

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Bridge 110 - NES Group 1 Bridges City/County: Richmond Sampling Date: 04/10/2012
 Applicant/Owner: NCDOT State: NC Sampling Point: WA/AE03-U
 Investigator(s): A. Efrid, D. O'Loughlin Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): floodplain and side slope Local relief (concave, convex, none): concave Slope (%): 0-5
 Subregion (LRR or MLRA): LRR P Lat: 35.022186 Long: -79.776240 Datum: NAD83
 Soil Map Unit Name: Riverview Loam, 0-2 percent slopes, occasionally flooded NWI classification: na

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

HYDROLOGY

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

VEGETATION – Use scientific names of plants.

Sampling Point: AE03-U

Tree Stratum (Plot size: 15mx15m)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Acer rubrum</i>	15%	Yes	FAC	
2. <i>Pinus taeda</i>	10%	Yes	FAC	Total Number of Dominant Species Across All Strata: 10 (B)
3. <i>Liquidambar styraciflua</i>	5%	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)
4. <i>Liriodendron tulipifera</i>	5%	No	FAC	
5. _____				
6. _____				
7. _____				
35% = Total Cover				Prevalence Index worksheet:
Sapling Stratum (Plot size: 15mx15m)				Total % Cover of: _____ Multiply by: _____
1. <i>Prunus serotina</i>	5%	Yes	FACU	OBL species _____ x 1 = _____
2. <i>Ulmus alata</i>	5%	Yes	FACU	FACW species _____ x 2 = _____
3. <i>Juniperus virginiana</i>	5%	Yes	FACU	FAC species _____ x 3 = _____
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
6. _____				Column Totals: _____ (A) _____ (B)
7. _____				Prevalence Index = B/A = _____
15% = Total Cover				Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: 15mx15m)				___ Dominance Test is >50%
1. _____				___ Prevalence Index is ≤3.0 ¹
2. _____				___ Problematic Hydrophytic Vegetation ¹ (Explain)
3. _____				
4. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. _____				
6. _____				
7. _____				
_____ = Total Cover				Definitions of Vegetation Strata:
Herb Stratum (Plot size: 15mx15m)				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).
1. <i>Toxicodendron radicans</i>	5%	Yes	FAC	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
2. <i>Polystichum acrostichoides</i>	5%	Yes	FAC	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
3. _____				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
4. _____				Woody vine – All woody vines, regardless of height.
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
10% = Total Cover				
Woody Vine Stratum (Plot size: 15mx15m)				
1. <i>Smilax rotundifolia</i>	5%	Yes	FAC	
2. <i>Vitis</i> spp.	5%	Yes	-	
3. <i>Lonicera japonica</i>	5%	Yes	FAC	
4. _____				
5. _____				
15% = Total Cover				Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (If observed, list morphological adaptations below).

Makes hydric vegetation, but hydric vegetation should be considered marginal at this site.

SOIL

Sampling Point: AE03-U

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 3/3	100					CL	CL-Clay Loam
3-16	5YR 4/4	100					CL	

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, MRLA 147,148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)

- ☐ Dark Surface (S7) (LRR P, S, T, U)
- ☐ 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)

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)
- ☐ Red Parent Material (TF2)
- ☐ 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: