|---|----------|---------------|-----------|--|
| Tree Stratum (Plot size: 30 ft radius )                 |          | Species?      |           | Number of Dominant Species   |
| 1. NA   |          |               |           | That Are OBL, FACW, or FAC: $\underline{2}$ (A)  |
| 2   |          |               |           |  |
| 3   |          |               |           | Total Number of Dominant Species Across All Strata: 2 (B)  |
|   |          |               |           | Species Across Air Strata(b)   |
| 4   |          |               |           | Percent of Dominant Species  |
| 5   |          |               |           | That Are OBL, FACW, or FAC: 100 (A/B)  |
| 6   |          |               |           | Prevalence Index worksheet:  |
|   |          | = Total Cov   | er        |  |
| 50% of total cover:                                     | 20% of   | total cover:  |           | Total % Cover of: Multiply by:  OBL species 60 x 1 = 60  |
| Sapling Stratum (Plot size: 15 ft radius                |          |               |           | 352 species x :  |
| <sub>1</sub> ΝΔ   |          |               |           | FACW species <u>70</u> x 2 = <u>140</u>  |
|   |          |               |           | FAC species $0 \times 3 = 0$   |
| 2   |          |               |           | FACU species 15 x 4 = 60   |
| 3   |          |               |           | UPL species 0 x 5 = 0  |
| 4   |          |               |           | Column Totals: 145 (A) 260 (B)   |
| 5   |          |               |           | Column rotals (A) (B)  |
| 6   |          |               |           | Prevalence Index = B/A = 1.79  |
|   |          | = Total Cov   | er        | Hydrophytic Vegetation Indicators:   |
|   |          |               |           | ✓ 1 - Rapid Test for Hydrophytic Vegetation  |
| 50% of total cover:                                     | 20% of   | total cover:  |           |  |
| Shrub Stratum (Plot size: 15 ft radius                  |          |               |           | ✓ 2 - Dominance Test is >50%   |
| 1. <u>NA</u>  |          |               |           | 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| 2   |          |               |           | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 3   |          |               |           | data in Remarks or on a separate sheet)  |
|   |          |               |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 4   |          |               |           |  |
| 5   |          |               |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must  |
| 6   |          |               |           | be present, unless disturbed or problematic.   |
|   |          | = Total Cov   | er        | Definitions of Five Vegetation Strata:   |
| 50% of total cover:                                     | 20% of   | total cover-  |           |  |
| Herb Stratum (Plot size: 10 ft radius )                 |          | total oo toll |           | Tree – Woody plants, excluding woody vines,  |
| 1. Eleocharis obtusa                                    | 40       | Υ             | OBL       | approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). |
|   |          | <u>'</u>      |           | (7.0 cm) of larger in diameter at breast neight (DBH).   |
| 2. Persicaria pensylvanica                              | 70       | · <u>*</u>    | FACW      | Sapling – Woody plants, excluding woody vines,   |
| 3. Xanthium strumarium                                  | 10       |               | FAC       | approximately 20 ft (6 m) or more in height and less   |
| 4. <u> </u>   |          |               |           | than 3 in. (7.6 cm) DBH.   |
| 5   |          |               |           | Shrub – Woody plants, excluding woody vines,   |
| 6   |          |               |           | approximately 3 to 20 ft (1 to 6 m) in height.   |
|   |          |               |           | Harb All leaders on (see woods) plants including   |
| 7   |          |               |           | Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody          |
| 8   |          |               |           | plants, except woody vines, less than approximately 3  |
| 9   |          |               |           | ft (1 m) in height.  |
| 10  |          |               |           | Woody vine All woody vines regardless of height  |
| 11  |          |               |           | <b>Woody vine</b> – All woody vines, regardless of height.   |
|   | 120      | = Total Cov   | er        |  |
| 500% - ( ) - ( ) - ( ) - ( ) - ( ) - ( )                |          |               |           |  |
|   | 20% 01   | total cover:  |           |  |
| Woody Vine Stratum (Plot size: 15 ft radius             |          |               |           |  |
| 1. NA   |          |               |           |  |
| 2   |          |               |           |  |
| 3.  |          |               |           |  |
| 4   |          |               |           |  |
| E   |          |               |           |  |
| J   |          | Table         |           | Hydrophytic  |
|   |          | = Total Cov   | er        | Vegetation Vegetation  |
| 50% of total cover:                                     | 20% of   | total cover:  |           | Present? Yes Y No No   |
| Remarks: (Include photo numbers here or on a separate s | sheet.)  |               |           |  |
| Hydrophytic vegetation criteria is met. Vegetation      |          | by cattle     |           |  |
| ,   |          | -,            |           |  |

Sampling Point: \_wcuk005e\_w

SOIL

| Drofile Doso | rintion: (Describe           | to the den  | th needed to docum                                   | ant the i   | ndicator          | or confirm       | the absence              | of indicators )  |
|--------------|------------------------------|-------------|--|-------------|-------------------|------------------|--------------------------|--|
| Depth        | Matrix                       | to the dep  |  | K Features  |                   | or commi         | i die absence            | of indicators.   |
| (inches)     | Color (moist)                | %           | Color (moist)  | <u> </u>    | Type <sup>1</sup> | Loc <sup>2</sup> | Texture                  | Remarks  |
| 0-10         | 10YR 5/1                     | 85          | 7.5YR 5/8  | 15          | С                 | PL               | clay                     | dense  |
| 10-20        | 10YR 5/2                     | 70          | 7.5YR 4/6  | 30          | С                 | PL               | clay                     |  |
| -            |                              |             | •  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             | -                 |                  |                          |  |
|              | -                            |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              | letion, RM= | Reduced Matrix, MS                                   | =Masked     | Sand Gra          | ains.            | <sup>2</sup> Location: P | L=Pore Lining, M=Matrix.                                   |
| Hydric Soil  |                              |             | _  |             |                   |                  | _                        | ators for Problematic Hydric Soils 3:                      |
| Histosol     | • •                          |             | Dark Surface   |             | () (-             |                  |                          | cm Muck (A10) (MLRA 147)                                   |
|              | oipedon (A2)                 |             | Polyvalue Be   |             |                   |                  | 148) L C                 | coast Prairie Redox (A16)                                  |
| Black Hi     | stic (A3)<br>en Sulfide (A4) |             | Thin Dark Su   |             |                   | 47, 148)         |                          | (MLRA 147, 148)  |
| _ , ,        | d Layers (A5)                |             | <ul><li>Loamy Gleye</li><li>✓ Depleted Mat</li></ul> |             | F2)               |                  |                          | iedmont Floodplain Soils (F19) (MLRA 136, 147)             |
|              | ick (A10) (LRR N)            |             | Redox Dark S   |             | 6)                |                  | Пу                       | ery Shallow Dark Surface (TF12)                            |
|              | d Below Dark Surfac          | e (A11)     | Depleted Dar   |             |                   |                  |                          | ory challes Earl Sandes (11 12)  ther (Explain in Remarks) |
|              | ark Surface (A12)            | ,           | Redox Depre  |             |                   |                  |                          | ,  |
| Sandy M      | Mucky Mineral (S1) (         | LRR N,      | ☐ Iron-Mangane                                       | ese Mass    | es (F12) <b>(</b> | LRR N,           |                          |  |
|              | A 147, 148)                  |             | MLRA 136   | 5)          |                   |                  |                          |  |
|              | Sleyed Matrix (S4)           |             | Umbric Surfa   |             |                   |                  |                          | licators of hydrophytic vegetation and                     |
|              | Redox (S5)                   |             | Piedmont Flo   |             |                   |                  |                          | etland hydrology must be present,                          |
|              | Matrix (S6)                  |             | Red Parent M   | laterial (F | 21) <b>(MLR</b>   | A 127, 147       | /) un                    | less disturbed or problematic.                             |
| Type: N      | Layer (if observed)<br>A     | i           |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          | Present? Yes Vo No   |
|              | ches): NA                    |             | <del></del>  |             |                   |                  | Hydric Soil              | Present? Yes No  |
| Remarks:     | vdric soils criteri          | a is met    | Very dense and                                       | compac      | ted clav          | laver ho         | olds surface             | water  |
|              | ,                            |             | ,  |             |                   | , 0              |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
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|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
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|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |
|              |                              |             |  |             |                   |                  |                          |  |



Wetland data point wcuk005e\_w facing Northwest



Wetland data point wcuk005e\_w facing Northeast



Wetland data point wcuk005e\_w soil sample

| Project/Site: Dominion Southeast Reliability Project   | City/County: Cum  | berland  | Sampling Date: 07/30/2014          |  |  |
|--|---|--|------------------------------------|--|--|
| Applicant/Owner: Dominion Transmission   |   | State: VA  | Sampling Point: wcuk005_u          |  |  |
| Investigator(s): J. Sweitzer, W. Medlin  | Section, Township   | . Range: NA  |                                    |  |  |
| Landform (hillslope, terrace, etc.): Stream bank/Natural Levee  Subregion (LRR or MLRA): LRR P Lat: 37.321 | Local relief (conceyo   | convoy none), none   | Slone (%): 0-2                     |  |  |
| Subregion (LRR or MLRA): LRR P   | 376586  | Long: 78.306440708   |                                    |  |  |
| Soil Map Unit Name: Riverview and Tuckahoe soils, 0 to 2 per   | ent slopes, occasionally f                                      | looded NWI class   | ification: Upland                  |  |  |
| Are climatic / hydrologic conditions on the site typical for this tim                                      |   |  |                                    |  |  |
| Are Vegetation, Soil, or Hydrology signi   |   |  | s" present? Yes No                 |  |  |
| Are Vegetation, Soil, or Hydrology natu  |   | (If needed, explain any ans                                      |                                    |  |  |
| SUMMARY OF FINDINGS – Attach site map sho  |   |  | •                                  |  |  |
| Hydrophytic Vegetation Present? Yes No   | ./  |  |                                    |  |  |
| Hydrophytic Vegetation Present? Yes No_<br>Hydric Soil Present? Yes No_                                    | / lo the can  |  |                                    |  |  |
| Wetland Hydrology Present? Yes No  |   | etland? Yes  | No                                 |  |  |
| Remarks:   |   |  |                                    |  |  |
| Photos 104-4655 to 4659 Soils, N, S, E, W (J. Sweitzer Camel   | a)  |  |                                    |  |  |
|  |   |  |                                    |  |  |
| Upland plot established on a natural levee on the NW side of the   | ne Appomattox River.  |  |                                    |  |  |
| HYDROLOGY  |   |  |                                    |  |  |
| HYDROLOGY  |   | Casandanilad   | instance (minimum of the manufact) |  |  |
| Wetland Hydrology Indicators:  | annlu)  | · · · · · · · · · · · · · · · · · · ·                            | icators (minimum of two required)  |  |  |
| Primary Indicators (minimum of one is required; check all that   |   | Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) |                                    |  |  |
| Surface Water (A1) True Aq<br>High Water Table (A2) Hydroge  | Sparsely vegetated Concave Surface (B8) Drainage Patterns (B10) |  |                                    |  |  |
| <u> </u>   | en Sulfide Odor (C1)  | Roots (C3) Moss Trim   |                                    |  |  |
|  | ce of Reduced Iron (C4)   | · / <del></del>  | on Water Table (C2)                |  |  |
|  | Iron Reduction in Tilled So                                     | ·  |                                    |  |  |
| Drift Deposits (B3) Thin Mu  | Saturation Visible on Aerial Imagery (C9)                       |  |                                    |  |  |
|  | Explain in Remarks)   | Stunted or Stressed Plants (D1)                                  |                                    |  |  |
| Iron Deposits (B5)   | ,   | Geomorphic Position (D2)   |                                    |  |  |
| Inundation Visible on Aerial Imagery (B7)  |   | Shallow Aquitard (D3)  |                                    |  |  |
| Water-Stained Leaves (B9)  |   |  | graphic Relief (D4)                |  |  |
| Aquatic Fauna (B13)  |   | FAC-Neut   | ral Test (D5)                      |  |  |
| Field Observations:  |   |  |                                    |  |  |
| Surface Water Present? Yes No ✓ _ Depth  |   |  |                                    |  |  |
| Water Table Present? Yes No ✓ _ Depth  | (inches):   |  |                                    |  |  |
| Saturation Present? Yes No ✓ Depth   | (inches):   | Wetland Hydrology Pres   | sent? Yes No✓                      |  |  |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aeria                  | al photos previous inspec                                       | tions) if available:   |                                    |  |  |
| NA   | ii pilotos, previous irispec                                    | iions), ii avallable.  |                                    |  |  |
| Remarks:   |   |  |                                    |  |  |
| No indicators of wetland hydrology.  |   |  |                                    |  |  |
|  |   |  |                                    |  |  |
|  |   |  |                                    |  |  |
|  |   |  |                                    |  |  |
|  |   |  |                                    |  |  |
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|  |   |  |                                    |  |  |
|  |   |  |                                    |  |  |
|  |   |  |                                    |  |  |

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

Sampling Point: wcuk005\_u

|  | Absolute      | Dominant     | Indicator  | Dominance Test worksheet:   |
|--|---------------|--------------|------------|---|
| <u>Tree Stratum</u> (Plot size: 30 ft R )                      |               |              | Status     | Number of Dominant Species  |
| <sub>1.</sub> Liquidambar styraciflua                          | 20            | Υ            | FAC        | That Are OBL, FACW, or FAC:1 (A)                                  |
| 2 Carya tomentosa  | 10            | Y            | NL         |   |
| Carya cordiformis  | 10            | Y            | FACU       | Total Number of Dominant  |
| Ulmus rubra  | 5             |              | FAC        | Species Across All Strata: (B)                                    |
| 4  |               |              |            | Percent of Dominant Species                                       |
| 5  |               |              |            | That Are OBL, FACW, or FAC: 25 (A/B)                              |
| 6  |               |              |            | Prevalence Index worksheet:                                       |
| 7  |               |              |            |   |
|  |               | = Total Cove |            | Total % Cover of: Multiply by:                                    |
| 50% of total cover: 23   | 20% of        | total cover: | 19         | OBL species x 1 =   |
| Sapling/Shrub Stratum (Plot size: 15 ft R )                    |               |              |            | FACW species x 2 =  |
| 1. NA  | NA            | NA           | NA         | FAC species x 3 =   |
| 2  |               |              |            | FACU species x 4 =  |
| 3  |               |              |            | UPL species x 5 =   |
| 4  |               |              |            | Column Totals: (A) (B)  |
|  |               |              |            |   |
| 5  |               |              |            | Prevalence Index = B/A =  |
| 6  |               |              |            | Hydrophytic Vegetation Indicators:                                |
| 7  |               |              |            | 1 - Rapid Test for Hydrophytic Vegetation                         |
| 8  |               |              |            | 2 - Dominance Test is >50%  |
| 9  |               |              |            | 3 - Prevalence Index is ≤3.0 <sup>1</sup>                         |
|  |               | = Total Cove | er         | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting    |
| 50% of total cover:  | 20% of        | total cover: |            |   |
| Herb Stratum (Plot size: 5 FT R )                              |               |              |            | data in Remarks or on a separate sheet)                           |
| 1. Poa pratensis   | 20            | Υ            | FACU       | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         |
| 2 Schedonorus arundinaceus                                     | 80            | Y            | FACU       |   |
|  |               |              |            | <sup>1</sup> Indicators of hydric soil and wetland hydrology must |
| 3  |               |              |            | be present, unless disturbed or problematic.                      |
| 4  |               |              |            | Definitions of Four Vegetation Strata:                            |
| 5  |               |              |            | Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or           |
| 6  |               |              |            | more in diameter at breast height (DBH), regardless of            |
| 7  |               |              |            | height.   |
| 8  |               |              |            | Sapling/Shrub – Woody plants, excluding vines, less               |
| 9  |               |              |            | than 3 in. DBH and greater than or equal to 3.28 ft (1            |
| 10   |               |              |            | m) tall.  |
| 11.  |               |              |            | Herb – All herbaceous (non-woody) plants, regardless              |
|  | 100           | = Total Cove | or .       | of size, and woody plants less than 3.28 ft tall.                 |
| 50% of total cover: 50   |               | total cover: |            |   |
| Woody Vine Stratum (Plot size:30 Ft R)                         |               |              |            | <b>Woody vine</b> – All woody vines greater than 3.28 ft in       |
| 1. NA  | NA            | NA           | NA         | height.   |
|  |               |              |            |   |
| 2  |               |              |            |   |
| 3  |               |              |            |   |
| 4  |               |              |            | Hydrophytic   |
| 5  |               |              |            | Vegetation  |
|  |               | = Total Cove | er         | Present? Yes No   |
| 50% of total cover:  | 20% of        | total cover: |            |   |
| Remarks: (Include photo numbers here or on a separate s        | heet.)        |              |            | •   |
| Vegetation fails dominance test and hydrophytic vegetation     | criteria is n | ot met. Catt | le grazing | has impacted herbaceous vegetation making it difficult to         |
| identify plants. Plot located on edge of forested riparian zon | e/open pas    | ture betwee  | n depressi | ional wetland and Appomattox River                                |
|  |               |              |            |   |
|  |               |              |            |   |
|  |               |              |            |   |
|  |               |              |            |   |
|  |               |              |            |   |
|  |               |              |            |   |

Sampling Point: wcuk005\_u

SOIL

| Profile Desc                          | cription: (Describe                      | to the dep | th needed to docum         | ent the i  | ndicator c         | r confirm        | the absence    | of indicators.)   |                   |
|---------------------------------------|--|------------|----------------------------|------------|--------------------|------------------|----------------|---|-------------------|
| Depth <u>Matrix</u>                   |  |            | Redox Features             |            |                    |                  |                |   |                   |
| (inches)                              | Color (moist)                            | %          | Color (moist)              | <u>%</u>   | Type <sup>1</sup>  | Loc <sup>2</sup> | <u>Texture</u> | Remarks   |                   |
| 0-11                                  | 7.5YR 5/6                                | 100        | NA                         | NA         | NA                 | NA_              | SiL            | Silt loam   |                   |
| 11-16                                 | 10YR 6/4                                 | 50         | NA                         | NA         | NA                 | NA               | SaL            | Fine sandy loam; Mixed ma                                   | trix              |
| 11-16                                 | 7.5YR 5/6                                | 50         | NA                         | NA         | NA                 | NA               | SaL            | Fine sandy loam; Mixed ma                                   | trix              |
| 16-20                                 | 10YR 6/4                                 | 70         | NA                         | NA         | NA                 | NA_              | LSa            | Loamy fine sand; Mixed ma                                   | trix              |
| 16-20                                 | 10YR 5/6                                 | 30         | NA                         | NA         | NA                 | NA NA            | LSa            | Loamy fine sand; Mixed ma                                   | trix              |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
| <del> </del>                          |  |            |                            |            |                    |                  |                |   |                   |
| <sup>1</sup> Type: C=C<br>Hydric Soil |  | letion, RM | =Reduced Matrix, MS        | =Masked    | Sand Gra           | ins.             |                | L=Pore Lining, M=Matrix.  Itors for Problematic Hydric Soi  | le <sup>3</sup> . |
| '                                     |  |            | Dark Curfoss               | (07)       |                    |                  |                | •   | is .              |
| Histosol                              | pipedon (A2)                             |            | Dark Surface Polyvalue Bel |            | ce (S8) <b>(M</b>  | I RΔ 147         |                | cm Muck (A10) <b>(MLRA 147)</b><br>oast Prairie Redox (A16) |                   |
|                                       | istic (A3)                               |            | Thin Dark Sur              |            |                    |                  | 0              | (MLRA 147, 148)   |                   |
|                                       | en Sulfide (A4)                          |            | Loamy Gleye                |            |                    | ,,               | Р              | iedmont Floodplain Soils (F19)                              |                   |
|                                       | d Layers (A5)                            |            | Depleted Mat               | •          | ,                  |                  | _              | (MLRA 136, 147)   |                   |
| 2 cm Mu                               | uck (A10) (LRR N)                        |            | Redox Dark S               | Surface (F | 6)                 |                  | ∨              | ery Shallow Dark Surface (TF12)                             |                   |
| . –                                   | d Below Dark Surface                     | e (A11)    | Depleted Darl              |            |                    |                  | _ 0            | ther (Explain in Remarks)                                   |                   |
| _                                     | ark Surface (A12)                        |            | Redox Depres               | •          | •                  |                  |                |   |                   |
|                                       | Mucky Mineral (S1) (L                    | .RR N,     | Iron-Mangane               |            | es (F12) <b>(L</b> | .RR N,           |                |   |                   |
|                                       | <b>A 147, 148)</b><br>Gleyed Matrix (S4) |            | MLRA 136<br>Umbric Surfac  | •          | MI DA 136          | : 122\           | 3Ind           | icators of hydrophytic vegetation a                         | nd                |
|                                       | Redox (S5)                               |            | Piedmont Flor              |            |                    |                  |                | tland hydrology must be present,                            | iiiu              |
| . —                                   | Matrix (S6)                              |            | Red Parent M               | •          |                    |                  | •              | less disturbed or problematic.                              |                   |
|                                       | Layer (if observed):                     |            |                            |            | , (                | •                | <u></u>        | ,                     |                   |
| Type: NA                              | 4  |            |                            |            |                    |                  |                |   |                   |
|                                       | ches): NA                                |            |                            |            |                    |                  | Hydric Soil    | Present? Yes No   | ✓                 |
| Remarks:                              |  |            |                            |            |                    |                  |                |   |                   |
| No indicators                         | of hydric soils obser                    | ved.       |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |
|                                       |  |            |                            |            |                    |                  |                |   |                   |



Upland data point wcuk005\_u facing East



Upland data point wcuk005\_u facing Southwest



Upland data point wcuk005\_u soil sample