

B400427

SC

## NC DWQ Stream Identification Form Version 4.11

|                                                                                                   |                                                                       |                          |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------|
| Date: 10/16/13                                                                                    | Project/Site: B400427                                                 | Latitude:                |
| Evaluator: J. DiLay, J. Mason, A. James                                                           | County: Guilford                                                      | Longitude:               |
| Total Points:<br>Stream is at least intermittent if $\geq 19$ or perennial if $\geq 30^*$<br>22.5 | Stream Determination (circle one)<br>Ephemeral Intermittent Perennial | Other<br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = 12.5)                                        |        |      |          |        |
|---------------------------------------------------------------------------|--------|------|----------|--------|
|                                                                           | Absent | Weak | Moderate | Strong |
| 1 <sup>a</sup> . Continuity of channel bed and bank                       | 0      | 1    | 2        | 3      |
| 2. Sinuosity of channel along thalweg                                     | 0      | 1    | 2        | 3      |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0      | 1    | 2        | 3      |
| 4. Particle size of stream substrate                                      | 0      | 1    | 2        | 3      |
| 5. Active/relict floodplain                                               | 0      | 1    | 2        | 3      |
| 6. Depositional bars or benches                                           | 0      | 1    | 2        | 3      |
| 7. Recent alluvial deposits                                               | 0      | 1    | 2        | 3      |
| 8. Headcuts                                                               | 0      | 1    | 2        | 3      |
| 9. Grade control                                                          | 0      | 0.5  | 1        | 1.5    |
| 10. Natural valley                                                        | 0      | 0.5  | 1        | 1.5    |
| 11. Second or greater order channel                                       | No = 0 |      | Yes = 3  |        |

<sup>a</sup> artificial ditches are not rated; see discussions in manual

| B. Hydrology (Subtotal = 8)                  |        |     |         |     |
|----------------------------------------------|--------|-----|---------|-----|
| 12. Presence of Baseflow                     | 0      | 1   | 2       | 3   |
| 13. Iron oxidizing bacteria                  | 0      | 1   | 2       | 3   |
| 14. Leaf litter                              | 1.5    | 1   | 0.5     | 0   |
| 15. Sediment on plants or debris             | 0      | 0.5 | 1       | 1.5 |
| 16. Organic debris lines or piles            | 0      | 0.5 | 1       | 1.5 |
| 17. Soil-based evidence of high water table? | No = 0 |     | Yes = 3 |     |

| C. Biology (Subtotal = 2)                             |                                  |     |   |     |
|-------------------------------------------------------|----------------------------------|-----|---|-----|
| 18. Fibrous roots in streambed                        | 3                                | 2   | 1 | 0   |
| 19. Rooted upland plants in streambed                 | 3                                | 2   | 1 | 0   |
| 20. Macroinvertebrates (note diversity and abundance) | 0                                | 1   | 2 | 3   |
| 21. Aquatic Mollusks                                  | 0                                | 1   | 2 | 3   |
| 22. Fish                                              | 0                                | 0.5 | 1 | 1.5 |
| 23. Crayfish                                          | 0                                | 0.5 | 1 | 1.5 |
| 24. Amphibians                                        | 0                                | 0.5 | 1 | 1.5 |
| 25. Algae                                             | 0                                | 0.5 | 1 | 1.5 |
| 26. Wetland plants in streambed                       | FACW = 0.75; OBL = 1.5 Other = 0 |     |   |     |

\*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch:

**NC DWQ Stream Identification Form Version 4.11**

|                                                                                                                                                             |                                                                                     |                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------|
| <b>Date:</b> 10/16/13                                                                                                                                       | <b>Project/Site:</b> B400427                                                        | <b>Latitude:</b>                |
| <b>Evaluator:</b> J. Dildy, J. Mason, A. Janes                                                                                                              | <b>County:</b> Guilford                                                             | <b>Longitude:</b>               |
| <b>Total Points:</b><br>Stream is at least intermittent if $\geq 19$ or perennial if $\geq 30^*$<br><div style="float: right; font-size: 1.5em;">27.5</div> | <b>Stream Determination (circle one)</b><br>Ephemeral <u>Intermittent</u> Perennial | <b>Other</b><br>e.g. Quad Name: |

| A. Geomorphology (Subtotal = <u>10</u> )                                  |          |          |          |          |
|---------------------------------------------------------------------------|----------|----------|----------|----------|
|                                                                           | Absent   | Weak     | Moderate | Strong   |
| 1 <sup>a</sup> . Continuity of channel bed and bank                       | 0        | 1        | 2        | <u>3</u> |
| 2. Sinuosity of channel along thalweg                                     | 0        | <u>1</u> | 2        | 3        |
| 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence | 0        | 1        | 2        | <u>3</u> |
| 4. Particle size of stream substrate                                      | 0        | <u>1</u> | 2        | 3        |
| 5. Active/relict floodplain                                               | 0        | <u>1</u> | 2        | 3        |
| 6. Depositional bars or benches                                           | <u>0</u> | 1        | 2        | 3        |
| 7. Recent alluvial deposits                                               | <u>0</u> | 1        | 2        | 3        |
| 8. Headcuts                                                               | <u>0</u> | 1        | 2        | 3        |
| 9. Grade control                                                          | <u>0</u> | 0.5      | 1        | 1.5      |
| 10. Natural valley                                                        | 0        | 0.5      | <u>1</u> | 1.5      |
| 11. Second or greater order channel                                       | No = 0   |          | Yes = 3  |          |

<sup>a</sup> artificial ditches are not rated; see discussions in manual

| B. Hydrology (Subtotal = <u>11</u> )         |        |            |         |          |
|----------------------------------------------|--------|------------|---------|----------|
| 12. Presence of Baseflow                     | 0      | 1          | 2       | <u>3</u> |
| 13. Iron oxidizing bacteria                  | 0      | 1          | 2       | <u>3</u> |
| 14. Leaf litter                              | 1.5    | <u>1</u>   | 0.5     | 0        |
| 15. Sediment on plants or debris             | 0      | <u>0.5</u> | 1       | 1.5      |
| 16. Organic debris lines or piles            | 0      | <u>0.5</u> | 1       | 1.5      |
| 17. Soil-based evidence of high water table? | No = 0 |            | Yes = 3 |          |

| C. Biology (Subtotal = <u>6.5</u> )                   |                                  |            |   |     |
|-------------------------------------------------------|----------------------------------|------------|---|-----|
| 18. Fibrous roots in streambed                        | <u>3</u>                         | 2          | 1 | 0   |
| 19. Rooted upland plants in streambed                 | <u>3</u>                         | 2          | 1 | 0   |
| 20. Macroinvertebrates (note diversity and abundance) | <u>0</u>                         | 1          | 2 | 3   |
| 21. Aquatic Mollusks                                  | <u>0</u>                         | 1          | 2 | 3   |
| 22. Fish                                              | <u>0</u>                         | 0.5        | 1 | 1.5 |
| 23. Crayfish                                          | <u>0</u>                         | 0.5        | 1 | 1.5 |
| 24. Amphibians                                        | <u>0</u>                         | 0.5        | 1 | 1.5 |
| 25. Algae                                             | 0                                | <u>0.5</u> | 1 | 1.5 |
| 26. Wetland plants in streambed                       | FACW = 0.75; OBL = 1.5 Other = 0 |            |   |     |

\*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch:

# WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: B400427 City/County: Guilford Sampling Date: 10/16/13  
 Applicant/Owner: NC DOT State: NC Sampling Point: WA-wet  
 Investigator(s): J. Dilday, A. James, J. Mason Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): floodplain bench Local relief (concave, convex, none): concave Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): P Lat: 36.242122 Long: -79.627184 Datum: \_\_\_\_\_  
 Soil Map Unit Name: Chewacla loam 0-2% NWI classification: PSS1C

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 <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

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

| Tree Stratum (Plot size: <u>30'</u> ) |  | 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: <u>30'</u> ) |                            | Absolute % Cover | Dominant Species? | Indicator Status |
|------------------------------------------------|----------------------------|------------------|-------------------|------------------|
| 1.                                             | <u>Rosa multiflora</u>     | <u>10</u>        | <u>Y</u>          | <u>FACU</u>      |
| 2.                                             | <u>Sambucus canadensis</u> | <u>2</u>         | <u>N</u>          | <u>FAC</u>       |
| 3.                                             |                            |                  |                   |                  |
| 4.                                             |                            |                  |                   |                  |
| 5.                                             |                            |                  |                   |                  |
| 6.                                             |                            |                  |                   |                  |
| 7.                                             |                            |                  |                   |                  |
| 8.                                             |                            |                  |                   |                  |
| 9.                                             |                            |                  |                   |                  |

= Total Cover

50% of total cover: 6 20% of total cover: 2.4

| Herb Stratum (Plot size: <u>30'</u> ) |                             | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------------|-----------------------------|------------------|-------------------|------------------|
| 1.                                    | <u>Mandarin Keisak</u>      | <u>25</u>        | <u>Y</u>          | <u>OBL</u>       |
| 2.                                    | <u>Microstegum vimineum</u> | <u>7</u>         | <u>Y</u>          | <u>FAC</u>       |
| 3.                                    |                             |                  |                   |                  |
| 4.                                    |                             |                  |                   |                  |
| 5.                                    |                             |                  |                   |                  |
| 6.                                    |                             |                  |                   |                  |
| 7.                                    |                             |                  |                   |                  |
| 8.                                    |                             |                  |                   |                  |
| 9.                                    |                             |                  |                   |                  |
| 10.                                   |                             |                  |                   |                  |
| 11.                                   |                             |                  |                   |                  |

= Total Cover

50% of total cover: 16 20% of total cover: 6.4

| 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: 2 (A)Total Number of Dominant Species Across All Strata: 3 (B)Percent of Dominant Species That Are OBL, FACW, or FAC: 66.6% (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 ≤3.0<sup>1</sup>☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

## Definitions of Four Vegetation Strata:

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

Hydrophytic Vegetation Present?

Yes ☒ No ☐

Sampling Point: Wf-wet

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

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

### Hydric Soil Indicators:

- \_\_\_ 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 Soils<sup>3</sup>:

- ☐ 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)

<sup>3</sup>Indicators 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: B400427 City/County: Guilford Sampling Date: 10/16/13  
 Applicant/Owner: NCDOT State: NC Sampling Point: WA-Upland  
 Investigator(s): J. Dilley, A. James, J. Mason Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): \_\_\_\_\_  
 Subregion (LRR or MLRA): P Lat: 36.742010 Long: -79.627353 Datum: \_\_\_\_\_  
 Soil Map Unit Name: Chewacla loam 0-2% NWI classification: NA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation 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 <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</u>                                                                                   |                                                                                        |

## HYDROLOGY

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

B400427

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

Sampling Point: WA - up

| Tree Stratum (Plot size: <u>30'</u> ) |                    | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------------|--------------------|------------------|-------------------|------------------|
| 1.                                    | <u>Salix nigra</u> | <u>25%</u>       | <u>Y</u>          | <u>OBL</u>       |
| 2.                                    |                    |                  |                   |                  |
| 3.                                    |                    |                  |                   |                  |
| 4.                                    |                    |                  |                   |                  |
| 5.                                    |                    |                  |                   |                  |
| 6.                                    |                    |                  |                   |                  |
| 7.                                    |                    |                  |                   |                  |

50% of total cover: 12.5 25% of total cover: 5 = Total Cover 25

| Sapling/Shrub Stratum (Plot size: <u>30'</u> ) |                               | Absolute % Cover | Dominant Species? | Indicator Status |
|------------------------------------------------|-------------------------------|------------------|-------------------|------------------|
| 1.                                             | <u>Alnus serrulata</u>        | <u>15</u>        | <u>Y</u>          | <u>OBL</u>       |
| 2.                                             | <u>Acer rubrum</u>            | <u>10</u>        | <u>Y</u>          | <u>FAC</u>       |
| 3.                                             | <u>Fraxinus pennsylvanica</u> | <u>7</u>         | <u>N</u>          | <u>FACW</u>      |
| 4.                                             | <u>Acer negundo</u>           | <u>7</u>         | <u>N</u>          | <u>FAC</u>       |
| 5.                                             |                               |                  |                   |                  |
| 6.                                             |                               |                  |                   |                  |
| 7.                                             |                               |                  |                   |                  |
| 8.                                             |                               |                  |                   |                  |
| 9.                                             |                               |                  |                   |                  |

50% of total cover: 19.5 20% of total cover: 7.8 = Total Cover 39

| Herb Stratum (Plot size: <u>30'</u> ) |                              | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------------|------------------------------|------------------|-------------------|------------------|
| 1.                                    | <u>Stellaria media</u>       | <u>25</u>        | <u>Y</u>          | <u>UPL</u>       |
| 2.                                    | <u>Microstegium vimineum</u> | <u>25</u>        | <u>Y</u>          | <u>FAC</u>       |
| 3.                                    | <u>Impatiens racemosa</u>    | <u>10</u>        | <u>N</u>          | <u>FACW</u>      |
| 4.                                    | <u>Erigeron annuus</u>       | <u>10</u>        | <u>N</u>          | <u>FACU</u>      |
| 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>30'</u> ) |                                  | Absolute % Cover | Dominant Species? | Indicator Status |
|---------------------------------------------|----------------------------------|------------------|-------------------|------------------|
| 1.                                          | <u>Toxicodendron radicans</u>    | <u>5</u>         | <u>Y</u>          | <u>FAC</u>       |
| 2.                                          | <u>Apocynum androsaemifolium</u> | <u>5</u>         | <u>Y</u>          | <u>FACW</u>      |
| 3.                                          |                                  |                  |                   |                  |
| 4.                                          |                                  |                  |                   |                  |
| 5.                                          |                                  |                  |                   |                  |

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

**Dominance Test worksheet:**  
Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)  
Total Number of Dominant Species Across All Strata: 7 (B)  
Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7% (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 ≤3.0<sup>1</sup>  
4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**  
**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody 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: WA-4p

[illegible]