

Attachment D

Data Sheets

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: 6219 / E-85 City/County: Cherokee Sampling Date: 12/02/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WA-2 (wet)
 Investigator(s): N. Howell / S. Roberts Section, Township, Range: Grover, SC
 Landform (hillslope, terrace, etc.): field plain / TOS Local relief (concave, convex, none): flat - slightly concave Slope (%):
 Subregion (LRR or MLRA): LRRP Lat: 35.161203 Long: -81.458171 Datum: NAD-83
 Soil Map Unit Name: Tmd2 - Tatum very fine sandy loam 10-15% eroded NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|---|---------------------------------------|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | |
| Remarks: | | | |

HYDROLOGY

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|---|---|--|
| Primary Indicators (minimum of one is required; check all that apply) | | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input checked="" type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input checked="" type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

| | | | |
|-----------------------------|---|-----------------|--|
| Surface Water Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Depth (inches): | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Depth (inches): | <u>9</u> |
| Saturation Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Depth (inches): | <u>14</u> |
| (includes capillary fringe) | | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

unusually wet few months

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

 Sampling Point: WA-Z (wet)

| Tree Stratum (Plot size: <u>10/25/5</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|---|
| 1. <u>L. tulipifera</u> | <u>40</u> | | <u>FACU</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) |
| 2. <u>A. rubrum</u> | <u>10</u> | | <u>FAC</u> | Total Number of Dominant Species Across All Strata: <u>1</u> (B) |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 50% of total cover: <u>25</u> <u>50</u> = Total Cover 20% of total cover: <u>10</u> | | | | 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 = _____ |
| Sapling/Shrub Stratum (Plot size: <u>5/5</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 1. <u>Q. nigra</u> | <u>5</u> | | <u>FAC</u> | |
| 2. <u>Corylus americana</u> ? | <u>3</u> | | | |
| 3. <u>L. styraciflua</u> | <u>3</u> | | <u>FAC</u> | |
| 4. <u>L. sinense</u> | <u>5</u> | | <u>FACU</u> | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 9. _____ | | | | |
| 50% of total cover: <u>8</u> <u>16</u> = Total Cover 20% of total cover: <u>3.2</u> | | | | |
| Herb Stratum (Plot size: <u>5/5</u>) | | | | |
| 1. <u>M. vimineum</u> | <u>10</u> | | <u>FAC</u> | 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. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ |
| 2. <u>P. acrostichoides</u> | <u>5</u> | | <u>FACU</u> | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 9. _____ | | | | |
| 10. _____ | | | | |
| 50% of total cover: <u>7.5</u> <u>15</u> = Total Cover 20% of total cover: <u>3</u> | | | | |
| Woody Vine Stratum (Plot size: <u>5/5</u>) | | | | |
| 1. <u>L. japonica</u> | <u>20</u> | | <u>FAC</u> | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 50% of total cover: <u>10</u> <u>20</u> = Total Cover 20% of total cover: <u>4</u> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

Sampling Point: WA-2 (wet)

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: 6214 / I-85 City/County: Cherokee Sampling Date: 12-2-15
 Applicant/Owner: SCDOT State: SC Sampling Point: WA3 UP
 Investigator(s): N. Howell & J. Roberts Section, Township, Range: Grover, SC
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Linear Slope (%): 12
 Subregion (LRR or MLRA): LRR-P Lat: 35.161203 Long: -81.458171 Datum: NAD 83
 Soil Map Unit Name: TmD2 - Tatum very fine sandy loam, 0-15% bedded NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|--|--|--|
| Hydrophytic Vegetation Present? | Yes _____ No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? | Yes _____ No <input checked="" type="checkbox"/> | |
| Remarks: <u>Wetland point taken on foot slope, upland. Photo taken of wetland</u> | | |

HYDROLOGY

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

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

 Sampling Point: WA-3 UP

| Tree Stratum (Plot size: <u>10m²</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. <u>Liriodendron tulipifera</u> | <u>35</u> | | <u>FACU</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B) |
| 2. <u>Quercus nigra</u> | <u>20</u> | | <u>FAC</u> | |
| 3. <u>Quercus montana</u> | <u>15</u> | | <u>UPL</u> | |
| 4. <u>Quercus alba</u> | <u>15</u> | | <u>FACU</u> | |
| 5. _____ | | | | 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 = _____ |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 50% of total cover: <u>85</u> = Total Cover 20% of total cover: <u>17</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: <u>10m²</u>) | | | | |
| 1. <u>Juniperus virginiana</u> | <u>5</u> | | <u>FACU</u> | |
| 2. <u>Liquidambar styraciflua</u> | <u>5</u> | | <u>FAC</u> | |
| 3. <u>Carya tomentosa</u> | <u>10</u> | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 50% of total cover: <u>20</u> = Total Cover 20% of total cover: <u>4</u> | | | | Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> |
| Herb Stratum (Plot size: <u>5m²</u>) | | | | |
| 1. <u>Polystichum acrostichum</u> | <u>2</u> | | <u>FACU</u> | |
| 2. <u>Diaphasiastrum digitatum</u> | <u>15</u> | | | |
| 3. <u>Luniera japonica</u> | <u>15</u> | | <u>FAC</u> | |
| 4. <u>Lagotis stramonii</u> | <u>5</u> | | <u>FACU</u> | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 50% of total cover: <u>10</u> = Total Cover 20% of total cover: <u>2</u> | | | | |
| Woody Vine Stratum (Plot size: <u>5m²</u>) | | | | |
| 1. <u>Toxicodendron radicans</u> | <u>5</u> | | <u>FAC</u> | |
| 2. <u>Luniera japonica</u> | <u>5</u> | | <u>FAC</u> | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 50% of total cover: <u>10</u> = Total Cover 20% of total cover: <u>2</u> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |
| | | | | |
| | | | | |

Sampling Point: WA-3 UP

Sampling Point: WA-3 UP

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ___ Thin Dark Surface (S9) (MLRA 147, 148)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ___ Umbric Surface (F13) (MLRA 136, 122)
- ___ Piedmont Floodplain Soils (F19) (MLRA 148)
- ___ Red Parent Material (F21) (MLRA 127, 147)

- 2 cm Muck (A10) (MLRA 147)
 — Coast Prairie Redox (A16)
 (MLRA 147, 148)
 — Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
 — Very Shallow Dark Surface (TF12)
 — Other (Explain in Remarks)

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

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: 6214/I-85 City/County: Cherokee Sampling Date: 12/02/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WB-3(wet)
 Investigator(s): N. Howen & S. Roberts Section, Township, Range: Grover, SC
 Landform (hillslope, terrace, etc.): Flat / Floodplain Local relief (concave, convex, none): flat Slope (%): 1-2
 Subregion (LRR or MLRA): LRRP Lat: 35.159644 Long: -81.462089 Datum: NAD83
 Soil Map Unit Name: TmE - Tatum very fine sandy loam NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|---------------------------------|--|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: | | |

HYDROLOGY

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

Remarks:

Floodplain wetland (small) 10 yds on both sides of creek
 ↓
 Toe of slope

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

Sampling Point: WB-3 WET

| Tree Stratum (Plot size: _____) | | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|---|--------------------------|--------------------------------|-------------------|------------------|---|---------------------|
| 1. | <u>A. rubrum</u> | <u>50</u> | | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: | <u>2</u> (A) |
| 2. | <u>Q. alba</u> | <u>40</u> | | <u>FACU</u> | Total Number of Dominant Species Across All Strata: | <u>3</u> (B) |
| 3. | | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: | <u>66</u> (A/B) |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| | | <u>40</u> = Total Cover | | | | |
| 50% of total cover: <u>45</u> | | 20% of total cover: <u>18</u> | | | | |
| Sapling/Shrub Stratum (Plot size: _____) | | | | | Prevalence Index worksheet: | |
| 1. | <u>L. sinense</u> | <u>5</u> | | <u>FACU</u> | Total % Cover of: | Multiply by: |
| 2. | | | | | OBL species | x 1 = _____ |
| 3. | | | | | FACW species | x 2 = _____ |
| 4. | | | | | FAC species | x 3 = _____ |
| 5. | | | | | FACU species | x 4 = _____ |
| 6. | | | | | UPL species | x 5 = _____ |
| 7. | | | | | Column Totals: | (A) _____ (B) _____ |
| 8. | | | | | Prevalence Index = B/A = _____ | |
| 9. | | | | | | |
| | | <u>5</u> = Total Cover | | | | |
| 50% of total cover: <u>2.5</u> | | 20% of total cover: <u>1</u> | | | | |
| Herb Stratum (Plot size: _____) | | | | | Hydrophytic Vegetation Indicators: | |
| 1. | <u>Rubus sp.</u> | <u>10</u> | | | 1 - Rapid Test for Hydrophytic Vegetation | |
| 2. | <u>W. gerardii</u> | <u>203</u> | | <u>FACW</u> | <input checked="" type="checkbox"/> 2 - Dominance Test is >50% | |
| 3. | <u>P. acrostichoides</u> | <u>5</u> | | <u>FACU</u> | <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ | |
| 4. | <u>W. virginica</u> | <u>320</u> | | <u>OBL</u> | <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) | |
| 5. | | | | | <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 6. | | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |
| 10. | | | | | | |
| 11. | | | | | | |
| | | <u>38</u> = Total Cover | | | | |
| 50% of total cover: <u>19</u> | | 20% of total cover: <u>7.6</u> | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | Definitions of Four Vegetation Strata: | |
| 1. | <u>L. japonica</u> | <u>10</u> | | <u>FAC</u> | Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. | |
| 2. | | | | | Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. | |
| 3. | | | | | Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. | |
| 4. | | | | | Woody vine - All woody vines greater than 3.28 ft in height. | |
| 5. | | | | | | |
| | | <u>10</u> = Total Cover | | | | |
| 50% of total cover: <u>5</u> | | 20% of total cover: <u>2</u> | | | | |
| | | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | |

SOIL

Sampling Point: WB-3

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ 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, MLRA 147, 148**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- ___ 2 cm Muck (A10) (MLRA 147)
 ___ Coast Prairie Redox (A16)
 (MLRA 147, 148)
 ___ Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 6214 / I-85 City/County: Cherokee Sampling Date: 12/02/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WB-3 (4P)
 Investigator(s): N. Howell & J. Roberts Section, Township, Range: Grover, SC
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%):
 Subregion (LRR or MLRA): LRR-P Lat: 35.159644 Long: -81.462089 Datum: NAD-83
 Soil Map Unit Name: TME-Tatum very fine sandy loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|---------------------------------|---|---|
| Hydrophytic Vegetation Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Remarks: | | |

HYDROLOGY

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

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WB-34P

| Tree Stratum (Plot size: <u>10/10 m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|---|
| 1. <u>A. rubrum</u> | <u>50</u> | | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) |
| 2. <u>Q. alba</u> | <u>30</u> | | <u>FACU</u> | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 3. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B) |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 50% of total cover: <u>40</u> 80 = Total Cover 20% of total cover: <u>16</u> | | | | 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 = _____ |
| Sapling/Shrub Stratum (Plot size: <u>5/5 m</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 1. <u>P. serotinus</u> | <u>5</u> | | <u>FACU</u> | |
| 2. <u>N. sylvatica</u> | <u>3</u> | | <u>FAC</u> | |
| 3. <u>Q. phellos</u> | <u>3</u> | | <u>FAC</u> | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 9. _____ | | | | |
| 50% of total cover: <u>5.5</u> 11 = Total Cover 20% of total cover: <u>2.2</u> | | | | |
| Herb Stratum (Plot size: <u>5/5 m</u>) | | | | 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. |
| 1. <u>Rubus sp.</u> | <u>25</u> | | | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 9. _____ | | | | |
| 50% of total cover: <u>12.5</u> 25 = Total Cover 20% of total cover: <u>5</u> | | | | |
| Woody Vine Stratum (Plot size: <u>5/5</u>) | | | | Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> |
| 1. _____ | | | | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 50% of total cover: _____ _____ = Total Cover 20% of total cover: _____ | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

Sampling Point: WB-3 UP

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> ___ Histosol (A1) ___ Histic Epipedon (A2) ___ Black Histic (A3) ___ 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, MLRA 147, 148) ___ Sandy Gleyed Matrix (S4) ___ Sandy Redox (S5) ___ Stripped Matrix (S6) | <ul style="list-style-type: none"> ___ Dark Surface (S7) ___ Polyvalue Below Surface (S8) (MLRA 147, 148) ___ Thin Dark Surface (S9) (MLRA 147, 148) ___ Loamy Gleyed Matrix (F2) ___ Depleted Matrix (F3) ___ Redox Dark Surface (F6) ___ Depleted Dark Surface (F7) ___ Redox Depressions (F8) ___ Iron-Manganese Masses (F12) (LRR N, MLRA 136) ___ Umbric Surface (F13) (MLRA 136, 122) ___ Piedmont Floodplain Soils (F19) (MLRA 148) ___ Red Parent Material (F21) (MLRA 127, 147) | <ul style="list-style-type: none"> ___ 2 cm Muck (A10) (MLRA 147) ___ Coast Prairie Redox (A16) (MLRA 147, 148) ___ Piedmont Floodplain Soils (F19) (MLRA 136, 147) ___ Very Shallow Dark Surface (TF12) ___ Other (Explain in Remarks) |
|--|--|---|
- ³Indicators of hydrophytic vegetation wetland hydrology must be present, unless disturbed or problematic.

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

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: 6214 / I-85 City/County: Cherokee Sampling Date: 12/03/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WC-2 (wet)
 Investigator(s): N. Howell + S. Roberts Section, Township, Range: Grover
 Landform (hillslope, terrace, etc.): hillside seep Local relief (concave, convex, none): slightly convex Slope (%): 10
 Subregion (LRR or MLRA): LRR-P Lat: 35.158606 Long: -81.461904 Datum: NAD 83
 Soil Map Unit Name: TmE - tatum very fine sandy loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|---------------------------------|--|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: | | |

HYDROLOGY

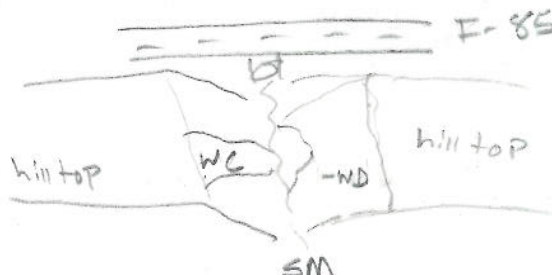
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|---|---|--|
| Primary Indicators (minimum of one is required; check all that apply) | | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input checked="" type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input checked="" type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

| | | |
|---|---|---|
| Field Observations: | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Surface Water Present? | Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ | |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8</u> | |
| Saturation Present? (includes capillary fringe) | Yes _____ No _____ Depth (inches): _____ | |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland originates from hillside seep



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

 Sampling Point: WC-2 (wet)

| Tree Stratum (Plot size: <u>10 X 10 m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. <u>C. Caroliniana</u> | <u>20</u> | | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) |
| 2. <u>P. occidentalis</u> | <u>10</u> | | <u>FACW</u> | Total Number of Dominant Species Across All Strata: <u>1</u> (B) |
| 3. <u>L. tulipifera</u> | <u>10</u> | | <u>FACW</u> | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 50% of total cover: <u>40</u> = Total Cover 20% of total cover: <u>8</u> | | | | 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 = _____ |
| Sapling/Shrub Stratum (Plot size: <u>10 X 10 m</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. <u>A. serrulata</u> | <u>10</u> | | <u>OBL</u> | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. |
| 2. <u>Elaeagnus umbellata</u> | <u>5</u> | | <u>FACW</u> | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 9. _____ | | | | |
| 10. _____ | | | | |
| 11. _____ | | | | |
| 50% of total cover: <u>15</u> = Total Cover 20% of total cover: <u>3</u> | | | | |
| Herb Stratum (Plot size: <u>10 X 10 m</u>) | | | | |
| 1. <u>A. teeta</u> | <u>5</u> | | <u>FACW</u> | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 2. <u>P. acrostichoides</u> | <u>10</u> | | <u>FACW</u> | |
| 3. <u>Chelone glabra</u> | <u>5</u> | | <u>OBL</u> | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 9. _____ | | | | |
| 10. _____ | | | | |
| 11. _____ | | | | |
| 50% of total cover: <u>20</u> = Total Cover 20% of total cover: <u>4</u> | | | | |
| Woody Vine Stratum (Plot size: <u>10 X 10 m</u>) | | | | |
| 1. <u>L. japonica</u> | <u>10</u> | | <u>FAC</u> | |
| 2. <u>Smilax sp.</u> | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 50% of total cover: <u>10</u> = Total Cover 20% of total cover: <u>2</u> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

SOIL

Sampling Point: W/C-2 (wet)

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|----|----------------|----|-------------------|------------------|---------|-------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-3 | 10YR 3/2 | 80 | 10YR 4/2 | 5 | D | M | L | |
| | | | 10YR 5/3 | 15 | C | M | | |
| 3-5 | 10YR 5/3 | 75 | 10YR 4/2 | 15 | D | M | L | |
| | | | 5YR 5/6 | 10 | - | - | L | overburden mixing |
| 5-18 | 10YR 5/2 | 85 | 10YR 6/1 | 5 | D | M | SC2 | |
| | | | 5YR 5/6 | 10 | C | PL | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ 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, MLRA 147, 148)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Umbric Surface (F13) (MLRA 136, 122)
☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (MLRA 147)
☐ Coast Prairie Redox (A16) (MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 / 6214 City/County: Cherokee Sampling Date: 12-3-15
 Applicant/Owner: SCDOT State: SC Sampling Point: WC-2 (dry)
 Investigator(s): J. Roberts, N. Howell Section, Township, Range: Grover, SC
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 10
 Subregion (LRR or MLRA): LRR-P Lat: 35.1581006 Long: -81.461904 Datum: NAD 83
 Soil Map Unit Name: TME- latum very fine sandy loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|--|--|--|
| Hydrophytic Vegetation Present? | Yes _____ No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? | Yes _____ No <input checked="" type="checkbox"/> | |
| Remarks: <u>Upland point sampled along foot slope, above wetland</u> | | |

HYDROLOGY

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

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WC-2 (dry)

| Tree Stratum (Plot size: <u>10m²</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. <u>Liriodendron tulipifera</u> | <u>65</u> | | <u>FACU</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B) |
| 2. <u>Quercus alba</u> | <u>20</u> | | <u>FACU</u> | |
| 3. <u>Acer rubrum</u> | <u>5</u> | | <u>FAC</u> | |
| 4. <u>Quercus macrocarpa</u> | <u>5</u> | | <u>UPL</u> | |
| 5. _____ | _____ | _____ | _____ | 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 = _____ |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>42.5</u> = Total Cover 20% of total cover: <u>19</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: <u>10m²</u>) | | | | |
| 1. <u>Carpinus caroliniana</u> | <u>30</u> | | <u>FAC</u> | |
| 2. <u>Carya tomentosa</u> | <u>10</u> | | _____ | |
| 3. _____ | _____ | _____ | _____ | <input type="checkbox"/> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>40</u> = Total Cover 20% of total cover: <u>8</u> | | | | 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. |
| Herb Stratum (Plot size: <u>5m²</u>) | | | | |
| 1. <u>Allium vineale</u> | <u>2</u> | | <u>FACU</u> | |
| 2. <u>Polystichum acrostichoides</u> | <u>2</u> | | <u>FACU</u> | |
| 3. <u>Lonicera japonica</u> | <u>2</u> | | <u>FAC</u> | Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>6</u> = Total Cover 20% of total cover: <u>1.2</u> | | | | Woody Vine Stratum (Plot size: <u>5m²</u>) |
| Woody Vine Stratum (Plot size: <u>5m²</u>) | | | | |
| 1. <u>Lonicera japonica</u> | <u>5</u> | | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | 50% of total cover: <u>5</u> = Total Cover 20% of total cover: <u>1</u> |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>25</u> = Total Cover 20% of total cover: <u>1</u> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

SOIL

Sampling Point: WC-2 (dry)

[illegible]

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

12/03/2015

Project/Site: 6214 / I-85 City/County: Cherokee Sampling Date: 12/02/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WD-2 (wet)
 Investigator(s): N. Howell & S. Roberts Section, Township, Range: Grover, SC
 Landform (hillslope, terrace, etc.): Stream Floodplain / TOS Local relief (concave, convex, none): Flat Slope (%): 0
 Subregion (LRR or MLRA): LRR-P Lat: 35.158099 Long: -81.461708 Datum: NAD 83
 Soil Map Unit Name: TME-tatum very fine sandy loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|--|---------------------------------------|--|
| Hydrophytic Vegetation Present? | Yes _____ No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | | |
| Remarks: | | | |

HYDROLOGY

| | | | |
|--|--|---|--|
| Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) | |
| Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8</u> Saturation Present? Yes <u>many</u> No <input checked="" type="checkbox"/> Depth (inches): _____ | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | |
| Remarks: <u>Salamanders Present</u> | | | |

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

 Sampling Point: WD-2 (wet)

| Tree Stratum (Plot size: <u>5x5 m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|---------------------|-------------------|------------------|---|-------------------|--------------|-------------------|-------------|--------------------|-------------|-------------------|-------------|--------------------|-------------|-------------------|-------------|----------------------|---------------------|
| 1. <u>Salix nigra (50-60 ft tall!)</u> | <u>10</u> | | <u>OBL</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>L. tulipifera</u> | <u>60</u> | | <u>FACW</u> | | | | | | | | | | | | | | | |
| 3. <u>F. Pennsylvanica</u> | <u>10</u> | | <u>FACW</u> | | | | | | | | | | | | | | | |
| 4. _____ | | | | | | | | | | | | | | | | | | |
| 5. _____ | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>40</u> 80 = Total Cover 20% of total cover: <u>16</u> | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> </table> Prevalence Index = B/A = _____ | 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) _____ |
| 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) _____ | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>5x5 m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>P. occidentalis</u> | <u>3</u> | | <u>FACW</u> | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 2. <u>Q. alba</u> | <u>3</u> | | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. <u>L. sinense</u> | <u>10</u> | | <u>FACU</u> | | | | | | | | | | | | | | | |
| 4. _____ | | | | | | | | | | | | | | | | | | |
| 5. _____ | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>8</u> 16 = Total Cover 20% of total cover: <u>3.2</u> | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5 m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>P. acrostichoides</u> | <u>15</u> | | <u>FACU</u> | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | |
| 2. _____ | | | | | | | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | | | | | | |
| 4. _____ | | | | | | | | | | | | | | | | | | |
| 5. _____ | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>7.5</u> 15 = Total Cover 20% of total cover: <u>3</u> | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5 m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>L. japonica</u> | <u>10</u> | | <u>FAC</u> | 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. | | | | | | | | | | | | | | |
| 2. <u>Smilax sp.</u> | | | | | | | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | | | | | | |
| 4. _____ | | | | | | | | | | | | | | | | | | |
| 5. _____ | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>5</u> 10 = Total Cover 20% of total cover: <u>1</u> | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>5</u> 10 = Total Cover 20% of total cover: <u>1</u> | | | | Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WD-2 (wet)

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

| Depth (inches) | Matrix | | Redox Features | | | | Texture | Remarks |
|-------------------|---------------|----|----------------|----|-------------------|------------------|---------|-----------------------|
| | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | | |
| 0-5 | 10YR 4/2 | 75 | 7.5YR 4/6 | 20 | C | M | L | oxidized rhizospheres |
| | | | 10YR 5/3 | 5 | C | M | L | |
| 5-8 | 10YR 5/3 | 60 | 10YR 5/2 | 15 | D | M | CL | |
| | | | 10YR 5/4 | 25 | C | M | CL | |
| 8-18 | 10YR 4/2 | 80 | 7.5YR 4/8 | 20 | C | PL | C | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ 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, MLRA 147, 148)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Umbric Surface (F13) (MLRA 136, 122)
☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (MLRA 147)
☐ Coast Prairie Redox (A16) (MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: ± 85 / 6214 City/County: Cherokee Sampling Date: 12/03/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WD-2 (dry)
 Investigator(s): J. Roberts, N. Howell, Three Oaks Eng. Section, Township, Range: Grover, SC
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): rise slope Slope (%): 10
 Subregion (LRR or MLRA): LRR-P Lat: 35.158699 Long: -81.461708 Datum: NAD 83
 Soil Map Unit Name: TmE - tatum very fine sandy loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes _____ No _____ | |
| Remarks: <u>Wetland occurs at toe of slope. Upland point taken just up slope</u> | |

HYDROLOGY

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

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

 Sampling Point: WD-2 (dry)

| Tree Stratum (Plot size: <u>10 m²</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. <u>Liriodendron tulipifera</u> | <u>90</u> | | <u>FACU</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) |
| 2. <u>Pinus taeda</u> | <u>5</u> | | <u>FAC</u> | |
| 3. <u>Quercus alba</u> | <u>5</u> | | <u>FACU</u> | Total Number of Dominant Species Across All Strata: <u>5</u> (B) |
| 4. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B) |
| 5. _____ | | | | |
| 6. _____ | | | | 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 = _____ |
| 7. _____ | | | | |
| 50% of total cover: <u>50</u> 20% of total cover: <u>20</u> <u>100</u> = Total Cover | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: <u>10 m²</u>) | | | | |
| 1. <u>Quercus alba</u> | <u>20</u> | | <u>FACU</u> | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 2. <u>Carpinus caroliniana</u> | <u>25</u> | | <u>FAC</u> | |
| 3. _____ | | | | 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. |
| 4. _____ | | | | |
| 5. _____ | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ |
| 6. _____ | | | | |
| 7. _____ | | | | 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> <u>45</u> = Total Cover |
| 8. _____ | | | | |
| 9. _____ | | | | Woody Vine Stratum (Plot size: <u>5 m²</u>) |
| 10. _____ | | | | |
| 11. _____ | | | | 50% of total cover: <u>30</u> 20% of total cover: <u>12</u> <u>60</u> = Total Cover |
| 1. <u>Toxicodendron radicans</u> | <u>2</u> | | <u>FAC</u> | |
| 2. <u>Lonicera japonica</u> | <u>10</u> | | <u>FAC</u> | 50% of total cover: <u>6</u> 20% of total cover: <u>2.4</u> <u>12</u> = Total Cover |
| 3. _____ | | | | |
| 4. _____ | | | | 50% of total cover: <u>6</u> 20% of total cover: <u>2.4</u> <u>12</u> = Total Cover |
| 5. _____ | | | | |
| 50% of total cover: <u>6</u> 20% of total cover: <u>2.4</u> <u>12</u> = Total Cover | | | | Remarks: (Include photo numbers here or on a separate sheet.) |
| 50% of total cover: <u>6</u> 20% of total cover: <u>2.4</u> <u>12</u> = Total Cover | | | | |

SOIL

Sampling Point: WD-2 (dry)

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 6214 / I-85 City/County: Cherokee Sampling Date: 12/02/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WE-8 (Wet)
 Investigator(s): N. Howell + S. Roberts Section, Township, Range: Grovet, SC
 Landform (hillslope, terrace, etc.): Roadside cut Local relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR-P Lat: 35.160078 Long: -81.472137 Datum: NAD83
 Soil Map Unit Name: GfF-Gullied land, friable materials, 10-35% NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: | |

HYDROLOGY

| | | |
|--|--|--|
| Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input checked="" type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>7-8</u> Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: WE-8 (wet)

| Tree Stratum (Plot size: <u>5x10 m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. <u>A. rubrum</u> | <u>20</u> | | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B) |
| 2. <u>L. styraciflua</u> | <u>20</u> | | <u>FAC</u> | |
| 3. <u>L. tulipifera</u> | <u>20</u> | | <u>FACW</u> | |
| 4. _____ | | | | |
| 5. _____ | | | | 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 = _____ |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 50% of total cover: <u>30</u> 20% of total cover: <u>12</u> <u>60</u> = Total Cover | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: <u>5x10 m</u>) | | | | |
| 1. <u>V. nudum</u> | <u>40</u> | | <u>OBL</u> | |
| 2. <u>L. sinense</u> | <u>10</u> | | <u>FACU</u> | |
| 3. <u>V. fuscatum</u> | <u>5</u> | | <u>FAC</u> | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. <u>A. rubrum</u> | <u>3</u> | | <u>FAC</u> | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 50% of total cover: <u>29</u> 20% of total cover: <u>11.6</u> <u>58</u> = Total Cover | | | | 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. |
| Herb Stratum (Plot size: <u>5x10 m</u>) | | | | |
| 1. _____ | | | | |
| 2. _____ | | | | |
| 50% of total cover: _____ 20% of total cover: _____ _____ = Total Cover | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Woody Vine Stratum (Plot size: <u>5x10 m</u>) | | | | |
| 1. <u>L. japonica</u> | <u>5</u> | | <u>FAC</u> | |
| 2. <u>S. laurifolia</u> | <u>5</u> | | <u>OBL</u> | |
| 3. _____ | | | | 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> <u>10</u> = Total Cover |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |

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

Sampling Point: WE-8 (wet)

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 6214 / I-85 City/County: Cherokee Sampling Date: 12-3-15
 Applicant/Owner: SCDOT State: SC Sampling Point: WE-8 UP
 Investigator(s): J. Roberts, N. Howell Section, Township, Range: Grover, SC
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Linear Slope (%): 4
 Subregion (LRR or MLRA): LRR-P Lat: 35.160078 Long: -81.472137 Datum: NAD 83
 Soil Map Unit Name: GfE- Gullied land, friable materials, 10-35% NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|--|--|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? | Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes _____ No <input checked="" type="checkbox"/> | | |
| Wetland Hydrology Present? | Yes _____ No <input checked="" type="checkbox"/> | | |
| Remarks: | | | |

HYDROLOGY

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

UP

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

Sampling Point: HE-8

| Tree Stratum (Plot size: <u>10m²</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
|--|------------------|-------------------|------------------|
| 1. <u>Pinus echinata</u> | <u>15</u> | | |
| 2. <u>Platanus occidentalis</u> | <u>15</u> | | <u>FACW</u> |
| 3. <u>Quercus alba</u> | <u>15</u> | | <u>FACW</u> |
| 4. <u>Liquidambar styraciflua</u> | <u>40</u> | | <u>FAC</u> |
| 5. <u>Liriodendron tulipifera</u> | <u>10</u> | | <u>FACU</u> |
| 6. | | | |
| 7. | | | |
| <u>95</u> = Total Cover 50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u> | | | |
| Sapling/Shrub Stratum (Plot size: <u>10m²</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Quercus alba</u> | <u>10</u> | | <u>FACU</u> |
| 2. <u>Pinus echinata</u> | <u>10</u> | | |
| 3. <u>Liriodendron tulipifera</u> | <u>5</u> | | <u>FACU</u> |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| <u>25</u> = Total Cover 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u> | | | |
| Herb Stratum (Plot size: <u>5m²</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Lonicera japonica</u> | <u>10</u> | | <u>FAC</u> |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| <u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> | | | |
| Woody Vine Stratum (Plot size: <u>5m²</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. <u>Smilax latifolia</u> | <u>10</u> | | <u>OBL</u> |
| 2. <u>Lonicera japonica</u> | <u>10</u> | | <u>FAC</u> |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| <u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | |

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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 Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

SOIL

Sampling Point: WE-8 (dry)

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 624 / E-85 City/County: Cherokee Sampling Date: 12/03/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WF-11 (wet)
 Investigator(s): N. Howell & S. Roberts Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression / basin Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR or MLRA): LRR-P Lat: 35.159713 Long: -81.470782 Datum: NAD-83
 Soil Map Unit Name: GfE - Gullied land, friable materials NAB-Nason very fine sandy loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____
 Are Vegetation N, Soil N, or Hydrology N 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 <u>✓</u> No _____ | Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____ |
| Hydric Soil Present? | Yes <u>✓</u> No _____ | |
| Wetland Hydrology Present? | Yes <u>✓</u> No _____ | |
| Remarks: | | |

HYDROLOGY

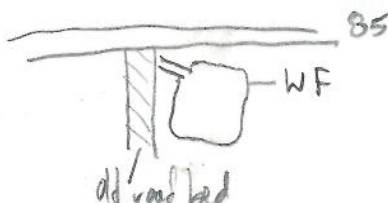
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|---|---|--|
| Primary Indicators (minimum of one is required; check all that apply) | | |
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

| | | |
|---|--|---|
| Field Observations: | | Wetland Hydrology Present? Yes _____ No _____ |
| Surface Water Present? | Yes <u>✓</u> No _____ Depth (inches): <u>6</u> | |
| Water Table Present? | Yes <u>✓</u> No _____ Depth (inches): <u>8</u> | |
| Saturation Present? (includes capillary fringe) | Yes <u>✓</u> No _____ Depth (inches): _____ | |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland is basin like. Old road bed restricts outflow of water from the one culvert.



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

 Sampling Point: ^{WF} W11 (wet)

| Tree Stratum (Plot size: <u>10x10 m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. <u>A. rubrum</u> | <u>50</u> | | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) |
| 2. <u>L. styraciflua</u> | <u>50</u> | | <u>FAC</u> | |
| 3. _____ | | | | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 4. _____ | | | | |
| 5. _____ | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 6. _____ | | | | |
| 7. _____ | | | | 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 = _____ |
| 50% of total cover: <u>50</u> 100 = Total Cover 20% of total cover: <u>20</u> | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10 m</u>) | | | | |
| 1. <u>V. nudum</u> | <u>15</u> | | <u>OBL</u> | 1 - Rapid Test for Hydrophytic Vegetation |
| 2. <u>L. styraciflua</u> | <u>3</u> | | <u>FAC</u> | |
| 3. _____ | | | | 2 - Dominance Test is >50% |
| 4. _____ | | | | |
| 5. _____ | | | | 3 - Prevalence Index is ≤3.0 ¹ |
| 6. _____ | | | | |
| 7. _____ | | | | 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) |
| 8. _____ | | | | |
| 9. _____ | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 10. _____ | | | | |
| 50% of total cover: <u>9</u> 18 = Total Cover 20% of total cover: <u>3.6</u> | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. |
| Herb Stratum (Plot size: <u>10x10 m</u>) | | | | |
| 1. <u>A. tomentosus</u> | <u>15</u> | | <u>FACW</u> | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 2. <u>L. lucidum</u> | <u>3</u> | | | |
| 3. <u>J. effusus</u> | <u>5</u> | | <u>FACW</u> | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| 8. _____ | | | | |
| 9. _____ | | | | |
| 10. _____ | | | | |
| 11. _____ | | | | |
| 50% of total cover: <u>11.5</u> 23 = Total Cover 20% of total cover: <u>4.6</u> | | | | |
| Woody Vine Stratum (Plot size: <u>10x10 m</u>) | | | | |
| 1. <u>L. japonica</u> | <u>5</u> | | <u>FAC</u> | |
| 2. <u>Smilax sp.</u> | <u>5</u> | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 50% of total cover: <u>5</u> 10 = Total Cover 20% of total cover: <u>2</u> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

SOIL

Sampling Point: WF-11 (wet)

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils³:

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> ___ Histosol (A1) ___ Histic Epipedon (A2) ___ Black Histic (A3) ___ 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, MLRA 147, 148) ___ Sandy Gleyed Matrix (S4) ___ Sandy Redox (S5) ___ Stripped Matrix (S6) | <ul style="list-style-type: none"> ___ Dark Surface (S7) ___ Polyvalue Below Surface (S8) (MLRA 147, 148) ___ Thin Dark Surface (S9) (MLRA 147, 148) ___ Loamy Gleyed Matrix (F2) ___ Depleted Matrix (F3) ___ Redox Dark Surface (F6) ___ Depleted Dark Surface (F7) ___ Redox Depressions (F8) ___ Iron-Manganese Masses (F12) (LRR N, MLRA 136) ___ Umbric Surface (F13) (MLRA 136, 122) ___ Piedmont Floodplain Soils (F19) (MLRA 148) ___ Red Parent Material (F21) (MLRA 127, 147) | <ul style="list-style-type: none"> ___ 2 cm Muck (A10) (MLRA 147) ___ Coast Prairie Redox (A16) (MLRA 147, 148) ___ Piedmont Floodplain Soils (F19) (MLRA 136, 147) ___ Very Shallow Dark Surface (TF12) ___ Other (Explain in Remarks) |
|--|--|--|
- ³Indicators of hydrophytic vegetation wetland hydrology must be present, unless disturbed or problematic.

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Wetland soils very similar to Upland soils. Both meet FG indicator. Wetland boundary delineated on hydric indicators (water depth on surface + in auger borings) and vegetation

WF

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I 85 / 6214 City/County: Cherokee Sampling Date: 12-3-15
 Applicant/Owner: SCDOT State: SC Sampling Point: NF-11 (dry)
 Investigator(s): J. Roberts; N. Howell Section, Township, Range: Grover, SC
 Landform (hillslope, terrace, etc.): bottom of old road bank Local relief (concave, convex, none): convex Slope (%): 2-5
 Subregion (LRR or MLRA): LRR-P Lat: 35.159713 Long: -81.470782 Datum: NAD 83
 Soil Map Unit Name: GfF-Gullied lands, friable materials/ NaB-Nason, very fine sandy loam NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Remarks: | |

HYDROLOGY

| | | |
|--|---|---|
| Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | <u>Secondary Indicators (minimum of two required)</u> |
| <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe) | | Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: <div style="font-family: cursive; font-size: 1.2em; margin-top: 20px;"> unusually high rainfall during past few months and days. </div> | | |

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

Sampling Point: WF -11 (dry)

| Tree Stratum (Plot size: <u>10 x 5 m</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|--|-----------------------|------------------|-------------------|------------------|
| 1. | <u>L. styraciflua</u> | <u>75</u> | | <u>FAC</u> |
| 2. | <u>A. rubrum</u> | <u>20</u> | | <u>FAC</u> |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |

50% of total cover: 47.5 = Total Cover
20% of total cover: 19

| Sapling/Shrub Stratum (Plot size: <u>10 x 5 m</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|---|-------------------|------------------|-------------------|------------------|
| 1. | <u>L. sinense</u> | <u>10</u> | | <u>FACU</u> |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |

50% of total cover: 5 = Total Cover
20% of total cover: 2

| Herb Stratum (Plot size: <u>10 x 5 m</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|--|------------------|------------------|-------------------|------------------|
| 1. | <u>Rubus sp.</u> | <u>5</u> | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |

50% of total cover: 2.5 = Total Cover
20% of total cover: 1

| Woody Vine Stratum (Plot size: <u>10 x 5 m</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|--|----------------------------|------------------|-------------------|------------------|
| 1. | <u>Smilax rotundifolia</u> | <u>5</u> | | <u>FAC</u> |
| 2. | <u>L. japonica</u> | <u>15</u> | | <u>FAC</u> |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

50% of total cover: 10 = Total Cover
20% of total cover: 4

Dominance Test worksheet:

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:

| 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 Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

VP

t: WF-11

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 6214 / I-85 City/County: Cherokee Sampling Date: 12/09/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WG-6 (601)
 Investigator(s): N. Howell + E. Morgan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.160687 Long: -81.472278 Datum: NAD 83
 Soil Map Unit Name: GFE - Gullied lands, friable materials NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ | |

Remarks:

HYDROLOGY

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

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: W6-6 (wet)

| Tree Stratum (Plot size: <u>5x5 m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|---|-------------------|--------------|-----------------------|-----------------|-----------------------|-----------------|-----------------------|------------------|--------------|-------|-------------|-------|-------------------------------|----------------|
| 1. <u>A. rubrum</u> | <u>35</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>S. nigra</u> | <u>5</u> | <u>n</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>20</u> 20% of total cover: <u>8</u> <u>40</u> = Total Cover | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>65</u></td> <td>x 3 = <u>195</u></td> </tr> <tr> <td>FACU species</td> <td>x 4 =</td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>235</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.35</u> | Total % Cover of: | Multiply by: | OBL species <u>30</u> | x 1 = <u>30</u> | FACW species <u>5</u> | x 2 = <u>10</u> | FAC species <u>65</u> | x 3 = <u>195</u> | FACU species | x 4 = | UPL species | x 5 = | Column Totals: <u>100</u> (A) | <u>235</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>30</u> | x 1 = <u>30</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>5</u> | x 2 = <u>10</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>65</u> | x 3 = <u>195</u> | | | | | | | | | | | | | | | | | |
| FACU species | x 4 = | | | | | | | | | | | | | | | | | |
| UPL species | x 5 = | | | | | | | | | | | | | | | | | |
| Column Totals: <u>100</u> (A) | <u>235</u> (B) | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>5x5 m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>A. serrulata</u> | <u>30</u> | <u>y</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 2. <u>L. styraciflua</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>20</u> 20% of total cover: <u>8</u> <u>40</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5 m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>A. tosta</u> | <u>5</u> | <u>y</u> | <u>FACW</u> | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 2. <u>V. nudum</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> <u>10</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5 m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>L. japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | 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. | | | | | | | | | | | | | | |
| 2. <u>S. retundifolia</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> <u>15</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

Sampling Point: WG-6 (west)

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ___ 2 cm Muck (A10) (MLRA 147)
 ___ Coast Prairie Redox (A16)
 (MLRA 147, 148)
 ___ Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
 ___ Very Shallow Dark Surface (TF12)
 Other (Explain in Remarks)

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

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 6214 / I-85 City/County: Cherokee Sampling Date: 12/09/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WG-6 (dry)
 Investigator(s): N. Howell & E. Morgan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): _____ Slope (%): 11 –
 Subregion (LRR or MLRA): P Lat: 35.160687 Long: -81.472278 Datum: NAD83
 Soil Map Unit Name: Gullied lands, friable materials NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|--|--|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? | Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes _____ No <input checked="" type="checkbox"/> | | |
| Wetland Hydrology Present? | Yes _____ No <input checked="" type="checkbox"/> | | |
| Remarks: | | | |

HYDROLOGY

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

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

 Sampling Point: WG-6 (dry)

| Tree Stratum (Plot size: <u>5x5m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|-------------------------------|-------------------|------------------|--|-------------------|--------------|-------------|-------|--------------|-------|-------------|------------------|--------------|-----------------|-------------|-------|----------------|-------------------------------|
| 1. <u>A. rubrum</u> | <u>50</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>L. styraciflua</u> | <u>50</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. <u>Quercus sp.</u> | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>50</u> 100 = Total Cover 20% of total cover: <u>20</u> | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species</td> <td>x 1 =</td> </tr> <tr> <td>FACW species</td> <td>x 2 =</td> </tr> <tr> <td>FAC species</td> <td>x 3 = <u>390</u></td> </tr> <tr> <td>FACU species</td> <td>x 4 = <u>12</u></td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals:</td> <td><u>133</u> (A) <u>402</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.02</u> | Total % Cover of: | Multiply by: | OBL species | x 1 = | FACW species | x 2 = | FAC species | x 3 = <u>390</u> | FACU species | x 4 = <u>12</u> | UPL species | x 5 = | Column Totals: | <u>133</u> (A) <u>402</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species | x 1 = | | | | | | | | | | | | | | | | | |
| FACW species | x 2 = | | | | | | | | | | | | | | | | | |
| FAC species | x 3 = <u>390</u> | | | | | | | | | | | | | | | | | |
| FACU species | x 4 = <u>12</u> | | | | | | | | | | | | | | | | | |
| UPL species | x 5 = | | | | | | | | | | | | | | | | | |
| Column Totals: | <u>133</u> (A) <u>402</u> (B) | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>5</u> 10 = Total Cover 20% of total cover: <u>2</u> | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>5x5m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>A. rubrum</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Vaccinium sp.</u> | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>5</u> 10 = Total Cover 20% of total cover: <u>2</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>A. teal</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>A. platyneuron</u> | <u>3</u> | <u>n</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>7.5</u> 15 = Total Cover 20% of total cover: <u>3</u> | | | | 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. | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>L. japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>5</u> 10 = Total Cover 20% of total cover: <u>2</u> | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WG-6 up

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 6214 / I-85 City/County: Cherokee Sampling Date: 12/09/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: WH-10 (wet)
 Investigator(s): N. Howen + E. Morgan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.160675 Long: -81.473307 Datum: NAD83
 Soil Map Unit Name: GFF- Gullied lands, friable materials NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: W14-10 (wet)

| Tree Stratum (Plot size: <u>10 x 10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. <u>A. rubrum</u> | <u>60</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B) |
| 2. <u>L. tulipifera</u> | <u>25</u> | <u>y</u> | <u>FACW</u> | |
| 3. <u>Q. nigra</u> | <u>10</u> | <u>n</u> | <u>FAC</u> | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>110</u> x 3 = <u>330</u> FACU species <u>25</u> x 4 = <u>100</u> UPL species _____ x 5 = _____ Column Totals: <u>145</u> (A) <u>450</u> (B) Prevalence Index = B/A = <u>3.1</u> |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u> Sapling/Shrub Stratum (Plot size: <u>10 x 10</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. <u>A. rubrum</u> | <u>30</u> | <u>y</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>15</u> 20% of total cover: <u>6</u> Herb Stratum (Plot size: <u>10 x 10</u>) | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. |
| 1. <u>A. sp.</u> | <u>10</u> | <u>y</u> | <u>FACW</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> Woody Vine Stratum (Plot size: <u>10 x 10</u>) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 1. <u>L. japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> | | | | |

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

SOIL

Sampling Point: WH-10 (wet)

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 6214 / E-85 City/County: Cherokee Sampling Date: 12/09/2015
 Applicant/Owner: SCDOT State: SC Sampling Point: W/H-10 (dry)
 Investigator(s): N. Howell + E. Morgan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.160675 Long: -81.473307 Datum: NAD83
 Soil Map Unit Name: GPF- Gullied lands, friable materials NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|---|--|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? | Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes _____ No <input checked="" type="checkbox"/> | | |
| Wetland Hydrology Present? | Yes _____ No <input checked="" type="checkbox"/> | | |
| Remarks: | | | |

HYDROLOGY

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

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

 Sampling Point: W4-10 (dry)

| Tree Stratum (Plot size: <u>10 X 10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. _____ | | | | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| 7. _____ | | | | |
| _____ = Total Cover | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>38</u> x 3 = <u>114</u> FACU species <u>5</u> x 4 = <u>20</u> UPL species _____ x 5 = _____ Column Totals: <u>43</u> (A) <u>134</u> (B) Prevalence Index = B/A = <u>3.11</u> |
| 50% of total cover: _____ 20% of total cover: _____ | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10 X 10</u>) | | | | |
| 1. <u>Q. nigra</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | |
| 2. <u>T. arborescens</u> | <u>5</u> | <u>n</u> | <u>FACW</u> | |
| 3. <u>P. taeda</u> | <u>3</u> | <u>n</u> | <u>FAC</u> | |
| 4. <u>L. styraciflua</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | |
| _____ = Total Cover | | | | |
| 50% of total cover: <u>19</u> 20% of total cover: <u>7.6</u> | | | | |
| Herb Stratum (Plot size: <u>10 X 10</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. _____ | | | | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| 6. _____ | | | | |
| _____ = Total Cover | | | | |
| 50% of total cover: _____ 20% of total cover: _____ | | | | |
| Woody Vine Stratum (Plot size: <u>10 X 10</u>) | | | | 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. |
| 1. <u>L. japonica</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | |
| 2. _____ | | | | |
| 3. _____ | | | | |
| 4. _____ | | | | |
| 5. _____ | | | | |
| _____ = Total Cover | | | | |
| 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

Sampling Point: WH-10 (dry)

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ___ Thin Dark Surface (S9) (MLRA 147, 148)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ___ Umbric Surface (F13) (MLRA 136, 122)
- ___ Piedmont Floodplain Soils (F19) (MLRA 148)
- ___ Red Parent Material (F21) (MLRA 127, 147)

- ☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16)
 (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19)
 (**MLRA 136, 147**)
☐ Very Shallow Dark Surface (TF12)
 Other (Explain in Remarks)

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

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 1-85 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WAA-4A Wet
 Investigator(s): E. Morgan, M. Frazer, S. Burton Section, Township, Range: —
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): —
 Subregion (LRR or MLRA): P Lat: 35.112150 Long: -81.582511 Datum: NAD83
 Soil Map Unit Name: AFB2-A Hanista fine sandy loam / NCES - Wickham sandy loam NWI classification: Bottomland Hardwood
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No — (If no, explain in Remarks.)
 Are Vegetation Yes, Soil Yes, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No —
 Are Vegetation No, Soil No, or Hydrology No 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 <u>—</u> No <u>—</u> | Is the Sampled Area within a Wetland? Yes <u>—</u> No <u>—</u> |
| Hydric Soil Present? Yes <u>—</u> No <u>—</u> | |
| Wetland Hydrology Present? Yes <u>—</u> No <u>—</u> | |

Remarks:

Recent cutover with patchy wet areas a fire cuts. Mosaic of hydric soils w/ small areas of upl. soils mixed in. Drains to river floodplain via SAA.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

| | |
|--|---|
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input checked="" type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input checked="" type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Iron Deposits (B5) | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |
| <input type="checkbox"/> Aquatic Fauna (B13) | |

Secondary Indicators (minimum of two required)

| |
|--|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input checked="" type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

| | |
|---|----------------------------|
| Surface Water Present? Yes <u>—</u> No <u>—</u> | Depth (inches): <u>2-5</u> |
| Water Table Present? Yes <u>—</u> No <u>—</u> | Depth (inches): <u>—</u> |
| Saturation Present? Yes <u>—</u> No <u>—</u> | Depth (inches): <u>—</u> |

(includes capillary fringe)

Wetland Hydrology Present? Yes — No —

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WAA 4A wet

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|--------------------|-------------------|------------------|--|-------------------|--------------|-----------------------|-----------------|------------------------|-----------------|-----------------------|-----------------|------------------------|------------------|-------------------|-------------|---------------------------|--------------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>7</u> (B) | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.85</u> (A/B) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>115</u></td> <td>(A) <u>305</u> (B)</td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species <u>15</u> | x 1 = <u>15</u> | FACW species <u>40</u> | x 2 = <u>80</u> | FAC species <u>30</u> | x 3 = <u>90</u> | FACU species <u>30</u> | x 4 = <u>120</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>115</u> | (A) <u>305</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>15</u> | x 1 = <u>15</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>40</u> | x 2 = <u>80</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>30</u> | x 3 = <u>90</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>30</u> | x 4 = <u>120</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>115</u> | (A) <u>305</u> (B) | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Prevalence Index = B/A = <u>2.65</u> | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Pinus taeda</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. <u>Salix nigra</u> | <u>5</u> | <u>y</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Eupatorium capillifolium</u> | <u>30</u> | <u>y</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 2. <u>Juncus effusus</u> | <u>40</u> | <u>y</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 3. <u>Carex sp</u> | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. <u>Typha latifolia</u> | <u>10</u> | <u>n</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 11. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u> | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Smilax rotundifolia</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WHA-4A

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WAH-4A UP
 Investigator(s): E. Morgan, M. Frazer, S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): - Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.112150 Long: -81.582511 Datum: NAD83
 Soil Map Unit Name: AfB2 - Allavista fine sandy loam WCE3 - Wickham sandy loam NWI classification: B1 - Hardwood
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Yes, Soil Y, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Remarks: <u>Recent cutover</u> | |

HYDROLOGY

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

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

 Sampling Point: WAA up

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|--|-------------------|--------------|-------------------|-------------|--------------------|-------------|-----------------------|-----------------|------------------------|------------------|-------------------|-------------|------------------------------|----------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>5</u> (B) | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.60</u> (A/B) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>45</u></td> <td>x 4 = <u>180</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>255</u> (B)</td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = _____ | FACW species _____ | x 2 = _____ | FAC species <u>25</u> | x 3 = <u>75</u> | FACU species <u>45</u> | x 4 = <u>180</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>70</u> (A) | <u>255</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species _____ | x 1 = _____ | | | | | | | | | | | | | | | | | |
| FACW species _____ | x 2 = _____ | | | | | | | | | | | | | | | | | |
| FAC species <u>25</u> | x 3 = <u>75</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>45</u> | x 4 = <u>180</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>70</u> (A) | <u>255</u> (B) | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover | | | | Prevalence Index = B/A = <u>3.64</u> | | | | | | | | | | | | | | |
| 50% of total cover: _____ 20% of total cover: _____ | | | | Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>5</u> | <u>Yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Pinus taeda</u> | <u>15</u> | <u>Yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover | | | | 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. | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Eupatorium capillifolium</u> | <u>30</u> | <u>yes</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 2. <u>Andropogon virginicus</u> | <u>15</u> | <u>yes</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. <u>Rubus sp</u> | <u>5</u> | <u>-</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 4. <u>Erianthus sp.</u> | <u>5</u> | <u>-</u> | <u>-</u> | Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover | | | | Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | |
| 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u> | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>5</u> | <u>yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | 50% of total cover: <u>5</u> 20% of total cover: <u>1</u> | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |

Sampling Point: WAA up

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

- ☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16)
 (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19)
 (**MLRA 136, 147**)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: E 85 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WBB-7A up
 Investigator(s): M. Frazer Section, Township, Range:
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): Slope (%):
 Subregion (LRR or MLRA): P Lat: 35.112834 Long: -81.581822 Datum: NAD83
 Soil Map Unit Name: Ch-Chewacla silt loam / mixed alluvial land NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No 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 <u> </u> No <u> </u> | Is the Sampled Area within a Wetland? | Yes <u> </u> No <u> </u> |
| Hydric Soil Present? | Yes <u> </u> No <u> </u> | | |
| Wetland Hydrology Present? | Yes <u> </u> No <u> </u> | | |
| Remarks: | | | |

HYDROLOGY

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

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

 Sampling Point: WBB-up

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. <u>Fagus grandifolia</u> | <u>15</u> | <u>y</u> | <u>FACU</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) |
| 2. <u>Liquidambar styraciflua</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | |
| 3. <u>Quercus (shingle oak? entire w/ bristle tip)</u> | <u>5</u> | <u>-</u> | <u>-</u> | Total Number of Dominant Species Across All Strata: <u>6</u> (B) |
| 4. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B) |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | Prevalence Index worksheet: |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>20</u> = Total Cover 20% of total cover: <u>4</u> | | | | Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>15</u> x 2 = <u>30</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species _____ x 5 = _____ Column Totals: <u>60</u> (A) <u>195</u> (B) Prevalence Index = B/A = <u>3.25</u> |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| 1. <u>Ulmus alata</u> | <u>5</u> | <u>y</u> | <u>FACU</u> | |
| 2. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | 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. |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | 50% of total cover: <u>2.5</u> = Total Cover 20% of total cover: <u>1</u> |
| 9. _____ | _____ | _____ | _____ | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | Remarks: (Include photo numbers here or on a separate sheet.) |
| 1. <u>Lactuca sp.</u> | <u>10</u> | <u>-</u> | <u>-</u> | |
| 2. <u>Eupatorium capillifolium</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | 50% of total cover: <u>17.5</u> = Total Cover 20% of total cover: <u>7</u> |
| 3. <u>Arundinaria heteroclada</u> | <u>15</u> | <u>y</u> | <u>FACW</u> | |
| 4. _____ | _____ | _____ | _____ | 50% of total cover: <u>35</u> = Total Cover 20% of total cover: <u>14</u> |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | 50% of total cover: <u>10</u> = Total Cover 20% of total cover: <u>4</u> |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | 50% of total cover: <u>5</u> = Total Cover 20% of total cover: <u>2</u> |
| 9. _____ | _____ | _____ | _____ | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | 50% of total cover: <u>10</u> = Total Cover 20% of total cover: <u>4</u> |
| 1. <u>Lonicera japonica</u> | <u>10</u> | <u>yes</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | 50% of total cover: <u>5</u> = Total Cover 20% of total cover: <u>2</u> |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | 50% of total cover: <u>5</u> = Total Cover 20% of total cover: <u>2</u> |
| 5. _____ | _____ | _____ | _____ | |

Sampling Point: WBB-9

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) **(MLRA 147)**
☐ Coast Prairie Redox (A16)
(MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19)
(MLRA 136, 147)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Eastern Mountains and Piedmont – Version 2.0

Photo WBB-1
(North)

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 1985 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WBB-1 wet
 Investigator(s): E. Morgan, M. Frazer, S. Burton Section, Township, Range: —
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): —
 Subregion (LRR or MLRA): P Lat: 35.112529 Long: -81.581753 Datum: NAD83
 Soil Map Unit Name: Chewacla silt loam / Mixed alluvial land NWI classification: Bu Hardwood
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: <u>floodplain forest, beaver activity</u> | |

HYDROLOGY

| | | |
|--|--|---|
| Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6-30</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>—</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>—</u> (includes capillary fringe) | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: WBB-1 WCT

| Tree Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | | Dominant Species? | | Indicator Status | |
|--|---------------------------------|---------------------------------|-------------------------------|------------------|--|-------------------|--|------------------|--|
| 1. | <u>Liquidambar styraciflua</u> | <u>20</u> | <u>y</u> | <u>PAC</u> | | | | | |
| 2. | <u>Quercus nigra</u> | <u>30</u> | <u>y</u> | <u>PAC</u> | | | | | |
| 3. | <u>Liriodendron tulipifera</u> | <u>10</u> | <u>y</u> | <u>FACW</u> | | | | | |
| 4. | <u>Acer rubrum</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | | | | |
| 5. | | | | | | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |
| | | <u>75</u> = Total Cover | | | | | | | |
| | | 50% of total cover: <u>37.5</u> | 20% of total cover: <u>15</u> | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | | Dominant Species? | | Indicator Status | |
| 1. | <u>Ligustrum sinense</u> | <u>15</u> | <u>y</u> | <u>FACW</u> | | | | | |
| 2. | <u>Viburnum sp.</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | |
| 3. | <u>Quercus nigra</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |
| 8. | | | | | | | | | |
| 9. | | | | | | | | | |
| | | <u>15</u> = Total Cover | | | | | | | |
| | | 50% of total cover: <u>7.5</u> | 20% of total cover: <u>3</u> | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | Absolute % Cover | | Dominant Species? | | Indicator Status | |
| 1. | <u>Eupatorium capillifolium</u> | <u>5</u> | <u>n</u> | <u>FACW</u> | | | | | |
| 2. | <u>Arundinaria flexilis</u> | <u>13</u> | <u>y</u> | <u>FACW</u> | | | | | |
| 3. | <u>Lonicera japonica</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | | | | |
| 4. | <u>Juncus effusus</u> | <u>30</u> | <u>y</u> | <u>FACW</u> | | | | | |
| 5. | | | | | | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |
| 8. | | | | | | | | | |
| 9. | | | | | | | | | |
| 10. | | | | | | | | | |
| 11. | | | | | | | | | |
| | | <u>70</u> = Total Cover | | | | | | | |
| | | 50% of total cover: <u>35</u> | 20% of total cover: <u>14</u> | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | Absolute % Cover | | Dominant Species? | | Indicator Status | |
| 1. | <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| | | <u>10</u> = Total Cover | | | | | | | |
| | | 50% of total cover: <u>5</u> | 20% of total cover: <u>2</u> | | | | | | |

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)
 Total Number of Dominant Species Across All Strata: 9 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 88 (A/B)

Prevalence Index worksheet:

| Total % Cover of: | Multiply by: |
|-------------------------------|------------------|
| OBL species <u>—</u> | x 1 = <u>—</u> |
| FACW species <u>45</u> | x 2 = <u>90</u> |
| FAC species <u>95</u> | x 3 = <u>285</u> |
| FACU species <u>30</u> | x 4 = <u>120</u> |
| UPL species <u>—</u> | x 5 = <u>—</u> |
| Column Totals: <u>170</u> (A) | <u>495</u> (B) |

 Prevalence Index = B/A = 2.91

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☒ 3 - Prevalence Index is ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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.

Hydrophytic Vegetation Present? Yes — No —

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

SOIL

Sampling Point: WBB-1 wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WCC-1 Wet
 Investigator(s): M. Frazer Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.112529 Long: -81.581753 Datum: NAD83
 Soil Map Unit Name: Chewacla silt loam / Mixed alluvial land NWI classification: bottomland
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, Soil No, or Hydrology No 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 within a Wetland? Yes _____ No _____ |
| Hydric Soil Present? Yes _____ No _____ | |
| Wetland Hydrology Present? Yes _____ No _____ | |
| Remarks: | |

HYDROLOGY

| | | |
|--|---|--|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
| Primary Indicators (minimum of one is required; check all that apply) | | |
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: | | |
| Surface Water Present? Yes _____ No _____ Depth (inches): <u>6-20</u> | Wetland Hydrology Present? Yes _____ No _____ | |
| Water Table Present? Yes _____ No _____ Depth (inches): _____ | | |
| Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: WCC-1 wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. <u>Liquidambar styraciflua</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85</u> (A/B) |
| 2. <u>Quercus nigra</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | |
| 3. <u>Acer rubrum</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>5</u> x 1 = <u>5</u> FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>50</u> x 3 = <u>150</u> FACU species <u>15</u> x 4 = <u>60</u> UPL species _____ x 5 = _____ Column Totals: <u>95</u> (A) <u>270</u> (B) Prevalence Index = B/A = <u>2.84</u> |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>20</u> 20% of total cover: <u>8</u> = Total Cover <u>40</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | |
| 1. <u>Ligustrum sinense</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> = Total Cover <u>10</u> | | | | 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. |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Eupatorium capillifolium</u> | <u>5</u> | <u>N</u> | <u>FACU</u> | |
| 2. <u>Andropogon giganteus</u> | <u>20</u> | <u>y</u> | <u>FACW</u> | |
| 3. <u>Juncus effusus</u> | <u>10</u> | <u>y</u> | <u>FACW</u> | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 4. <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> = Total Cover <u>45</u> | | | | Woody Vine Stratum (Plot size: <u>5x5</u>) |
| 50% of total cover: _____ 20% of total cover: _____ = Total Cover _____ | | | | |
| 50% of total cover: _____ 20% of total cover: _____ | | | | |
| 50% of total cover: _____ 20% of total cover: _____ | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

Sampling Point: WCC-1 wet

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 1-85 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: NCC-1 up
 Investigator(s): M. Frazer Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): none Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.113344 Long: -81.581155 Datum: NAD83
 Soil Map Unit Name: Ch-Chewacla NWI classification: bottomland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No 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 within a Wetland? Yes _____ No _____ |
| Hydric Soil Present? Yes _____ No _____ | |
| Wetland Hydrology Present? Yes _____ No _____ | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: WCC-14

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. <u>Liquidambar styraciflua</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B) |
| 2. <u>Fagus grandifolia</u> | <u>15</u> | <u>y</u> | <u>FACW</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species <u>15</u> x 2 = <u>30</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species _____ x 5 = _____ Column Totals: <u>60</u> (A) <u>195</u> (B) Prevalence Index = B/A = <u>3.25</u> |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> = Total Cover <u>20</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | |
| 1. <u>Ulmus alata</u> | <u>5</u> | <u>y</u> | <u>FACU</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u> = Total Cover <u>5</u> | | | | 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. |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Eupatorium capillifolium</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | |
| 2. <u>Arundinaria gigantea</u> | <u>15</u> | <u>y</u> | <u>FACW</u> | |
| 3. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u> = Total Cover <u>25</u> | | | | Woody Vine Stratum (Plot size: <u>5x5</u>) |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Lonicera japonica</u> | <u>10</u> | <u>yes</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> = Total Cover <u>10</u> |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |

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

Sampling Point: WCC-1 up

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/11/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WDD-2 Wet
 Investigator(s): M. Frater, E. Morgan, S. Burton Section, Township, Range: -
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.115094 Long: -81.578642 Datum: NAD83
 Soil Map Unit Name: Bc-Buncombe loamy sand NWI classification: bottomland
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes 2 No - (If no, explain in Remarks.)
 Are Vegetation Yes, Soil Yes, or Hydrology Yes significantly disturbed? Are "Normal Circumstances" present? Yes 2 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 <u>-</u> No <u>-</u> | Is the Sampled Area within a Wetland? Yes <u>✓</u> No <u>-</u> |
| Hydric Soil Present? Yes <u>-</u> No <u>-</u> | |
| Wetland Hydrology Present? Yes <u>✓</u> No <u>-</u> | |
| Remarks: | |

HYDROLOGY

| | | |
|--|--|--|
| Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes <u>✓</u> No <u>-</u> Depth (inches): <u>6-12</u> Water Table Present? Yes <u>✓</u> No <u>-</u> Depth (inches): <u>-</u> Saturation Present? Yes <u>✓</u> No <u>-</u> Depth (inches): <u>-</u> (includes capillary fringe) | | Wetland Hydrology Present? Yes <u>✓</u> No <u>-</u> |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: WDD-2 Wet

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|--|-------------------|--------------|-----------------------|-----------------|------------------------|-----------------|-------------------|-------------|--------------------|-------------|-------------------|-------------|------------------------------|---------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>4</u> (B) | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>45</u> (A)</td> <td><u>75</u> (B)</td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species <u>15</u> | x 1 = <u>15</u> | FACW species <u>30</u> | x 2 = <u>60</u> | FAC species _____ | x 3 = _____ | FACU species _____ | x 4 = _____ | UPL species _____ | x 5 = _____ | Column Totals: <u>45</u> (A) | <u>75</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>15</u> | x 1 = <u>15</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>30</u> | x 2 = <u>60</u> | | | | | | | | | | | | | | | | | |
| FAC species _____ | x 3 = _____ | | | | | | | | | | | | | | | | | |
| FACU species _____ | x 4 = _____ | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>45</u> (A) | <u>75</u> (B) | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Prevalence Index = B/A = <u>1.66</u> | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 1. <u>Salix nigra</u> | <u>5</u> | <u>y</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 2. <u>Populus heterophylla</u> | <u>10</u> | <u>y</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> | | | | 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. | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Juncus effusus</u> | <u>20</u> | <u>y</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 2. <u>Anandiania gigantia</u> | <u>10</u> | <u>y</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u> | | | | Woody Vine Stratum (Plot size: _____) | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WDD-2 wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WDD-2 VP
 Investigator(s): M. Frazer, E. Morgan, S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.115094 Long: -81.578042 Datum: NAD83
 Soil Map Unit Name: Buncombe loamy sand NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation Yes, Soil Yes, or Hydrology Yes significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: WDD-2 up

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|---|-------------------|--------------|-------------------|-------------|--------------------|-------------|-----------------------|------------------|------------------------|------------------|-------------------|-------------|------------------------------|----------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>4</u> (B) | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>85</u> (A)</td> <td><u>305</u> (B)</td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = _____ | FACW species _____ | x 2 = _____ | FAC species <u>35</u> | x 3 = <u>105</u> | FACU species <u>50</u> | x 4 = <u>200</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>85</u> (A) | <u>305</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species _____ | x 1 = _____ | | | | | | | | | | | | | | | | | |
| FACW species _____ | x 2 = _____ | | | | | | | | | | | | | | | | | |
| FAC species <u>35</u> | x 3 = <u>105</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>50</u> | x 4 = <u>200</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>85</u> (A) | <u>305</u> (B) | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Prevalence Index = B/A = <u>3.5</u> | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 1. <u>Pinus taeda</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Acer rubrum</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> | | | | 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. | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Microstigeum vimineum</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Epatorium capillifolium</u> | <u>50</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: <u>35</u> 20% of total cover: <u>14</u> | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WDD-2 up

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I-85 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WEE 1 wet
 Investigator(s): M. Frazer Section, Township, Range: -
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.115912 Long: -81.574751 Datum: NAD83
 Soil Map Unit Name: mixed alluvial land NWI classification: Bottomland hardwood

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: <u>Small, isolated pocket in floodplain forest.</u> <u>photo @ WEE 1 pointing E.</u> | |

HYDROLOGY

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

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

 Sampling Point: WEE wet

| Tree Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | | |
|---|--------------------------------|-----------|----------|---------------------|---|---------------------|--|--|-------------------|--------------|----------------------|----------------|-----------------------|-----------------|-----------------------|------------------|-----------------------|-----------------|-------------|-------|------------------------------|----------------|
| 1. | <u>Acer negundo</u> | <u>25</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B) | | | | | | | | | | | | | | | | | |
| 2. | <u>Botula nigra</u> | <u>5</u> | <u>y</u> | <u>FACW</u> | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>15</u> 30 = Total Cover 20% of total cover: <u>6</u> | | | | | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status | Prevalence Index worksheet: | | | | | | | | | | | | | | | |
| 1. | <u>Liquidambar styraciflua</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: right;">Total % Cover of:</td> <td style="width: 50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>3</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>6</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species</td> <td>x 5 =</td> </tr> <tr> <td>Column Totals: <u>55</u> (A)</td> <td><u>155</u> (B)</td> </tr> </table> | | | | Total % Cover of: | Multiply by: | OBL species <u>5</u> | x 1 = <u>5</u> | FACW species <u>3</u> | x 2 = <u>10</u> | FAC species <u>40</u> | x 3 = <u>120</u> | FACU species <u>6</u> | x 4 = <u>20</u> | UPL species | x 5 = | Column Totals: <u>55</u> (A) | <u>155</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | | | | | |
| OBL species <u>5</u> | x 1 = <u>5</u> | | | | | | | | | | | | | | | | | | | | | |
| FACW species <u>3</u> | x 2 = <u>10</u> | | | | | | | | | | | | | | | | | | | | | |
| FAC species <u>40</u> | x 3 = <u>120</u> | | | | | | | | | | | | | | | | | | | | | |
| FACU species <u>6</u> | x 4 = <u>20</u> | | | | | | | | | | | | | | | | | | | | | |
| UPL species | x 5 = | | | | | | | | | | | | | | | | | | | | | |
| Column Totals: <u>55</u> (A) | <u>155</u> (B) | | | | | | | | | | | | | | | | | | | | | |
| 2. | <u>Ulmus alata</u> | <u>5</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>10</u> 20 = Total Cover 20% of total cover: <u>4</u> | | | | | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status | Hydrophytic Vegetation Indicators: | | | | | | | | | | | | | | | |
| 1. | <u>Carex (intumescens?)</u> | <u>10</u> | <u>+</u> | <u>-</u> | <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | | | | |
| 2. | <u>Dulichium arundinaceum</u> | <u>5</u> | <u>y</u> | <u>OBL</u> | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>7.5</u> 15 = Total Cover 20% of total cover: <u>3</u> | | | | | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | Absolute % Cover | Dominant Species? | Indicator Status | Definitions of Four Vegetation Strata: | | | | | | | | | | | | | | | |
| 1. | | | | | <p>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</p> <p>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</p> <p>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</p> <p>Woody vine – All woody vines greater than 3.28 ft in height.</p> | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WEF wet

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ 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, MLRA 147, 148**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (MLRA 147)
☐ Coast Prairie Redox (A16)
 (MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WEG 1 ^{4p}
 Investigator(s): E. Morgan, M. Frazer, S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): convex Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.115890 Long: -81.574814 Datum: NAD83
 Soil Map Unit Name: Mixed alluvial lands NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Remarks: | |

HYDROLOGY

| | | |
|---|---|--|
| Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) </div> <div style="width: 50%;"> <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) </div> </div> | | <u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: | | |

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

 Sampling Point: WEE up

| Tree Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|--|--------------------------------|-----------|----------|-------------------------|---|---------------------|---|----------------|
| 1. | <u>Quercus nigra</u> | <u>40</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) | | | |
| 2. | <u>Betula nigra</u> | <u>20</u> | <u>y</u> | <u>FACW</u> | | | | |
| 3. | <u>Liquidambar styraciflua</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | Total Number of Dominant Species Across All Strata: <u>9</u> (B) | | | |
| 4. | | | | | | | | |
| 5. | | | | | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>78</u> (A/B) | | | |
| 6. | | | | | | | | |
| 7. | | | | | Prevalence Index worksheet: | | | |
| | | | | <u>80</u> = Total Cover | | | | |
| 50% of total cover: <u>40</u> 20% of total cover: <u>16</u> | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status | Total % Cover of: Multiply by: | |
| 1. | <u>Ilex opaca</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | OBL species | <u>—</u> | x 1 = | <u>—</u> |
| 2. | <u>Ligustrum sinense</u> | <u>15</u> | <u>y</u> | <u>FACW</u> | FACW species | <u>30</u> | x 2 = | <u>60</u> |
| 3. | <u>Arctostaphylos sp.</u> | <u>10</u> | <u>y</u> | <u>FACW</u> | FAC species | <u>120</u> | x 3 = | <u>360</u> |
| 4. | <u>Ilex opaca</u> | <u>15</u> | <u>y</u> | <u>FACW</u> | FACU species | <u>25</u> | x 4 = | <u>100</u> |
| 5. | | | | | UPL species | <u>—</u> | x 5 = | <u>—</u> |
| 6. | | | | | Column Totals: | <u>175</u> | (A) | <u>520</u> (B) |
| 7. | | | | | Prevalence Index = B/A = <u>2.97</u> | | | |
| 8. | | | | | Hydrophytic Vegetation Indicators: | | | |
| 9. | | | | | | | | |
| 50% of total cover: <u>35</u> 20% of total cover: <u>7</u> | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status | 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 1. | <u>Microstegium vimineum</u> | <u>35</u> | <u>y</u> | <u>FAC</u> | | | | |
| 2. | <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | |
| 3. | | | | | | | | |
| 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 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. | | | |
| 7. | | | | | | | | |
| 8. | | | | | Hydrophytic Vegetation Present? Yes <u>✓</u> No <u> </u> | | | |
| 9. | | | | | | | | |
| 10. | | | | | Remarks: (Include photo numbers here or on a separate sheet.) | | | |
| 11. | | | | | | | | |
| 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status | | |
| 1. | <u>Smilax rotundifolia</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | | | |
| 2. | | | | | | | | |
| 3. | | | | | | | | |
| 4. | | | | | | | | |
| 5. | | | | | | | | |
| 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> | | | | | | | | |

Sampling Point: WEE up

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ___ 2 cm Muck (A10) (MLRA 147)
 ___ Coast Prairie Redox (A16)
 (MLRA 147, 148)
 ___ Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
 ___ Very Shallow Dark Surface (TF12)
 Other (Explain in Remarks)

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

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WFF 6A 4P
 Investigator(s): M. Frazer + S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.117199 Long: -81.578226 Datum: NAD83
 Soil Map Unit Name: Buncombe loamy sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil Yes, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|---|---------------------------------------|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |
| Wetland Hydrology Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |
| Remarks: | | | |

HYDROLOGY

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

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

 Sampling Point: WFF

| Tree Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status |
|--|------------------------------|-------------------------|----------|---------------------|----------------------|---------------------|
| 1. | <u>Quercus nigra</u> | <u>30</u> | <u>y</u> | <u>FAC</u> | | |
| 2. | <u>Betula nigra</u> | <u>20</u> | <u>y</u> | <u>FACW</u> | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 50% of total cover: <u>25</u> | | <u>50</u> = Total Cover | | | | |
| 20% of total cover: <u>10</u> | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. | <u>Platanus occidentalis</u> | <u>5</u> | <u>y</u> | <u>FACW</u> | | |
| 2. | <u>Quercus nigra</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |
| 50% of total cover: <u>5</u> | | <u>10</u> = Total Cover | | | | |
| 20% of total cover: <u>2</u> | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. | <u>Mim. steurum vimineum</u> | <u>60</u> | <u>y</u> | <u>FAC</u> | | |
| 2. | <u>Symphoricarum pilosum</u> | <u>10</u> | <u>n</u> | <u>FAC</u> | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |
| 10. | | | | | | |
| 11. | | | | | | |
| 50% of total cover: <u>35</u> | | <u>70</u> = Total Cover | | | | |
| 20% of total cover: <u>14</u> | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. | <u>Lonicera japonica</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 50% of total cover: <u>2.5</u> | | <u>5</u> = Total Cover | | | | |
| 20% of total cover: <u>1</u> | | | | | | |

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)
 Total Number of Dominant Species Across All Strata: 6 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

| Total % Cover of: | Multiply by: |
|-------------------------------|------------------|
| OBL species <u>—</u> | x 1 = <u>—</u> |
| FACW species <u>25</u> | x 2 = <u>50</u> |
| FAC species <u>110</u> | x 3 = <u>330</u> |
| FACU species <u>—</u> | x 4 = <u>—</u> |
| UPL species <u>—</u> | x 5 = <u>—</u> |
| Column Totals: <u>135</u> (A) | <u>380</u> (B) |

Prevalence Index = B/A = 2.81

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☒ 3 - Prevalence Index is ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

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.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Sampling Point: WFF up

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

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ 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, MLRA 147, 148**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)

- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

- ___ 2 cm Muck (A10) (MLRA 147)
 ___ Coast Prairie Redox (A16)
 (MLRA 147, 148)
 ___ Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
 ___ Very Shallow Dark Surface (TF12)
 Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks:

photo pointing NW

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I-95 City/County: Cherokee Sampling Date: 12/1/15
Applicant/Owner: SCDOT State: SC Sampling Point: WFFGA wet
Investigator(s): M. Prazer + S. Burton + Morgan Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope (%): _____
Subregion (LRR or MLRA): P Lat: 35.117199 Long: -81.578226 Datum: NAD83
Soil Map Unit Name: Burcombe loamy sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
Are Vegetation No, Soil Yes, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No _____
Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---------------------------------|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ |

| | |
|---------------------------------------|--|
| Is the Sampled Area within a Wetland? | Yes <input checked="" type="checkbox"/> No _____ |
|---------------------------------------|--|

Remarks: Receives water from culvert under I-95. Area of hydric & non-hydric soils. Some "wet" looking areas had bright sandy soils. Drains into floodplain; no direct connection to river. Possibly an old borrow pit.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

| | |
|---|--|
| <input checked="" type="checkbox"/> Surface Water (A1) | _____ True Aquatic Plants (B14) |
| <input checked="" type="checkbox"/> High Water Table (A2) | _____ Hydrogen Sulfide Odor (C1) |
| <input checked="" type="checkbox"/> Saturation (A3) | _____ Oxidized Rhizospheres on Living Roots (C3) |
| _____ Water Marks (B1) | _____ Presence of Reduced Iron (C4) |
| _____ Sediment Deposits (B2) | _____ Recent Iron Reduction in Tilled Soils (C6) |
| _____ Drift Deposits (B3) | _____ Thin Muck Surface (C7) |
| _____ Algal Mat or Crust (B4) | _____ Other (Explain in Remarks) |
| _____ Iron Deposits (B5) | |
| _____ Inundation Visible on Aerial Imagery (B7) | |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9) | |
| _____ Aquatic Fauna (B13) | |

Secondary Indicators (minimum of two required)

| |
|---|
| _____ Surface Soil Cracks (B6) |
| _____ Sparsely Vegetated Concave Surface (B8) |
| _____ Drainage Patterns (B10) |
| _____ Moss Trim Lines (B16) |
| _____ Dry-Season Water Table (C2) |
| _____ Crayfish Burrows (C8) |
| _____ Saturation Visible on Aerial Imagery (C9) |
| _____ Stunted or Stressed Plants (D1) |
| _____ Geomorphic Position (D2) |
| _____ Shallow Aquitard (D3) |
| _____ Microtopographic Relief (D4) |
| _____ FAC-Neutral Test (D5) |

Field Observations:

| | | |
|--|--|-----------------------------|
| Surface Water Present? | Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): <u>0-6"</u> |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): _____ |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): _____ |

| | |
|----------------------------|--|
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ |
|----------------------------|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WFF wet

| Tree Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | | Dominant Species? | | Indicator Status | |
|--|--------------------------------|-------------------------------|----------|-------------------------------|--|-------------------------|--|------------------|--|
| 1. | <u>Betula nigra</u> | <u>35</u> | <u>Y</u> | <u>FACW</u> | | | | | |
| 2. | <u>Platanus occidentalis</u> | <u>15</u> | <u>Y</u> | <u>FACW</u> | | | | | |
| 3. | <u>Quercus nigra</u> | <u>5</u> | <u>N</u> | <u>FAC</u> | | | | | |
| 4. | <u>Liquidambar styraciflua</u> | <u>5</u> | <u>N</u> | <u>FAC</u> | | | | | |
| 5. | | | | | | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |
| | | 50% of total cover: <u>30</u> | | 20% of total cover: <u>12</u> | | <u>60</u> = Total Cover | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | | Dominant Species? | | Indicator Status | |
| 1. | <u>Platanus occidentalis</u> | <u>10</u> | <u>Y</u> | <u>FACW</u> | | | | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |
| 8. | | | | | | | | | |
| 9. | | | | | | | | | |
| | | 50% of total cover: <u>5</u> | | 20% of total cover: <u>2</u> | | <u>10</u> = Total Cover | | | |
| Herb Stratum (Plot size: _____) | | | | Absolute % Cover | | Dominant Species? | | Indicator Status | |
| 1. | | | | | | | | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |
| 8. | | | | | | | | | |
| 9. | | | | | | | | | |
| 10. | | | | | | | | | |
| 11. | | | | | | | | | |
| | | 50% of total cover: _____ | | 20% of total cover: _____ | | _____ = Total Cover | | | |
| Woody Vine Stratum (Plot size: _____) | | | | Absolute % Cover | | Dominant Species? | | Indicator Status | |
| 1. | | | | | | | | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| | | 50% of total cover: _____ | | 20% of total cover: _____ | | _____ = Total Cover | | | |

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

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

Prevalence Index worksheet:

| Total % Cover of: | Multiply by: |
|------------------------------|------------------|
| OBL species <u>—</u> | x 1 = <u>—</u> |
| FACW species <u>60</u> | x 2 = <u>120</u> |
| FAC species <u>10</u> | x 3 = <u>30</u> |
| FACU species <u>—</u> | x 4 = <u>—</u> |
| UPL species <u>—</u> | x 5 = <u>—</u> |
| Column Totals: <u>70</u> (A) | <u>150</u> (B) |

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Sampling Point: WFA wet

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/01/15
 Applicant/Owner: SCDOT State: SC Sampling Point: W66-2 up
 Investigator(s): E. Morgan & S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.119502 Long: -81.585299 Datum: NAD83
 Soil Map Unit Name: BC-Burcombe loamy sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <u>✓</u> No _____ | Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u> |
| Hydric Soil Present? Yes _____ No <u>✓</u> | |
| Wetland Hydrology Present? Yes _____ No <u>✓</u> | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: W66-2 up

| Tree Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status |
|--|--------------------------------|---------------------------------|-------------------------------|---------------------|----------------------|---------------------|
| 1. | <u>Quercus phellos</u> | <u>30</u> | <u>y</u> | <u>FAC</u> | | |
| 2. | <u>Quercus nigra</u> | <u>40</u> | <u>y</u> | <u>FAC</u> | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| | | <u>70</u> = Total Cover | | | | |
| | | 50% of total cover: <u>35</u> | 20% of total cover: <u>14</u> | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. | <u>Liquidambar styraciflua</u> | <u>30</u> | <u>y</u> | <u>FAC</u> | | |
| 2. | <u>Quercus nigra</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |
| | | <u>45</u> = Total Cover | | | | |
| | | 50% of total cover: <u>22.5</u> | 20% of total cover: <u>9</u> | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. | <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | |
| 2. | <u>Ilex opaca</u> | <u>5</u> | <u>y</u> | <u>FACU</u> | | |
| 3. | <u>Ligustrum sinense</u> | <u>5</u> | <u>y</u> | <u>FACU</u> | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |
| 10. | | | | | | |
| 11. | | | | | | |
| | | <u>20</u> = Total Cover | | | | |
| | | 50% of total cover: <u>10</u> | 20% of total cover: <u>4</u> | | | |
| Woody Vine Stratum (Plot size: _____) | | | | Absolute % Cover | Dominant Species? | Indicator Status |
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| | | _____ = Total Cover | | | | |
| | | 50% of total cover: _____ | 20% of total cover: _____ | | | |

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

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71 (A/B)

Prevalence Index worksheet:

| Total % Cover of: | Multiply by: |
|-------------------------------|-------------------|
| OBL species _____ | x 1 = _____ |
| FACW species _____ | x 2 = _____ |
| FAC species <u>12.5</u> | x 3 = <u>37.5</u> |
| FACU species <u>10</u> | x 4 = <u>40</u> |
| UPL species _____ | x 5 = _____ |
| Column Totals: <u>135</u> (A) | <u>415</u> (B) |

Prevalence Index = B/A = 3.07

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0¹
- ☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes ☒ No ☐

SOIL

Sampling Point: WGG-2 up

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/01/15
 Applicant/Owner: SCDOT State: SC Sampling Point: W66-2 wet
 Investigator(s): E. Morgan & J. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.115502 Long: -81.580299 Datum: NAD83
 Soil Map Unit Name: Buncombe loamy sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes _____ No _____ | Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____ |
| Hydric Soil Present? Yes <u>✓</u> No _____ | |
| Wetland Hydrology Present? Yes <u>✓</u> No _____ | |
| Remarks: | |

HYDROLOGY

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|--|---|--|
| Primary Indicators (minimum of one is required; check all that apply) | | |
| <u>✓</u> Surface Water (A1) | ____ True Aquatic Plants (B14) | ____ Surface Soil Cracks (B6) |
| ____ High Water Table (A2) | ____ Hydrogen Sulfide Odor (C1) | ____ Sparsely Vegetated Concave Surface (B8) |
| ____ Saturation (A3) | ____ Oxidized Rhizospheres on Living Roots (C3) | ____ Drainage Patterns (B10) |
| <u>✓</u> Water Marks (B1) | ____ Presence of Reduced Iron (C4) | ____ Moss Trim Lines (B16) |
| ____ Sediment Deposits (B2) | ____ Recent Iron Reduction in Tilled Soils (C6) | ____ Dry-Season Water Table (C2) |
| ____ Drift Deposits (B3) | ____ Thin Muck Surface (C7) | ____ Crayfish Burrows (C8) |
| ____ Algal Mat or Crust (B4) | ____ Other (Explain in Remarks) | ____ Saturation Visible on Aerial Imagery (C9) |
| ____ Iron Deposits (B5) | | ____ Stunted or Stressed Plants (D1) |
| ____ Inundation Visible on Aerial Imagery (B7) | | ____ Geomorphic Position (D2) |
| <u>✓</u> Water-Stained Leaves (B9) | | ____ Shallow Aquitard (D3) |
| ____ Aquatic Fauna (B13) | | ____ Microtopographic Relief (D4) |
| | | ____ FAC-Neutral Test (D5) |
| Field Observations: | | |
| Surface Water Present? Yes <u>✓</u> No _____ Depth (inches): <u>6-12</u> | | |
| Water Table Present? Yes <u>✓</u> No _____ Depth (inches): _____ | | |
| Saturation Present? Yes <u>✓</u> No _____ Depth (inches): _____ | | |
| (includes capillary fringe) | | Wetland Hydrology Present? Yes <u>✓</u> No _____ |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: W66-2 Wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|---|-------------------|--------------|-----------------------|-----------------|--------------------|-------------|-----------------------|------------------|--------------------|-------------|-------------------|-------------|-------------------------------|----------------|
| 1. <u>Liquidambar styraciflua</u> | <u>40</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Acer rubrum</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| <u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u> | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>85</u></td> <td>x 3 = <u>255</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>275</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.61</u> | Total % Cover of: | Multiply by: | OBL species <u>20</u> | x 1 = <u>20</u> | FACW species _____ | x 2 = _____ | FAC species <u>85</u> | x 3 = <u>255</u> | FACU species _____ | x 4 = _____ | UPL species _____ | x 5 = _____ | Column Totals: <u>105</u> (A) | <u>275</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>20</u> | x 1 = <u>20</u> | | | | | | | | | | | | | | | | | |
| FACW species _____ | x 2 = _____ | | | | | | | | | | | | | | | | | |
| FAC species <u>85</u> | x 3 = <u>255</u> | | | | | | | | | | | | | | | | | |
| FACU species _____ | x 4 = _____ | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>105</u> (A) | <u>275</u> (B) | | | | | | | | | | | | | | | | | |
| <u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u> | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>30</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Populus heterophylla</u> | <u>20</u> | <u>y</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| <u>50</u> = Total Cover 50% of total cover: <u>25</u> 20% of total cover: <u>10</u> | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 11. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| <u>15</u> = Total Cover 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | | | | | | | | | | | | | | |

SOIL

Sampling Point: WGG-2 wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 1-85 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WH-3A up
 Investigator(s): M. Frazer, E. Morgan, S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Bottomland Hardwood Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.115263 Long: -81.580474 Datum: NAD83
 Soil Map Unit Name: Buncombe loamy sand, Chewacla silt loam NWI classification: BH1W
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, Soil No, or Hydrology No 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 within a Wetland? Yes _____ No _____ |
| Hydric Soil Present? Yes _____ No _____ | |
| Wetland Hydrology Present? Yes _____ No _____ | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: WHH-3a

| Tree Stratum (Plot size: <u>10x10</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|---|------------------------|------------------|-------------------|------------------|
| 1. | <u>Quercus phellos</u> | <u>30</u> | <u>y</u> | <u>FAC</u> |
| 2. | <u>Quercus nigra</u> | <u>50</u> | <u>y</u> | <u>FAC</u> |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |

80 = Total Cover
 50% of total cover: 40 20% of total cover: 16

| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|--|--------------------------------|------------------|-------------------|------------------|
| 1. | <u>Liquidambar styraciflua</u> | <u>30</u> | <u>y</u> | <u>FAC</u> |
| 2. | <u>Quercus nigra</u> | <u>15</u> | <u>y</u> | <u>FAC</u> |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |

45 = Total Cover
 50% of total cover: 22.5 20% of total cover: 9

| Herb Stratum (Plot size: <u>5x5</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------------|--------------------------|------------------|-------------------|------------------|
| 1. | <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> |
| 2. | <u>Ilex opaca</u> | <u>5</u> | <u>y</u> | <u>FACU</u> |
| 3. | <u>Ligustrum sinense</u> | <u>5</u> | <u>y</u> | <u>FACU</u> |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |

20 = Total Cover
 50% of total cover: 10 20% of total cover: 4

| Woody Vine Stratum (Plot size: <u>5x5</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|---|----------------------------|------------------|-------------------|------------------|
| 1. | <u>Smilax rotundifolia</u> | <u>5</u> | <u>y</u> | <u>FAC</u> |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

5 = Total Cover
 50% of total cover: 2.5 20% of total cover: 1

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

Dominance Test worksheet:

 Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

 Total Number of Dominant Species Across All Strata: 8 (B)

 Percent of Dominant Species That Are OBL, FACW, or FAC: 0.75 (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

 OBL species: — x 1 = —

 FACW species: — x 2 = —

 FAC species: 140 x 3 = 420

 FACU species: 10 x 4 = 40

 UPL species: — x 5 = —

 Column Totals: 150 (A) 460 (B)

 Prevalence Index = B/A = 3.06
Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0¹
- ☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

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

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

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

Hydrophytic Vegetation Present?

 Yes ☒ No ☐

Sampling Point: WHH-3a up

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I-85 City/County: Cherokee Sampling Date: 12/1/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WTH 3A wet
 Investigator(s): M. Frazer, S. Burton, E. Morgan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.1152163 Long: -81.580474 Datum: NAD83
 Soil Map Unit Name: Buncombe loamy sand, Chewacla silt loam NWI classification: Bottomland Hardwood
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|---------------------------------|--|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |

Remarks: Bottomland hardwood forest. Drains to ditch along I-85
Mixed age stand w/ mature trees.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Iron Deposits (B5) | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9) | |
| <input type="checkbox"/> Aquatic Fauna (B13) | |

Secondary Indicators (minimum of two required)

- | |
|--|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

| | | |
|--|--|----------------------------|
| Surface Water Present? | Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): <u>15"</u> |
| Water Table Present? | Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): <u>-</u> |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): <u>-</u> |

Wetland Hydrology Present? Yes ☒ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WHH wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|--|-------------------|--------------|-------------------|-------------|------------------------|-----------------|------------------------|------------------|--------------------|-------------|-------------------|-------------|-------------------------------|----------------|
| 1. <u>Liquidambar styraciflua</u> | <u>35</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Acer rubrum</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. <u>Platanus occidentalis</u> | <u>15</u> | <u>y</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| <u>65</u> = Total Cover 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u> | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>100</u></td> <td>x 3 = <u>300</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>330</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2</u> | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = _____ | FACW species <u>15</u> | x 2 = <u>30</u> | FAC species <u>100</u> | x 3 = <u>300</u> | FACU species _____ | x 4 = _____ | UPL species _____ | x 5 = _____ | Column Totals: <u>115</u> (A) | <u>330</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species _____ | x 1 = _____ | | | | | | | | | | | | | | | | | |
| FACW species <u>15</u> | x 2 = <u>30</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>100</u> | x 3 = <u>300</u> | | | | | | | | | | | | | | | | | |
| FACU species _____ | x 4 = _____ | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>115</u> (A) | <u>330</u> (B) | | | | | | | | | | | | | | | | | |
| <u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| <u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Viburnum dentatum</u> sp. | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 11. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| <u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. <u>Vitis sp</u> | <u>5</u> | _____ | _____ | | | | | | | | | | | | | | | |
| 2. <u>Smilax rotundifolia</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| <u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes <u>✓</u> No _____ | | | | | | | | | | | | | | |

SOIL

Sampling Point: WHH wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I-85 City/County: Cherokee Sampling Date: 12/2/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WIT 2 wet
 Investigator(s): M. Prater, E. Morgan Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.119371 Long: -81.573429 Datum: NAD83
 Soil Map Unit Name: Mv - mixed alluvial land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation No, Soil No, or Hydrology No 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 within a Wetland? | Yes _____ No _____ |
| Hydric Soil Present? | Yes <u>✓</u> No _____ | | |
| Wetland Hydrology Present? | Yes <u>✓</u> No _____ | | |
| Remarks: <u>Ditch rd dammed up end leading to creek SBB. Receives water from another ditch.</u> <u>Photo arming NNE.</u> | | | |

HYDROLOGY

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

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

 Sampling Point: WII wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. <u>Ulmus (not alatus) rubra</u> | <u>25</u> | <u>—</u> | <u>—</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>3</u> (B) |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>—</u> x 1 = <u>—</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>5</u> x 3 = <u>15</u> FACU species <u>2</u> x 4 = <u>8</u> UPL species _____ x 5 = _____ Column Totals: <u>17</u> (A) <u>43</u> (B) Prevalence Index = B/A = <u>2.52</u> |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>25</u> = Total Cover 20% of total cover: _____ | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | |
| 1. <u>Fraxinus pennsylvanica</u> | <u>5</u> | <u>4</u> | <u>FACW</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>5</u> = Total Cover 20% of total cover: <u>1</u> | | | | 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. |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Anemone gigantea</u> | <u>5</u> | <u>4</u> | <u>FACW</u> | |
| 2. <u>Ligustrum sinense</u> | <u>2</u> | <u>4</u> | <u>FACU</u> | |
| 3. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>7</u> = Total Cover 20% of total cover: <u>1.4</u> | | | | Woody Vine Stratum (Plot size: <u>5x5</u>) |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Lonicera japonica</u> | <u>5</u> | <u>4</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | 50% of total cover: <u>5</u> = Total Cover 20% of total cover: <u>1</u> |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |

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

Sampling Point: Wt1 wet

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

- ___ 2 cm Muck (A10) (MLRA 147)
- ___ Coast Prairie Redox (A16)
(MLRA 147, 148)
- ___ Piedmont Floodplain Soils (F19)
(MLRA 136, 147)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes / No

Remarks:

upper end of ditch (WHI-5) underlain by impenetrable
(concrete?) layer.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I-85 City/County: Cherokee Sampling Date: 12/2/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WIF up
 Investigator(s): E. Morgan & M. Prazer Section, Township, Range: -
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): - Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.119371 Long: -81.673429 Datum: NAD83
 Soil Map Unit Name: Mv - mixed alluvial land NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No 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 <u>-</u> No <u>-</u> | Is the Sampled Area within a Wetland? | Yes <u>-</u> No <u>X</u> |
| Hydric Soil Present? | Yes <u>-</u> No <u>-</u> | | |
| Wetland Hydrology Present? | Yes <u>-</u> No <u>-</u> | | |
| Remarks: | | | |

HYDROLOGY

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

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

 Sampling Point: WFI up

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. <u>Liquidambar styraciflua</u> | <u>30</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 2. <u>Pinus taeda</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| <u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>20</u> x 2 = <u>40</u> FAC species <u>85</u> x 3 = <u>255</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>105</u> (A) <u>295</u> (B) Prevalence Index = B/A = <u>2.8</u> |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | |
| 1. <u>Acer negundo</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | |
| 2. <u>Quercus incana (?)</u> | <u>10</u> | <u>y</u> | <u>-</u> | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| <u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Anemone fr. giganta</u> | <u>20</u> | <u>y</u> | <u>FACW</u> | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| <u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | | 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. |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Lonicera japonica</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| <u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

Sampling Point: WTF up

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/02/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WJ-1 wet
 Investigator(s): S. Burton + M. Frazier + E. Morgan Section, Township, Range: -
 Landform (hillslope, terrace, etc.): bottomland hardwood Local relief (concave, convex, none): - Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.126913 Long: -81.552469 Datum: NAD83
 Soil Map Unit Name: MV-mixed alluvial land NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes 2 No - (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes 2 No -
 Are Vegetation No, Soil No, or Hydrology No 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 <u>2</u> No <u>-</u> | Is the Sampled Area within a Wetland? Yes <u>2</u> No <u>-</u> |
| Hydric Soil Present? Yes <u>2</u> No <u>-</u> | |
| Wetland Hydrology Present? Yes <u>2</u> No <u>-</u> | |
| Remarks: | |

HYDROLOGY

| | | |
|--|---|---|
| Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes <u>2</u> No <u>-</u> Depth (inches): <u>2-8</u> Water Table Present? Yes <u>-</u> No <u>-</u> Depth (inches): <u>-</u> Saturation Present? Yes <u>-</u> No <u>-</u> Depth (inches): <u>-</u> (includes capillary fringe) | Wetland Hydrology Present? Yes <u>2</u> No <u>-</u> | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: WJ-1 wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|--|-------------------|--------------|-------------------|-------------|--------------------|-------------|-----------------------|------------------|--------------------|-------------|-------------------|-------------|------------------------------|----------------|-----------------------------------|--|
| 1. <u>Acer negundo</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) | | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>4</u> (B) | | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) | | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>80</u></td> <td>x 3 = <u>240</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>240</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3</u></td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = _____ | FACW species _____ | x 2 = _____ | FAC species <u>80</u> | x 3 = <u>240</u> | FACU species _____ | x 4 = _____ | UPL species _____ | x 5 = _____ | Column Totals: <u>80</u> (A) | <u>240</u> (B) | Prevalence Index = B/A = <u>3</u> | |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | | | |
| OBL species _____ | x 1 = _____ | | | | | | | | | | | | | | | | | | | |
| FACW species _____ | x 2 = _____ | | | | | | | | | | | | | | | | | | | |
| FAC species <u>80</u> | x 3 = <u>240</u> | | | | | | | | | | | | | | | | | | | |
| FACU species _____ | x 4 = _____ | | | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | | | |
| Column Totals: <u>80</u> (A) | <u>240</u> (B) | | | | | | | | | | | | | | | | | | | |
| Prevalence Index = B/A = <u>3</u> | | | | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> 20 = Total Cover | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | | | |
| 1. <u>Acer negundo</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 2. <u>Liquidambar styraciflua</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | 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. | | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u> 35 = Total Cover | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | 50% of total cover: _____ 20% of total cover: _____ _____ = Total Cover | | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u> 25 = Total Cover | | | | Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera Japonica</u> | <u>25</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WW-1 wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/02/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WJ-14P
 Investigator(s): S. Burton + M. Prazer + Emergon Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): none Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.126913 Long: -81.552469 Datum: NAD 83
 Soil Map Unit Name: MV-mixed alluvial land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No 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 <u>✓</u> No _____ | Is the Sampled Area within a Wetland? | Yes _____ No <u>✓</u> |
| Hydric Soil Present? | Yes _____ No <u>✓</u> | | |
| Wetland Hydrology Present? | Yes _____ No <u>✓</u> | | |
| Remarks: | | | |

HYDROLOGY

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

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

 Sampling Point: WJ-1 up

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|--|-------------------|--------------|----------------------|----------------|------------------------|-----------------|-----------------------|------------------|------------------------|------------------|-------------------|-------------|-------------------------------|----------------|
| 1. <u>Platanus occidentalis</u> | <u>30</u> | <u>y</u> | <u>FACW</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Quercus sp.</u> | <u>25</u> | <u>y</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u> <u>55</u> = Total Cover | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>-</u></td> <td>x 1 = <u>-</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>50</u></td> <td>x 3 = <u>150</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>135</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>345</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3</u> | Total % Cover of: | Multiply by: | OBL species <u>-</u> | x 1 = <u>-</u> | FACW species <u>30</u> | x 2 = <u>60</u> | FAC species <u>50</u> | x 3 = <u>150</u> | FACU species <u>35</u> | x 4 = <u>135</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>115</u> (A) | <u>345</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>-</u> | x 1 = <u>-</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>30</u> | x 2 = <u>60</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>50</u> | x 3 = <u>150</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>35</u> | x 4 = <u>135</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>115</u> (A) | <u>345</u> (B) | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Acer negundo</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Ligustrum sinense</u> | <u>25</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>20</u> 20% of total cover: <u>8</u> <u>40</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>5</u> | <u>n</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Ligustrum sinense</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. <u>Microstigeum vimineum</u> | <u>30</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 11. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> <u>45</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> | | | | | | | | | | | | | | |

Sampling Point: WJ-1 up

Eastern Mountains and Piedmont – Version 2.0

Also for WLL

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I-85 City/County: Cherokee Sampling Date: 12/3/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WICK1 - wet
 Investigator(s): M. Frazer Section, Township, Range: -
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.126973 Long: -81.550876 Datum: NAD83
 Soil Map Unit Name: Mv-mixed alluvial land NWI classification: PE01A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: <u>Small depression in floodplain ponded. Little veg. Recent rain.</u> <u>WLL may have been a dry channel at some point (small adj. berm). No hydric soils to connect it to WLL.</u> | |

HYDROLOGY

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

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

 Sampling Point: WCK +

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|---|-------------------|--------------|----------------------|----------------|-----------------------|----------------|-----------------------|------------------|------------------------|------------------|----------------------|----------------|-------------------------------|----------------|
| 1. <u>Acer negundo</u> | <u>70</u> | <u>y</u> | <u>FAC</u> | Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B) | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>35</u> 20% of total cover: <u>14</u> <u>70</u> = Total Cover | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>—</u></td> <td>x 1 = <u>—</u></td> </tr> <tr> <td>FACW species <u>—</u></td> <td>x 2 = <u>—</u></td> </tr> <tr> <td>FAC species <u>75</u></td> <td>x 3 = <u>225</u></td> </tr> <tr> <td>FACU species <u>45</u></td> <td>x 4 = <u>180</u></td> </tr> <tr> <td>UPL species <u>—</u></td> <td>x 5 = <u>—</u></td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>405</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.37</u> | Total % Cover of: | Multiply by: | OBL species <u>—</u> | x 1 = <u>—</u> | FACW species <u>—</u> | x 2 = <u>—</u> | FAC species <u>75</u> | x 3 = <u>225</u> | FACU species <u>45</u> | x 4 = <u>180</u> | UPL species <u>—</u> | x 5 = <u>—</u> | Column Totals: <u>120</u> (A) | <u>405</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>—</u> | x 1 = <u>—</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>—</u> | x 2 = <u>—</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>75</u> | x 3 = <u>225</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>45</u> | x 4 = <u>180</u> | | | | | | | | | | | | | | | | | |
| UPL species <u>—</u> | x 5 = <u>—</u> | | | | | | | | | | | | | | | | | |
| Column Totals: <u>120</u> (A) | <u>405</u> (B) | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>35</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 2. <u>Acer negundo</u> | <u>50</u> | <u>N</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>20</u> 20% of total cover: <u>8</u> <u>40</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> <u>10</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>—</u>) | | | | | | | | | | | | | | | | | | |
| 1. | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>—</u> 20% of total cover: <u>—</u> <u>—</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

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.

Hydrophytic Vegetation Present? Yes — No ✓

Sampling Point: WK K wet

Eastern Mountains and Piedmont – Version 2.0

also WLL

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I-85 City/County: Cherokee Sampling Date: 12/3/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WKK 1-up
 Investigator(s): M. Prazer Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): none Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.126973 Long: -81.550876 Datum: NAD83
 Soil Map Unit Name: mv- mixed alluvial land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|---|
| Hydrophytic Vegetation Present? Yes _____ No _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____ | Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> |
| Remarks: | |

HYDROLOGY

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

also WLL

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

Sampling Point: WKK 1-4

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|------------------|-------------------|------------------|
| 1. <u>Acer negundo</u> | <u>90</u> | <u>y</u> | <u>FAC</u> |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |

50% of total cover: 45 20% of total cover: 18 = Total Cover 90

| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
|--|------------------|-------------------|------------------|
| 1. <u>Acer negundo</u> | <u>20</u> | <u>y</u> | <u>FAC</u> |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |

50% of total cover: 10 20% of total cover: 4 = Total Cover 20

| Herb Stratum (Plot size: <u>5x5</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------------|------------------|-------------------|------------------|
| 1. <u>Glechoma hederacea</u> | <u>50</u> | <u>y</u> | <u>FACU</u> |
| 2. <u>Stellaria media</u> | <u>20</u> | <u>y</u> | <u>UPL</u> |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |

50% of total cover: 35 20% of total cover: 14 = Total Cover 70

| Woody Vine Stratum (Plot size: <u>5x5</u>) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|------------------|-------------------|------------------|
| 1. <u>Lonicera japonica</u> | <u>20</u> | <u>y</u> | <u>FAC</u> |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

50% of total cover: 10 20% of total cover: 4 = Total Cover 20

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

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)Total Number of Dominant Species Across All Strata: 5 (B)Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

Prevalence Index worksheet:

Total % Cover of: Multiply by:

OBL species — x 1 = —FACW species — x 2 = —FAC species 130 x 3 = 390FACU species 50 x 4 = 200UPL species 20 x 5 = 100Column Totals: 200 (A) 690 (B)Prevalence Index = B/A = 3.45

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation☒ 2 - Dominance Test is >50%☐ 3 - Prevalence Index is ≤3.0¹☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)☐ Problematic Hydrophytic Vegetation¹ (Explain)¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Hydrophytic Vegetation Present?

Yes ☒ No ☐

also WLL

Sampling Point: W4C y

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ 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, MLRA 147, 148**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ☐ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ☐ Umbric Surface (F13) **(MLRA 136, 122)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ☐ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16)
 (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19)
 (**MLRA 136, 147**)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/03/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WLL-2 wet
 Investigator(s): M. Frazer Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.127017 Long: -91.551205 Datum: NAD 83
 Soil Map Unit Name: MV-mixed alluvial land NWI classification: PF01A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|---------------------------------|---|-----------------------------|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

Is the Sampled Area within a Wetland? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

| | |
|--|---|
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Iron Deposits (B5) | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |
| <input type="checkbox"/> Aquatic Fauna (B13) | |

Secondary Indicators (minimum of two required)

| |
|---|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

| | | | |
|--|---|-----------------------------|----------------------------|
| Surface Water Present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Depth (inches): <u>14"</u> |
| Water Table Present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Depth (inches): _____ |
| Saturation Present? (includes capillary fringe) | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Depth (inches): _____ |

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WLL-2 wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|--|-------------------|--------------|-------------------|-------------|--------------------|-------------|-----------------------|-----------------|------------------------|------------------|-------------------|-------------|------------------------------|----------------|
| 1. <u>Acer negundo</u> | <u>70</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>2</u> (B) | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>35</u></td> <td>x 4 = <u>140</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>50</u> (A)</td> <td><u>185</u> (B)</td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = _____ | FACW species _____ | x 2 = _____ | FAC species <u>15</u> | x 3 = <u>45</u> | FACU species <u>35</u> | x 4 = <u>140</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>50</u> (A) | <u>185</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species _____ | x 1 = _____ | | | | | | | | | | | | | | | | | |
| FACW species _____ | x 2 = _____ | | | | | | | | | | | | | | | | | |
| FAC species <u>15</u> | x 3 = <u>45</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>35</u> | x 4 = <u>140</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>50</u> (A) | <u>185</u> (B) | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>35</u> = Total Cover 20% of total cover: <u>14</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>35</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 2. <u>Acer negundo</u> | <u>5</u> | <u>n</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>40</u> = Total Cover 20% of total cover: <u>9</u> | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: _____ = Total Cover 20% of total cover: _____ | | | | Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: _____ = Total Cover 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |

Sampling Point: WLL-2 wet

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

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

Indicators for Problematic Hydric Soils³:

- ___ 2 cm Muck (A10) (MLRA 147)
 ___ Coast Prairie Redox (A16)
 (MLRA 147, 148)
 ___ Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
 ___ Very Shallow Dark Surface (TF12)
 ___ Other (Explain in Remarks)

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

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes — No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/03/15
 Applicant/Owner: SUDOT State: SC Sampling Point: WLL-2 up
 Investigator(s): M. Frazer Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.127017 Long: -81.551205 Datum: NAD83
 Soil Map Unit Name: MV- mixed alluvial land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <u>✓</u> No _____ | Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u> |
| Hydric Soil Present? Yes _____ No <u>✓</u> | |
| Wetland Hydrology Present? Yes _____ No <u>✓</u> | |

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

| | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Iron Deposits (B5) | |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |
| <input type="checkbox"/> Aquatic Fauna (B13) | |

Secondary Indicators (minimum of two required)

| |
|--|
| <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

| | |
|---|-----------------------|
| Surface Water Present? Yes _____ No _____ | Depth (inches): _____ |
| Water Table Present? Yes _____ No _____ | Depth (inches): _____ |
| Saturation Present? Yes _____ No _____ | Depth (inches): _____ |

(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WLL-24p

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|---|
| 1. <u>Acer negundo</u> | <u>90</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>5</u> (B) |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60</u> (A/B) |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>150</u> x 3 = <u>390</u> FACU species <u>50</u> x 4 = <u>200</u> UPL species <u>20</u> x 5 = <u>100</u> Column Totals: <u>200</u> (A) <u>690</u> (B) Prevalence Index = B/A = <u>3.45</u> |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>45</u> 20% of total cover: <u>18</u> = Total Cover <u>96</u> | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | |
| 1. <u>Acer negundo</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 9. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> = Total Cover <u>20</u> | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Glechoma hederacea</u> | <u>50</u> | <u>y</u> | <u>FACW</u> | |
| 2. <u>Stellaria media</u> | <u>20</u> | <u>y</u> | <u>UPL</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 9. _____ | _____ | _____ | _____ | |
| 10. _____ | _____ | _____ | _____ | |
| 11. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>35</u> 20% of total cover: <u>14</u> = Total Cover <u>70</u> | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Lonicera japonica</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> = Total Cover <u>20</u> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes <u>✓</u> No _____ |

Sampling Point: WLL-2 UP

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 10/03/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WMM-2 wet
 Investigator(s): Th. Prazer, E. Morgan, S. Burton Section, Township, Range:
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): none Slope (%):
 Subregion (LRR or MLRA): P Lat: 35.127057 Long: -81.550249 Datum: NAD83
 Soil Map Unit Name: Mr- mixed alluvial land NWI classification: PF01A
 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 <u> </u> No <u> </u> | Is the Sampled Area within a Wetland? Yes <u> </u> No <u> </u> |
| Hydric Soil Present? Yes <u> </u> No <u> </u> | |
| Wetland Hydrology Present? Yes <u> </u> No <u> </u> | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: WMM 2- wet

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------|------------------|-------------------|------------------|
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |

_____ = Total Cover
 50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 10 x 10)

| | | | |
|----------------------------------|-----------|----------|-------------|
| 1. <u>Fraxinus pennsylvanica</u> | <u>40</u> | <u>y</u> | <u>FACW</u> |
| 2. <u>Baccharis sp</u> | <u>10</u> | <u>n</u> | <u>-</u> |
| 3. <u>Populus heterophylla</u> | <u>10</u> | <u>n</u> | <u>OBL</u> |
| 4. <u>Chinese privet</u> | <u>5</u> | <u>n</u> | <u>FACU</u> |
| 5. <u>Acer negundo</u> | <u>10</u> | <u>n</u> | <u>FAC</u> |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |

_____ = Total Cover
 50% of total cover: 37.5 20% of total cover: 15

Herb Stratum (Plot size: 5x5)

| | | | |
|---------------------------------|-----------|----------|------------|
| 1. <u>Microstigeum vimineum</u> | <u>10</u> | <u>y</u> | <u>FAC</u> |
| 2. <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |
| 11. _____ | _____ | _____ | _____ |

_____ = Total Cover
 50% of total cover: 10 20% of total cover: 4

Woody Vine Stratum (Plot size: 5x5)

| | | | |
|-----------------------------|-----------|----------|------------|
| 1. <u>Rubus sp.</u> | <u>5</u> | <u>-</u> | <u>-</u> |
| 2. <u>Lonicera japonica</u> | <u>20</u> | <u>y</u> | <u>FAC</u> |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |

_____ = Total Cover
 50% of total cover: 12.5 20% of total cover: 5

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

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

Prevalence Index worksheet:

| Total % Cover of: | Multiply by: |
|-------------------------------|------------------|
| OBL species <u>10</u> | x 1 = <u>10</u> |
| FACW species <u>40</u> | x 2 = <u>80</u> |
| FAC species <u>50</u> | x 3 = <u>150</u> |
| FACU species <u>5</u> | x 4 = <u>20</u> |
| UPL species _____ | x 5 = _____ |
| Column Totals: <u>105</u> (A) | <u>260</u> (B) |

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☒ 3 - Prevalence Index is ≤3.0¹
- ☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present?

Yes ☒ No ☐

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

Sampling Point: WMM-2wet

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/03/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WMM2-up
 Investigator(s): M. Frazer, E. Morgan + S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.127057 Long: -81.550249 Datum: NAD83
 Soil Map Unit Name: Mv-mixed alluvial land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | |

Remarks:

HYDROLOGY

| Wetland Hydrology Indicators: | Secondary Indicators (minimum of two required) |
|--|--|
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> Microtopographic Relief (D4) |
| <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | |
| <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | |
| <input type="checkbox"/> Presence of Reduced Iron (C4) | |
| <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | |
| <input type="checkbox"/> Thin Muck Surface (C7) | |
| <input type="checkbox"/> Other (Explain in Remarks) | |

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 Hydrology Present? Yes _____ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WMM2-4P

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|--|-------------------|--------------|-----------------------|-----------------|------------------------|-----------------|-----------------------|------------------|------------------------|------------------|-------------------|-------------|-------------------------------|----------------|
| 1. <u>Platanus occidentalis</u> | <u>15</u> | <u>y</u> | <u>FACW</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>8</u> (B) | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>25</u></td> <td>x 1 = <u>25</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>45</u></td> <td>x 3 = <u>135</u></td> </tr> <tr> <td>FACU species <u>25</u></td> <td>x 4 = <u>100</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>290</u> (B)</td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species <u>25</u> | x 1 = <u>25</u> | FACW species <u>15</u> | x 2 = <u>30</u> | FAC species <u>45</u> | x 3 = <u>135</u> | FACU species <u>25</u> | x 4 = <u>100</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>110</u> (A) | <u>290</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>25</u> | x 1 = <u>25</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>15</u> | x 2 = <u>30</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>45</u> | x 3 = <u>135</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>25</u> | x 4 = <u>100</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>110</u> (A) | <u>290</u> (B) | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> | | | | Prevalence Index = B/A = <u>2.63</u> | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>15</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 2. <u>Liquidambar styraciflua</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. <u>Populus heterophylla</u> | <u>25</u> | <u>y</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>25</u> 20% of total cover: <u>10</u> | | | | 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. | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 2. <u>Microstegium vimineum</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>30</u> 20% of total cover: <u>6</u> | | | | Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Smilax rotundifolia</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>15</u> 20% of total cover: <u>3</u> | | | | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WMM-24

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: T-85 City/County: Cherokee Sampling Date: 12/3/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WNN1 wet
 Investigator(s): M. Frazer Section, Township, Range: -
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): none Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.129574 Long: -81.554357 Datum: NAD83
 Soil Map Unit Name: My - mixed alluvial land NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No - (If no, explain in Remarks.)
 Are Vegetation -, Soil -, or Hydrology - significantly disturbed? Are "Normal Circumstances" present? Yes No -
 Are Vegetation -, Soil -, or Hydrology - naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <u>X</u> No <u>-</u> | Is the Sampled Area within a Wetland? Yes <u>X</u> No <u>-</u> |
| Hydric Soil Present? Yes <u>X</u> No <u>-</u> | |
| Wetland Hydrology Present? Yes <u>X</u> No <u>-</u> | |
| Remarks: <u>Flat area between streamers that collects water in a few shallow puddles.</u> <u>photo pointing S @ WNN1. Recent rain.</u> | |

HYDROLOGY

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

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

 Sampling Point: WNN wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|--|-------------------|--------------|----------------------|----------------|-----------------------|----------------|------------------------|------------------|-----------------------|----------------|----------------------|----------------|-------------------------------|----------------|
| 1. <u>Liquidambar styraciflua</u> | <u>80</u> | <u>y</u> | <u>FAC</u> | Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Acer rubrum</u> | <u>15</u> | <u>n</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| <u>95</u> = Total Cover 50% of total cover: <u>47.5</u> 20% of total cover: <u>19</u> | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>—</u></td> <td>x 1 = <u>—</u></td> </tr> <tr> <td>FACW species <u>—</u></td> <td>x 2 = <u>—</u></td> </tr> <tr> <td>FAC species <u>165</u></td> <td>x 3 = <u>495</u></td> </tr> <tr> <td>FACU species <u>2</u></td> <td>x 4 = <u>8</u></td> </tr> <tr> <td>UPL species <u>—</u></td> <td>x 5 = <u>—</u></td> </tr> <tr> <td>Column Totals: <u>167</u> (A)</td> <td><u>503</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.0</u> | Total % Cover of: | Multiply by: | OBL species <u>—</u> | x 1 = <u>—</u> | FACW species <u>—</u> | x 2 = <u>—</u> | FAC species <u>165</u> | x 3 = <u>495</u> | FACU species <u>2</u> | x 4 = <u>8</u> | UPL species <u>—</u> | x 5 = <u>—</u> | Column Totals: <u>167</u> (A) | <u>503</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>—</u> | x 1 = <u>—</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>—</u> | x 2 = <u>—</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>165</u> | x 3 = <u>495</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>2</u> | x 4 = <u>8</u> | | | | | | | | | | | | | | | | | |
| UPL species <u>—</u> | x 5 = <u>—</u> | | | | | | | | | | | | | | | | | |
| Column Totals: <u>167</u> (A) | <u>503</u> (B) | | | | | | | | | | | | | | | | | |
| <u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u> | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Carpinus caroliniana</u> | <u>50</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Acer rubrum</u> | <u>10</u> | <u>n</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| <u>60</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u> | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>2</u> | <u>y</u> | <u>FACU</u> | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | |
| <u>2</u> = Total Cover 50% of total cover: <u>1</u> 20% of total cover: <u>.40</u> | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | 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. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| <u>10</u> = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> | | | | | | | | | | | | | | | | | | |

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

SOIL

Sampling Point: WNN wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I-95 City/County: Cherokee Sampling Date: 12/13/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WNN 2.4
 Investigator(s): M. Frazer Section, Township, Range: -
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): none Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.129574 Long: -81.554357 Datum: NAD83
 Soil Map Unit Name: Mixed alluvial land NWI classification: 7

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 <u>X</u> No <u>-</u> | Is the Sampled Area within a Wetland? Yes <u>-</u> No <u>X</u> |
| Hydric Soil Present? Yes <u>-</u> No <u>X</u> | |
| Wetland Hydrology Present? Yes <u>X</u> No <u>-</u> | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: WNN up

| Tree Stratum (Plot size: <u>10x10</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|---|--------------------------------|------------------|-------------------|------------------|
| 1. | <u>Liquidambar styraciflua</u> | <u>55</u> | <u>y</u> | <u>FAC</u> |
| 2. | <u>Betula nigra</u> | <u>25</u> | <u>y</u> | <u>FACW</u> |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |

90 = Total Cover
 50% of total cover: 40 20% of total cover: 16

| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|--|-----------------------------|------------------|-------------------|------------------|
| 1. | <u>Acer rubrum</u> | <u>20</u> | <u>y</u> | <u>FAC</u> |
| 2. | <u>Carpinus caroliniana</u> | <u>40</u> | <u>y</u> | <u>FAC</u> |
| 3. | <u>Fagus grandifolia</u> | <u>5</u> | <u>n</u> | <u>FACW</u> |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |

65 = Total Cover
 50% of total cover: 32.5 20% of total cover: 13

| Herb Stratum (Plot size: <u>5x5</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------------|-----------------------------|------------------|-------------------|------------------|
| 1. | <u>Allium schoenoprasum</u> | <u>5</u> | <u>y</u> | <u>FACW</u> |
| 2. | <u>Ilex opaca</u> | <u>5</u> | <u>y</u> | <u>FACW</u> |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |

10 = Total Cover
 50% of total cover: 5 20% of total cover: 2

| Woody Vine Stratum (Plot size: <u>5x5</u>) | | Absolute % Cover | Dominant Species? | Indicator Status |
|---|--------------------------|------------------|-------------------|------------------|
| 1. | <u>Lonicera japonica</u> | <u>5</u> | <u>y</u> | <u>FAC</u> |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

5 = Total Cover
 50% of total cover: 2.5 20% of total cover: 1

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

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71 (A/B)

Prevalence Index worksheet:

| Total % Cover of: | Multiply by: |
|-------------------------------|------------------|
| OBL species <u>—</u> | x 1 = <u>—</u> |
| FACW species <u>25</u> | x 2 = <u>50</u> |
| FAC species <u>120</u> | x 3 = <u>360</u> |
| FACU species <u>15</u> | x 4 = <u>60</u> |
| UPL species <u>—</u> | x 5 = <u>—</u> |
| Column Totals: <u>160</u> (A) | <u>470</u> (B) |

Prevalence Index = B/A = 2.93

Hydrophytic Vegetation Indicators:

— 1 - Rapid Test for Hydrophytic Vegetation

— 2 - Dominance Test is >50%

— 3 - Prevalence Index is ≤3.0¹

— 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

— Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes — No —

SOIL

Sampling Point: WNN

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: K85 City/County: Cherokee Sampling Date: 12/09/13
 Applicant/Owner: M. Frazer + S. Burton State: SC Sampling Point: W00-2 Wet
 Investigator(s): M. Frazer + S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): none Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.132435 Long: -81.535939 Datum: NAD 83
 Soil Map Unit Name: AFA - altavista fine sandy loam 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? Yes _____ No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: W00-2 wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|---|
| 1. <u>Liquidambar styraciflua</u> | <u>25</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 2. <u>Ulmus rubra</u> | <u>5</u> | <u>n</u> | <u>FAC</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>15</u> 30 = Total Cover 20% of total cover: <u>6</u> | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>10</u> x 1 = <u>10</u> FACW species <u>15</u> x 2 = <u>30</u> FAC species <u>25</u> x 3 = <u>165</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>80</u> (A) <u>205</u> (B) Prevalence Index = B/A = <u>2.56</u> |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | |
| 2. <u>Fraxinus pennsylvanica</u> | <u>15</u> | <u>y</u> | <u>FACW</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 9. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>15</u> 30 = Total Cover 20% of total cover: <u>6</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Rubus sp.</u> | <u>5</u> | <u>n</u> | <u>-</u> | |
| 2. <u>Carex sp.</u> | <u>30</u> | <u>y</u> | <u>-</u> | |
| 3. <u>Dulichium arundinaceum</u> | <u>10</u> | <u>y</u> | <u>OBL</u> | |
| 4. <u>Pluchea sp</u> | <u>5</u> | <u>n</u> | <u>-</u> | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 9. _____ | _____ | _____ | _____ | |
| 10. _____ | _____ | _____ | _____ | |
| 11. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>22.5</u> 45 = Total Cover 20% of total cover: <u>9</u> | | | | 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. |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | |
| 2. <u>Toxicodendron radicans</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>7.5</u> 15 = Total Cover 20% of total cover: <u>3</u> | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

SOIL

Sampling Point: W00-2 Wet

[illegible]

Photo WDD-2
North

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/09/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WDD-2 -up
 Investigator(s): M. Frazer & S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): bottomland Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.132435 Long: -81.535939 Datum: NAD83
 Soil Map Unit Name: AFA - Altavista fine sandy loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: W00-2 up

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|---|-------------------|--------------|----------------------|----------------|-----------------------|----------------|------------------------|------------------|------------------------|-----------------|----------------------|----------------|-------------------------------|----------------|
| 1. <u>Liquidambar styraciflua</u> | <u>70</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Ulmus rubra</u> | <u>5</u> | <u>n</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| <u>75</u> = Total Cover 50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u> | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>-</u></td> <td>x 1 = <u>-</u></td> </tr> <tr> <td>FACW species <u>-</u></td> <td>x 2 = <u>-</u></td> </tr> <tr> <td>FAC species <u>105</u></td> <td>x 3 = <u>315</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>-</u></td> <td>x 5 = <u>-</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>395</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.16</u> | Total % Cover of: | Multiply by: | OBL species <u>-</u> | x 1 = <u>-</u> | FACW species <u>-</u> | x 2 = <u>-</u> | FAC species <u>105</u> | x 3 = <u>315</u> | FACU species <u>20</u> | x 4 = <u>80</u> | UPL species <u>-</u> | x 5 = <u>-</u> | Column Totals: <u>125</u> (A) | <u>395</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>-</u> | x 1 = <u>-</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>-</u> | x 2 = <u>-</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>105</u> | x 3 = <u>315</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>20</u> | x 4 = <u>80</u> | | | | | | | | | | | | | | | | | |
| UPL species <u>-</u> | x 5 = <u>-</u> | | | | | | | | | | | | | | | | | |
| Column Totals: <u>125</u> (A) | <u>395</u> (B) | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Juniper virginiana</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. <u>Quercus phellos</u> | <u>5</u> | <u>n</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 4. <u>Ligustrum sinense</u> | <u>5</u> | <u>n</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| <u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u> | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 2. <u>Ligustrum sinense</u> | <u>5</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. <u>Rubus sp.</u> | <u>5</u> | <u>-</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | | |
| 11. | | | | | | | | | | | | | | | | | | |
| <u>20</u> = Total Cover 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Toxicodendron radicans</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | 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. | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| <u>5</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u> | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

SOIL

Sampling Point: W00-2 up

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Photo at
WPP-7 North +
South

Project/Site: 185 City/County: Cherokee Sampling Date: 12/09/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WPP-10 West
 Investigator(s): M. Prazer & S. Burton Section, Township, Range: -
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.131747 Long: -81.537975 Datum: NAD83
 Soil Map Unit Name: AFA-ataunsta fine sandy loam / Mv-mixed alluvial land NWI classification: pf01A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: | |

HYDROLOGY

| | | |
|--|--|---|
| Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-8</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u> </u> (includes capillary fringe) | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: WPP-10 wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|---|-------------------|--------------|-------------------|-------------|------------------------|-----------------|------------------------|------------------|------------------------|-----------------|-------------------|-------------|-------------------------------|----------------|--------------------------------------|--|
| 1. <u>Platanus occidentalis</u> | <u>30</u> | <u>y</u> | <u>FACW</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>89</u> (A/B) | | | | | | | | | | | | | | | | |
| 2. <u>Acer Rubrum</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 3. <u>Liquidambar styraciflua</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>110</u></td> <td>x 3 = <u>330</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>430</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.86</u></td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = _____ | FACW species <u>30</u> | x 2 = <u>60</u> | FAC species <u>110</u> | x 3 = <u>330</u> | FACU species <u>10</u> | x 4 = <u>40</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>150</u> (A) | <u>430</u> (B) | Prevalence Index = B/A = <u>2.86</u> | |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | | | |
| OBL species _____ | x 1 = _____ | | | | | | | | | | | | | | | | | | | |
| FACW species <u>30</u> | x 2 = <u>60</u> | | | | | | | | | | | | | | | | | | | |
| FAC species <u>110</u> | x 3 = <u>330</u> | | | | | | | | | | | | | | | | | | | |
| FACU species <u>10</u> | x 4 = <u>40</u> | | | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | | | |
| Column Totals: <u>150</u> (A) | <u>430</u> (B) | | | | | | | | | | | | | | | | | | | |
| Prevalence Index = B/A = <u>2.86</u> | | | | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 50% of total cover: _____ 20% of total cover: <u>13</u> Total Cover: <u>65</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | | | | | | | | | | | | | | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>20</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 2. <u>Quercus prinus</u> | <u>5</u> | <u>n</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 3. <u>Ulmus alata</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | 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. | | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u> Total Cover: <u>35</u> | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 2. <u>Dulichium arundinaceum</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 11. _____ | _____ | _____ | _____ | Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 2. <u>Toxicodendron Radicans</u> | <u>25</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u> Total Cover: <u>35</u> | | | | | | | | | | | | | | | | | | | | |

Sampling Point: WPP wet

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16)
 (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19)
 (**MLRA 136, 147**)
☐ Very Shallow Dark Surface (TF12)
 Other (Explain in Remarks)

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

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes X No

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/09/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WPP-10, P
 Investigator(s): M. Prater & S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.131747 Long: -81.637975 Datum: NAD83
 Soil Map Unit Name: AA-attavista fine sandy loam/Mv-mixed alluvial NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)

☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Surface Soil Cracks (B6)
☐ Sparsely Vegetated Concave Surface (B8)
☐ Drainage Patterns (B10)
☐ Moss Trim Lines (B16)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ Shallow Aquitard (D3)
☐ Microtopographic Relief (D4)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches): _____
 Water Table Present? Yes ☐ No ☐ Depth (inches): _____
 Saturation Present? Yes ☐ No ☐ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WPP-10 up

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. <u>Liquidambar styraciflua</u> | <u>40</u> | <u>y</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B) |
| 2. <u>Acer rubrum</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>25</u> = Total Cover 20% of total cover: <u>10</u> | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>85</u> x 3 = <u>255</u> FACU species <u>35</u> x 4 = <u>140</u> UPL species _____ x 5 = _____ Column Totals: <u>120</u> (A) <u>395</u> (B) Prevalence Index = B/A = <u>3.3</u> |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | |
| 1. <u>Ligustrum sinense</u> | <u>20</u> | <u>y</u> | <u>FACU</u> | |
| 2. <u>Juniper virginiana</u> | <u>5</u> | <u>y</u> | <u>FACU</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>12.5</u> = Total Cover 20% of total cover: <u>5</u> | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Ligustrum sinense</u> | <u>10</u> | <u>y</u> | <u>FACU</u> | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 2. <u>Dipichium acundinacum</u> | <u>5</u> | <u>N</u> | <u>FAC</u> | |
| 3. <u>Microstegium vimineum</u> | <u>30</u> | <u>y</u> | <u>FAC</u> | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>45</u> = Total Cover 20% of total cover: <u>9</u> | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | |
| 1. _____ | _____ | _____ | _____ | 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. |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

SOIL

Sampling Point: WPP

[illegible]

Photo W&Q-8
013 NE & SW

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/09/15
Applicant/Owner: SCDOT State: SC Sampling Point: W&Q-14 wet
Investigator(s): M. Prazer & S. Burton Section, Township, Range: -
Landform (hillslope, terrace, etc.): field Local relief (concave, convex, none): concave Slope (%): -
Subregion (LRR or MLRA): P Lat: 35.131446 Long: -81.539049 Datum: NAD83
Soil Map Unit Name: mv-mixed alluvial land NWI classification: PFO1C
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: | |

HYDROLOGY

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|--|--|--|
| Primary Indicators (minimum of one is required; check all that apply) | | |
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input checked="" type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input checked="" type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: | | |
| Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-8</u> | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u></u> | | |
| Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u></u> (includes capillary fringe) | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: W00- wet

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species <u>80</u> x 2 = <u>160</u> FAC species <u>5</u> x 3 = <u>15</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>85</u> (A) <u>175</u> (B) Prevalence Index = B/A = <u>205</u> |
| 50% of total cover: _____ 20% of total cover: _____ | | | | |
| _____ = Total Cover | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 9. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u> | | | | |
| _____ = Total Cover | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Festuca sp.</u> | <u>5</u> | <u>-</u> | <u>-</u> | |
| 2. <u>Rubus sp.</u> | <u>20</u> | <u>-</u> | <u>-</u> | |
| 3. <u>Puccia sp.</u> | <u>5</u> | <u>-</u> | <u>-</u> | |
| 4. <u>Juncus effusus</u> | <u>80</u> | <u>y</u> | <u>FACW</u> | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | |
| 9. _____ | _____ | _____ | _____ | |
| 10. _____ | _____ | _____ | _____ | |
| 11. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | 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. |
| 50% of total cover: <u>55</u> 20% of total cover: <u>22</u> | | | | |
| _____ = Total Cover | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | |
| 1. _____ | _____ | _____ | _____ | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| _____ = Total Cover | | | | |
| 50% of total cover: _____ 20% of total cover: _____ | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |

Sampling Point: W/ QQ-# wet

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/09/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WQQ-1419
 Investigator(s): M. Frazer & S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): field Local relief (concave, convex, none): none Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.131446 Long: -81.539049 Datum: NAD83
 Soil Map Unit Name: My-mixed alluvial land NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes - No - (If no, explain in Remarks.)
 Are Vegetation Yes, Soil Yes, 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 <u>✓</u> No <u>-</u> | Is the Sampled Area within a Wetland? Yes <u>-</u> No <u>✓</u> |
| Hydric Soil Present? | Yes <u>-</u> No <u>✓</u> | |
| Wetland Hydrology Present? | Yes <u>-</u> No <u>✓</u> | |
| Remarks: | | |

HYDROLOGY

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

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

 Sampling Point: WQQ-2 up

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|--|-------------------|--------------|-------------------|-------------|------------------------|-----------------|-----------------------|-----------------|------------------------|------------------|-------------------|-------------|------------------------------|----------------|
| 1. <u>Fraxinus pennsylvanica</u> | <u>15</u> | <u>y</u> | <u>PPCW</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>4</u> (B) | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>65</u> (A)</td> <td><u>220</u> (B)</td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = _____ | FACW species <u>15</u> | x 2 = <u>30</u> | FAC species <u>10</u> | x 3 = <u>30</u> | FACU species <u>40</u> | x 4 = <u>160</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>65</u> (A) | <u>220</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species _____ | x 1 = _____ | | | | | | | | | | | | | | | | | |
| FACW species <u>15</u> | x 2 = <u>30</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>10</u> | x 3 = <u>30</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>40</u> | x 4 = <u>160</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>65</u> (A) | <u>220</u> (B) | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | Prevalence Index = B/A = <u>3.4</u> | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>20</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 2. <u>Liquidambar styraciflua</u> | <u>10</u> | <u>y</u> | <u>PAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) 50% of total cover: <u>15</u> 20% of total cover: <u>6</u> | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. | | | | | | | | | | | | | | |
| 1. <u>Pestica sp.</u> | <u>70</u> | <u>-</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 2. <u>Eupatorium capillifolium</u> | <u>20</u> | <u>y</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 3. <u>Rubus sp.</u> | <u>10</u> | <u>-</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) 50% of total cover: <u>50</u> 20% of total cover: <u>20</u> | | | | Hydrophytic Vegetation Present? Yes <u>_____</u> No <u>_____</u> | | | | | | | | | | | | | | |
| 1. <u>Smilax sp</u> | <u>20</u> | <u>-</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

Sampling Point: WQQ-K up

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16)
 (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19)
 (**MLRA 136, 147**)
☐ Very Shallow Dark Surface (TF12)
 Other (Explain in Remarks)

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

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

WRR-1 = photo
(East)

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: I-85 City/County: Cherokee Sampling Date: 12/9/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WRR-1 wet
 Investigator(s): M. Frazer & S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.130518 Long: -81.543726 Datum: NAD83
 Soil Map Unit Name: MV-mixed alluvial land NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation - Soil yes, or Hydrology yes significantly disturbed? Are "Normal Circumstances" present? Yes _____ No ☒
 Are Vegetation -, Soil -, or Hydrology - naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|---------------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: | | |

HYDROLOGY

| | | |
|--|---|--|
| Wetland Hydrology Indicators: <u>Primary Indicators</u> (minimum of one is required; check all that apply) | | <u>Secondary Indicators</u> (minimum of two required) |
| <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>6-12</u> Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe) | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: <u>Ditched area (panded) along farm road at I-85 embankment.</u> <u>Lots of cone activity in WL.</u> | | |

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

 Sampling Point: WRR-1 wet

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|--|-------------------|--------------|-------------------|-------------|------------------------|-----------------|-------------------|-------------|--------------------|-------------|-------------------|-------------|------------------------------|---------------|-----------------------------------|--|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) | | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>1</u> (B) | | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) | | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>10</u> (A)</td> <td><u>20</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2</u></td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = _____ | FACW species <u>10</u> | x 2 = <u>20</u> | FAC species _____ | x 3 = _____ | FACU species _____ | x 4 = _____ | UPL species _____ | x 5 = _____ | Column Totals: <u>10</u> (A) | <u>20</u> (B) | Prevalence Index = B/A = <u>2</u> | |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | | | |
| OBL species _____ | x 1 = _____ | | | | | | | | | | | | | | | | | | | |
| FACW species <u>10</u> | x 2 = <u>20</u> | | | | | | | | | | | | | | | | | | | |
| FAC species _____ | x 3 = _____ | | | | | | | | | | | | | | | | | | | |
| FACU species _____ | x 4 = _____ | | | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | | | |
| Column Totals: <u>10</u> (A) | <u>20</u> (B) | | | | | | | | | | | | | | | | | | | |
| Prevalence Index = B/A = <u>2</u> | | | | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>515</u>) 1. <u>Juncus effusus</u> <u>10</u> <u>yes</u> <u>FACW</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ _____ = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u> | | | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | | | |

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.

Hydrophytic Vegetation Present? Yes ☒ No ☐

SOIL

Sampling Point: WLP-wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 1-85 City/County: Cherokee Sampling Date: 12/09/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WRR-1UP
 Investigator(s): M. Frazer + S. Burton Section, Township, Range: -
 Landform (hillslope, terrace, etc.): field Local relief (concave, convex, none): none Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.130518 Long: -81.543726 Datum: NAD83
 Soil Map Unit Name: mv-mixed alluvial land NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil, or Hydrology - significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation -, Soil -, or Hydrology - naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <u>-</u> No <u>✓</u> | Is the Sampled Area within a Wetland? Yes <u>-</u> No <u>✓</u> |
| Hydric Soil Present? Yes <u>-</u> No <u>✓</u> | |
| Wetland Hydrology Present? Yes <u>-</u> No <u>✓</u> | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: WRR-1 up

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|---|-------------------|--------------|----------------------|----------------|------------------------|-----------------|----------------------|----------------|-------------------------|------------------|----------------------|----------------|------------------------------|----------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>3</u> (B) | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>270</u> (B)</td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species <u>0</u> | x 1 = <u>0</u> | FACW species <u>15</u> | x 2 = <u>30</u> | FAC species <u>0</u> | x 3 = <u>0</u> | FACU species <u>100</u> | x 4 = <u>400</u> | UPL species <u>0</u> | x 5 = <u>0</u> | Column Totals: <u>75</u> (A) | <u>270</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>0</u> | x 1 = <u>0</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>15</u> | x 2 = <u>30</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>0</u> | x 3 = <u>0</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>100</u> | x 4 = <u>400</u> | | | | | | | | | | | | | | | | | |
| UPL species <u>0</u> | x 5 = <u>0</u> | | | | | | | | | | | | | | | | | |
| Column Totals: <u>75</u> (A) | <u>270</u> (B) | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Prevalence Index = B/A = <u>3.6</u> | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>8x8</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>40</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 2. <u>Baccharis sp.</u> | <u>20</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u> | | | | 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. | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Yucca sp</u> | <u>10</u> | <u>n</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 2. <u>Verbena incompta</u> | <u>5</u> | <u>n</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 3. <u>Eupatorium capillifolium</u> | <u>20</u> | <u>y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 4. <u>andropogon glomeratus</u> | <u>10</u> | <u>y</u> | <u>FACW</u> | Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> | | | | Woody Vine Stratum (Plot size: _____) | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |

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

SOIL

Sampling Point: WRR-up

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 135 City/County: Cherokee Sampling Date: 12/10/15
 Applicant/Owner: SCDOT State: SC Sampling Point: NSS-4 wet
 Investigator(s): E. Morgan & S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.138615 Long: -81.511533 Datum: NAD83
 Soil Map Unit Name: TaF3-tatum silty clay loam, 15-35%, eroded NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|---------------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | |
| Remarks: | | |

HYDROLOGY

| | | |
|--|---|---|
| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
| Primary Indicators (minimum of one is required; check all that apply) | | |
| <input checked="" type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input checked="" type="checkbox"/> Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input checked="" type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: | | |
| Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): <u>1-8 in</u> | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____ |
| Water Table Present? Yes <input checked="" type="checkbox"/> No _____ | Depth (inches): _____ | |
| Saturation Present? Yes _____ No <input checked="" type="checkbox"/> | Depth (inches): _____ | |
| (includes capillary fringe) | | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: WSS-4 wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|---|-------------------|--------------|-----------------------|-----------------|------------------------|-----------------|-----------------------|------------------|------------------------|-----------------|----------------------|-----------------|-------------------------------|----------------|
| 1. <u>Liquidambar styraciflua</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>89</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Quercus prinus</u> | <u>5</u> | <u>y</u> | <u>UPL</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> <u>15</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>10</u> | <u>N</u> | <u>FACW</u> | Prevalence Index worksheet: <table style="width: 100%;"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>25</u></td> <td>x 1 = <u>25</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>50</u></td> <td>x 3 = <u>150</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>290</u> (B)</td> </tr> </tbody> </table> Prevalence Index = B/A = <u>2.43</u> | Total % Cover of: | Multiply by: | OBL species <u>25</u> | x 1 = <u>25</u> | FACW species <u>20</u> | x 2 = <u>40</u> | FAC species <u>50</u> | x 3 = <u>150</u> | FACU species <u>10</u> | x 4 = <u>40</u> | UPL species <u>5</u> | x 5 = <u>25</u> | Column Totals: <u>115</u> (A) | <u>290</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>25</u> | x 1 = <u>25</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>20</u> | x 2 = <u>40</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>50</u> | x 3 = <u>150</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>10</u> | x 4 = <u>40</u> | | | | | | | | | | | | | | | | | |
| UPL species <u>5</u> | x 5 = <u>25</u> | | | | | | | | | | | | | | | | | |
| Column Totals: <u>115</u> (A) | <u>290</u> (B) | | | | | | | | | | | | | | | | | |
| 2. <u>Liquidambar styraciflua</u> | <u>15</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. <u>Athus serrulata</u> | <u>30</u> | <u>y</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>27.5</u> 20% of total cover: <u>11</u> <u>55</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5</u>) | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 2. <u>Typha latifolia</u> | <u>15</u> | <u>y</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 3. <u>Juncus effusus</u> | <u>20</u> | <u>y</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>20</u> 20% of total cover: <u>8</u> <u>40</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | Absolute % Cover | Dominant Species? | Indicator Status | | | | | | | | | | | | | | | |
| 1. <u>Smilax rotundifolia</u> | <u>10</u> | <u>y</u> | <u>FAC</u> | 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. | | | | | | | | | | | | | | |
| 2. <u>Lonicera japonica</u> | <u>5</u> | <u>y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | | |
| 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> <u>15</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | |

Sampling Point: WSS-4 wet

[illegible]²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ___ 2 cm Muck (A10) (MLRA 147)
 ___ Coast Prairie Redox (A16)
 (MLRA 147, 148)
 ___ Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
 ___ Very Shallow Dark Surface (TF12)
 Other (Explain in Remarks)

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

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/10/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WSS-44
 Investigator(s): E. Morgan + S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.138615 Long: -81.511533 Datum: NAD83
 Soil Map Unit Name: TaF3-tatum silty clay loam, 15-35%, eroded NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/> | |

Remarks:

HYDROLOGY

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|--|---|--|
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

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 Hydrology Present? Yes _____ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: WSS-44

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|--------------------|-------------------|------------------|--|-------------------|--------------|----------------------|----------------|-----------------------|----------------|-----------------------|-----------------|------------------------|------------------|-----------------------|------------------|--------------------------|--------------------|
| 1. <u>Quercus rubra</u> | <u>10</u> | <u>N</u> | <u>FACU</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Quercus prinus</u> | <u>30</u> | <u>Y</u> | <u>UPL</u> | | | | | | | | | | | | | | | |
| 3. <u>Fagus grandifolia</u> | <u>20</u> | <u>Y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 4. <u>Liquidambar styraciflua</u> | <u>10</u> | <u>N</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>30</u></td> <td>x 5 = <u>150</u></td> </tr> <tr> <td>Column Totals: <u>90</u></td> <td>(A) <u>370</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.1</u> | Total % Cover of: | Multiply by: | OBL species <u>0</u> | x 1 = <u>0</u> | FACW species <u>0</u> | x 2 = <u>0</u> | FAC species <u>20</u> | x 3 = <u>60</u> | FACU species <u>40</u> | x 4 = <u>160</u> | UPL species <u>30</u> | x 5 = <u>150</u> | Column Totals: <u>90</u> | (A) <u>370</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>0</u> | x 1 = <u>0</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>0</u> | x 2 = <u>0</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>20</u> | x 3 = <u>60</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>40</u> | x 4 = <u>160</u> | | | | | | | | | | | | | | | | | |
| UPL species <u>30</u> | x 5 = <u>150</u> | | | | | | | | | | | | | | | | | |
| Column Totals: <u>90</u> | (A) <u>370</u> (B) | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>35</u> 20% of total cover: <u>14</u> Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>5</u> | <u>Y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Fagus grandifolia</u> | <u>10</u> | <u>Y</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> Herb Stratum (Plot size: <u>5x5</u>) | | | | 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. | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>5</u> | <u>Y</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u> Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Smilax sp.</u> | <u>5</u> | <u>-</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u> | | | | | | | | | | | | | | | | | | |

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

SOIL

Sampling Point: WSS-4/4P

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ 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, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ___ Thin Dark Surface (S9) (MLRA 147, 148)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ___ Umbric Surface (F13) (MLRA 136, 122)
- ___ Piedmont Floodplain Soils (F19) (MLRA 148)
- ___ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16)
 (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19)
 (**MLRA 136, 147**)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/15/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WTT-38 Wet
 Investigator(s): C. Sheets + S. Burton Section, Township, Range: -
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.131398 Long: -81.543422 Datum: NAD83
 Soil Map Unit Name: My mixed alluvial sand WKD2-Willow sandy loam APB2-aHavista fine sandy loam NWI classification: P501A
 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 <u>-</u> No <u>-</u> | Is the Sampled Area within a Wetland? Yes <u>✓</u> No <u>-</u> |
| Hydric Soil Present? Yes <u>✓</u> No <u>-</u> | |
| Wetland Hydrology Present? Yes <u>✓</u> No <u>-</u> | |
| Remarks: | |

HYDROLOGY

| | | |
|---|---|--|
| Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes <u>✓</u> No <u>-</u> Depth (inches): <u>8 - 10 in</u> Water Table Present? Yes <u>✓</u> No <u>-</u> Depth (inches): <u>-</u> Saturation Present? Yes <u>-</u> No <u>-</u> Depth (inches): <u>-</u> (includes capillary fringe) | Wetland Hydrology Present? Yes <u>✓</u> No <u>-</u> | |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: <u>Salamanders abundant</u> | | |

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

 Sampling Point: WTT-38Wet

| Tree Stratum (Plot size: <u>10x10</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|---|
| 1. <u>Fraxinus pennsylvanica</u> | <u>30</u> | <u>yes</u> | <u>FACW</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 2. <u>Platanus occidentalis</u> | <u>35</u> | <u>yes</u> | <u>FACW</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>32.5</u> 20% of total cover: <u>13</u> <u>65</u> = Total Cover | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>—</u> x 1 = <u>—</u> FACW species <u>65</u> x 2 = <u>130</u> FAC species <u>90</u> x 3 = <u>270</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>155</u> (A) <u>400</u> (B) Prevalence Index = B/A = <u>2.5</u> |
| Sapling/Shrub Stratum (Plot size: <u>10x10</u>) | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>10</u> | <u>yes</u> | <u>FAC</u> | |
| 2. <u>Acer nigundo</u> | <u>15</u> | <u>yes</u> | <u>FAC</u> | |
| 3. _____ | <u>20</u> | <u>yes</u> | <u>FAC</u> | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> <u>45</u> = Total Cover | | | | |
| Herb Stratum (Plot size: _____) | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | |
| Woody Vine Stratum (Plot size: <u>5x5</u>) | | | | |
| 1. <u>Toxicodendron radicans</u> | <u>30</u> | <u>yes</u> | <u>FAC</u> | |
| 2. <u>Smilax rotundifolia</u> | <u>15</u> | <u>yes</u> | <u>FAC</u> | |
| 3. _____ | <u>10</u> | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| _____ = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

SOIL

Sampling Point: WIT-38ref

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/13/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WT-38UP
 Investigator(s): C. Sheats & S. Burton Section, Township, Range: -
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): - Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.131398 Long: -81.543422 Datum: NAD83
 Soil Map Unit Name: inv-mixed glacial loam WKD2-wilkes sandy loam AFB2-aHavista fine sandy loam NWI classification: -
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes 2 No (If no, explain in Remarks.)
 Are Vegetation -, Soil -, or Hydrology - significantly disturbed? Are "Normal Circumstances" present? Yes 2 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 <u>✓</u> No <u> </u> | Is the Sampled Area within a Wetland? Yes <u> </u> No <u>✓</u> |
| Hydric Soil Present? Yes <u> </u> No <u>✓</u> | |
| Wetland Hydrology Present? Yes <u> </u> No <u>✓</u> | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: WTT - 4P

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. <u>Quercus phellos</u> | <u>25</u> | <u>yes</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>3</u> (B) |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B) |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>35</u> x 3 = <u>105</u> FACU species <u>85</u> x 4 = <u>340</u> UPL species _____ x 5 = _____ Column Totals: <u>120</u> (A) <u>445</u> (B) Prevalence Index = B/A = <u>3.70</u> |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: _____) 1. <u>Ligustrum sinense</u> <u>85</u> <u>yes</u> <u>FACU</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | |
| Herb Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | |
| Woody Vine Stratum (Plot size: _____) 1. <u>Smilax sp</u> <u>25</u> <u>-</u> <u>-</u> 2. <u>Lonicera japonica</u> <u>10</u> <u>yes</u> <u>FAC</u> 3. _____ 4. _____ 5. _____ _____ = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u> | | | | |
| 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. | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

SOIL

Sampling Point: WTT-38UP

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 10/15/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WUU-12 Wet
 Investigator(s): C. Sheats & S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.132283 Long: -81.540122 Datum: NAD83
 Soil Map Unit Name: Mv-mixed alluvial land NWI classification: PF01 A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|--|--|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? | Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No _____ | | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No _____ | | |
| Remarks: | | | |

HYDROLOGY

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

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

 Sampling Point: WUU-12 Wet

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|--|-------------------|--------------|-------------------|-------------|-------------------------|------------------|-------------------|-------------|--------------------|-------------|-------------------|-------------|-------------------------------|----------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>2</u> (B) | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>105</u></td> <td>x 2 = <u>210</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>210</u> (B)</td> </tr> </table> | Total % Cover of: | Multiply by: | OBL species _____ | x 1 = _____ | FACW species <u>105</u> | x 2 = <u>210</u> | FAC species _____ | x 3 = _____ | FACU species _____ | x 4 = _____ | UPL species _____ | x 5 = _____ | Column Totals: <u>105</u> (A) | <u>210</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species _____ | x 1 = _____ | | | | | | | | | | | | | | | | | |
| FACW species <u>105</u> | x 2 = <u>210</u> | | | | | | | | | | | | | | | | | |
| FAC species _____ | x 3 = _____ | | | | | | | | | | | | | | | | | |
| FACU species _____ | x 4 = _____ | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>105</u> (A) | <u>210</u> (B) | | | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Prevalence Index = B/A = <u>2</u> | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10m</u>) | | | | Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 1. <u>Fraxinus pennsylvanica</u> | <u>15</u> | <u>yes</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | 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. | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 11. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. <u>Juncus effusus</u> | <u>90</u> | <u>yes</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 2. <u>Persicaria sp</u> | <u>25</u> | <u>yes</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Woody Vine Stratum (Plot size: _____) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WUU-12 wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 1-85 City/County: Cherokee Sampling Date: 12/15/13
 Applicant/Owner: SCDOT State: SC Sampling Point: WUW-124P
 Investigator(s): C. Sheats + S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.132283 Long: -81.540122 Datum: NAD83
 Soil Map Unit Name: MV- mixed alluvial land NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|---------------------------------|--|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes _____ No <input checked="" type="checkbox"/> | |
| Wetland Hydrology Present? | Yes _____ No <input checked="" type="checkbox"/> | |
| Remarks: | | |

HYDROLOGY

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

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

 Sampling Point: WVU-12 up

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>50</u> x 3 = <u>240</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>3</u> |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: <u>10x10m</u>) | | | | |
| 1. <u>Acer negundo</u> | <u>60</u> | <u>yes</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| _____ = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u> | | | | 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. |
| Herb Stratum (Plot size: <u>5x5ft</u>) | | | | |
| 1. <u>Robrus sp.</u> | <u>25</u> | <u>-</u> | <u>-</u> | |
| 2. <u>Carex</u> | <u>20</u> | <u>-</u> | <u>-</u> | |
| 3. <u>Festuca sp</u> | <u>10</u> | <u>-</u> | <u>-</u> | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Woody Vine Stratum (Plot size: _____) |
| 1. <u>Lonicera japonica</u> | <u>20</u> | <u>yes</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |

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

SOIL

Sampling Point: WVU-2 up

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/15/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WVV-15wet
 Investigator(s): C. Sheets + S. Burton Section, Township, Range: -
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.133229 Long: -81.53609 Datum: NAD83
 Soil Map Unit Name: MV-mixed alluvial land / AFA-attinista fine sandy loam NWI classification: PF01 A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No 10am (If no, explain in Remarks.)
 Are Vegetation -, Soil -, or Hydrology - significantly disturbed? Are "Normal Circumstances" present? Yes No -
 Are Vegetation -, Soil -, or Hydrology - naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | |
|---------------------------------|---|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Remarks: | | |

HYDROLOGY

| | | |
|---|--|--|
| Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) | | Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1-10</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4in</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>-</u> (includes capillary fringe) | | Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | |
| Remarks: | | |

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

 Sampling Point: WW-15-wet

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|---|-------------------|--------------|-----------------------|-----------------|-----------------------|----------------|-----------------------|------------------|--------------------|-------------|-------------------|-------------|-------------------------------|----------------|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>35</u></td> <td>x 1 = <u>35</u></td> </tr> <tr> <td>FACW species <u>-</u></td> <td>x 2 = <u>-</u></td> </tr> <tr> <td>FAC species <u>65</u></td> <td>x 3 = <u>195</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>230</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.3</u> | Total % Cover of: | Multiply by: | OBL species <u>35</u> | x 1 = <u>35</u> | FACW species <u>-</u> | x 2 = <u>-</u> | FAC species <u>65</u> | x 3 = <u>195</u> | FACU species _____ | x 4 = _____ | UPL species _____ | x 5 = _____ | Column Totals: <u>100</u> (A) | <u>230</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>35</u> | x 1 = <u>35</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>-</u> | x 2 = <u>-</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>65</u> | x 3 = <u>195</u> | | | | | | | | | | | | | | | | | |
| FACU species _____ | x 4 = _____ | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>100</u> (A) | <u>230</u> (B) | | | | | | | | | | | | | | | | | |
| 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. <u>Alnus serrulata</u> | <u>20</u> | <u>yes</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 2. <u>Salix nigra</u> | <u>15</u> | <u>yes</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 3. <u>Sambucus canadensis</u> | <u>15</u> | <u>yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover | | | | Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| 50% of total cover: <u>25</u> 20% of total cover: <u>10</u> | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. <u>Solidago sp.</u> | <u>20</u> | <u>-</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 2. <u>Lonicera japonica</u> | <u>50</u> | <u>yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 11. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover | | | | 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. | | | | | | | | | | | | | | |
| 50% of total cover: <u>25</u> 20% of total cover: <u>10</u> | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | | | | | | | | | | | | | | | |
| 1. <u>None</u> | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover | | | | | | | | | | | | | | | | | | |
| 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | | | | | | | | | | | | | | |

SOIL

Sampling Point: WNV-16 wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/15/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WVY-UP
 Investigator(s): C. Sheats + S. Burton Section, Township, Range:
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%):
 Subregion (LRR or MLRA): P Lat: 35.133229 Long: -81.53609 Datum: NAD83
 Soil Map Unit Name: Mv-mixed alluvial land / AFA-attinista fine sandy loam NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|---|---------------------------------------|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |
| Wetland Hydrology Present? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |

Remarks:

HYDROLOGY

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|--|---|--|
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

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 Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Sampling Point: WV-154

| Tree Stratum (Plot size: _____) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. _____ | _____ | _____ | _____ | Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) |
| 2. _____ | _____ | _____ | _____ | Total Number of Dominant Species Across All Strata: <u>2</u> (B) |
| 3. _____ | _____ | _____ | _____ | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>43</u> x 3 = <u>135</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = <u>3</u> |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: _____) 1. <u>Sambucus canadensis</u> <u>15</u> <u>yes</u> <u>FAC</u> 2. <u>Rubus sp.</u> <u>20</u> <u>yes</u> <u>-</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ | | | | |
| _____ = Total Cover 50% of total cover: <u>17.5</u> 20% of total cover: <u>7</u> | | | | |
| Herb Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | 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. |
| Woody Vine Stratum (Plot size: _____) 1. <u>Lonicera</u> <u>30</u> <u>yes</u> <u>FAC</u> 2. _____ 3. _____ 4. _____ 5. _____ | | | | |
| _____ = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u> | | | | |
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

Sampling Point: WVV-15 up

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/15/15
 Applicant/Owner: SCDOT State: SC Sampling Point: W/WW-13 wet
 Investigator(s): C. Sheats & S. Burton Section, Township, Range: -
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.134181 Long: -81.531633 Datum: NAD83
 Soil Map Unit Name: my-mixed alluvial land AFA-altavista fine sandy loam GFF-gullied land, friable materials NWI classification: -
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No - (If no, explain in Remarks.)
 Are Vegetation -, Soil -, or Hydrology - significantly disturbed? Are "Normal Circumstances" present? Yes No -
 Are Vegetation -, Soil -, or Hydrology - naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|---|---------------------------------------|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Is the Sampled Area within a Wetland? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Hydric Soil Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | |
| Wetland Hydrology Present? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | |
| Remarks: | | | |

HYDROLOGY

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

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

 Sampling Point: WWV-13 WCT

| Tree Stratum (Plot size: <u>10x10m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|--|-------------------|--------------|-----------------------|-----------------|------------------------|-----------------|-----------------------|------------------|------------------------|-----------------|-------------------|-------------|-------------------------------|----------------|
| 1. <u>Populus heterophylla</u> | <u>20</u> | <u>yes</u> | <u>OBL</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Salix nigra</u> | <u>60</u> | <u>yes</u> | <u>OBL</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| <u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u> | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>80</u></td> <td>x 1 = <u>80</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>95</u></td> <td>x 3 = <u>285</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>230</u> (A)</td> <td><u>515</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.23</u> | Total % Cover of: | Multiply by: | OBL species <u>80</u> | x 1 = <u>80</u> | FACW species <u>35</u> | x 2 = <u>70</u> | FAC species <u>95</u> | x 3 = <u>285</u> | FACU species <u>20</u> | x 4 = <u>80</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>230</u> (A) | <u>515</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>80</u> | x 1 = <u>80</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>35</u> | x 2 = <u>70</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>95</u> | x 3 = <u>285</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>20</u> | x 4 = <u>80</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>230</u> (A) | <u>515</u> (B) | | | | | | | | | | | | | | | | | |
| <u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> | | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Fraxinus pennsylvanica</u> | <u>25</u> | <u>yes</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 2. <u>Ligustrum sinense</u> | <u>20</u> | <u>yes</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| <u>45</u> = Total Cover 50% of total cover: <u>22.5</u> 20% of total cover: <u>9</u> | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5ft</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Boehmeria cylindrica</u> | <u>10</u> | <u>yes</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 11. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5ft</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>95</u> | <u>yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| _____ = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | | | | | | | | | | | | | | |
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

SOIL

Sampling Point: WW-13 wet

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/15/15
 Applicant/Owner: SCDOT State: SC Sampling Point: NW-130p
 Investigator(s): C. Sheats + S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): powerline easement Local relief (concave, convex, none): none Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.134181 Long: -81.531033 Datum: NAD83
 Soil Map Unit Name: Mr. mixed / AFA - alluvial / GFF - gullied land NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation yes, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | | | |
|---------------------------------|--|--|--|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> No _____ | Is the Sampled Area within a Wetland? | Yes _____ No <input checked="" type="checkbox"/> |
| Hydric Soil Present? | Yes _____ No <input checked="" type="checkbox"/> | | |
| Wetland Hydrology Present? | Yes _____ No <input checked="" type="checkbox"/> | | |
| Remarks: | | | |

HYDROLOGY

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

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

 Sampling Point: WWW-134p

| Tree Stratum (Plot size: <u>10x10 m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|--|------------------|-------------------|------------------|--|-------------------|--------------|-----------------------|-----------------|-----------------------|----------------|-----------------------|-----------------|------------------------|------------------|-------------------|-------------|-------------------------------|----------------|
| 1. <u>Salix nigra</u> | <u>40</u> | <u>yes</u> | <u>OBL</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Acer negundo</u> | <u>10</u> | <u>yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>40</u></td> <td>x 1 = <u>40</u></td> </tr> <tr> <td>FACW species <u>-</u></td> <td>x 2 = <u>-</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>85</u></td> <td>x 4 = <u>340</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>155</u> (A)</td> <td><u>470</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.03</u> | Total % Cover of: | Multiply by: | OBL species <u>40</u> | x 1 = <u>40</u> | FACW species <u>-</u> | x 2 = <u>-</u> | FAC species <u>30</u> | x 3 = <u>90</u> | FACU species <u>85</u> | x 4 = <u>340</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>155</u> (A) | <u>470</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>40</u> | x 1 = <u>40</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>-</u> | x 2 = <u>-</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>30</u> | x 3 = <u>90</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>85</u> | x 4 = <u>340</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>155</u> (A) | <u>470</u> (B) | | | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>25</u> 20% of total cover: <u>10</u> = Total Cover | | | | Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10 m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Ligustrum sinense</u> | <u>85</u> | <u>yes</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | 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. | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>42.5</u> 20% of total cover: <u>17</u> = Total Cover | | | | Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5 ft</u>) | | | | | | | | | | | | | | | | | | |
| 1. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | Woody Vine Stratum (Plot size: <u>5x5 ft</u>) | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | 50% of total cover: <u>10</u> 20% of total cover: <u>4</u> = Total Cover | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: _____ 20% of total cover: _____ = Total Cover | | | | Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5 ft</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>20</u> | <u>yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |

Sampling Point: 4/WW-13 up

Eastern Mountains and Piedmont – Version 2.0

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/16/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WXX-Sa wet
 Investigator(s): C. Sheats + S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.131051 Long: -81.551599 Datum: NAD83
 Soil Map Unit Name: TmF - tatum very fine sandy loam NWI classification: -
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 within a Wetland? Yes <u>✓</u> No _____ |
| Hydric Soil Present? Yes <u>✓</u> No _____ | |
| Wetland Hydrology Present? Yes <u>✓</u> No _____ | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: WXX-5a wet

| Tree Stratum (Plot size: <u>10x10m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|--|------------------|-------------------|------------------|--|
| 1. <u>Celtis Lavagata</u> | <u>15</u> | <u>yes</u> | <u>FACW</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B) |
| 2. <u>Fraxinus Pennsylvanica</u> | <u>10</u> | <u>yes</u> | <u>FACW</u> | |
| 3. <u>Acer rubrum</u> | <u>15</u> | <u>yes</u> | <u>FAC</u> | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>40</u> = Total Cover 20% of total cover: <u>8</u> | | | | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species <u>40</u> x 2 = <u>80</u> FAC species <u>140</u> x 3 = <u>420</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>180</u> (A) <u>500</u> (B) Prevalence Index = B/A = <u>2.77</u> |
| Sapling/Shrub Stratum (Plot size: <u>10x10m</u>) | | | | |
| 1. <u>Carpinus caroliniana</u> | <u>15</u> | <u>yes</u> | <u>FAC</u> | |
| 2. <u>Acer rubrum</u> | <u>10</u> | <u>yes</u> | <u>FAC</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>25</u> = Total Cover 20% of total cover: <u>5</u> | | | | |
| Herb Stratum (Plot size: <u>5x5ft</u>) | | | | |
| 1. <u>Microstigeum vimineum</u> | <u>70</u> | <u>yes</u> | <u>FAC</u> | Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 2. <u>Bolanderia cylindrica</u> | <u>15</u> | <u>no</u> | <u>FACW</u> | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>85</u> = Total Cover 20% of total cover: <u>17</u> | | | | |
| Woody Vine Stratum (Plot size: <u>5x5ft</u>) | | | | |
| 1. <u>Lonicera japonica</u> | <u>30</u> | <u>yes</u> | <u>FAC</u> | 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. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>30</u> = Total Cover 20% of total cover: <u>6</u> | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | |

Sampling Point: WXX-5a wet

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

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Indicators for Problematic Hydric Soils³:

- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

- ☐ 2 cm Muck (A10) (MLRA 147)
☐ Coast Prairie Redox (A16)
 (MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/16/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WXX-Sa up
 Investigator(s): C. Sheats + S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.131051 Long: -81.551599 Datum: NAD83
 Soil Map Unit Name: TmF - tatum fine sandy loam NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <u>✓</u> | Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u> |
| Hydric Soil Present? Yes _____ No <u>✓</u> | |
| Wetland Hydrology Present? Yes _____ No <u>✓</u> | |
| Remarks: | |

HYDROLOGY

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

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

 Sampling Point: WXX-5a up

| Tree Stratum (Plot size: <u>10x10m</u>) | | | | Dominance Test worksheet: | |
|--|------------------|-------------------|------------------|---|--------------------|
| | Absolute % Cover | Dominant Species? | Indicator Status | | |
| 1. <u>Quercus rubra</u> | <u>15</u> | <u>no</u> | <u>FACU</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> | (A) |
| 2. <u>Quercus Alba</u> | <u>30</u> | <u>yes</u> | <u>FACU</u> | Total Number of Dominant Species Across All Strata: <u>3</u> | (B) |
| 3. <u>Carya tomentosa</u> | <u>15</u> | <u>no</u> | <u>FACU</u> | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>30</u> | (A/B) |
| 4. <u>Populus heterophylla</u> | <u>20</u> | <u>yes</u> | <u>OBL</u> | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| <u>80</u> = Total Cover 50% of total cover: <u>40</u> 20% of total cover: <u>16</u> | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10m</u>) | | | | Prevalence Index worksheet: | |
| | Absolute % Cover | Dominant Species? | Indicator Status | Total % Cover of: | Multiply by: |
| 1. <u>Ligustrum Sinense</u> | <u>20</u> | <u>yes</u> | <u>FACU</u> | OBL species <u>20</u> | x 1 = <u>20</u> |
| 2. | | | | FACW species <u>-</u> | x 2 = <u>-</u> |
| 3. | | | | FAC species <u>-</u> | x 3 = <u>-</u> |
| 4. | | | | FACU species <u>80</u> | x 4 = <u>320</u> |
| 5. | | | | UPL species <u>-</u> | x 5 = <u>-</u> |
| 6. | | | | Column Totals: <u>100</u> | (A) <u>340</u> (B) |
| 7. | | | | Prevalence Index = B/A = <u>3.4</u> | |
| 8. | | | | Hydrophytic Vegetation Indicators: | |
| 9. | | | | <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) | |
| <u>-</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | |
| Herb Stratum (Plot size: _____) | | | | Definitions of Four Vegetation Strata: | |
| 1. | | | | 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. | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| <u>-</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | |
| Woody Vine Stratum (Plot size: _____) | | | | Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> | |
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| <u>-</u> = Total Cover 50% of total cover: _____ 20% of total cover: _____ | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | |

Sampling Point: WXX-5a UP

[illegible]

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/16/15
 Applicant/Owner: SCDOT State: SC Sampling Point: WY4-
 Investigator(s): C. Sheats & S. Burton Section, Township, Range: -
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): -
 Subregion (LRR or MLRA): P Lat: 35.140573 Long: -81.511583 Datum: NAD83
 Soil Map Unit Name: TaF3- tatum silty clay loam NWI classification: -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation -, Soil -, or Hydrology - significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation -, Soil -, or Hydrology - naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|--|--|
| Hydrophytic Vegetation Present? Yes <u>-</u> No <u>-</u> | Is the Sampled Area within a Wetland? Yes <u>✓</u> No <u>-</u> |
| Hydric Soil Present? Yes <u>-</u> No <u>-</u> | |
| Wetland Hydrology Present? Yes <u>-</u> No <u>-</u> | |

Remarks:

HYDROLOGY

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|--|---|--|
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | |
| <u>✓</u> Surface Water (A1) | <u>-</u> True Aquatic Plants (B14) | <u>-</u> Surface Soil Cracks (B6) |
| <u>-</u> High Water Table (A2) | <u>-</u> Hydrogen Sulfide Odor (C1) | <u>-</u> Sparsely Vegetated Concave Surface (B8) |
| <u>-</u> Saturation (A3) | <u>✓</u> Oxidized Rhizospheres on Living Roots (C3) | <u>✓</u> Drainage Patterns (B10) |
| <u>-</u> Water Marks (B1) | <u>-</u> Presence of Reduced Iron (C4) | <u>-</u> Moss Trim Lines (B16) |
| <u>-</u> Sediment Deposits (B2) | <u>-</u> Recent Iron Reduction in Tilled Soils (C6) | <u>-</u> Dry-Season Water Table (C2) |
| <u>-</u> Drift Deposits (B3) | <u>-</u> Thin Muck Surface (C7) | <u>-</u> Crayfish Burrows (C8) |
| <u>-</u> Algal Mat or Crust (B4) | <u>-</u> Other (Explain in Remarks) | <u>-</u> Saturation Visible on Aerial Imagery (C9) |
| <u>-</u> Iron Deposits (B5) | | <u>-</u> Stunted or Stressed Plants (D1) |
| <u>-</u> Inundation Visible on Aerial Imagery (B7) | | <u>✓</u> Geomorphic Position (D2) |
| <u>-</u> Water-Stained Leaves (B9) | | <u>-</u> Shallow Aquitard (D3) |
| <u>-</u> Aquatic Fauna (B13) | | <u>✓</u> Microtopographic Relief (D4) |
| | | <u>-</u> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes ✓ No - Depth (inches): 0-4 in
 Water Table Present? Yes - No - Depth (inches): -
 Saturation Present? Yes - No - Depth (inches): -
 (includes capillary fringe)

Wetland Hydrology Present? Yes ✓ No -

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: Wyg - 1 Net

| Tree Stratum (Plot size: <u>10x10m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | | | | | | | | | | | | | | |
|---|------------------|-------------------|------------------|---|-------------------|--------------|-----------------------|-----------------|-------------------------|------------------|-----------------------|-----------------|------------------------|-----------------|-------------------|-------------|-------------------------------|----------------|
| 1. <u>Salix nigra</u> | <u>50</u> | <u>yes</u> | <u>OBL</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>86</u> (A/B) | | | | | | | | | | | | | | |
| 2. <u>Platanus occidentalis</u> | <u>30</u> | <u>yes</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>40</u> 20% of total cover: <u>16</u> <u>80</u> = Total Cover | | | | Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>50</u></td> <td>x 1 = <u>50</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>25</u></td> <td>x 3 = <u>75</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>185</u> (A)</td> <td><u>365</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.97</u> | Total % Cover of: | Multiply by: | OBL species <u>50</u> | x 1 = <u>50</u> | FACW species <u>100</u> | x 2 = <u>200</u> | FAC species <u>25</u> | x 3 = <u>75</u> | FACU species <u>10</u> | x 4 = <u>40</u> | UPL species _____ | x 5 = _____ | Column Totals: <u>185</u> (A) | <u>365</u> (B) |
| Total % Cover of: | Multiply by: | | | | | | | | | | | | | | | | | |
| OBL species <u>50</u> | x 1 = <u>50</u> | | | | | | | | | | | | | | | | | |
| FACW species <u>100</u> | x 2 = <u>200</u> | | | | | | | | | | | | | | | | | |
| FAC species <u>25</u> | x 3 = <u>75</u> | | | | | | | | | | | | | | | | | |
| FACU species <u>10</u> | x 4 = <u>40</u> | | | | | | | | | | | | | | | | | |
| UPL species _____ | x 5 = _____ | | | | | | | | | | | | | | | | | |
| Column Totals: <u>185</u> (A) | <u>365</u> (B) | | | | | | | | | | | | | | | | | |
| Sapling/Shrub Stratum (Plot size: <u>10x10m</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Liquidambar styraciflua</u> | <u>10</u> | <u>yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. <u>Platanus occidentalis</u> | <u>20</u> | <u>yes</u> | <u>FACW</u> | | | | | | | | | | | | | | | |
| 3. <u>Leguminos sinense</u> | <u>10</u> | <u>yes</u> | <u>FACU</u> | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>20</u> 20% of total cover: <u>8</u> <u>40</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Herb Stratum (Plot size: <u>5x5ft</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Onoclea sensibilis</u> | <u>50</u> | <u>yes</u> | <u>FACW</u> | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. | | | | | | | | | | | | | | |
| 2. <u>Carex sp.</u> | <u>-</u> | <u>-</u> | <u>-</u> | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 6. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 7. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 8. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 9. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 10. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 11. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>25</u> 20% of total cover: <u>10</u> <u>50</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Woody Vine Stratum (Plot size: <u>5x5ft</u>) | | | | | | | | | | | | | | | | | | |
| 1. <u>Lonicera japonica</u> | <u>15</u> | <u>yes</u> | <u>FAC</u> | | | | | | | | | | | | | | | |
| 2. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 3. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 4. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 5. _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | |
| 50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u> <u>15</u> = Total Cover | | | | | | | | | | | | | | | | | | |
| Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | | | | | |
| Remarks: (Include photo numbers here or on a separate sheet.) | | | | | | | | | | | | | | | | | | |

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 185 City/County: Cherokee Sampling Date: 12/16/15
 Applicant/Owner: SCDOT State: SC Sampling Point: Wry-24
 Investigator(s): C. Sheats + S. Burton Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): P Lat: 35.140573 Long: -81.511583 Datum: NAD83
 Soil Map Unit Name: TaF3- tatum silty clay loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

| | |
|---|---|
| Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> | Is the Sampled Area within a Wetland? Yes _____ No <u>✓</u> |
| Hydric Soil Present? Yes _____ No <u>✓</u> | |
| Wetland Hydrology Present? Yes _____ No <u>✓</u> | |

Remarks:

HYDROLOGY

| Wetland Hydrology Indicators: | | Secondary Indicators (minimum of two required) |
|--|---|--|
| <u>Primary Indicators (minimum of one is required; check all that apply)</u> | | |
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Moss Trim Lines (B16) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Iron Deposits (B5) | | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Aquatic Fauna (B13) | | <input type="checkbox"/> Microtopographic Relief (D4) |
| | | <input type="checkbox"/> FAC-Neutral Test (D5) |

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 Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

 Sampling Point: Wyg - 24p

| Tree Stratum (Plot size: <u>10x10m</u>) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: |
|---|------------------|-------------------|------------------|--|
| 1. <u>Liquidambar</u> | <u>35</u> | <u>yes</u> | <u>FAC</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B) |
| 2. <u>Liriodendron Tulipifera</u> | <u>30</u> | <u>yes</u> | <u>FACU</u> | |
| 3. <u>Pinus T</u> | <u>10</u> | <u>no</u> | <u>FAC</u> | |
| 4. _____ | _____ | _____ | _____ | Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>120</u> x 3 = <u>360</u> FACU species <u>55</u> x 4 = <u>220</u> UPL species _____ x 5 = _____ Column Totals: <u>175</u> (A) <u>580</u> (B) Prevalence Index = B/A = <u>3.3</u> |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u> = Total Cover <u>75</u> | | | | Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sapling/Shrub Stratum (Plot size: <u>10x10m</u>) | | | | |
| 1. <u>Liquidambar</u> | <u>35</u> | <u>yes</u> | <u>FAC</u> | |
| 2. <u>Tulip poplar</u> | <u>15</u> | <u>yes</u> | <u>FACU</u> | |
| 3. _____ | _____ | _____ | _____ | ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: <u>25</u> 20% of total cover: <u>10</u> = Total Cover <u>50</u> | | | | 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. |
| Herb Stratum (Plot size: <u>5x5 ft</u>) | | | | |
| 1. <u>Allium vineale</u> | <u>10</u> | <u>yes</u> | <u>FACU</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | Hydrophytic Vegetation Present? Yes _____ No <u>✓</u> |
| 4. _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 50% of total cover: _____ 20% of total cover: _____ = Total Cover _____ | | | | Woody Vine Stratum (Plot size: <u>5x5 ft</u>) |
| 1. <u>Lonicera japonica</u> | <u>40</u> | <u>yes</u> | <u>FAC</u> | |
| 2. _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | 50% of total cover: _____ 20% of total cover: _____ = Total Cover _____ |
| 5. _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | |

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

SOIL

Sampling Point: Wyg-2 up

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

[illegible]¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ 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, MLRA 147, 148**)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)

- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- ___ Thin Dark Surface (S9) (**MLRA 147, 148**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- ___ Umbric Surface (F13) (**MLRA 136, 122**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 148**)
- ___ Red Parent Material (F21) (**MLRA 127, 147**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (MLRA 147)
 — Coast Prairie Redox (A16)
 (MLRA 147, 148)
 — Piedmont Floodplain Soils (F19)
 (MLRA 136, 147)
 — Very Shallow Dark Surface (TF12)
 Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ☒

Remarks: