

**APPENDIX D**

**JURISDICTIONAL DETERMINATION LETTERS**



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
CHARLESTON DISTRICT, CORPS OF ENGINEERS  
69A Hagood Avenue  
CHARLESTON, SOUTH CAROLINA 29403-5107

August 16, 2012

Regulatory Division

Mr. Adam Bradshaw  
Newkirk Environmental, Inc.  
P. O. Box 746  
Mt. Pleasant, South Carolina 29465-0746

Dear Mr. Bradshaw:

This is in response to your letter received April 15, 2008, requesting a wetland determination, on behalf of MeadWestvaco, for a 6,770.7662 acre tract located off of the east side of SC Highway 27 approximately 1.8 miles north of the intersection with I-26 in the Pringletown community of Berkeley County, South Carolina. The project area is depicted on the survey plat you submitted which was prepared by Ecological Mapping Services, LLC, dated March 12, 2009, and entitled "A Wetland Survey of Camp Hall Tract TMS # 157-00-00-003 Containing 6,770.7662 acres Located Near the Town of Ridgeville Berkeley County, South Carolina (Sheets 1-26 of 26)". (Note: This letter is written to provide correction to the jurisdictional wetland acreage and supersedes all prior letters concerning this project.)

This plat depicts surveyed boundaries of wetlands or other waters of the United States as established by your office. You have requested that this office verify the accuracy of this mapping as a true representation of wetlands or other waters of the United States within the regulatory authority of this office. The property in question contains 2,405.1398 acres of jurisdictional freshwater wetlands or other waters of the United States subject to the jurisdiction of this office. In addition, the property contains 69.0482 acres of federally defined freshwater wetlands or other waters that are not considered to be subject to the jurisdiction of this office due to a decision by the U.S. Supreme Court. The location and configuration of these areas, as well as their status relative to jurisdiction, are reflected on the plat referenced above.

It should be clearly noted that the decision of the U.S. Supreme Court to exclude certain waters and wetlands from federal jurisdiction under the Clean Water Act has no effect on any state or local government restrictions or requirements concerning aquatic resources, including wetlands. You are strongly cautioned to ascertain whether such restrictions or requirements exist for the area in question before undertaking any activity which might destroy or otherwise impact these wetland resources.

Based on an on-site inspection and a review of aerial photography and soil survey information, it has been determined that the surveyed jurisdictional boundaries shown on the referenced plat are an accurate representation of jurisdictional areas within our regulatory authority. This office should be contacted prior to performing any work in these areas.

If a permit application is forthcoming as a result of this delineation, a copy of this letter, as well as the verified survey plat, should be submitted as part of the application. Otherwise, a delay could occur in confirming that a delineation was performed for the permit project area.

Please be advised that this determination is valid for five (5) years from the date of this letter unless new information warrants revision of the delineation before the expiration date. All actions concerning this determination must be complete within this time frame, or an additional delineation must be conducted. This **approved** jurisdictional determination is an appealable action under the Corps of Engineers administrative appeal procedures defined at 33 CFR 331. The administrative appeal options, process and appeals request form is attached for your convenience and use.

In future correspondence concerning this matter, please refer to SAC 2008-00860-2JY. You may still need state or local assent. Prior to performing any work, you should contact the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management. A copy of this letter is being forwarded to them for their information.

If you have any questions concerning this matter, please contact David Chamberlain at 843-329-8044 or toll free at 1-866-329-8187.

Respectfully,



Charles R. Crosby  
Chief, South Branch

Enclosures:  
Basis for Jurisdiction  
Notification of Appeal Options

Copy Furnished:

S.C. Department of Health  
and Environmental Control  
Office of Ocean and Coastal  
Resource Management  
1362 McMillan Avenue, Suite 400  
Charleston, South Carolina 29405

U.S. Army Corps of Engineers – Charleston District - Regulatory Division  
**JURISDICTIONAL DETERMINATION REQUEST**

For Identifying Waters of the U.S., Including Wetlands and Tributaries, and Jurisdictional Status

Project Name: Soter--Center Line Road Widening Date: 04/3/15 County: Berkeley  
Latitude/Longitude: 33.172381°/-80.226586° Acreage: 52.7  
Property Address: Center Line Road, between Fish Road and US Hwy 176 City/Town: Ridgelyville

Property Owner Name\*: Plum Creek (Contact: Jim Rundorff, CCIM)  
Address 2500 Daniels Bridge Road, Suite 2A, Bldg. 200  
Athens, GA 30606  
Phone: 706-583-6705  
Email: 706-583-6705

\*Current Legal Property Owner Name and Contact Information are required.

Agent Name: Allen W. Conger, PWS  
Company Name: \_\_\_\_\_  
Amec Foster Wheeler Environment & Infrastructure  
Address 720 Gracern Rd #132  
Columbia, SC 29210  
Phone: (803) 798-1200  
Email: allen.conger@amecfw.com

**I. Select the Type of Request:** (Select one)

- ☒ **A.** I am submitting a wetland delineation for review and verification by the Corps. Please refer to pages 2-6 for the "Information Required for Wetland Delineations and Jurisdictional Determination Submittals."
- ☐ **B.** I am requesting that the Corps investigate the above property for the presence or absence of wetlands, tributaries, or other Waters of the U.S., and establish the geographic extent of these areas. Please note that while the Corps offers wetland delineation services, time frames to fulfill requests are dependent on site size, property conditions, workload priorities, and staffing levels. To expedite the wetland delineation process, property owners are encouraged to hire an environmental consultant. The first two items listed below must accompany your request. Complete only this page and disregard the following pages.
1. Accurate location maps (from County Map, USGS Quad Sheet, etc.), street address and directions to site from a nearby major intersection.
  2. Copy of Survey Property Plat, Tax Map of Property, or depiction showing project/property boundary with GPS coordinates.
  3. Additional information, such as soil survey information, aerial photographs, etc.

**II. Select the Type of Jurisdictional Determination Requested:** (Select One)

- ☐ **A.** Accurate-Approved ☒ **B.** Approximate-Approved ☐ **C.** Accurate-Preliminary \* ☐ **D.** Approximate-Preliminary

Description of the Types of Jurisdictional Determinations:

Preliminary – Preliminary determinations will identify whether wetlands or other waters are present on the site and will presume that they are jurisdictional. Preliminary determinations may be completed more quickly than Approved determinations and do not expire.

Approved – Approved determinations will identify whether wetlands or other waters are present on the site and will include a determination of their jurisdictional status. Approved determinations expire in 5 years.

Description of the Types of Delineations:

Accurate: Location and extent (boundaries) of all Waters of the U.S. are identified and surveyed by a registered land surveyor. Project/property boundary must be surveyed or represented by a tax map (or by GPS points if no Waters of the U.S. are present).

Approximate: Location and extent (boundaries) of all Waters of the U.S. are identified and depicted approximately on a sketch. Project/property boundary must be surveyed or represented by a tax map or GPS coordinates.

\*Note: For Accurate-Preliminary Jurisdictional Determinations, although the jurisdictional determination will not expire, the surveyed location and extent (boundaries) of wetlands and/or waters will expire after 5 years.

**III. Property Owner/Agent Name and Signature:** (Complete)

**IMPORTANT NOTE:** Legible printed name and signature required. The person signing this form must be the present property owner or have the specific authority of the property owner to authorize Corps of Engineers employees or their agents to enter onto the property for on-site investigations if such is deemed necessary. Do not sign this form unless you are the owner, or have the specific authority of the property owner.

PRINTED NAME of person signing this form, below: Allen W. Conger

Signature of Property Owner or Authorized Agent: 



WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:

Soter-Centerline Road Widening

City/County:

Berkeley

Sampling Date:

3/27/2015

Applicant/Owner:

Plum Creek Timber

State:

SC

Sampling Point:

B-30 (wet)

Investigator(s):

JD/TAN

Section, Township, Range:

Landform: (hillslope, terrace, etc.)

flat

Local Relief (concave, convex, none):

none

Slope (%):

2-Jan

Subregion (LRR or MLRA)

63h Carolina Flatwood

Lat:

33.170223

Long:

-80.22867

Datum:

Soil Map Unit Name:

Goldsboro GoA

NWI Classification:

PSS-determined in the field

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:

Vegetation has been disturbed across much of the site, as this area is an active pine plantation. No upland data point was taken for this fill; feature, as the upland adjacent to this feature within the survey area was the graded road bed. No soils were available as it was gravel road no vegetation nor hydrology were present.

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)

☐ Marl Deposits (B15) (LRR U)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres on Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Much 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)

☒ Geomorphic Position (D2)

☐ Shallow Aquitard (D3)

☒ FAC-Neutral Test (D5)

☒ Sphangum moss (D8) (LRR T,U)

Field Observations:

Surface Water Present?

Yes

☒

No

☐

Depth (inches):

4

Water Table Present?

Yes

☒

No

☐

Depth (inches):

0

Saturation Present?

Yes

☒

No

☐

Depth (inches):

0

(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: B-30 (wet)

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		= Total Cover		
50% of total cover:		20% of total cover:		
Sapling Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
		= Total Cover		
50% of total cover:		20% of total cover:		
Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Pinus taeda</i>	25	Y	FAC
2.	<i>Acer rubrum</i>	25	Y	FAC
3.	<i>Cyrilla racemiflora</i>	10		FACW
4.	<i>Persea borbonia</i>	10		FACW
5.	<i>Morella cerifera</i>	10		FAC
6.	<i>Ilex coriacea</i>	5		FACW
		85 = Total Cover		
50% of total cover:		20% of total cover:		
Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Carex glaucescens</i>	25	Y	OBL
2.	<i>Juncus scirpoides</i>	20	Y	FACW
3.	<i>Andropogon glomeratus</i>	15		FACW
4.	<i>Rhynchospora inexpansa</i>	10		FACW
5.	<i>Rhynchospora chapmanii</i>	10		OBL
6.	<i>Symphyotrichum pilosum</i>	5		FACW
7.	<i>Eriocaulon decangulare</i>	5		OBL
8.				
9.				
10.				
11.				
		90 = Total Cover		
50% of total cover:		20% of total cover:		
Woody Vine Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Gelsemium sempervirens</i>	5	Y	FAC
2.	<i>Lonicera japonica</i>	5	Y	FACU
3.				
4.				#NAME?
5.				
		10 = Total Cover		
50% of total cover:		20% of total cover:		

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

**Prevalence Index worksheet:**

OBL species	40	x 1 =	40
FACW species	75	x 2 =	150
FAC species	65	x 3 =	195
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	185 (A)		405 (B)

Prevalence Index = B/A = 2.2

**Hydrophytic Vegetation Indicators:**

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0<sup>1</sup>

☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of 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. Includes 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: (If observed, list morphological adaptations below)

ERDC/CRREL 2014 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status.

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-6	10 YR 3/1						SL	
6-12	10 YR 5/2		10 YR 5/8	>5			SL	
12-18+	10 YR 5/2		10 YR 5/8	>10			SCL	
			10 YR 5/6	>10				

<sup>1</sup>Type C = Concentration, D = depletion, RM = Reduced Matrix, MS = Masked Sand Grains

<sup>2</sup>Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5)

☐ Organic Bodies (A6) (LRR P,T,U)

☐ 5 cm Mucky Mineral (A7) (LRR P,T,U)

☐ Muck Presence (A8) (LRR U)

☐ 1 cm Muck (A9) (LRR P,T)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Coast Prairie Redox (A16) (MLRA 150A)

☐ Sandy Mucky Mineral (S1) (LRR O,S)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Dark Surface (S7) (LRR P,S,T,U)

☐ Polyvalue Below Surface (S8) (LRR S,T,U)

☐ Thin Dark Surface (S9) (LRR S,T,U)

☐ Loamy Mucky Mineral (F1) (LRR O)

☐ Loamy Gleyed Matrix (F2)

☒ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

☐ Marl (F10) (LRR U)

☐ Depleted Ochric (F11) (MLRA 151)

☐ Iron-Manganese Masses (F12) (LRR O,P,T)

☐ Umbric Surface (F13) (LRR P,T,U)

☐ Delta Ochric (F17) (MLRA 151)

☐ Reduced Vertic (F18) (MLRA 150A, 150B)

☐ Piedmont Floodplain Soils (F19) (MLRA 149A)

☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 1 cm Muck (A9) (LRR O)

☐ 2 cm Muck (A10) (LRR S)

☐ Reduced Vertic (F18) (outside MLRA 150A,B)

☐ Piedmont Floodplain Soils (F19) (LRR P,S,T)

☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)

☐ Red Parent Material (TF2)

☐ Very Shallow Dark Surface (TF12)

☐ Other (Explain in Remarks)

<sup>3</sup>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

☐

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:

Soter-Centerline Road Widening

City/County:

Berkeley

Sampling Date:

3/27/2015

Applicant/Owner:

Plum Creek Timber

State:

SC

Sampling Point:

S-15 (wet)

Investigator(s):

JD/TAN

Section, Township, Range:

Landform: (hillslope, terrace, etc.)

flat

Local Relief (concave, convex, none):

none

Slope (%):

1-2

Subregion (LRR or MLRA)

63h Carolina Flatwood

Lat:

33.17043

Long:

-80.228924

Datum:

Soil Map Unit Name:

Goldboro GoA

NWI Classification:

PFO4-determined in field

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:

Vegetation has been disturbed across much of the site, as this area is an active pine plantation. No upland data point was taken for this fill; feature, as the upland adjacent to this feature within the survey area was the graded road bed. No soils were available as it was gravel road no vegetation nor hydrology were present.

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)

☐ Marl Deposits (B15) (LRR U)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres on Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Much 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)

☒ Geomorphic Position (D2)

☐ Shallow Aquitard (D3)

☒ FAC-Neutral Test (D5)

☐ Sphangum moss (D8) (LRR T,U)

Field Observations:

Surface Water Present?

Yes

☐

No

☒

Depth (inches):

Water Table Present?

Yes

☒

No

☐

Depth (inches):

8

Saturation Present?

Yes

☒

No

☐

Depth (inches):

0

(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: S-15 (wet)

Tree Stratum (Plot size: 30 ft )			Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>		
1.	<i>Pinus taeda</i>		50	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)		
2.						Total Number of Dominant Species Across All Strata: 8 (B)		
3.						Percent of Dominant Species That Are OBL, FACW, or FAC: 88% (A/B)		
4.								
5.								
6.								
			50 = Total Cover			<b>Prevalence Index worksheet:</b>		
50% of total cover: 25			20% of total cover: 10			OBL species 10 x 1 = 10		
Sapling Stratum (Plot size: 30 ft )						FACW species 30 x 2 = 60		
1.	<i>Pinus taeda</i>		40	Y	FAC	FAC species 135 x 3 = 405		
2.						FACU species 10 x 4 = 40		
3.						UPL species 0 x 5 = 0		
4.						Column Totals: 185 (A) 515 (B)		
5.						Prevalence Index = B/A = 2.8		
6.								
			40 = Total Cover			<b>Hydrophytic Vegetation Indicators:</b>		
50% of total cover: 20			20% of total cover: 8			<input checked="" type="checkbox"/> Dominance Test is > 50%		
Shrub Stratum (Plot size: 30 ft )						<input checked="" type="checkbox"/> Prevalence Index is ≤ 3.0 <sup>1</sup>		
1.	<i>Pinus taeda</i>		40	Y	FAC	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
2.	<i>Clethra alnifolia</i>		10	Y	FACW			
3.	<i>Lyonia lucida</i>		5		FACW			
4.	<i>Morella cerifera</i>				FAC			
5.								
6.								
			55 = Total Cover			<b>Definitions of Vegetation Strata:</b>		
50% of total cover: 27.5			20% of total cover: 11			<b>Tree</b> - 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: 30 ft )						<b>Sapling</b> - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
1.	<i>Andropogon glomeratus</i>		15	Y	FACW	<b>Shrub</b> - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
2.	<i>Rubus trivialis</i>		10	Y	FACU	<b>Herb</b> - 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.		
3.	<i>Rhynchospora chapmanii</i>		10	Y	OBL	<b>Woody vine</b> - All woody vines, regardless of height.		
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
			35 = Total Cover					
50% of total cover: 17.5			20% of total cover: 7					
Woody Vine Stratum (Plot size: 30 ft )								
1.	<i>Gelsemium sempervirens</i>		5	Y	FAC			
2.								
3.								
4.								
5.								
			5 = Total Cover			<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
50% of total cover: 2.5			20% of total cover: 1					

Remarks: (If observed, list morphological adaptations below)  
ERDC/CRREL 2014 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status.

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 <sup>1</sup>		
0-9	10 YR 2/1					SL	
9-15	10 YR 5/2					LS	
15-18+	10 YR 5/2		10YR 5/8	>10		SCL	
			10YR 5/6	>10			

<sup>1</sup>Type C = Concentration, D = depletion, RM = Reduced Matrix, MS = Masked Sand Grains

<sup>2</sup>Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5)

☐ Organic Bodies (A6) (LRR P,T,U)

☐ 5 cm Mucky Mineral (A7) (LRR P,T,U)

☐ Muck Presence (A8) (LRR U)

☐ 1 cm Muck (A9) (LRR P,T)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Coast Prairie Redox (A16) (MLRA 150A)

☐ Sandy Mucky Mineral (S1) (LRR O,S)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☒ Dark Surface (S7) (LRR P,S,T,U)

☐ Polyvalue Below Surface (S8) (LRR S,T,U)

☐ Thin Dark Surface (S9) (LRR S,T,U)

☐ Loamy Mucky Mineral (F1) (LRR O)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

☐ Marl (F10) (LRR U)

☐ Depleted Ochric (F11) (MLRA 151)

☐ Iron-Manganese Masses (F12) (LRR O,P,T)

☐ Umbric Surface (F13) (LRR P,T,U)

☐ Delta Ochric (F17) (MLRA 151)

☐ Reduced Vertic (F18) (MLRA 150A, 150B)

☐ Piedmont Floodplain Soils (F19) (MLRA 149A)

☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 1 cm Muck (A9) (LRR O)

☐ 2 cm Muck (A10) (LRR S)

☐ Reduced Vertic (F18) (outside MLRA 150A,B)

☐ Piedmont Floodplain Soils (F19) (LRR P,S,T)

☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)

☐ Red Parent Material (TF2)

☐ Very Shallow Dark Surface (TF12)

☐ Other (Explain in Remarks)

<sup>3</sup>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

☐

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:

Soter-Centerline Road Widening

City/County:

Berkeley

Sampling Date:

3/27/2015

Applicant/Owner:

Plum Creek Timber

State:

SC

Sampling Point:

L-18 (wet)

Investigator(s):

JD/TAN

Section, Township, Range:

Landform: (hillslope, terrace, etc.)

flat

Local Relief (concave, convex, none):

none

Slope (%):

1-2

Subregion (LRR or MLRA)

63h Carolina Flatwood

Lat:

33.178848

Long:

-80.22085

Datum:

Soil Map Unit Name:

Nobocco loamy sand, 0 to 2 percent slopes

NWI Classification:

PFO1/4B

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:

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)

☐ Marl Deposits (B15) (LRR U)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres on Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Much 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)

☒ Geomorphic Position (D2)

☐ Shallow Aquitard (D3)

☒ FAC-Neutral Test (D5)

☐ Sphangum moss (D8) (LRR T,U)

Field Observations:

Surface Water Present?

Yes

☒

No

☐

Depth (inches):

2

Water Table Present?

Yes

☒

No

☐

Depth (inches):

0

Saturation Present?

Yes

☒

No

☐

Depth (inches):

0

(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: L-18 (wet)

Tree Stratum (Plot size: 30 ft )			Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Acer rubrum</i>		25	Y	FAC
2.	<i>Nyssa biflora</i>		25	Y	OBL
3.	<i>Quercus laurifolia</i>		15		FACW
4.	<i>Liquidambar styraciflua</i>		15		FAC
5.	<i>Pinus taeda</i>		10		FAC
6.					
			90	= Total Cover	
50% of total cover:			45	20% of total cover: 18	
Sapling Stratum (Plot size: 30 ft )					
1.	<i>Liquidambar styraciflua</i>		15	Y	FAC
2.	<i>Acer rubrum</i>		15	Y	FAC
3.	<i>Quercus laurifolia</i>		15	Y	FACW
4.	<i>Ilex opaca</i>		15	Y	FAC
5.					
6.					
			60	= Total Cover	
50% of total cover:			30	20% of total cover: 12	
Shrub Stratum (Plot size: 30 ft )					
1.	<i>Persea borbonia</i>		15	Y	FACW
2.	<i>Ilex opaca</i>		15	Y	FAC
3.	<i>Liquidambar styraciflua</i>		5		FAC
4.					
5.					
6.					
			35	= Total Cover	
50% of total cover:			17.5	20% of total cover: 7	
Herb Stratum (Plot size: 30 ft )					
1.	<i>Woodwardia areolata</i>		15	Y	OBL
2.	<i>Carex intumescens</i>		15	Y	FACW
3.	<i>Arundinaria gigantea</i>		15	Y	FACW
4.	<i>Chasmanthium laxum</i>		5		FACW
5.					
6.					
7.					
8.					
9.					
10.					
11.					
			50	= Total Cover	
50% of total cover:			25	20% of total cover: 10	
Woody Vine Stratum (Plot size: 30 ft )					
1.					
2.					
3.					
4.				#NAME?	
5.					
				= Total Cover	
50% of total cover:				20% of total cover:	

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 11 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

OBL species40x 1 = 40

FACW species80x 2 = 160

FAC species115x 3 = 345

FACU species0x 4 = 0

UPL species0x 5 = 0

Column Totals: 235 (A)545 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

☒Dominance Test is > 50%

☒Prevalence Index is ≤ 3.0<sup>1</sup>

☐Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of 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. Includes 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: (If observed, list morphological adaptations below)  
ERDC/CRREL 2014 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status.



SOIL

Sampling Point: L-18 (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 <sup>1</sup>		
0-8	10 YR 2/1					Sand	
8-11	10 YR 3/1					Sand	>70% coated
12-18+	10 YR 5/1					Sand	

<sup>1</sup>Type C = Concentration, D = depletion, RM = Reduced Matrix, MS = Masked Sand Grains

<sup>2</sup>Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5)

☐ Organic Bodies (A6) (LRR P,T,U)

☐ 5 cm Mucky Mineral (A7) (LRR P,T,U)

☐ Muck Presence (A8) (LRR U)

☐ 1 cm Muck (A9) (LRR P,T)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Coast Prairie Redox (A16) (MLRA 150A)

☐ Sandy Mucky Mineral (S1) (LRR O,S)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☒ Dark Surface (S7) (LRR P,S,T,U)

☐ Polyvalue Below Surface (S8) (LRR S,T,U)

☐ Thin Dark Surface (S9) (LRR S,T,U)

☐ Loamy Mucky Mineral (F1) (LRR O)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

☐ Marl (F10) (LRR U)

☐ Depleted Ochric (F11) (MLRA 151)

☐ Iron-Manganese Masses (F12) (LRR O,P,T)

☐ Umbric Surface (F13) (LRR P,T,U)

☐ Delta Ochric (F17) (MLRA 151)

☐ Reduced Vertic (F18) (MLRA 150A, 150B)

☐ Piedmont Floodplain Soils (F19) (MLRA 149A)

☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 1 cm Muck (A9) (LRR O)

☐ 2 cm Muck (A10) (LRR S)

☐ Reduced Vertic (F18) (outside MLRA 150A,B)

☐ Piedmont Floodplain Soils (F19) (LRR P,S,T)

☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)

☐ Red Parent Material (TF2)

☐ Very Shallow Dark Surface (TF12)

☐ Other (Explain in Remarks)

<sup>3</sup>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☐

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:

Soter-Centerline Road Widening

City/County:

Berkeley

Sampling Date:

3/27/2015

Applicant/Owner:

Plum Creek Timber

State:

SC

Sampling Point:

L-18 (up)

Investigator(s):

JD/TAN

Section, Township, Range:

Landform: (hillslope, terrace, etc.)

flat

Local Relief (concave, convex, none):

none

Slope (%):

2

Subregion (LRR or MLRA)

63h Carolina Flatwood

Lat:

33.178598

Long:

-80.22082

Datum:

Soil Map Unit Name:

Nobocco loamy sand, 0 to 2 percent slopes

NWI Classification:

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

☐

Hydic Soil Present?

Yes

☐

No

☒

Wetland Hydrology Present?

Yes

☐

No

☒

Is the Sampled Area within a wetland?

Yes

☐

No

☒

Remarks:

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)

☐ Marl Deposits (B15) (LRR U)

☐ Hydrogen Sulfide Odor (C1)

☐ Oxidized Rhizospheres on Living Roots (C3)

☐ Presence of Reduced Iron (C4)

☐ Recent Iron Reduction in Tilled Soils (C6)

☐ Thin Much 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)

☐ Geomorphic Position (D2)

☐ Shallow Aquitard (D3)

☐ FAC-Neutral Test (D5)

☐ Sphangum moss (D8) (LRR T,U)

Field Observations:

Surface Water Present?

Yes

☐

No

☒

Depth (inches):

Water Table Present?

Yes

☐

No

☒

Depth (inches):

>18

Saturation Present?

Yes

☐

No

☒

Depth (inches):

>18

(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: L-18 (up)

Tree Stratum (Plot size: 30 ft )			Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Pinus taeda</i>		25	Y	FAC
2.	<i>Ilex opaca</i>		25	Y	FAC
3.	<i>Cornus florida</i>		15	Y	FACU
4.	<i>Liquidambar styraciflua</i>		15	Y	FAC
5.	<i>Quercus michauxii</i>		10		FACW
6.					
			90	= Total Cover	
50% of total cover:			45	20% of total cover: 18	
Sapling Stratum (Plot size: 30 ft )			Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Liquidambar styraciflua</i>		15	Y	FAC
2.	<i>Ilex opaca</i>		15	Y	FAC
3.	<i>Cornus florida</i>		5		FACU
4.					
5.					
6.					
			35	= Total Cover	
50% of total cover:			17.5	20% of total cover: 7	
Shrub Stratum (Plot size: 30 ft )			Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Persea borbonia</i>		15	Y	FACW
2.	<i>Lyonia lucida</i>		10	Y	FACW
3.	<i>Symplocos tinctoria</i>		10	Y	FAC
4.					
5.					
6.					
			35	= Total Cover	
50% of total cover:			17.5	20% of total cover: 7	
Herb Stratum (Plot size: 30 ft )			Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Mitchella repens</i>		10	Y	FACU
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
			10	= Total Cover	
50% of total cover:			5	20% of total cover: 2	
Woody Vine Stratum (Plot size: 30 ft )			Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Vitis aestivalis</i>		10	Y	FACU
2.	<i>Smilax rotundifolia</i>		2		FAC
3.					
4.					
5.					
			12	= Total Cover	
50% of total cover:			6	20% of total cover: 2.4	

**Dominance Test Worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 73% (A/B)

**Prevalence Index worksheet:**

OBL species 0 x 1 = 0

FACW species 35 x 2 = 70

FAC species 107 x 3 = 321

FACU species 40 x 4 = 160

UPL species 0 x 5 = 0

Column Totals: 182 (A) 551 (B)

Prevalence Index = B/A = 3.0

**Hydrophytic Vegetation Indicators:**

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0<sup>1</sup>

☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

**Definitions of 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. Includes 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: (If observed, list morphological adaptations below)  
ERDC/CRREL 2014 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status.

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 <sup>1</sup>		
0-5	10YR 3/2					SL	
5-13	10 YR 4/2					LS	
13-18+	10 YR 5/3		10YR 5/4	5		SCL	

<sup>1</sup>Type C = Concentration, D = depletion, RM = Reduced Matrix, MS = Masked Sand Grains

<sup>2</sup>Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5)

☐ Organic Bodies (A6) (LRR P,T,U)

☐ 5 cm Mucky Mineral (A7) (LRR P,T,U)

☐ Muck Presence (A8) (LRR U)

☐ 1 cm Muck (A9) (LRR P,T)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Coast Prairie Redox (A16) (MLRA 150A)

☐ Sandy Mucky Mineral (S1) (LRR O,S)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Dark Surface (S7) (LRR P,S,T,U)

☐ Polyvalue Below Surface (S8) (LRR S,T,U)

☐ Thin Dark Surface (S9) (LRR S,T,U)

☐ Loamy Mucky Mineral (F1) (LRR O)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

☐ Marl (F10) (LRR U)

☐ Depleted Ochric (F11) (MLRA 151)

☐ Iron-Manganese Masses (F12) (LRR O,P,T)

☐ Umbric Surface (F13) (LRR P,T,U)

☐ Delta Ochric (F17) (MLRA 151)

☐ Reduced Vertic (F18) (MLRA 150A, 150B)

☐ Piedmont Floodplain Soils (F19) (MLRA 149A)

☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 1 cm Muck (A9) (LRR O)

☐ 2 cm Muck (A10) (LRR S)

☐ Reduced Vertic (F18) (outside MLRA 150A,B)

☐ Piedmont Floodplain Soils (F19) (LRR P,S,T)

☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)

☐ Red Parent Material (TF2)

☐ Very Shallow Dark Surface (TF12)

☐ Other (Explain in Remarks)

<sup>3</sup>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

Remarks:

Table 1:	
Jurisdictional Status Label Table for APPROVED Jurisdictional Determinations	
Label	Description
Jurisdictional Features	
Jurisdictional Wetland 1	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 2	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 3	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 4	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 5	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 6	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 7	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 8	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 9	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 10	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 11	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 12	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Wetland 13	Meeting 3-parameters per 1987 Delineation Manual
Jurisdictional Ditch 1	Jurisdictional Ditch
Jurisdictional Ditch 2	Jurisdictional Ditch
Jurisdictional Ditch 3	Jurisdictional Ditch
Jurisdictional Ditch 4	Jurisdictional Ditch



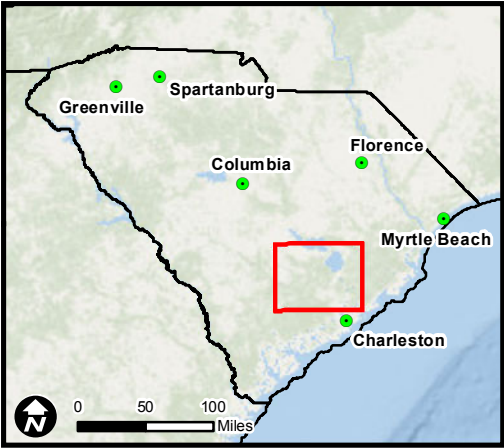


Figure 1. Site Location Map

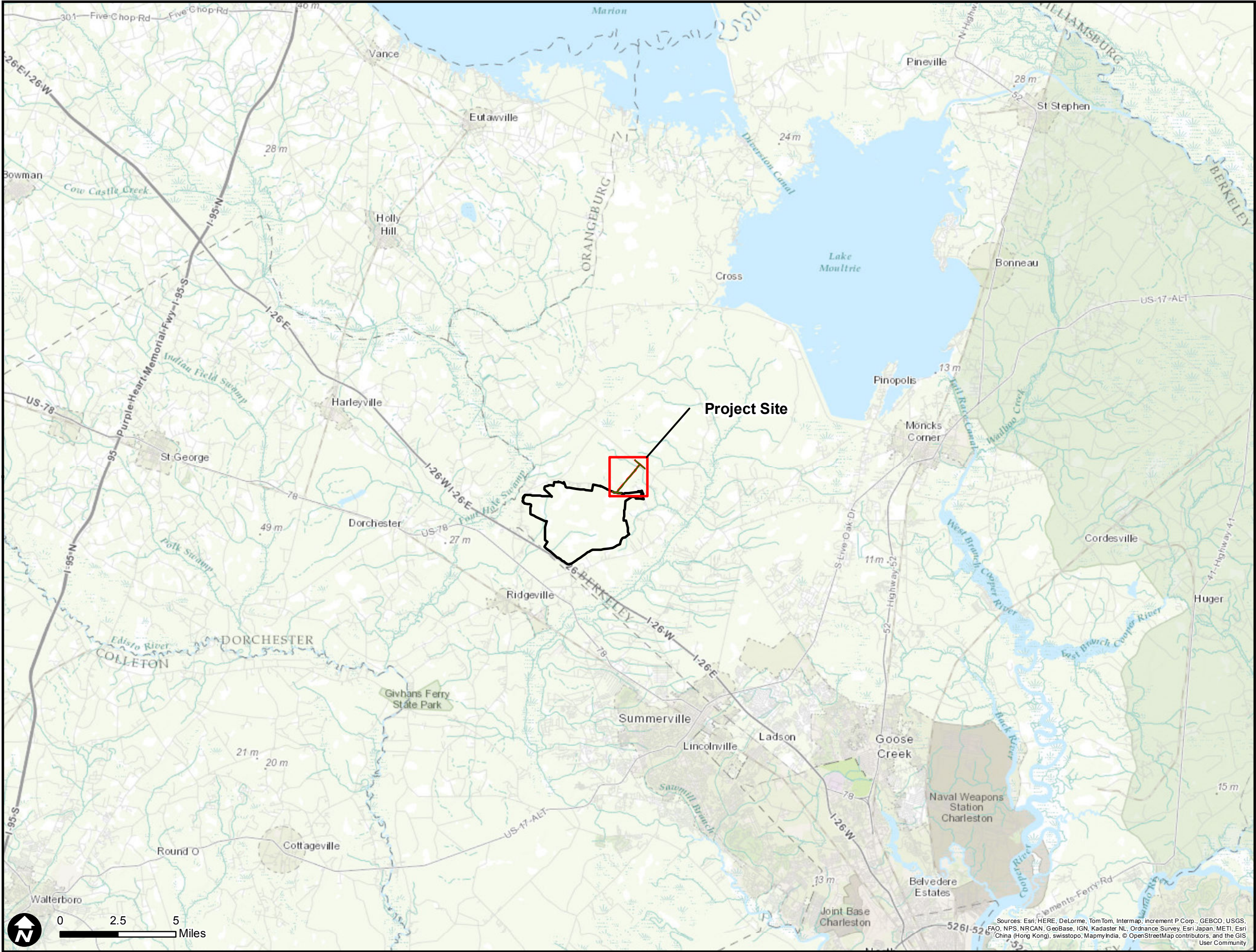
Camp Hall  
Project Soter  
Berkeley County, South Carolina

Legend  
Camp Hall Boundary



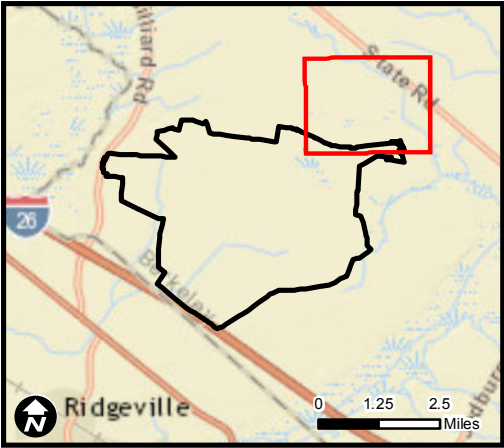
Job No. 6250150079  
Drawn By: BWS  
Reviewed By: BPK  
Date: 03/27/2015

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Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community





**Figure 2. USGS Topographic Map**

Camp Hall  
Project Soter  
Berkeley County, South Carolina

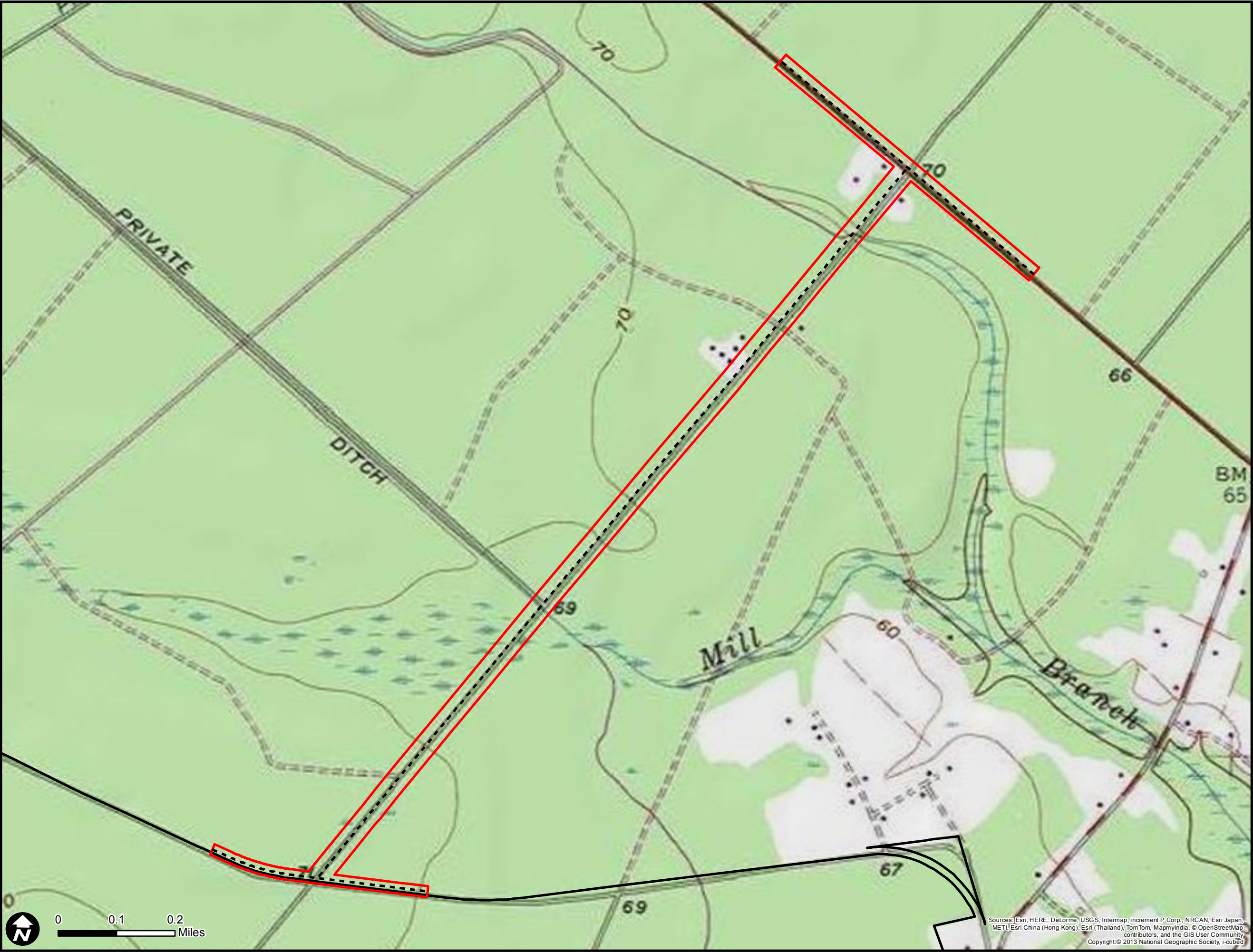
**Legend**

- ⋈ Roads Centerline
- ▭ Roads Buffer
- ⊕ Camp Hall Boundary



Job No. 6250150079  
Drawn By: BWS  
Reviewed By: BPK  
Date: 03/27/2015

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Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community  
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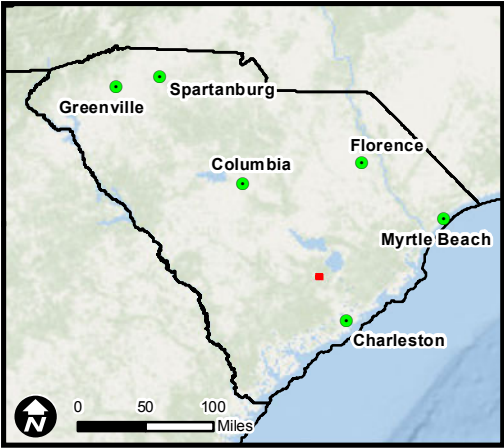


Figure 3. NRCS Soils Map

Camp Hall  
Project Soter  
Berkeley County, South Carolina

Legend

- Roads Centerline
- ▭ Roads Buffer
- ⬢ Camp Hall Boundary
- Soils - Hydric Rating**
  - Nonhydic
  - Predominantly Nonhydic
  - Predominantly Hydric
  - Hydic



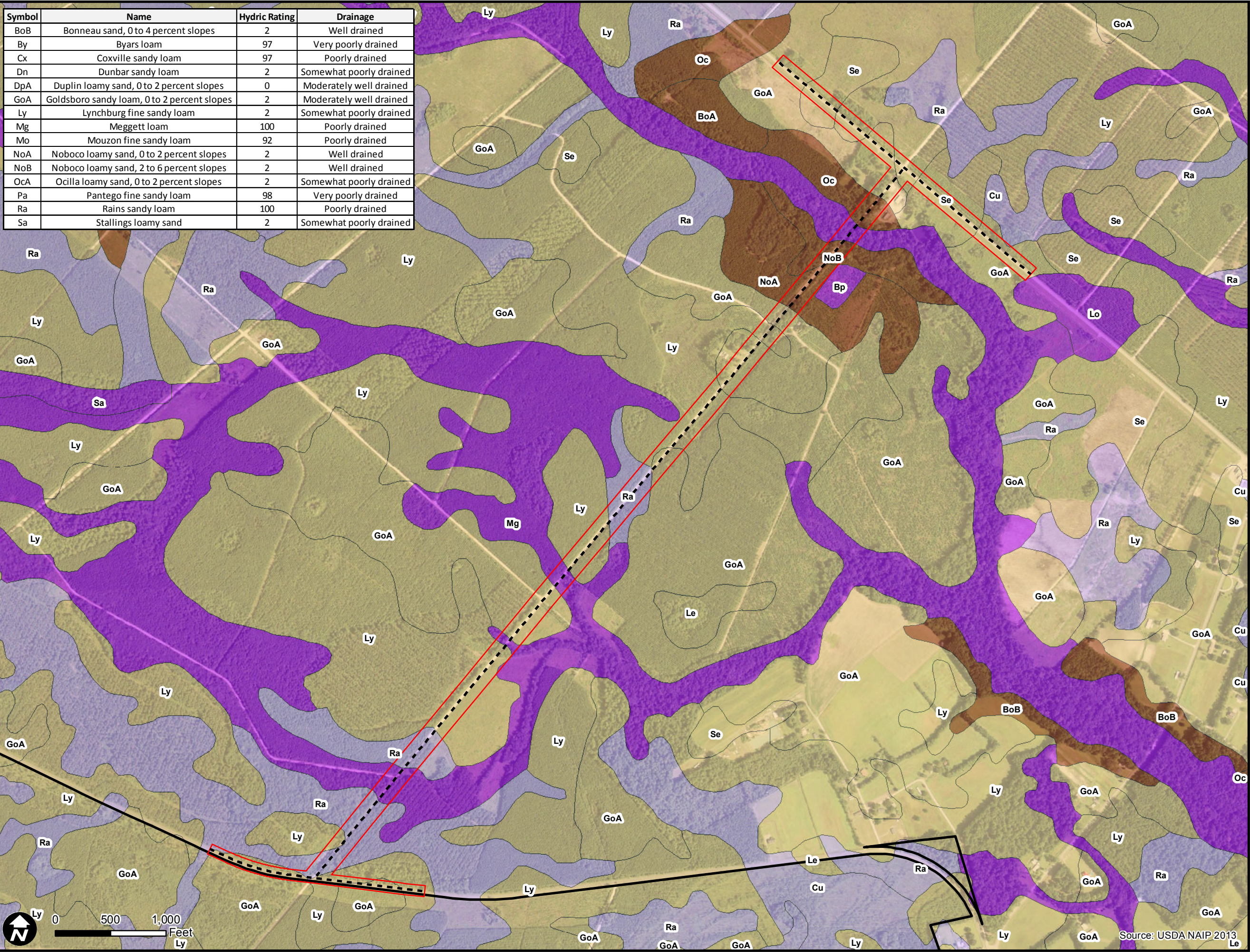
Job No. 6250150079

Drawn By: BWS

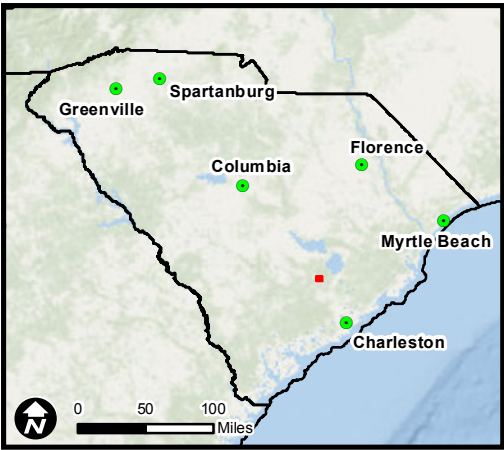
Reviewed By: BPK

Date: 03/27/2015

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**Figure 4. National Wetland Inventory Map**

Camp Hall  
Project Soter  
Berkeley County, South Carolina

**Legend**

⋈ Roads Centerline

▭ Roads Buffer

⊞ Camp Hall Boundary

**National Wetland Inventory**

🌿 Freshwater Emergent Wetland

🌳 Freshwater Forested/Shrub Wetland

💧 Freshwater Pond



Job No. 6250150079

Drawn By: BWS

Reviewed By: BPK

Date: 03/27/2015

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Source: USDA NAIP 2013



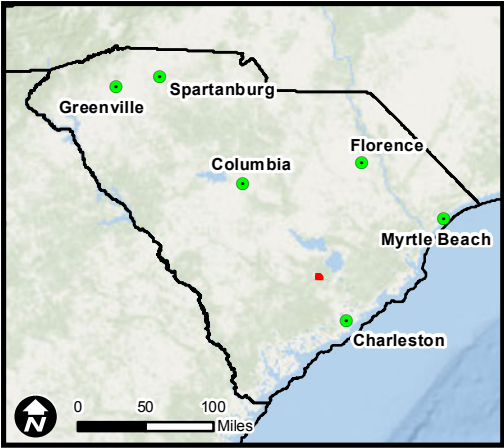


Figure 5. Aerial Map

Camp Hall  
Project Soter  
Berkeley County, South Carolina

- Legend**
- ⋈ Roads Centerline
  - ▭ Roads Buffer
  - ⬢ Camp Hall Boundary



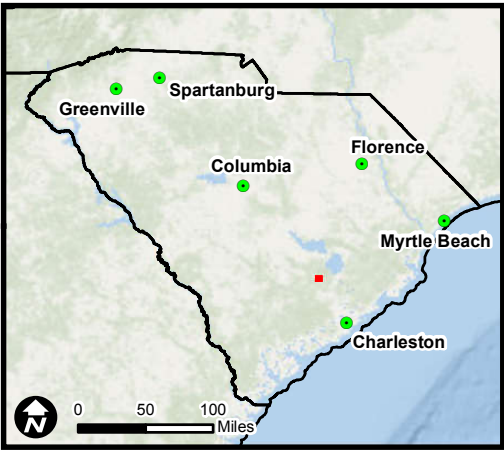
Job No. 6250150079  
Drawn By: BWS  
Reviewed By: BPK  
Date: 03/27/2015

The map shown here has been created with all due and reasonable care and is strictly for use with Amec Foster Wheeler project number 6250150079. Amec Foster Wheeler assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.



Source: USDA NAIP 2013





**Figure 6. Jurisdictional Waters Map**

Camp Hall  
Project Soter  
Berkeley County, South Carolina

**Legend**

- Ditch
- Wetland
- Roads Buffer

JW - Jurisdictional Wetland

JD - Jurisdictional Ditch



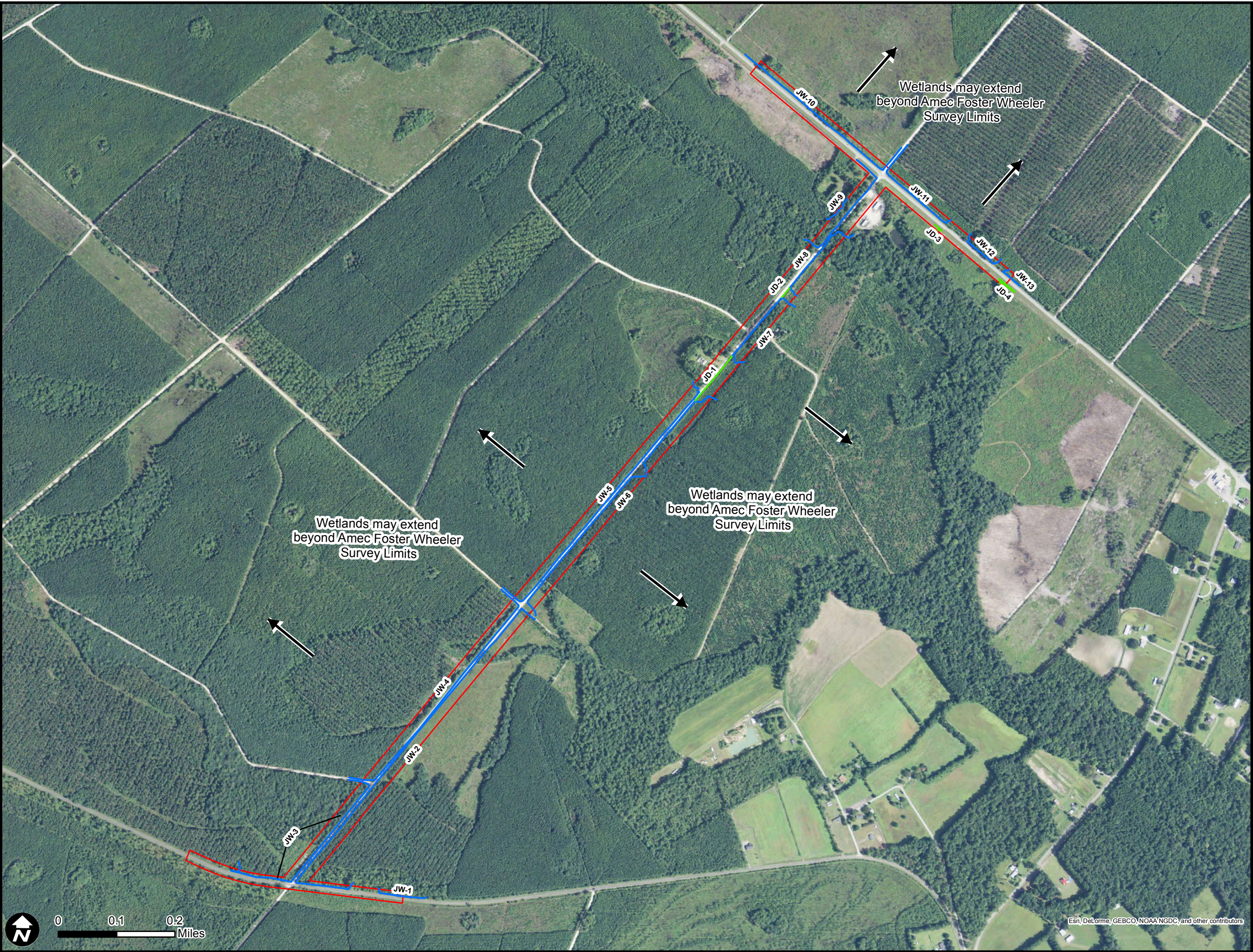
Job No. 6250150079

Drawn By: CLS

Reviewed By: BPK

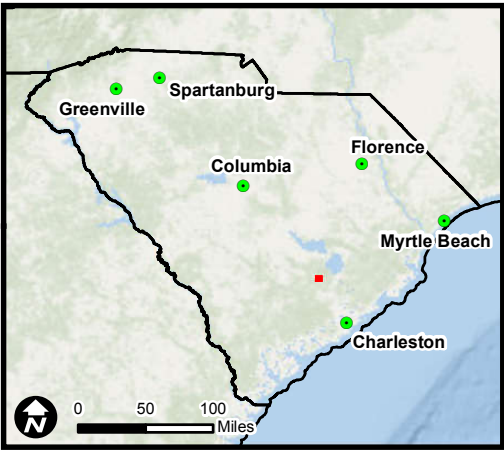
Date: 04/03/2015

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Esri, DeLorme, GEBCO, NOAA, NGDC, and other contributors





**Figure 7. Photo Location Map**

Camp Hall  
Project Soter  
Berkeley County, South Carolina

- Legend**
- Photo Location
  - Roads Centerline
  - ▭ Roads Buffer
  - ⬢ Camp Hall Boundary



Job No. 6250150079  
 Drawn By: CLS  
 Reviewed By: BPK  
 Date: 03/27/2015

The map shown here has been created with all due and reasonable care and is strictly for use with Amec Foster Wheeler project number 6250150079. Amec Foster Wheeler assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.





**Project Soter**  
**Ridgeville, Berkeley County, SC**

Photographic Log  
March 2015



Client:  
Plum Creek Timber

Location:  
Centerline Road

Project No.:  
6250-15-0079.02

Date:  
03.27.15

Photo No.:  
1

Photographer:  
TAN

Description: At Flag A-5, facing  
northeast, showing Jurisdictional  
Wetland (JW) 1.



Client:  
Plum Creek Timber

Location:  
Centerline Road

Project No.:  
6250-15-0079.02

Date:  
03.27.15

Photo No.:  
2

Photographer:  
TAN

Description: At Flag Q-1, facing  
northeast, showing typical  
roadside ditch on site. JW 2 is to  
the left.



**Project Soter**  
**Ridgeville, Berkeley County, SC**

Photographic Log  
 March 2015



Client:  
 Plum Creek Timber

Location:  
 Centerline Road

Project No.:  
 6250-15-0079.02

Date:  
 03.27.15

Photo No.:  
 3

Photographer:  
 TAN

Description: At Flag S-15, facing  
 west-southwest, showing JW 4.



Client:  
 Plum Creek Timber

Location:  
 Centerline Road

Project No.:  
 6250-15-0079.02

Date:  
 03.27.15

Photo No.:  
 4

Photographer:  
 TAN

Description: At Flag P-39, facing  
 north, showing JW 5.



**Project Soter**  
**Ridgeville, Berkeley County, SC**

Photographic Log  
 March 2015



Client:  
 Plum Creek Timber

Location:  
 Centerline Road

Project No.:  
 6250-15-0079.02

Date:  
 03.27.15

Photo No.:  
 5

Photographer:  
 TAN

Description: At Flag B-30, facing southeast, showing JW 2, a scrub/shrub wetland.



Client:  
 Plum Creek Timber

Location:  
 Centerline Road

Project No.:  
 6250-15-0079.02

Date:  
 03.27.15

Photo No.:  
 6

Photographer:  
 TAN

Description: At Flag B-30, facing southwest, showing the wetland/upland line between JW 2 and the road fill.



**Project Soter**  
**Ridgeville, Berkeley County, SC**

Photographic Log  
March 2015



Client:  
Plum Creek Timber

Location:  
Centerline Road

Project No.:  
6250-15-0079.02

Date:  
03.27.15

Photo No.:  
7

Photographer:  
TAN

Description: At Flag F-8, on  
bridge, facing northwest., showing  
JW 8.



Client:  
Plum Creek Timber

Location:  
Centerline Road

Project No.:  
6250-15-0079.02

Date:  
03.27.15

Photo No.:  
8

Photographer:  
TAN

Description: At Flag F-1, facing  
south, showing JW 7.



**Project Soter**  
**Ridgeville, Berkeley County, SC**

Photographic Log  
March 2015



Client:  
Plum Creek Timber

Location:  
Centerline Road

Project No.:  
6250-15-0079.02

Date:  
03.27.15

Photo No.:  
9

Photographer:  
TAN

Description: At Flag L-18, facing  
northeast, showing JW 8.



Client:  
Plum Creek Timber

Location:  
Centerline Road

Project No.:  
6250-15-0079.02

Date:  
03.27.15

Photo No.:  
10

Photographer:  
TAN

Description: At Flag L-18, facing  
southwest, showing upland area,  
adjacent to JW 8.