

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Bridge - 280410 City/County: Davidson Sampling Date: Dec 3, 2014
 Applicant/Owner: NCDOT State: NC Sampling Point: WA002
 Investigator(s): Sam Beavens, Mulkey, Inc. Section, Township, Range: Lexington
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5
 Subregion (LRR or MLRA): LRR P Lat: 35.841552 Long: -80.222899 Datum: NAD83
 Soil Map Unit Name: Ch - Chewacla loam, frequently flooded NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, 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 ☒
Remarks: NCWAM HGM Code Waters Type UPLANDS Uplands	

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

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

Sampling Point: WA002

Tree Stratum (Plot size: <u>30 ft</u>)				Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:					
1. <u>Acer rubrum</u>	FAC	50	X	FAC	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.												
4.												
5.												
6.												
<u>50</u> = Total Cover				Prevalence Index worksheet:								
50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				Total % Cover of: _____ Multiply by: _____								
Sapling Stratum (Plot size: <u>15 ft</u>)				OBL species _____ x 1 = _____								
1.					FACW species _____ x 2 = _____							
2.					FAC species _____ x 3 = _____							
3.					FACU species _____ x 4 = _____							
4.					UPL species _____ x 5 = _____							
5.					Column Totals: _____ (A) _____ (B)							
6.					Prevalence Index = B/A = _____							
<u> </u> = Total Cover				Hydrophytic Vegetation Indicators:								
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				☐ 1 - Rapid Test for Hydrophytic Vegetation								
Shrub Stratum (Plot size: <u>15 ft</u>)				☒ 2 - Dominance Test is >50%								
1. <u>Ligustrum sinense</u>	FAC	50	X	FAC	☐ 3 - Prevalence Index is $\leq 3.0^1$							
2.					☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)							
3.					☐ Problematic Hydrophytic Vegetation ¹ (Explain)							
4.					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.							
5.												
6.												
<u>50</u> = Total Cover				Definitions of Five Vegetation Strata:								
50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).								
Herb Stratum (Plot size: <u>5 ft</u>)				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.								
1.					Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.							
2.					Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.							
3.					Woody vine – All woody vines, regardless of height.							
4.					Hydrophytic Vegetation Present? Yes ☒ No ☐							
5.												
6.												
7.												
8.												
<u> </u> = Total Cover												
50% of total cover: <u>0</u> 20% of total cover: <u>0</u>												
Woody Vine Stratum (Plot size: <u>30 ft</u>)												
1. <u>Rosa multiflora</u>	FACU	10	X						FACU			
2.												
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.)												

SOIL

Sampling Point: WA002

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		
0-12+	7.5 YR 4/4	100			☒	☒	Clay	
	☒	☒	☒	☒	☒	☒	☒	
	☒	☒	☒	☒	☒	☒	☒	
	☒	☒	☒	☒	☒	☒	☒	
	☒	☒	☒	☒	☒	☒	☒	
	☒	☒	☒	☒	☒	☒	☒	
	☒	☒	☒	☒	☒	☒	☒	
	☒	☒	☒	☒	☒	☒	☒	
	☒	☒	☒	☒	☒	☒	☒	
	☒	☒	☒	☒	☒	☒	☒	

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:

Disturbed Road Fill soils