

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: B280082- NC 47 over Lick Creek City/County: City: Denton Co.: Davidson Sampling Date: 12/16/2016
 Applicant/Owner: North Carolina Department of Transportation State: NC Sampling Point: WA Wet
 Investigator(s): Mason, J. Barrett, B. Dilday, J. Section, Township, Range: ---
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-2
 Subregion (LRR or MLRA): P Lat: 35.66373 Long: -80.12081 Datum: NAD83
 Soil Map Unit Name: Oakboro silt loam, 0 to 2 percent slopes, frequently flooded (OkA) NWI classification: PEM

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:					

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
☐ Surface Water (A1)	☐ True Aquatic 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)	
☐ 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)	
☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)	
☐ Aquatic Fauna (B13)		☐ Microtopographic Relief (D4)	
		☒ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	
Water Table Present?	Yes ☒ No ☐	Depth (inches):	<u>1.0</u>
Saturation Present?	Yes ☒ No ☐	Depth (inches):	<u>0.0</u>
(includes capillary fringe)		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			
<u>1in standing H2O nearby</u>			

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

Sampling Point: WA Wet

Tree Stratum (Plot size: <u>W/in Wetland</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>None</u>			Select
2. _____			Select
3. _____			Select
4. _____			Select
5. _____			Select
6. _____			Select
0.0 = Total Cover			
50% of total cover: <u>0.00</u> 20% of total cover: <u>0.00</u>			

Sapling Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>See Shrub Stratum</u>			Select
2. _____			Select
3. _____			Select
4. _____			Select
5. _____			Select
6. _____			Select
0.0 = Total Cover			
50% of total cover: <u>0.00</u> 20% of total cover: <u>0.00</u>			

Shrub Stratum (Plot size: <u>W/in Wetland</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cephalanthus occidentalis</u>	<u>5.0</u>	<u>Y</u>	<u>OBL</u>
2. <u>Ulmus alata</u>	<u>2.5</u>	<u>Y</u>	<u>FACU</u>
3. _____			Select
4. _____			Select
5. _____			Select
6. _____			Select
7.5 = Total Cover			
50% of total cover: <u>3.75</u> 20% of total cover: <u>1.50</u>			

Herb Stratum (Plot size: <u>W/in Wetland</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Juncus effusus</u>	<u>60.0</u>	<u>Y</u>	<u>FACW</u>
2. <u>Scirpus cyperinus</u>	<u>20.0</u>	<u>Y</u>	<u>FACW</u>
3. <u>Typha latifolia</u>	<u>10.0</u>	<u>N</u>	<u>OBL</u>
4. <u>Erianthus sp.</u>	<u>5.0</u>	<u>N</u>	<u>TBD</u>
5. <u>Carex lurida</u>	<u>2.5</u>	<u>N</u>	<u>OBL</u>
6. _____			Select
7. _____			Select
8. _____			Select
9. _____			Select
10. _____			Select
11. _____			Select
97.5 = Total Cover			
50% of total cover: <u>48.75</u> 20% of total cover: <u>19.50</u>			

Woody Vine Stratum (Plot size: <u>W/in Wetland</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>None</u>			Select
2. _____			Select
3. _____			Select
4. _____			Select
5. _____			Select
0.0 = Total Cover			
50% of total cover: <u>0.00</u> 20% of total cover: <u>0.00</u>			

Dominance Test worksheet:Number of Dominant Species That Are OBL, FACW, or FAC: 3.0 (A)Total Number of Dominant Species Across All Strata: 4.0 (B)Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
(NaN: Not a Number)**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____	x 1 = <u>0.00</u>
FACW species _____	x 2 = <u>0.00</u>
FAC species _____	x 3 = <u>0.00</u>
FACU species _____	x 4 = <u>0.00</u>
UPL species _____	x 5 = <u>0.00</u>
Column Totals: <u>0.00</u> (A)	<u>0.00</u> (B)
Prevalence Index = B/A = <u>NaN</u> (NaN: Not a Number)	

Hydrophytic Vegetation Indicators:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is $\leq 3.0^1$
- ☐ 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 Five Vegetation Strata:****Tree** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).**Sapling** – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.**Shrub** – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.**Herb** – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.**Woody vine** – All woody vines, regardless of height.**Hydrophytic Vegetation Present?**Yes ☒ No ☐

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

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: