Palmetto Environmental Consulting, Inc

August 28, 2024

Restopros of the Midlands, LLC
Mr. Jeff Sturgis
1130 Broad River Road
Columbia, SC 29210

Subject: **Letter of Findings**
Western Lane Site
Richland County, South Carolina
PEC Project No. 24-2246

Dear Mr. Sturgis:

Palmetto Environmental Consulting, Inc. (PEC) is pleased to submit this correspondence to you regarding the approximately 8.5-acre Western Lane Site, generally located just northwest of the intersection of Western Lane and North Wingard Road in Richland County, South Carolina (Richland County Tax Map R04000-05-38). PEC performed a site visit on August 26, 2024, to determine if the referenced site contained wetlands/waters. The purpose of this letter and attached documentation is to summarize our findings and to document onsite observations related to waters/wetlands.

Waters/Wetland Delineation

The subject site was investigated by PEC for the presence of wetlands or other waters, including those that may be under the jurisdiction of the United States Army Corps of Engineers (USACE). PEC performed a waters/wetlands investigation on the lots based on the USACE Routine On-Site Determination method. This method is defined in the 1987 Corps of Engineers Wetlands Delineation Manual and is based on the presence of the following three characteristics:

- **Vegetation:** The dominant plants growing within the area must be considered hydrophytic (adapted for life in anaerobic soil conditions).
- **Soil:** Soils present within an area must be considered hydric (must contain characteristics associated with reducing soil conditions).
- **Hydrology:** The area must possess hydrologic characteristics (indicators that an area is permanently or periodically inundated, or soils are saturated to the surface at some time during the growing season).

Results

The subject site generally consists of mature mixed pine-hardwood forest with a sparse shrub/scrub or understory layer. The site generally slopes from south to north, with a topographic draw running from the southeast corner of the site to the eastern property line. There, the draw joins a larger draw entering the east central portion of the site, where it flows generally north to the north end of the site. The canopy and shrub layers consist primarily of loblolly pine (*Pinus taeda*), sweet gum (*Liquidambar styriciflua*), elm (*Ulmus* sp.), hickory (*Carya* sp.), Chinese privet (*Ligustrum sinense*), red maple (*Acer*

rubrum), and various oaks (*Quercus* spp.). Herbaceous species consists of the species above plus honeysuckle (*Lonicera japonica*), muscadine (*Vitis rotundifolia*), Japanese stiltgrass (*Microstegium vimineum*), dwarf palmetto (*Sabal minor*), Christmas fern (*Polystichum acrostichoides*), wood oats (*Chasmanthium* sp.), and catbrier (*Smilax* sp.). Vines consisted of muscadine and catbrier.

Based on our field investigations, PEC has determined the topographic draws contain waters/wetlands of the US, that is, waters/wetlands that likely would be under the jurisdiction of the USACE. The draw from the southeast corner of the site contains wetlands, which exhibited flowing water in spots during PEC's August 26 field visit. This draw flows toward the east central portion of the site, where it joins with a larger draw coming from offsite; this larger draw contains a stream with adjacent wetlands (see attached Figure 6). The stream, an unnamed tributary to Moccasin Branch, varies in width from two to over six feet, while most of it is three to four feet wide. Some deeper pockets of water (six to eight inches) were present in parts of the stream while other locations had only a damp bed with no surface water.

Note that a request has not been submitted to the USACE for concurrence with this waters/wetland delineation. The USACE ultimately determines whether an area is wetland or waters and if such areas are under their jurisdiction. Photographs, data sheets, and mapping supporting the waters/wetlands investigation are included in this document.

PEC appreciates the opportunity to provide this information to you. If you have any questions, please contact Chris Lake at (803) 463-2764.

Sincerely,

PALMETTO ENVIRONMENTAL CONSULTING, INC.

Christopher M. Lake, PWS
President

Robert H. Bunch, Jr., PWS
Vice President

Attachments:
Figure 1. Site Location
Figure 2. Soils
Figure 3. NWI
Figure 4. USGS Topo Map
Figure 5. Digital Elevation Model
Figure 6. Waters Map
Photographs
Data Sheets (2)

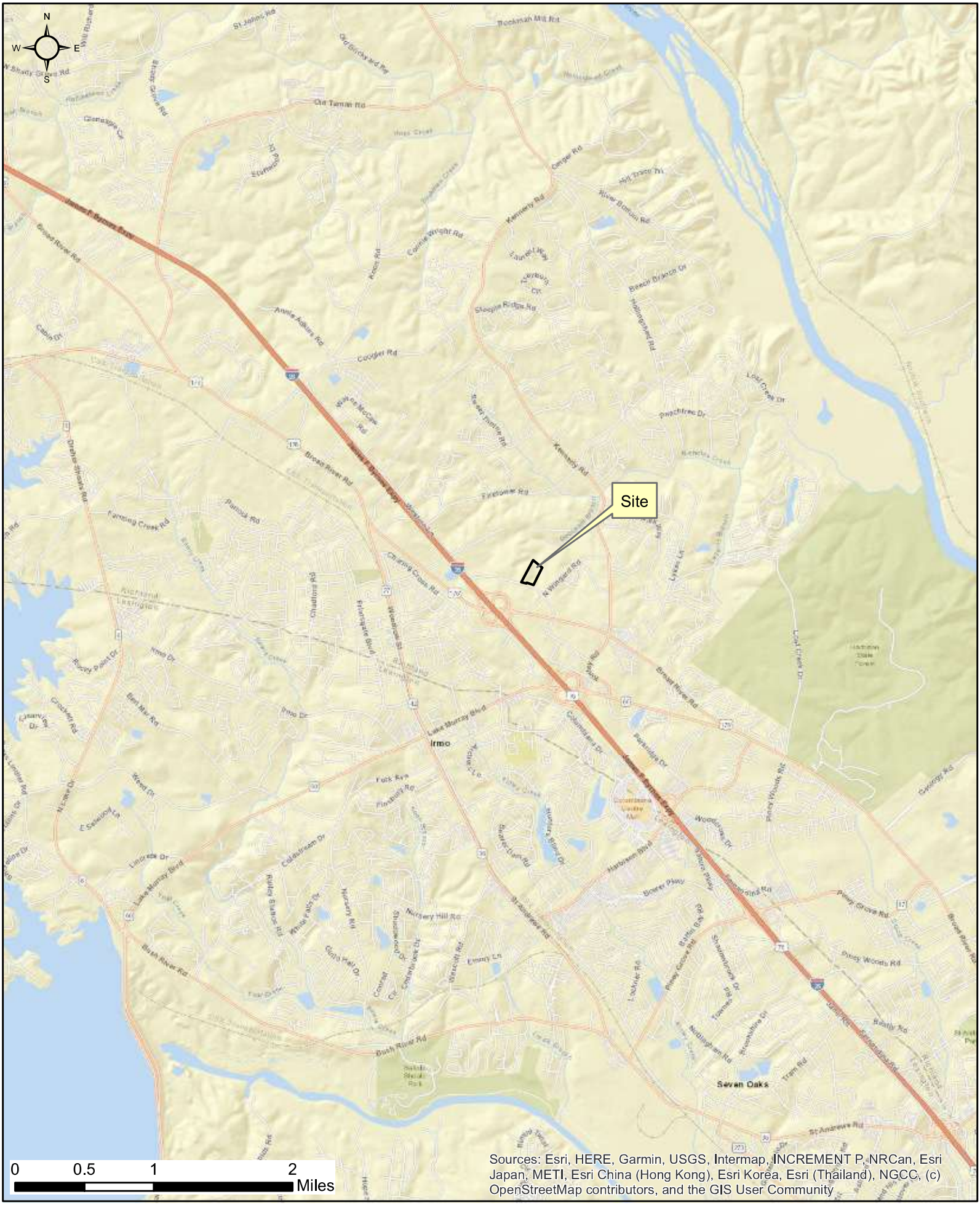

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Figure 1. Location
Western Lane Site
Richland County, SC
August 28, 2024

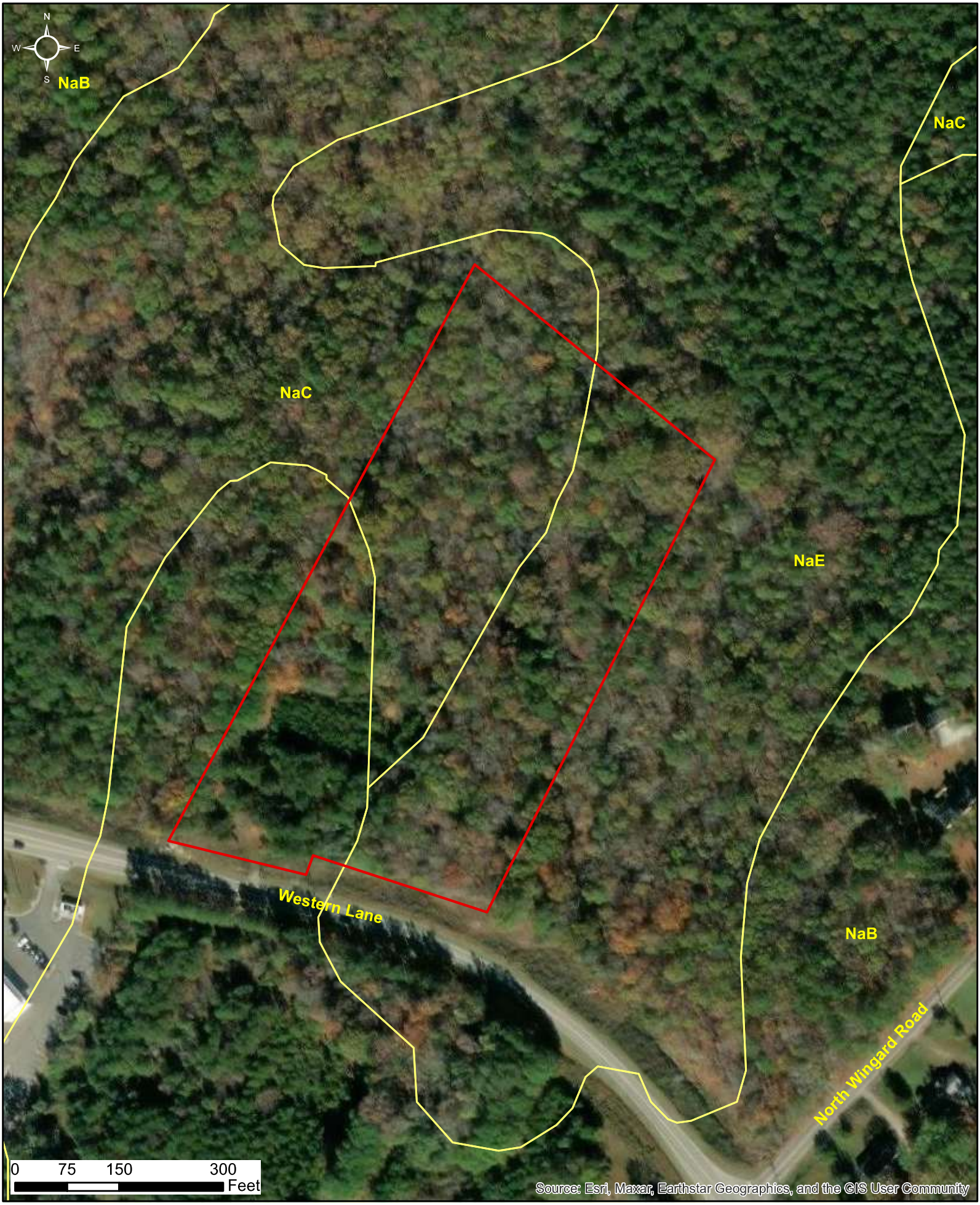

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Figure 2. Soils
Western Lane Site
Richland County, SC
August 28, 2024

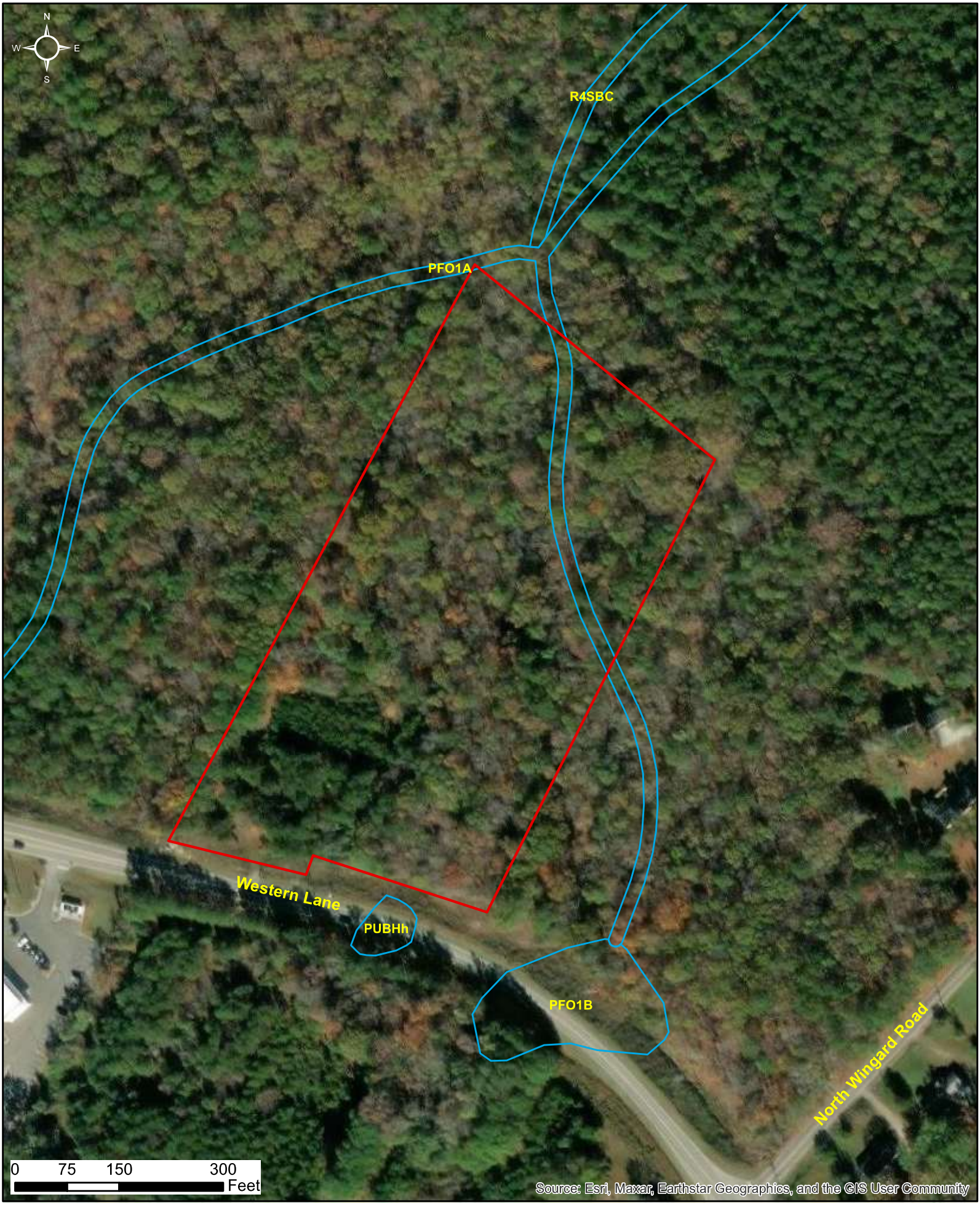

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Figure 3. NWI
Western Lane Site
Richland County, SC
August 28, 2024

Palmetto Environmental Consulting, Inc

Figure 4. USGS Topo
Western Lane Site
Richland County, SC
August 28, 2024

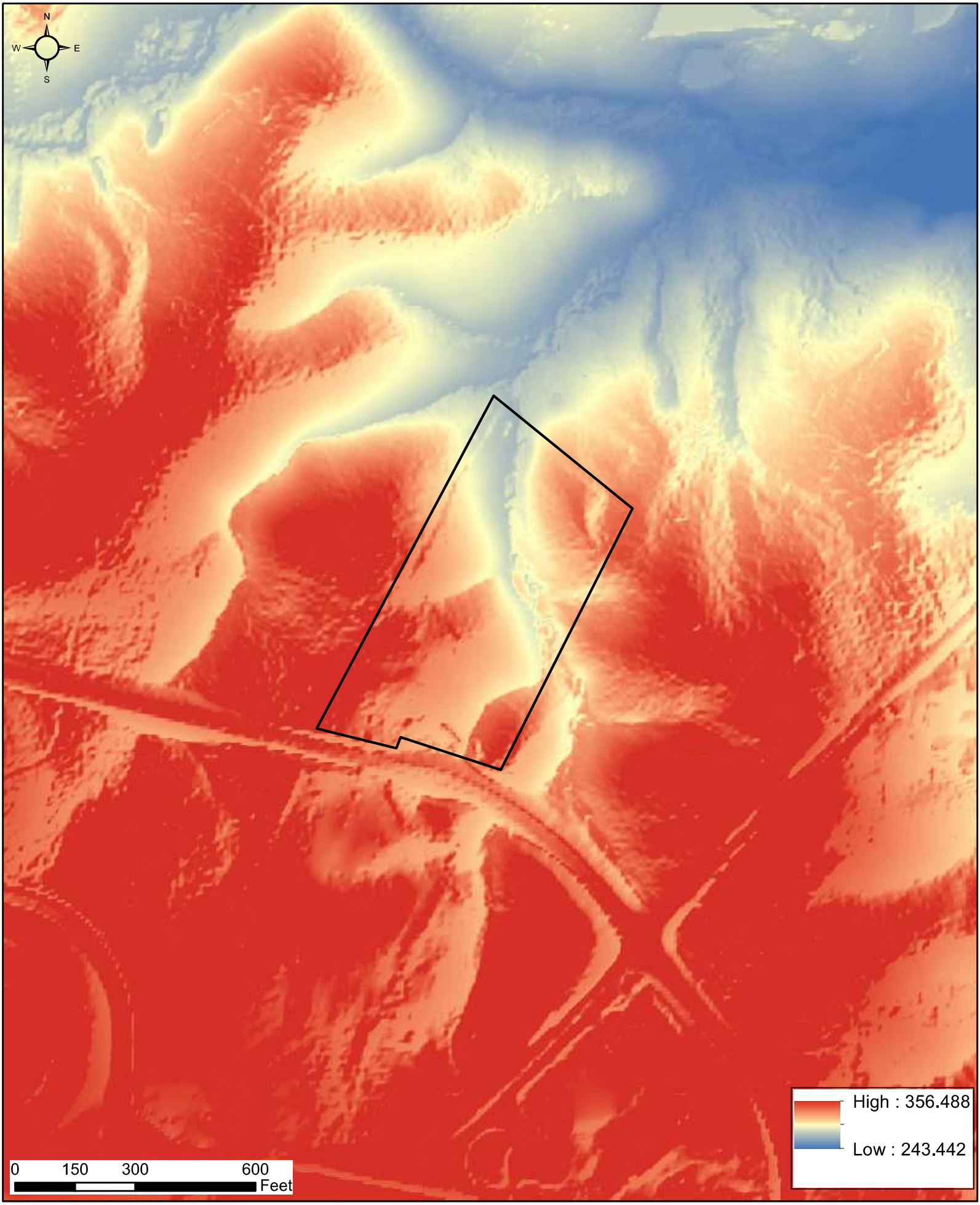

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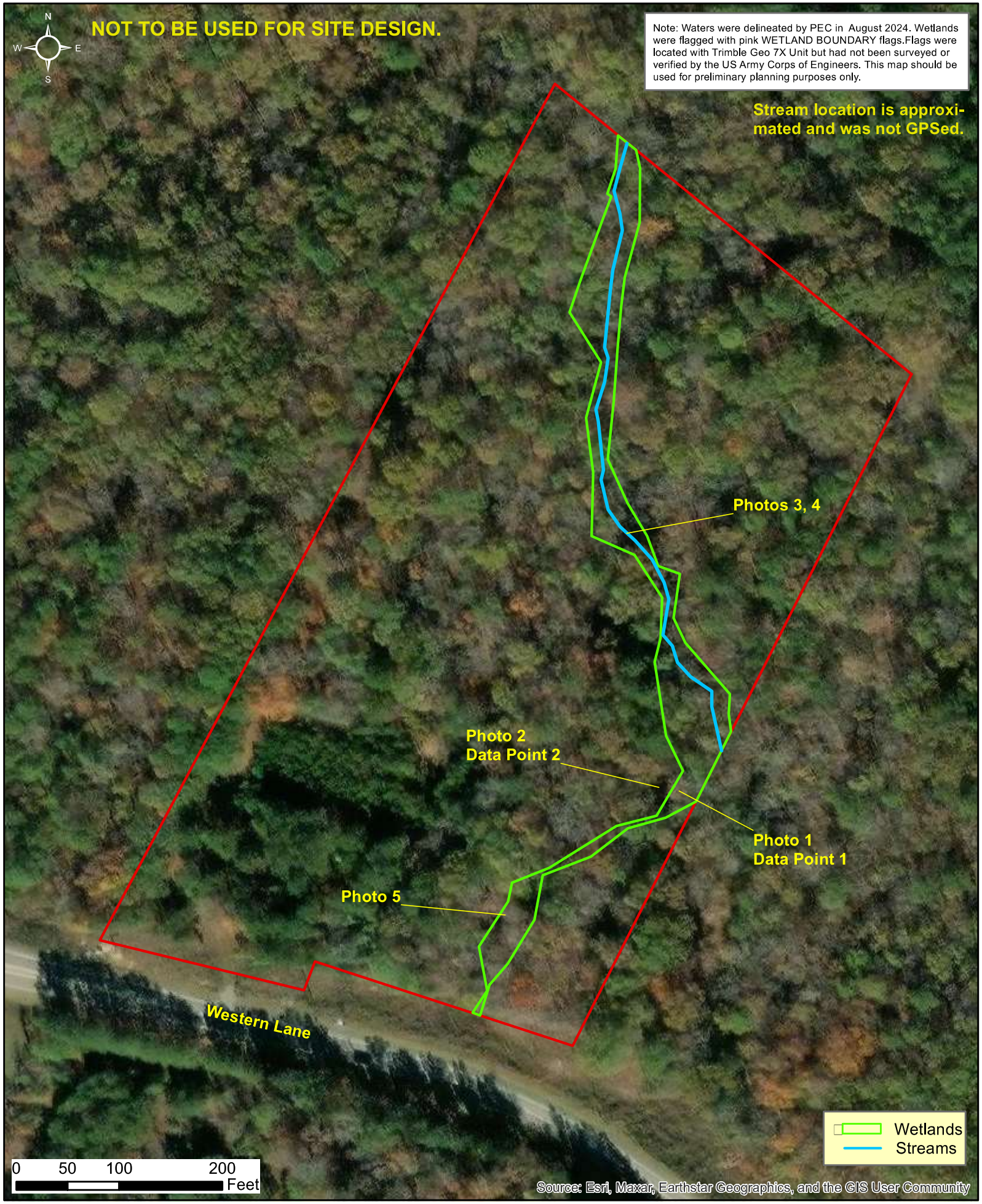
Figure 5. DEM
Western Lane Site
Richland County, SC
August 28, 2024



Palmetto Environmental Consulting, Inc

Figure 6. Waters Map
Western Lane Site
Richland County, SC
August 28, 2024

Photo 1. Wetland A, facing N. Data Point 1 taken here.

Photo 2. Uplands adjacent to Wetland A, facing NE. Data Point 2 taken here.

Photo 3. Stream within Wetland A, facing SE (upgradient).

Photo 4. Same location as Photo 3, facing NW (downgradient).

Photo 5. Upgradient end of Wetland A, facing NE (downgradient).

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Western Lane Site City/County: Irmo/Richland Sampling Date: 8/26/24

Applicant/Owner: Restopros of the Midlands, LLC State: SC Sampling Point: DP1 wet

Investigator(s): Chris Lake Section, Township, Range:

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): rolling Slope (%): 2

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 34.1024 Long: -81.1696 Datum: NAD83

Soil Map Unit Name: NaE - Nanford silt loam, 10-30% slopes NWI classification: N/A

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 X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
This data point appears to be located in wetlands.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- X 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:
This data point appears to contain wetland hydrology.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP1 wet

Tree Stratum (Plot size: 10m x 10m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Liquidambar styraciflua*	20	Yes	FAC
2. *Acer rubrum*	10	Yes	FAC
3. *Ulmus rubra*	10	Yes	FAC
4. *Quercus laurifolia*	10	Yes	FACW
5.			
6.			
7.			
	50	=Total Cover	
50% of total cover: 25		20% of total cover:	10
Sapling/Shrub Stratum (Plot size: 5 m x 5 m)			
1. *Ligustrum sinense*	15	Yes	FACU
2. *Acer rubrum*	15	Yes	FAC
3. *Quercus laurifolia*	10	Yes	FACW
4. *Cornus amomum*	10	Yes	FACW
5.			
6.			
7.			
8.			
9.			
	50	=Total Cover	
50% of total cover: 25		20% of total cover:	10
Herb Stratum (Plot size: 5 m x 5 m)			
1. *Sabal minor*	15	Yes	FACW
2. *Microstegium vimineum*	10	Yes	FAC
3. *Ligustrum sinense*	10	Yes	FACU
4. *Smilax rotundifolia*	5	No	FAC
5. *Hexastylis virginica*	2	No	FACU
6.			
7.			
8.			
9.			
10.			
11.			
	42	=Total Cover	
50% of total cover: 21		20% of total cover:	9
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
50% of total cover:		20% of total cover:	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 11 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 81.8% (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 ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 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** _X_ **No** ___

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

SOIL

Sampling Point: DP1 wet

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/1	100					Loamy/Clayey	
5-20	10YR 7/2	95	10YR 4/4	5			Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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)**
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 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 Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- X 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 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]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** X **No** ____

Remarks:

This data point appears to contain hydric soils.

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Western Lane Site City/County: Irmo/Richland Sampling Date: 8/26/24

Applicant/Owner: Restopros of the Midlands, LLC State: SC Sampling Point: DP2 up

Investigator(s): Chris Lake Section, Township, Range:

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): rolling Slope (%): 2

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 34.1024 Long: -81.1696 Datum: NAD83

Soil Map Unit Name: NaE - Nanford silt loam, 10-30% slopes NWI classification: N/A

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 X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
This data point appears to be located in uplands.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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 X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:
This data point does not appear to contain wetland hydrology.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP2 up

Tree Stratum (Plot size: 10m x 10m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Liquidambar styraciflua*	10	Yes	FAC
2. *Pinus taeda*	10	Yes	FAC
3. *Ulmus rubra*	10	Yes	FAC
4. *Acer rubrum*	10	Yes	FAC
5.			
6.			
7.			
	40	=Total Cover	
50% of total cover: 20		20% of total cover:	8

Sapling/Shrub Stratum (Plot size: 5 m x 5 m)			
1. *Liquidambar styraciflua*	5	Yes	FAC
2. *Cornus florida*	2	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	7	=Total Cover	
50% of total cover: 4		20% of total cover:	2

Herb Stratum (Plot size: 5 m x 5 m)			
1. *Polystichum acrostichoides*	15	Yes	FACU
2. *Ligustrum sinense*	5	Yes	FACU
3. *Lonicera japonica*	5	Yes	FACU
4. *Chasmanthium laxum*	5	Yes	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	30	=Total Cover	
50% of total cover: 15		20% of total cover:	6

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
50% of total cover:		20% of total cover:	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (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 ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[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 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** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
This data point appears to contain a predominance of hydrophytic vegetation.

SOIL

Sampling Point: DP2 up

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/4	100					Loamy/Clayey	
7-20	10YR 4/6	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]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)
___ 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 Mucky Mineral (F1) **(MLRA 136)**
___ 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 122, 136)**
___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) **(MLRA 147)**
___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

[3]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** X

Remarks:
This data point does not appear to contain hydric soils.