

April 24, 2025

Alice Marconi
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Reference: Wetland Determination
126 Hoover Road
Hampstead, Pender County, North Carolina
Headwater Project #202568

Alice:

Headwater Environmental, Inc. (Headwater) is pleased to provide the results of our Wetland Determination for the above-mentioned property. On April 3, 2025, Alice Marconi retained Headwater to perform a Wetland Determination. The purpose of this report is to determine the approximate location of wetlands/streams within the site boundary.

PROJECT INFORMATION

The Subject Site includes two parcels and are located at 126 and 188 Hoover Road, Pender County, North Carolina. The two parcels are owned by Alice Marconi and are identified by the following:

Address	PIN	Acreage
126 Hoover Road	3292-09-1145-0000	1.72
188 Hoover Road	3292-09-0359-0000	2.64

Headwater was retained to perform a Wetland Determination. A Wetland Determination includes a review of pertinent mapping and literature, site reconnaissance, and an approximation of aquatic resources.

Wetlands are defined by the U.S. Army Corps of Engineers and the United States Environmental Protection Agency as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions.”. For an area to be classified as wetland; hydrophytic vegetation, hydric soils, and wetland hydrology indicators must be present.

The following rulings and regulations are applicable to wetlands and streams in North Carolina:

- Sackett v. EPA, May 25, 2023: The United States Supreme Court ruled in favor of Sackett Family and determined their wetland was isolated (non-jurisdictional). Based on the ruling, Waters of the U.S. are limited to streams, rivers, lakes, oceans, relatively permanent waters

(RPWs) that are connected to navigable waters and wetlands that have a continuous surface connection to downstream navigable waters.

- North Carolina Farm Bill, June 2023: This law states that North Carolina cannot adopt more stringent protections on wetlands than the federal government. Under this law, isolated wetlands and non-jurisdictional wetland permits will not be necessary for properties that have received Approved Jurisdictional Determination (AJDs) confirming the wetlands on the property are not under the regulated under the Clean Water Act.
- “Amended Revised Definition of Waters of the U.S., August 29, 2023”. The Environmental Protection Agency (EPA) will abandon the significant nexus process. This rule establishes limits that appropriately draw the boundary of waters subject to Federal protection. When upstream waters significantly affect the integrity of waters for which the Federal interest is indisputable—the traditional navigable waters, the territorial seas, and interstate waters—this rule ensures that Clean Water Act programs apply to protect those paragraph (a)(1) waters. Where waters do not significantly affect the integrity of waters for which the Federal interest is indisputable, this rule leaves regulation exclusively to the Tribes and States. The date for new regulatory guidance from the United States Army Corps of Engineers (USACE) is to-be-determined.

Certain ditches, artificially irrigated areas, certain artificial lakes and ponds, reflecting pool, swimming pools, certain waterfilled depressions, and certain swales/erosional features remain excluded from the new rule.

The Wilmington District of the USACE in conjunction with the EPA, administers the federal wetlands program in this area. In addition, the DEQ administers the wetlands and stream buffer program for the State of North Carolina as per Section 401 of the Clean Water Act.

METHODOLOGY

Office Review

Headwater reviewed the United States Geological Survey (USGS) quadrangles for Hampstead, Pender County, North Carolina (**Figure 1**). According to the topographic quadrangle, the site is situated in a flat area between 45 and 50 feet above mean sea level. The Site is situated in a commercial and residential area off Highway 17.

Headwater reviewed the printed Soil Survey for Pender County, North Carolina provided by the Natural Resources Conservation Service (NRCS), (**Figure 2**). If streams are depicted as intermittent or perennial on the most recent printed version of the soil map, a stream determination is recommended. No streams are depicted on the Site.

According to the NRCS Web Soil Survey (WSS), one soil series was mapped within the site boundary (**Figures 3**). Refer to the table below for a description of the identified soils and to Figure 3 for a depiction of the mapped soils.

Table 1. NRCS mapped soil series within the site boundary.

Soil Type	Symbol	Drainage Class
Alpine Fine Sand	AnB	Poorly drained

According to the Pender County Flood Map feature, the site is located in unshaded Zone X, an area outside of the 100-year and 500-year floodplains (**Figure 4**).

The United States Fish and Wildlife, National Wetlands Inventory (NWI) depicts one aquatic

resource within the site boundary (**Figure 5**).

Aquatic Resource Class	Cowardian Classification	Full Description
Freshwater Pond	PUBHx	Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated

Headwater obtained LiDAR data from the National Oceanic and Atmospheric Administration (**Figure 6**). The elevation appears flat with one depression on the center of the Site.

Site Reconnaissance

Following the office review, a field review of the site was completed on April 16, 2025. The field review involved a general site inspection and wetland observations. The purpose of the site reconnaissance was to verify the published data and inspect the site for the presence, or absence, of wetlands. Headwater traversed multiple transects through the site and collected data to make a wetland determination.

During the field review, an examination of wetland characteristics was completed. In order for a wetland to exist; wetland hydrology, hydric soils, and hydrophytic vegetation must be present.

FINDINGS AND OBSERVATIONS

Mr. Paul Pascarosia and Ms. Savannah Pitman of Headwater completed a wetland determination on April 16, 2025. The weather during reconnaissance was sunny with temperatures near 70 (degrees Fahrenheit). The parcel boundaries were not marked in the field at the time of our site visit. However, parcel boundaries were discernable by landmark features such as tree lines, ditches and roads. Additionally, Headwater utilized the Trimble TDC600 GPS device for location services.

One isolated wetland is present on the center of the Subject Site. Wetland hydrology indicators include standing water, geomorphic position, buttressed tree trunks, and mucky soil. Hydric soil indicators were observed and included thick dark surface, mucky mineral, and histic epipedon. Pond cypress trees (*Taxodium ascendens*) dominate the canopy. Figure 7 depicts the approximate locations of jurisdictional wetlands within the parcel.

CONCLUSIONS AND RECOMENDATIONS

- One isolated wetland is located on the center of the Site. Refer to Figure 7 for an approximate depiction of wetland resources. A permit is not required to impact isolated wetlands in North Carolina, and isolated wetlands are exempt from the Clean Water Act. In order to qualify for this exemption, an AJD is required by North Carolina state law.
- Headwater recommends obtaining an Approved Jurisdictional Determination (AJD) from the USACE to verify the jurisdictional status of the wetlands within the site boundary.

LIMITATIONS

Observations, conclusions, and/or recommendations pertaining to the off-site wetland areas are limited to the conditions observed, and/or materials reviewed at the time this study was

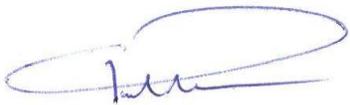
undertaken.

This report is provided for the exclusive use of Alice Marconi; her successors and/or assigns and is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this report by an undesignated third party or parties will be at such party's sole risk and Headwater disclaims liability for such third-party use or reliance.

Headwater appreciates the opportunity to provide our environmental services for this project. If you have questions or need additional information, please contact us at (910) 777-3908.

Respectfully submitted,

Headwater Environmental, Inc.



C. Paul Pascarosa
President

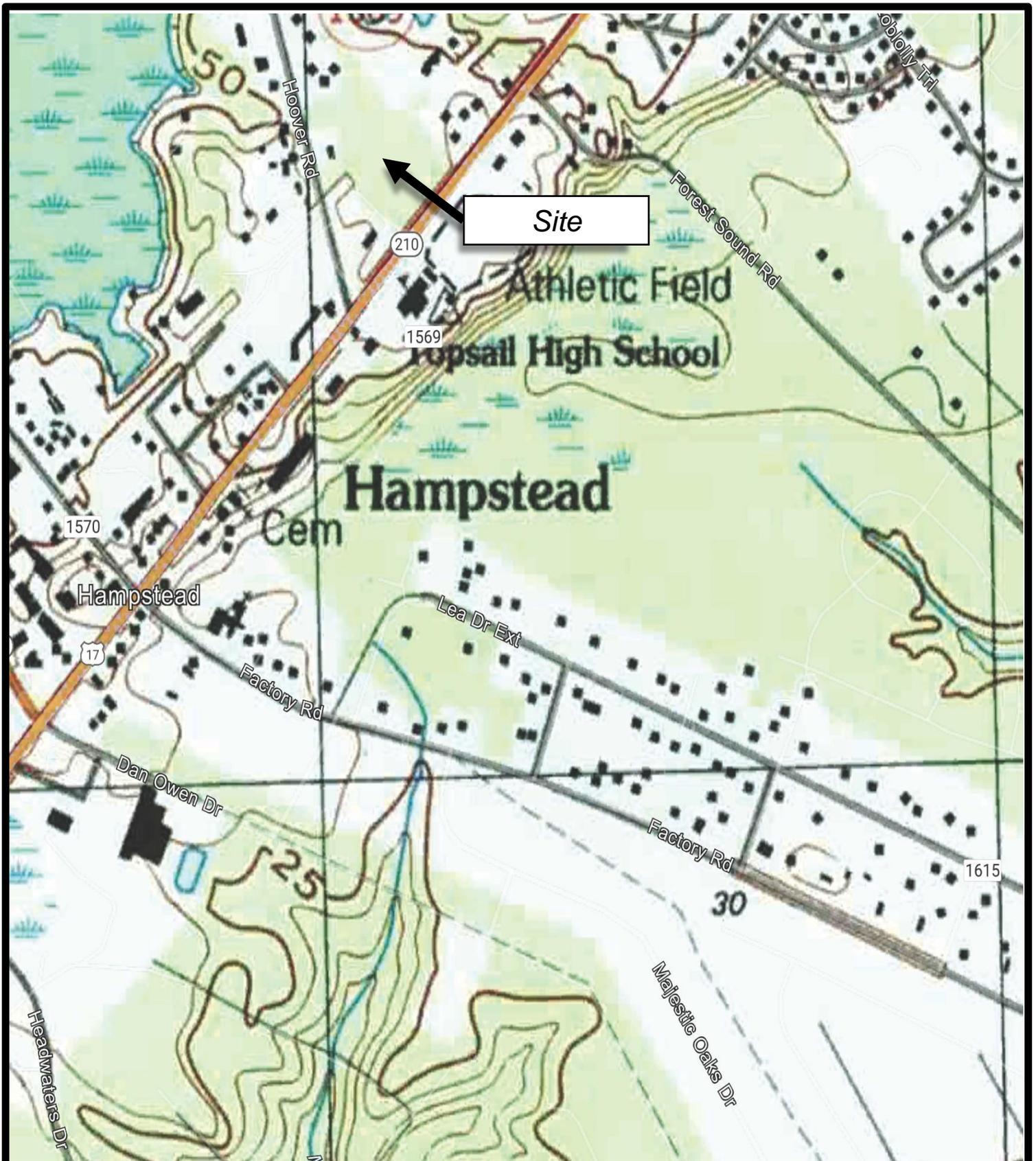


Savannah Pittman
Supporting Field Scientist



Devynne Brown
Project Manager

Enclosure: Figures 1 to 7
 Data Points
 Site Photographs



Date:

April 23, 2025

Prepared by:

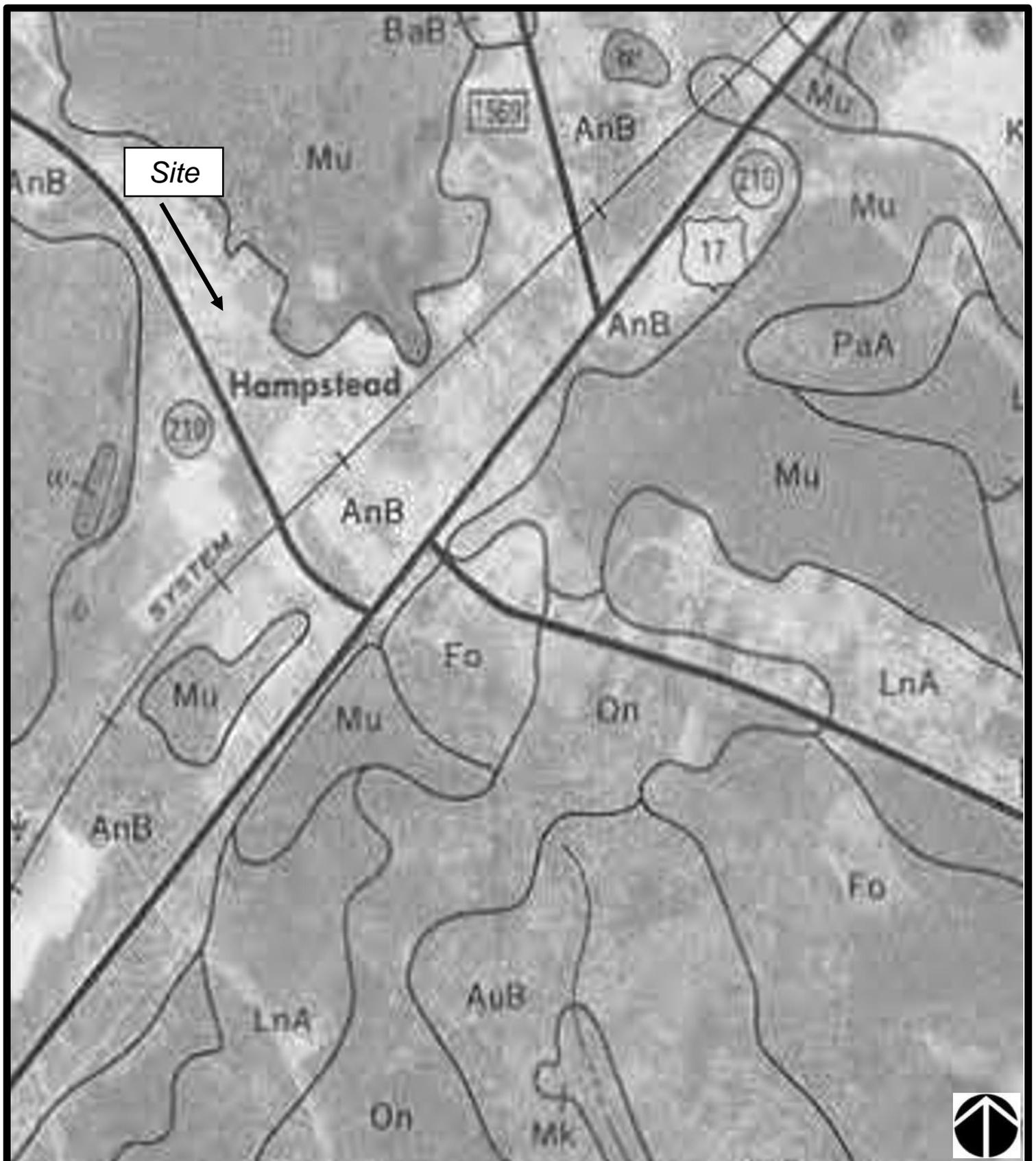
DMB

SOURCE:
 USGS Topographic Quadrangles,
 Hampstead, dated 1997
 USGS TopoView and Google Earth

Scale as shown

FIGURE 1
Topographic Map

Hoover Road
 Lots 126 and 188 – Hoover Rd
 Hampstead, Pender County,
 North Carolina
 Project 202568



SOURCE:

Natural Resources Conservation Service (NRCS), Archived Soil Mapping. www.archive.org

**FIGURE 2
Printed Soil Map**

Hoover Road
 Lots 126 and 188 – Hoover Rd
 Hampstead, Pender County,
 North Carolina
 Project 202568

Date: April 23, 2025

Prepared by: DMB

Not to Scale



Soils w/n site boundary
 AnB Alpine fine sand (poorly drained)



Date:

April 23, 2025

Prepared by:

DMB

SOURCE:
 Natural Resources Conservation Service (NRCS), Web Soil Survey (WSS)
 Not to Scale

FIGURE 3
Printed Soil Map
 Hoover Road
 Lots 126 and 188 – Hoover Rd
 Hampstead, Pender County,
 North Carolina
 Project 202568



Date:	April 23, 2025
Prepared by:	DMB

SOURCE:
 Pender County GIS
 Not to Scale

FIGURE 4
FEMA Floodplain Map
 Hoover Road
 Lots 126 and 188 – Hoover Rd
 Hampstead, Pender County,
 North Carolina
 Project 202568



U.S. Fish and Wildlife Service, National Star
 wetlands_team@fws.gov



SOURCE:
 U.S. Fish and Wildlife Service

**FIGURE 5
 NWI Map**

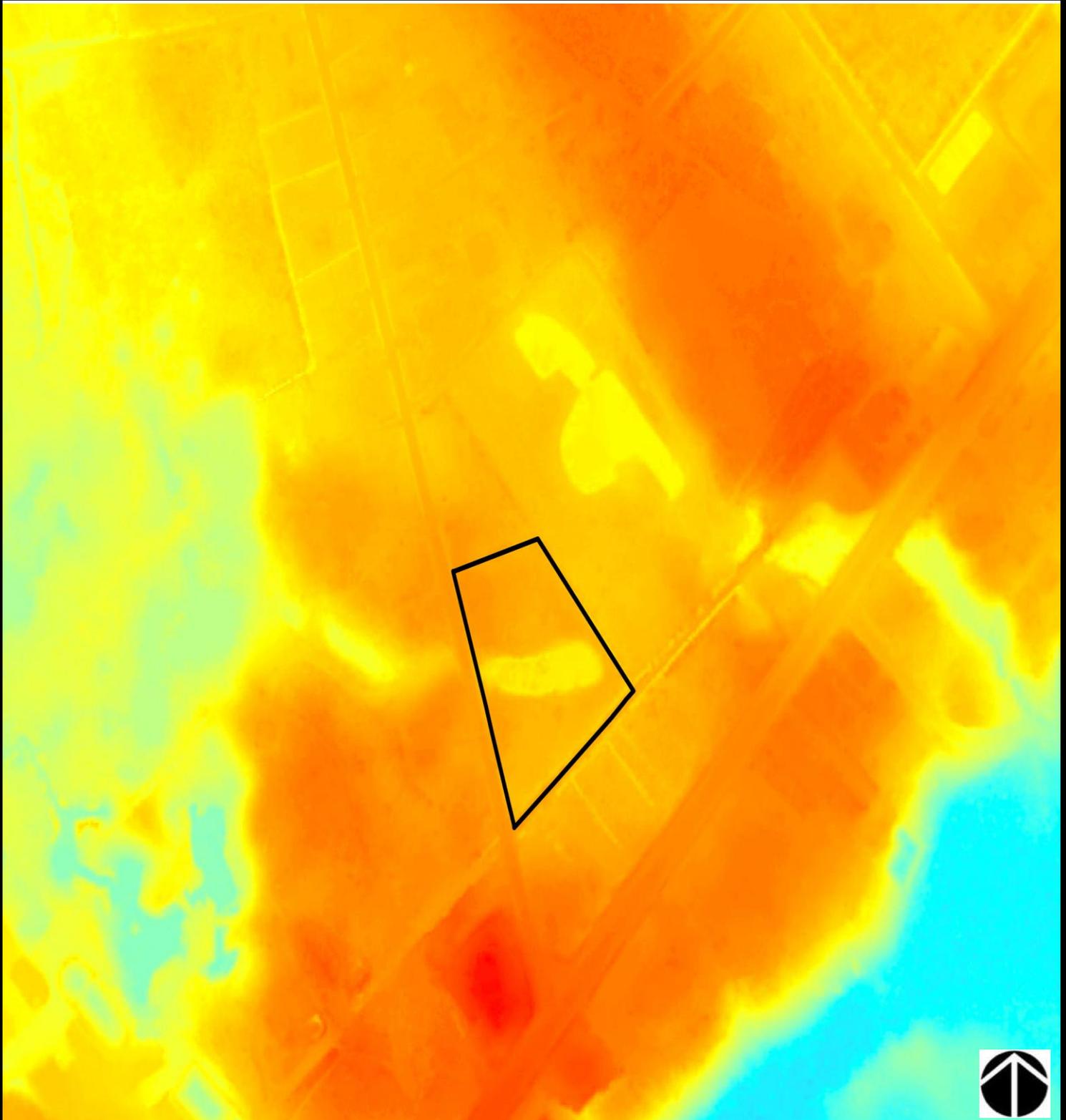
Hoover Road
 Lots 126 and 188 – Hoover Rd
 Hampstead, Pender County,
 North Carolina
 Project 202568

Scale as Shown

Date: April 23, 2025

Prepared by: DMB

This is not a survey. A site reconnaissance was not performed as part of this assessment. The depiction of wetlands and streams is based on a desktop review. Headwater recommends performing a site reconnaissance, to include a wetland delineation, prior to development.



Headwater
ENVIRONMENTAL INC.

SOURCE:
2020 LiDAR USGS DEM

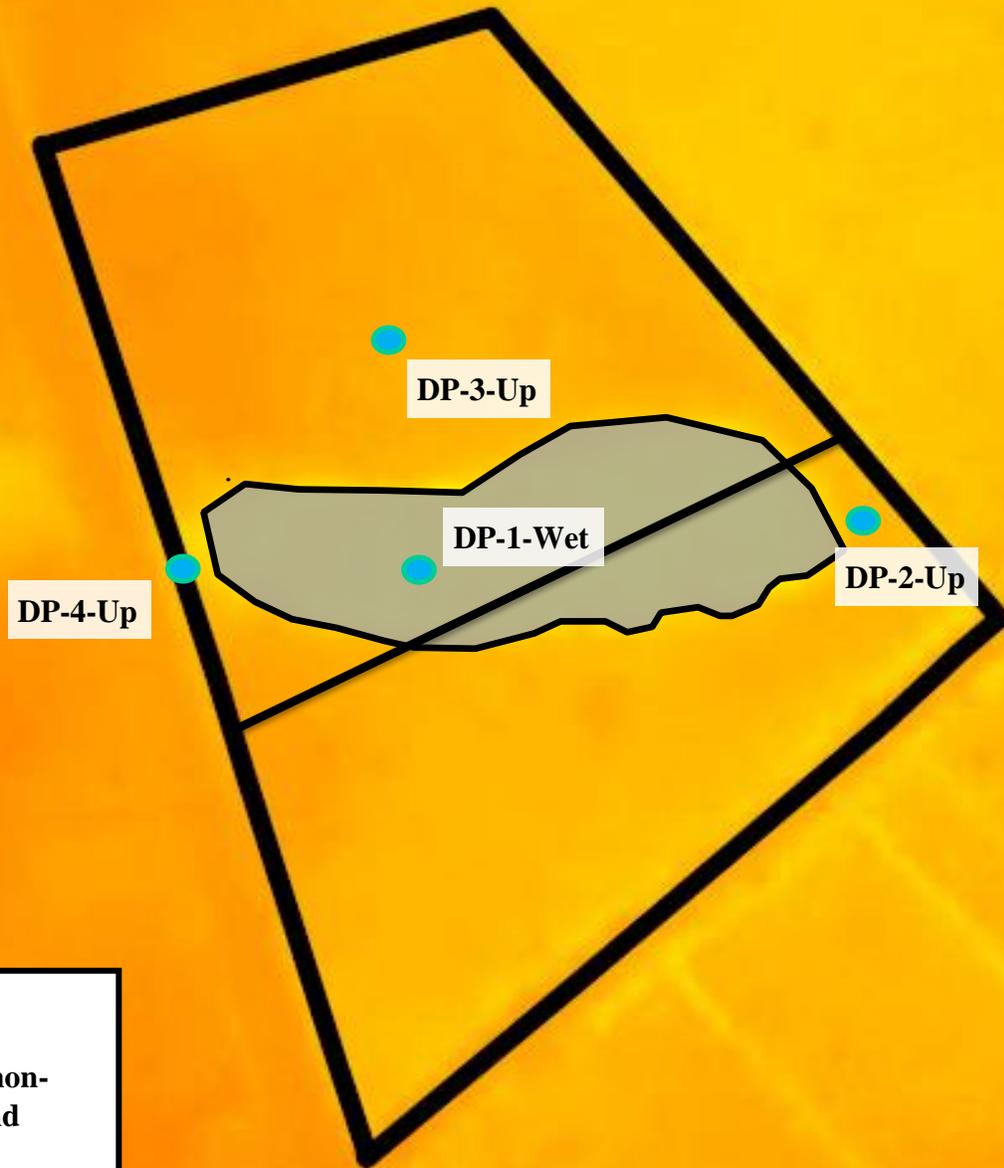
FIGURE 6
LIDAR Map

Hoover Road
Lots 126 and 188 – Hoover Rd
Hampstead, Pender County,
North Carolina
Project 202568

Date: April 23, 2025

Prepared by: DMB

This is not a survey. A site reconnaissance was not performed as part of this assessment. The depiction of wetlands and streams is based on a desktop review. Headwater recommends performing a site reconnaissance, to include a wetland delineation, prior to development.



Legend:

-  Potential non-jurisdictional wetland
-  Data Points



 Headwater ENVIRONMENTAL INC.		SOURCE: 2020 LiDAR USGS DEM	FIGURE 7 Wetland Determination Map Hoover Road Lots 126 and 188 – Hoover Rd Hampstead, Pender County, North Carolina Project 202568
Date:	April 23, 2025		
Prepared by:	DMB		

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region
 See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hoover Road City/County: Pender County Sampling Date: 4/16/25
 Applicant/Owner: Alice Marconi State: NC Sampling Point: DP-1-Wet
 Investigator(s): Paul Pascarosa and Savannah Pittman Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Cypress depression Local relief (concave, convex, none): concave Slope (%): 2
 Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 34.37295 Long: -77.707486 Datum: NAD83
 Soil Map Unit Name: Alpine fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: DP-1 was taken within the wetland area on the site. Hydrology, hydric soils and hydrophytic vegetation was observed.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) <u>X</u> Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<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) <u>X</u> Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>X</u> FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): <u>20</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): <u>20</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>5</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Eastern end of wetland is inundated outside data plot, appears to be excavated

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

Sampling Point: DP-1-Wet

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30</u>)				<p>Dominance Test worksheet:</p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)</p> <p>Total Number of Dominant Species Across All Strata: <u>3</u> (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)</p> <p>Prevalence Index worksheet:</p> <p>Total % Cover of: _____ Multiply by: _____</p> <p>OBL species _____ x 1 = _____</p> <p>FACW species _____ x 2 = _____</p> <p>FAC species _____ x 3 = _____</p> <p>FACU species _____ x 4 = _____</p> <p>UPL species _____ x 5 = _____</p> <p>Column Totals: _____ (A) _____ (B)</p> <p>Prevalence Index = B/A = _____</p> <p>Hydrophytic Vegetation Indicators:</p> <p><u> </u> 1 - Rapid Test for Hydrophytic Vegetation</p> <p><u>X</u> 2 - Dominance Test is >50%</p> <p><u> </u> 3 - Prevalence Index is ≤3.0¹</p> <p><u> </u> Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <p>Definitions of Four Vegetation Strata:</p> <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 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>
1. <u>Taxodium ascendens</u>	50	Yes	OBL	
2. <u>Nyssa biflora</u>	50	Yes	OBL	
3. <u>Acer rubrum</u>	30	No	FAC	
4. <u>Pinus taeda</u>	25	No	FAC	
5. _____				
6. _____				
7. _____				
8. _____				
_____ =Total Cover	155			
50% of total cover: <u>78</u>		20% of total cover: <u>31</u>		
Sapling/Shrub Stratum (Plot size: <u>30</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____ =Total Cover				
50% of total cover: _____		20% of total cover: _____		
Herb Stratum (Plot size: <u>30</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
_____ =Total Cover				
50% of total cover: _____		20% of total cover: _____		
Woody Vine Stratum (Plot size: <u>30</u>)				
1. <u>Smilax laurifolia</u>	10	Yes	FACW	
2. _____				
3. _____				
4. _____				
5. _____				
_____ =Total Cover	10			
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>		
<p>Hydrophytic Vegetation Present? Yes <u>X</u> No _____</p>				

Remarks: (If observed, list morphological adaptations below.)
 No herbs or saplings/shrubs observed.

SOIL

Sampling Point: DP-1-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		
0-20	10YR 3/1	100					Sandy	Organic - hystic epipendon

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1) Thin Dark Surface (S9) **(LRR S, T, U)**
- Histic Epipedon (A2) Barrier Islands 1 cm Muck (S12)
- Black Histic (A3) **(MLRA 153B, 153D)**
- Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) **(LRR O)**
- Stratified Layers (A5) Loamy Gleyed Matrix (F2)
- Organic Bodies (A6) **(LRR P, T, U)** Depleted Matrix (F3)
- 5 cm Mucky Mineral (A7) **(LRR P, T, U)** Redox Dark Surface (F6)
- Muck Presence (A8) **(LRR U)** Depleted Dark Surface (F7)
- 1 cm Muck (A9) **(LRR P, T)** Redox Depressions (F8)
- Depleted Below Dark Surface (A11) Marl (F10) **(LRR U)**
- Thick Dark Surface (A12) Depleted Ochric (F11) **(MLRA 151)**
- Coast Prairie Redox (A16) **(MLRA 150A)** Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Iron Monosulfide (A18) Umbric Surface (F13) **(LRR P, T, U)**
- Sandy Mucky Mineral (S1) **(LRR O, S)** Delta Ochric (F17) **(MLRA 151)**
- Sandy Gleyed Matrix (S4) Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Sandy Redox (S5) Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Stripped Matrix (S6) Anomalous Bright Floodplain Soils (F20)
- Dark Surface (S7) **(LRR P, S, T, U)** **(MLRA 149A, 153C, 153D)**
- Polyvalue Below Surface (S8) Very Shallow Dark Surface (F22)
- (LRR S, T, U)** **(MLRA 138, 152A in FL, 154)**

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Coast Prairie Redox (A16) **(MLRA 149A)**
- Reduced Vertic (F18)
- (outside MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(LRR P, T)**
- Anomalous Bright Floodplain Soils (F20)
- (MLRA 153B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- (outside MLRA 138, 152A in FL, 154)**
- 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:

Saturation at 5 inches, hydric soils present.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region
 See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 9/30/2027
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hoover Road City/County: Pender County Sampling Date: 4/16/25
 Applicant/Owner: Alice Marconi State: NC Sampling Point: DP-2-Up
 Investigator(s): Paul Pascarosa and Savannah Pittman Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Upland birm Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 34.373078 Long: -77.706646 Datum: NAD83
 Soil Map Unit Name: Alpine fine sand NWI classification: _____

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

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Aquatic Fauna (B13) _____ High Water Table (A2) _____ Marl Deposits (B15) (LRR U) _____ Saturation (A3) _____ Hydrogen Sulfide Odor (C1) _____ Water Marks (B1) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Sediment Deposits (B2) _____ Presence of Reduced Iron (C4) _____ Drift Deposits (B3) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Algal Mat or Crust (B4) _____ Thin Muck Surface (C7) _____ Iron Deposits (B5) _____ Other (Explain in Remarks) _____ Inundation Visible on Aerial Imagery (B7) _____ Water-Stained Leaves (B9)	<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) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ FAC-Neutral Test (D5) _____ Sphagnum Moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): <u>20</u> Water Table Present? Yes _____ No <u>X</u> Depth (inches): <u>20</u> Saturation Present? Yes _____ No <u>X</u> Depth (inches): <u>20</u> (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 No wetland hydrology observed.

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

Sampling Point: DP-2-Up

<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Pinus taeda</i></u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
<u>40</u> =Total Cover			
50% of total cover: <u>20</u> 20% of total cover: <u>8</u>			

<u>Sapling/Shrub Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Myrica cerifera</i></u>	<u>35</u>	<u>Yes</u>	<u>FAC</u>
2. <u><i>Liquidambar styraciflua</i></u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
3. <u><i>Quercus nigra</i></u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
4. <u><i>Juniperus virginiana</i></u>	<u>10</u>	<u>No</u>	<u>FACU</u>
5. <u><i>Magnolia grandiflora</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
<u>95</u> =Total Cover			
50% of total cover: <u>48</u> 20% of total cover: <u>19</u>			

<u>Herb Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
_____ =Total Cover			
50% of total cover: _____ 20% of total cover: _____			

<u>Woody Vine Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Vitis rotundifolia</i></u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
2. <u><i>Jasminum officinale</i></u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>
3. <u><i>Toxicodendron radicans</i></u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
<u>25</u> =Total Cover			
50% of total cover: <u>13</u> 20% of total cover: <u>5</u>			

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

X 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 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 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 X No _____

Remarks: (If observed, list morphological adaptations below.)
hydrophytic vegetation present, no herbs were observed within sample location,

SOIL

Sampling Point: DP-2-Up

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		
0-14	10YR 3/1	100					Sandy	Uncoated sand grains @ 20%
14-20	10YR 2/1	100					Sandy	Uncoated sand grains @ 10%

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1) Thin Dark Surface (S9) **(LRR S, T, U)**
- Histic Epipedon (A2) Barrier Islands 1 cm Muck (S12)
- Black Histic (A3) **(MLRA 153B, 153D)**
- Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) **(LRR O)**
- Stratified Layers (A5) Loamy Gleyed Matrix (F2)
- Organic Bodies (A6) **(LRR P, T, U)** Depleted Matrix (F3)
- 5 cm Mucky Mineral (A7) **(LRR P, T, U)** Redox Dark Surface (F6)
- Muck Presence (A8) **(LRR U)** Depleted Dark Surface (F7)
- 1 cm Muck (A9) **(LRR P, T)** Redox Depressions (F8)
- Depleted Below Dark Surface (A11) Marl (F10) **(LRR U)**
- Thick Dark Surface (A12) Depleted Ochric (F11) **(MLRA 151)**
- Coast Prairie Redox (A16) **(MLRA 150A)** Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Iron Monosulfide (A18) Umbric Surface (F13) **(LRR P, T, U)**
- Sandy Mucky Mineral (S1) **(LRR O, S)** Delta Ochric (F17) **(MLRA 151)**
- Sandy Gleyed Matrix (S4) Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Sandy Redox (S5) Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Stripped Matrix (S6) Anomalous Bright Floodplain Soils (F20)
- Dark Surface (S7) **(LRR P, S, T, U)** **(MLRA 149A, 153C, 153D)**
- Polyvalue Below Surface (S8) Very Shallow Dark Surface (F22)
- (LRR S, T, U)** **(MLRA 138, 152A in FL, 154)**

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Coast Prairie Redox (A16) **(MLRA 149A)**
- Reduced Vertic (F18)
- (outside MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(LRR P, T)**
- Anomalous Bright Floodplain Soils (F20)
- (MLRA 153B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- (outside MLRA 138, 152A in FL, 154)**
- 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:
 soils effectively drained.

Project/Site: Hoover Road City/County: Pender County Sampling Date: 4/16/25
 Applicant/Owner: Alice Marconi State: NC Sampling Point: DP-3-Up
 Investigator(s): Paul Pascarosa and Savannah Pittman Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Upland flat Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 34.37325 Long: -77.707533 Datum: NAD83
 Soil Map Unit Name: Alpine fine sand NWI classification: _____

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

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ Aquatic Fauna (B13) ___ High Water Table (A2) ___ Marl Deposits (B15) (LRR U) ___ Saturation (A3) ___ Hydrogen Sulfide Odor (C1) ___ Water Marks (B1) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Sediment Deposits (B2) ___ Presence of Reduced Iron (C4) ___ Drift Deposits (B3) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Algal Mat or Crust (B4) ___ Thin Muck Surface (C7) ___ Iron Deposits (B5) ___ Other (Explain in Remarks) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9)	<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) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ FAC-Neutral Test (D5) ___ Sphagnum Moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> 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:
 No wetland hydrology present.

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

Sampling Point: DP-3-Up

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Quercus virginiana</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Pinus taeda</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>
3. <u>Magnolia grandiflora</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
100 = Total Cover			
50% of total cover: <u>50</u> 20% of total cover: <u>20</u>			

Sapling/Shrub Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Pinus taeda</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Ilex vomitoria</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
3. <u>Juniperus virginiana</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>
4. <u>Ilex opaca</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
55 = Total Cover			
50% of total cover: <u>28</u> 20% of total cover: <u>11</u>			

Herb Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
_____ = Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Woody Vine Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Vitis rotundifolia</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Parthenocissus quinquefolia</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Campsis radicans</u>	<u>15</u>	<u>No</u>	<u>FAC</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
95 = Total Cover			
50% of total cover: <u>48</u> 20% of total cover: <u>19</u>			

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (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

X 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 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 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 X No _____

Remarks: (If observed, list morphological adaptations below.)
Mature live oak present, no herbs observed at this sample location.

SOIL

Sampling Point: DP-3-Up

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		
0-10	10YR 4/1	100					Sandy	
10-16	10YR 7/1	100					Sandy	

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1) Thin Dark Surface (S9) **(LRR S, T, U)**
- Histic Epipedon (A2) Barrier Islands 1 cm Muck (S12)
- Black Histic (A3) **(MLRA 153B, 153D)**
- Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) **(LRR O)**
- Stratified Layers (A5) Loamy Gleyed Matrix (F2)
- Organic Bodies (A6) **(LRR P, T, U)** Depleted Matrix (F3)
- 5 cm Mucky Mineral (A7) **(LRR P, T, U)** Redox Dark Surface (F6)
- Muck Presence (A8) **(LRR U)** Depleted Dark Surface (F7)
- 1 cm Muck (A9) **(LRR P, T)** Redox Depressions (F8)
- Depleted Below Dark Surface (A11) Marl (F10) **(LRR U)**
- Thick Dark Surface (A12) Depleted Ochric (F11) **(MLRA 151)**
- Coast Prairie Redox (A16) **(MLRA 150A)** Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Iron Monosulfide (A18) Umbric Surface (F13) **(LRR P, T, U)**
- Sandy Mucky Mineral (S1) **(LRR O, S)** Delta Ochric (F17) **(MLRA 151)**
- Sandy Gleyed Matrix (S4) Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Sandy Redox (S5) Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Stripped Matrix (S6) Anomalous Bright Floodplain Soils (F20)
- Dark Surface (S7) **(LRR P, S, T, U)** **(MLRA 149A, 153C, 153D)**
- Polyvalue Below Surface (S8) Very Shallow Dark Surface (F22)
- (LRR S, T, U)** **(MLRA 138, 152A in FL, 154)**

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Coast Prairie Redox (A16) **(MLRA 149A)**
- Reduced Vertic (F18)
- (outside MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(LRR P, T)**
- Anomalous Bright Floodplain Soils (F20)
- (MLRA 153B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- (outside MLRA 138, 152A in FL, 154)**
- 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:
 soils effectively drained.

Project/Site: Hoover Road City/County: Pender County Sampling Date: 4/16/25
 Applicant/Owner: Alice Marconi State: NC Sampling Point: DP-4-Up
 Investigator(s): Paul Pascaros and Savannah Pittman Section, Township, Range: _____
 Landform (hillside, terrace, etc.): Edge of road Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA): LRR T, MLRA 153A Lat: 34.372950 Long: -77.707858 Datum: NAD83
 Soil Map Unit Name: Alpine fine sand NWI classification: _____

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

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ Aquatic Fauna (B13) ___ High Water Table (A2) ___ Marl Deposits (B15) (LRR U) ___ Saturation (A3) ___ Hydrogen Sulfide Odor (C1) ___ Water Marks (B1) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Sediment Deposits (B2) ___ Presence of Reduced Iron (C4) ___ Drift Deposits (B3) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Algal Mat or Crust (B4) ___ Thin Muck Surface (C7) ___ Iron Deposits (B5) ___ Other (Explain in Remarks) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9)	<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) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ FAC-Neutral Test (D5) ___ Sphagnum Moss (D8) (LRR T, U)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> 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:
 No hydrology present.

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

Sampling Point: DP-4-Up

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30</u>)				
1. <u>Acer rubrum</u>	15	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>50.0%</u> (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 = _____
2. <u>Quercus nigra</u>	10	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____ =Total Cover 50% of total cover: <u>13</u> 20% of total cover: <u>5</u>				
Sapling/Shrub Stratum (Plot size: <u>30</u>)				
1. <u>Prunus avium</u>	5	Yes	UPL	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Sassafras albidum</u>	5	Yes	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____ =Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
Herb Stratum (Plot size: <u>30</u>)				
1. _____				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 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 <u>X</u>
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
_____ =Total Cover 50% of total cover: _____ 20% of total cover: _____				
Woody Vine Stratum (Plot size: <u>30</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ =Total Cover 50% of total cover: _____ 20% of total cover: _____				

Remarks: (If observed, list morphological adaptations below.)
 Vegetation disturbed/mowed. No culvert present.

SOIL

Sampling Point: DP-4-Up

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		
0-4	10YR 4/1	100					Sandy	Fill material
4-8	10YR 2/1	100					Sandy	
8-20	10YR 5/2	100					Sandy	

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1) Thin Dark Surface (S9) **(LRR S, T, U)**
- Histic Epipedon (A2) Barrier Islands 1 cm Muck (S12)
- Black Histic (A3) **(MLRA 153B, 153D)**
- Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) **(LRR O)**
- Stratified Layers (A5) Loamy Gleyed Matrix (F2)
- Organic Bodies (A6) **(LRR P, T, U)** Depleted Matrix (F3)
- 5 cm Mucky Mineral (A7) **(LRR P, T, U)** Redox Dark Surface (F6)
- Muck Presence (A8) **(LRR U)** Depleted Dark Surface (F7)
- 1 cm Muck (A9) **(LRR P, T)** Redox Depressions (F8)
- Depleted Below Dark Surface (A11) Marl (F10) **(LRR U)**
- Thick Dark Surface (A12) Depleted Ochric (F11) **(MLRA 151)**
- Coast Prairie Redox (A16) **(MLRA 150A)** Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Iron Monosulfide (A18) Umbric Surface (F13) **(LRR P, T, U)**
- Sandy Mucky Mineral (S1) **(LRR O, S)** Delta Ochric (F17) **(MLRA 151)**
- Sandy Gleyed Matrix (S4) Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Sandy Redox (S5) Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Stripped Matrix (S6) Anomalous Bright Floodplain Soils (F20)
- Dark Surface (S7) **(LRR P, S, T, U)** **(MLRA 149A, 153C, 153D)**
- Polyvalue Below Surface (S8) Very Shallow Dark Surface (F22)
- (LRR S, T, U)** **(MLRA 138, 152A in FL, 154)**

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Coast Prairie Redox (A16) **(MLRA 149A)**
- Reduced Vertic (F18)
- (outside MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(LRR P, T)**
- Anomalous Bright Floodplain Soils (F20)
- (MLRA 153B)**
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- (outside MLRA 138, 152A in FL, 154)**
- 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:
 effetcively drained soils.

Data Points Hoover Road Site - Headwater Project 202568
Photographs collected on April 16, 2025



Facing east.



Facing west.



Soils at DP-1

DP-1: wetland

Data Points Hoover Road Site - Headwater Project 202568
Photographs collected on April 16, 2025



Facing northeast.



Facing southwest.



Soils at DP-2

DP-2: upland

Data Points Hoover Road Site - Headwater Project 202568
Photographs collected on April 16, 2025



Soils at DP-3

DP-3: upland

Data Points Hoover Road Site - Headwater Project 202568
Photographs collected on April 16, 2025



Facing north.



Facing south.



Soils at DP-4

DP-4: upland