U.S. Army Corps of Engineers – Charleston District - Regulatory Division

JURISDICTIONAL DETERMINATION REQUEST

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

Project Name & Location Address: Steeplechase IP Site: 399 Black River Road, near Camden, South Carolina

County: Kershaw **Total Acreage of Tract:** 277.91 **Date:** 5-9-2014

Property Owner : Kershaw County
Address: 515 Walnut Street
Address: Camden, South Carolina 29020
Phone: (803) 425-7685 (Peggy McLean)
Email: peggy.mclean@kershaw.sc.gov

Agent: S&ME, Inc. (c/o Chris Daves, P.W.S.)
Address: 134 Suber Rd.
Address: Columbia, SC 29210
Phone: (803) 561-9024
Email: cdaves@smeinc.com

1) Select the Type of Request:

☐ 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 limits of these areas. *Please note that while the Corps offers wetland delineation services, time frames to fulfill requests are dependent on property 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 following items must accompany your request:

- Accurate location maps (from County Map, USGS Quad Sheet, etc.), street address and directions to property from a nearby major intersection.
- Copy of Survey Plat or Tax Map of Property.
- Additional information such as soil survey sheet, aerial photograph, topographic survey, conceptual site plan, description of the proposed use of property, status of project, etc, may also be provided but are not required.

☑ I am submitting a wetland delineation for review and verification by the Corps. Please refer to page 2 for the "Information Required in a Wetland Delineation Submittal."

2) Select the Type of Jurisdictional Determination Requested:

☑ Accurate-Approved ☐ Approximate-Approved ☐ Accurate-Preliminary ☐ Approximate-Preliminary

Refer to the below definitions:

Preliminary – Preliminary determinations will identify whether wetlands or other waters are present on the site and will presume that they are jurisdictional; therefore, a Preliminary can often be completed more quickly than an Approved jurisdictional determination.

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

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

Approximate: Verified location and extent of all Waters of the U.S. are depicted approximately on a sketch. Project boundary may be surveyed or represented by a tax map or GPS coordinates.

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: Chris Daves, P.W.S.

Signature of Property Owner or Authorized Agent: Chris Daves

HQ and South Branch
69-A Hagood Avenue
Charleston, SC 29403
843-329-8044

Northeast Branch
1949 Industrial Park Rd, Room 140
Conway, SC 29526
843-365-4239

Northwest Branch
1835 Assembly St., Room 865-B1
Columbia, SC 29201
803-253-3444

Copies of this form may be obtained at: http://www.sac.usace.army.mil Form Last Revised: November 2013

May 9, 2014

U.S. Army Corps of Engineers
Columbia Regulatory Office
Strom Thurmond Federal Building
1835 Assembly Street, Room 865 B-1
Columbia, South Carolina 29201

Attention: Watershed 5 Project Manager

Reference: Request for Jurisdictional Determination
Steeplechase IP Site – 277.91 acres
SAC 2001-34608-5JK
Camden, Kershaw County, South Carolina
S&ME Project No. 4261-14-036

Dear Watershed 5 Project Manager:

On behalf of Kershaw County Economic Development Office, S&ME, Inc. (S&ME) has completed a Wetland Delineation at the above-referenced site. The approximately 277.91-acre site is located at 399 Black River Road near Camden, Kershaw County, South Carolina. The site consists of two Kershaw County tax parcel numbers (299-00-00-049 and 299-00-00-085), subsequently owned by Mulberry Plantation Inc. and Kershaw County. The site consists of forestland, open fields, cutover, and the Kershaw County Economic Development Office. The site is located in the Wateree River Watershed (HUC 03050104-03) within the Catawba River Basin and USACE Watershed Group 5. Please refer to Figures 1-5 in Appendix A for depictions of the site and surrounding features.

PREVIOUS WETLAND DELINEATION

A Jurisdictional Determination (JD) letter was issued by the USACE on May 29, 2009 in response to a letter submitted on behalf of Mr. Nelson Lindsay, with the Kershaw County Economic Development Office. The JD letter (SAC 2001-34608-5JK) approximated 108.063 acres of jurisdictional Waters of the U.S. (WOUS). Please refer to Appendix C for the 2009 JD letter.

WETLAND DELINEATION

On March 11 and April 22-25, 2014, S&ME Biologists Chris Daves and Chris Handley conducted the Wetland Delineation. Features observed were as follows:

- Two (2) jurisdictional wetlands (Wetlands A and B);
- Two (2) jurisdictional linear features including, one (1) Perennial Relatively Permanent Water (PRPW-1) and one (1) Seasonal Relatively Permanent Water (SRPW-2);
- Two (2) non-jurisdictional linear conveyances (NJLC-1-2); and
- Two (2) upland-dug, non-jurisdictional impoundments (Detention Pond and Borrow Pit).

Please refer to Figure 3 (Aerial Map) in Appendix A for the approximate locations of these features.

JURISDICTIONAL WETLANDS AND LINEAR FEATURES

Please refer to the tables below for information regarding the jurisdictional features included in the delineation.

Table 1 – Jurisdictional Wetlands

ID	Photo ID	Wetland Type	Approximate Acreage
Wetland A	1-2	Palustrine forested (PFO)/scrub-shrub (PSS) wetland located on the central portion of the site.	118.486 ac
Wetland B	3	Palustrine emergent (PEM) wetland located on the southwestern portion of the site.	1.470 ac
		Total Approximate Acreage	**119.956 ac**

Table 2 – Jurisdictional Linear Features

ID	Photo ID	Comments	Approximate Acreage/Linear Footage
PRPW-1	4-5	Perennial, jurisdictional tributary flowing through Wetland A on the central portion of the site.	0.297 ac/3,237 lf
SRPW-2	6	Seasonal, jurisdictional tributary flowing on the southeastern portion of the site. Flows into Wetland A where it becomes a braided channel system.	0.120 ac/1,743 lf
		Total Approximate Acreage/Linear Footage	**0.417 ac/4,980 lf**

PRPW = Perennial Relatively Permanent Water *SRPW = Seasonal Relatively Permanent Water*

NON-JURISDICTIONAL LINEAR FEATURES AND IMPOUNDMENTS

Please refer to the table below for information regarding the non-jurisdictional features included in the delineation.

Table 3 – Non-Jurisdictional Linear Conveyances

ID	Photo ID	Comments	Approximate Acreage/Linear Footage
NJLC-1	7	NJLC located on the western portion of the site.	0.160 ac/695 lf
NJLC-2	8	NJLC located on the southwestern portion of the site.	0.011 ac/480 lf
		Total Approximate Acreage/Linear Footage	**0.171 ac/1,175 lf**

NJLC = Non-Jurisdictional Linear Conveyance

Table 4 – Non-Jurisdictional Impoundments

ID	Photo ID	Comments	Approximate Acreage
Detention Pond	9	Upland-dug detention pond located on the western portion of the site.	1.206 ac
Borrow Pit	10	Upland-dug borrow pit located on the northern portion of the site.	0.591 ac
		Total Approximate Acreage	**1.797 ac**

In summary, the site contains approximately 120.373 acres of jurisdictional Waters of the U.S.

UPLANDS

Upland areas (Photographs 11-12) on the site consist of pine-mixed hardwoods, mixed-hardwoods, planted pine, cutover forestland, and open fields. These portions of the site consist primarily of non-hydric soil series such as Goldsboro, Norfolk, Persanti, and Wagram listed in the *Soil Survey of Kershaw County* and the U.S. Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS) Web Soil Survey (Figure 4 – Soils Map). Wetland vegetation, hydric soils, or hydrology were not observed in the upland areas.

ENCLOSURES

Attached in Appendices A-C, please find the following information for your review:

Appendix A
Figure 1 - Vicinity Map, Figure 2 - Topographic Map, Figure 3 - Aerial Map, Figure 4 - Soils Map, Figure 5 – NWI Map, Site Photographs

Appendix B
Wetland/Upland Datasheets

Appendix C
Previous USACE JD Letter SAC 2001-34608-5JK, dated May 29, 2009

CLOSING

Thank you for your time and attention to this project. If we can provide additional information, please do not hesitate to contact Chris Daves at 803-561-9024.

Sincerely,

S&ME, Inc.

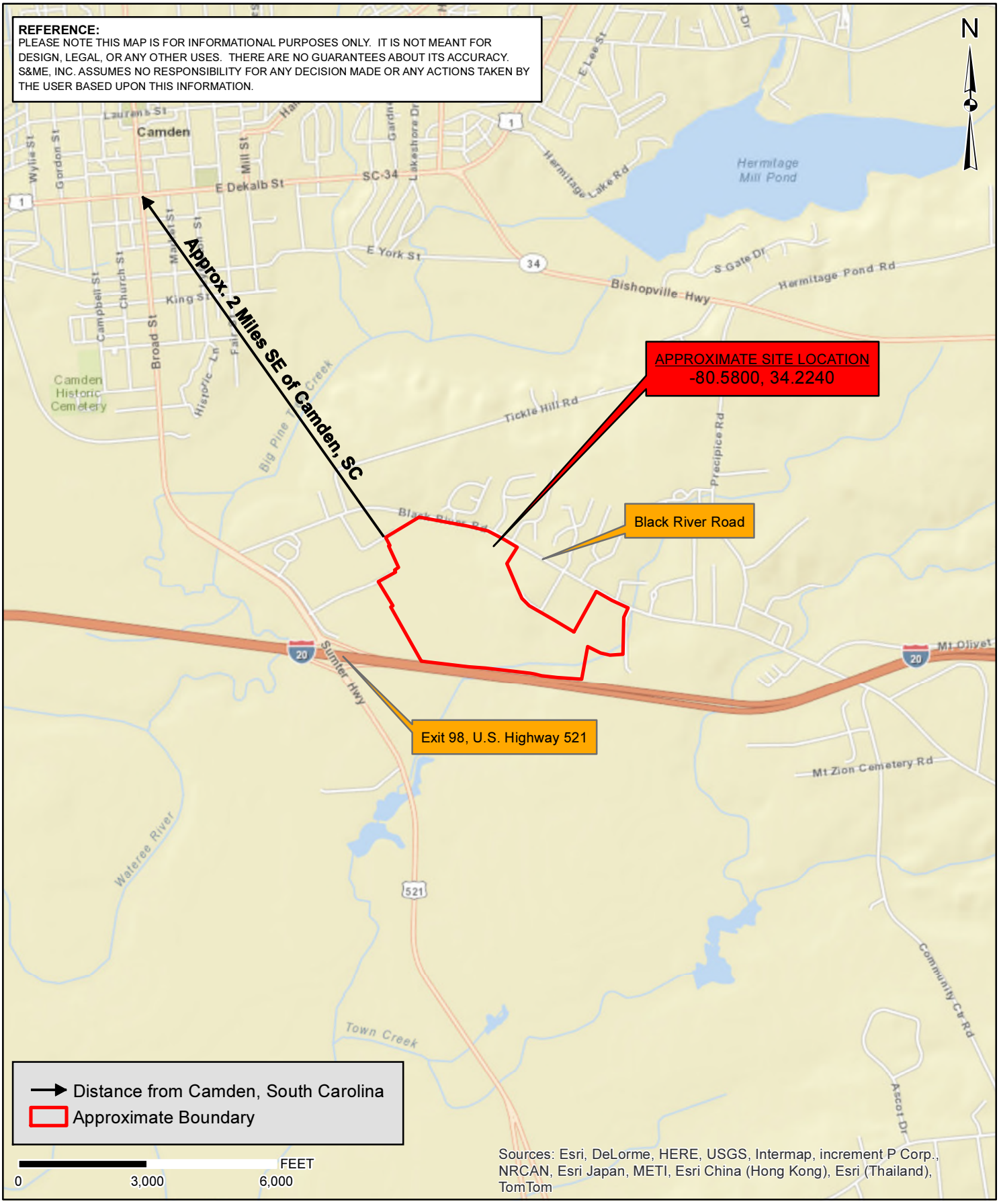
Chris Handley
Biologist

Chris Daves, P.W.S.
Biologist

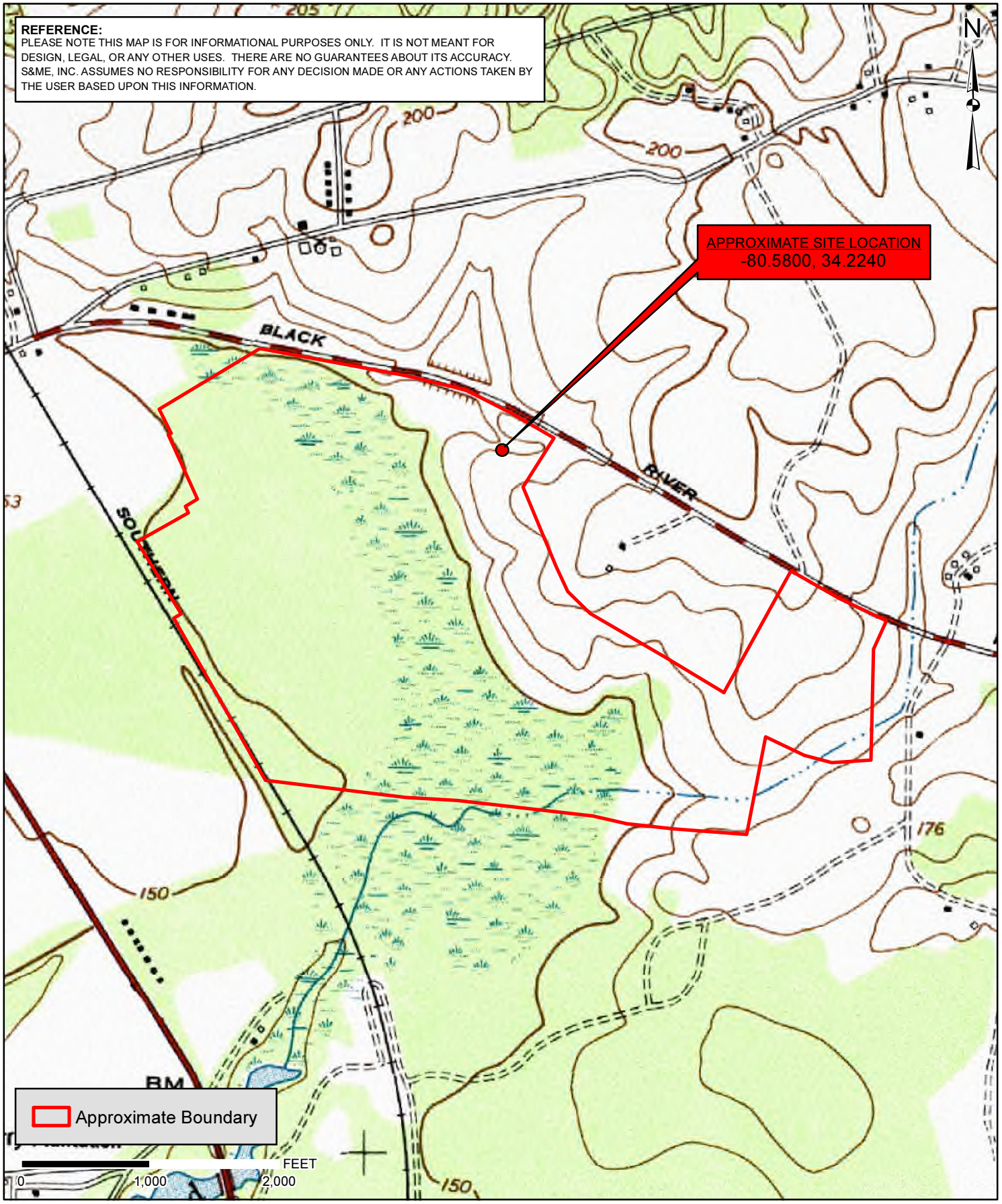
S:\ENVIRON\1 6 1 4 – 014 (2420) JOBS\4261-14-036\ Steeplechase IP Site\ JD Request Submittal

Appendix A

Vicinity Map
Topographic Map
Aerial Map
Soils Map
NWI Map
Site Photographs

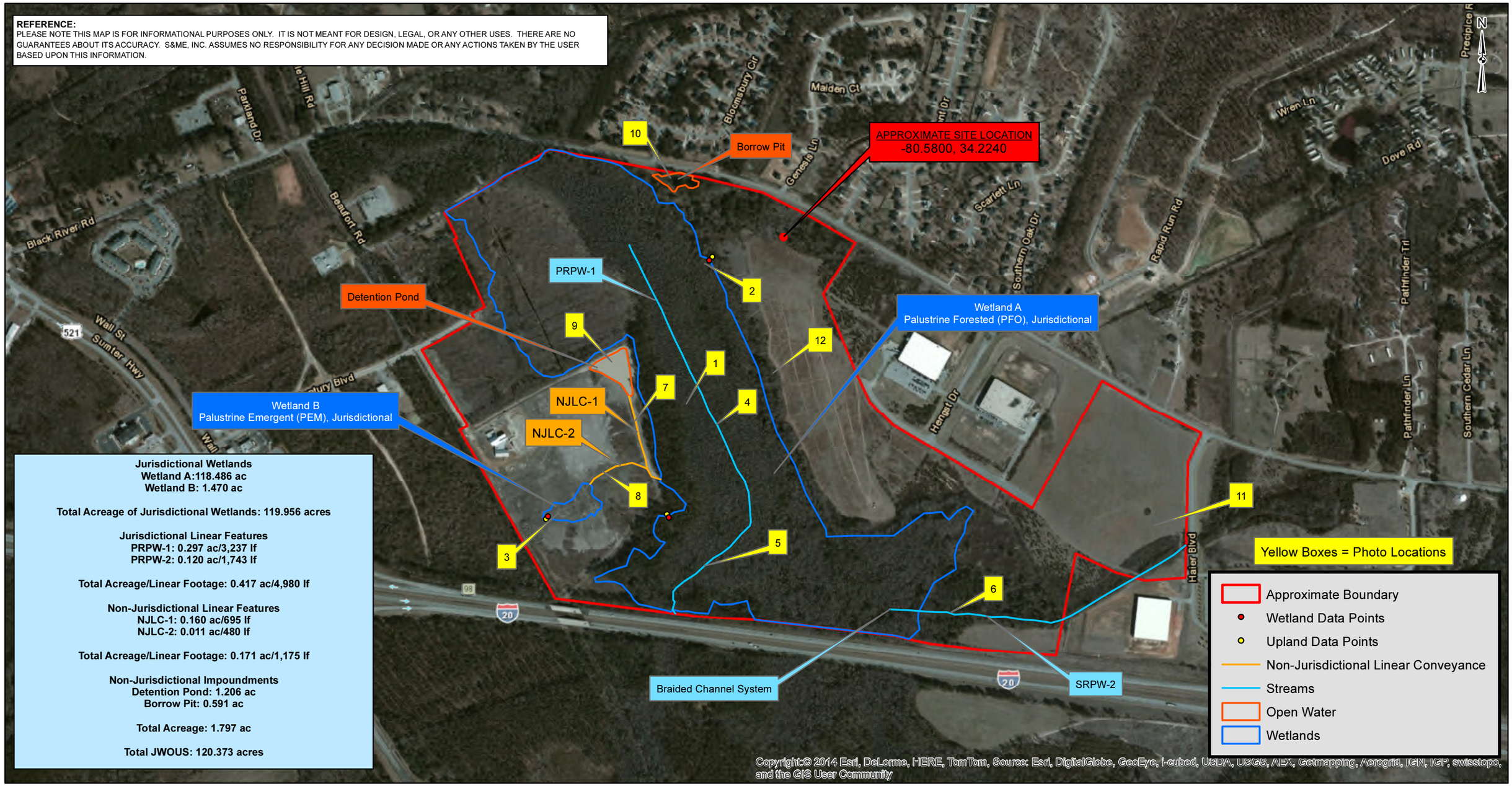


SCALE: 1 IN = 3,000 feet	S&ME	**Site Vicinity Map**	FIGURE NO.
CHECKED BY: CD		Steeplechase Industrial Park +/- 277.91 Acres	1
DRAWN BY: CCH		Camden, Kershaw County, South Carolina	
DATE: 5/7/2014	PROJECT NO: 4261-14-036	SOURCE: *World Street Map*	



SCALE: 1 IN = 1,000 feet	S&ME	**Site Topographic Map**	FIGURE NO.
CHECKED BY: CD		Steeplechase Industrial Park +/- 277.91 Acres	2
DRAWN BY: CCH		Camden, Kershaw County, South Carolina	
DATE: 5/7/2014	PROJECT NO: 4261-14-036	SOURCE: *USGS 7.5 Minute Topo Quad Camden South 1953*	

REFERENCE:
PLEASE NOTE THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES. THERE ARE NO GUARANTEES ABOUT ITS ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON THIS INFORMATION.



Jurisdictional Wetlands
Wetland A:118.486 ac
Wetland B: 1.470 ac

Total Acreage of Jurisdictional Wetlands: 119.956 acres

Jurisdictional Linear Features
PRPW-1: 0.297 ac/3,237 lf
PRPW-2: 0.120 ac/1,743 lf

Total Acreage/Linear Footage: 0.417 ac/4,980 lf

Non-Jurisdictional Linear Features
NJLC-1: 0.160 ac/695 lf
NJLC-2: 0.011 ac/480 lf

Total Acreage/Linear Footage: 0.171 ac/1,175 lf

Non-Jurisdictional Impoundments
Detention Pond: 1.206 ac
Borrow Pit: 0.591 ac

Total Acreage: 1.797 ac

Total JWOUS: 120.373 acres

Copyright:© 2014 Esri, DeLorme, HERE, TomTom, Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Source: ESRI Resources - World Imagery 2010 & World Transportation
Applicant: Kershaw County

Feet
0 700 1,400 2,800

SCALE:	1 inch = 700 feet
CHECKED BY:	CD
DRAWN BY:	CH
DATE:	5/7/2014

S&ME

Site Aerial Map

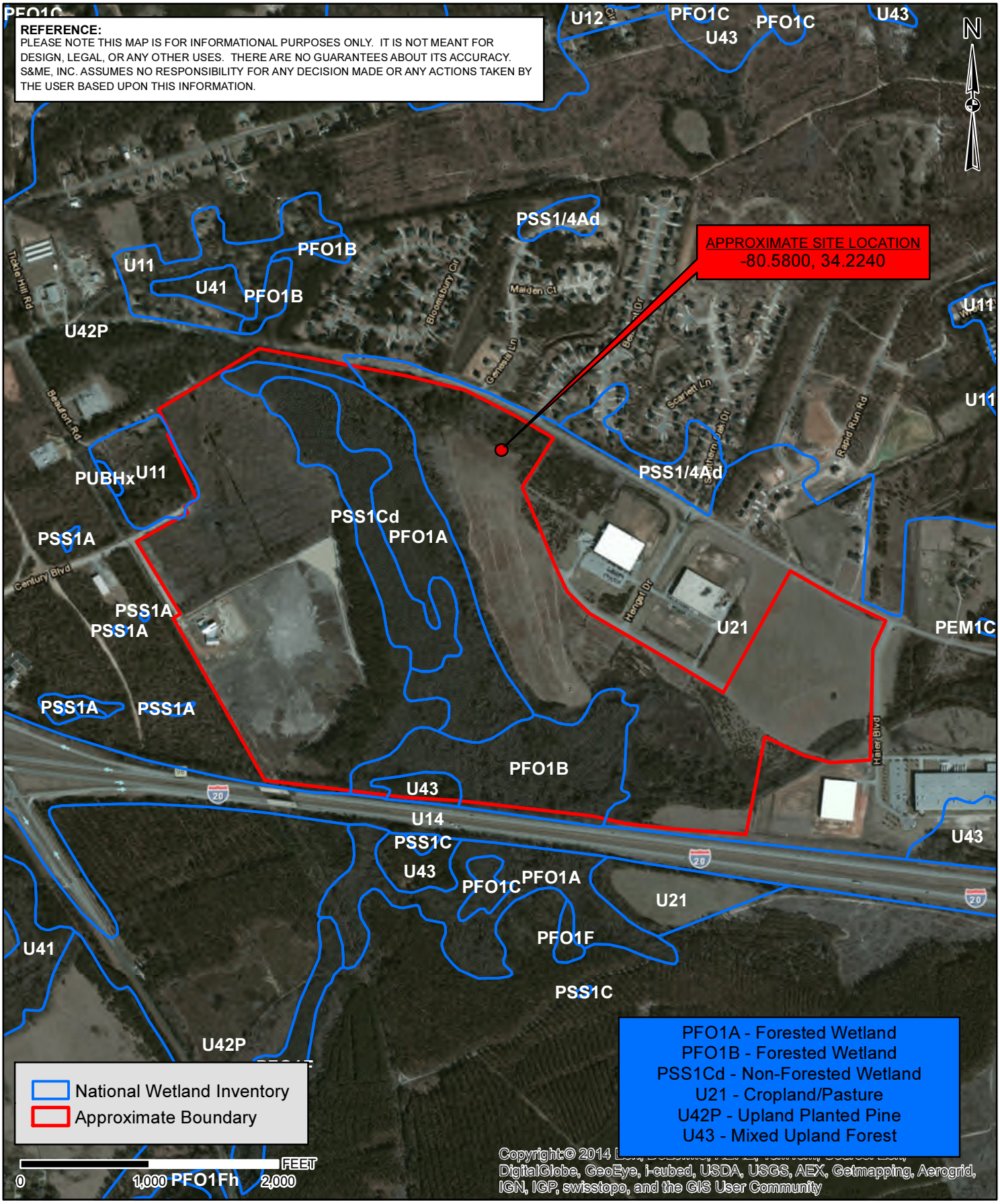
Steeplechase IP Site +/- 277.91 Acres

Camden, Kershaw County, South Carolina

S&ME PROJECT NO. 4261-14-036

FIGURE NO. **3**

SCALE: 1 IN = 1,000 feet	S&ME	**Site Soils Map**	FIGURE NO.
CHECKED BY: CD		Steeplechase Industrial Park +/- 277.91 Acres	4
DRAWN BY: CCH		Camden, Kershaw County, South Carolina	
DATE: 5/7/2014	PROJECT NO: 4261-14-036	SOURCE: *World Imagery 2010 & SCDNR (Soils Data)*	



SCALE: 1 IN = 1,000 feet	S&ME	**Site NWI Map**	FIGURE NO.
CHECKED BY: CD		Steeplechase Industrial Park +/- 277.91 Acres	5
DRAWN BY: CCH		Camden, Kershaw County, South Carolina	
DATE: 5/7/2014	PROJECT NO: 4261-14-036	SOURCE: *World Imagery 2010 & SCDNR (NWI Data)*	

1 Forested wetland (Wetland A) located on the central portion of the site.

2 Shrub-scrub wetland (Wetland A) located on the northern portion of the site.

3 Palustrine emergent wetland (Wetland B) located on the southwest portion of the site.

4 Perennial stream (PRPW-1) flowing through Wetland A on the central portion of the site.

S&ME

Site Photographs
Steeplechase IP Site
Camden, Kershaw County, South Carolina

S&ME Project 4261-14-036

Taken by: CD/CH

Date: March 11, April 22-25, and April 30, 2014

5 Perennial stream (PRPW-1) flowing through Wetland A on the southern portion of the site.

6 Seasonal stream (SRPW-2) flowing on the southeastern portion of the site.

7 Non-jurisdictional linear conveyance (NJLC-1) located on the western portion of the site.

8 Non-jurisdictional linear conveyance (NJLC-2) located on the southwestern portion of the site.

S&ME	**Site Photographs** **Steeplechase IP Site** **Camden, Kershaw County, South Carolina**	S&ME Project 4261-14-036 Taken by: CD/CH | Date: March 11, April 22-25, and April 30, 2014

9 Upland-dug detention pond located on the western portion of the site.

10 Upland-dug borrow pit located on the northern portion of the site.

11 Open field/fallow agricultural land located on the eastern portion of the site.

12 Cutover forestland located on the central portion of the site.

S&ME	**Site Photographs** **Steeplechase IP Site** **Camden, Kershaw County, South Carolina**	S&ME Project 4261-14-036 Taken by: CD/CH | Date: March 11, April 22-25, and April 30, 2014

Appendix B

Wetland/Upland Datasheets

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Steeplechase IP Site City/County: Camden/Kershaw Sampling Date: 4-22-14

Applicant/Owner: Kershaw County State: SC Sampling Point: Wet A-PFO

Investigator(s): Chris Daves & Chris Handley-S&ME Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): <2%

Subregion (LRR or MLRA): LRR-P Lat: 34.2180 Long: -80.5830 Datum: NAD83

Soil Map Unit Name: Persanti Sandy Loam (PsA) NWI classification: N/A

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:
Data point taken within Wetland A on the southwestern side.

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 along 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)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] FAC-Neutral Test (D5)
- [ ] Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [ ]	No [✔]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [✔]	No [ ]	Depth (inches): 6"

Wetland Hydrology Present? Yes [✔] No [ ]

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

Remarks:
Wetland hydrology was observed.

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: Wet A-PFC

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus taeda	30	Y	FAC
2.			
3.			
4.			
5.			
6.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Sapling Stratum (Plot size: 30-ft radius)			
1. Acer rubrum	5	Y	FAC
2. Quercus nigra	5	Y	FAC
3. Liquidambar styraciflua	5	Y	FAC
4.			
5.			
6.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Shrub Stratum (Plot size: 30-ft radius)			
1. Acer rubrum	5	Y	FAC
2. Liquidambar styraciflua	5	Y	FAC
3. Ilex opaca	5	Y	FAC
4.			
5.			
6.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 30-ft radius)			
1. Vitis rotundifolia	5	Y	FAC
2. Liquidambar styraciflua	5	Y	FAC
3. Smilax rotundifolia	5	Y	FAC
4. Vaccinium agustifolium	5	Y	FACU
5. Arundinaria gigantea	5	Y	FACW
6.			
7.			
8.			
9.			
10.			
11.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Woody Vine Stratum (Plot size: 30-ft radius)			
1. Smilax rotundifolia	10	Y	FAC
2. Vitis rotundifolia	5	Y	FAC
3. Toxicodendron radicans	5	Y	FAC
4.			
5.			
	20 = Total Cover		
50% of total cover: 10	20% of total cover: 4		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 14 (A)

Total Number of Dominant Species Across All Strata: 15 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 93 (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
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

Hydrophytic vegetation was observed.

SOIL

Sampling Point: Wet A-PFC

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
1-6"	10YR 5/2	98	10YR 6/8	2	C	M	LC	
6-12"	10YR 4/2	98	10YR 6/8	2	C	M	LC	
12-20"	10YR 4/1	98	10YR 6/8	2	C	M	LC	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

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

- ☐ 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[3]:

- ☐ 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)

[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 ☐

Remarks: Hydric soils were observed.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Steeplechase IP Site City/County: Camden/Kershaw Sampling Date: 4-22-14

Applicant/Owner: Kershaw County State: SC Sampling Point: Up A-PFO

Investigator(s): Chris Daves & Chris Handley-S&ME Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): <2%

Subregion (LRR or MLRA): LRR-P Lat: 34.2180 Long: -80.5830 Datum: NAD83

Soil Map Unit Name: Persanti Sandy Loam (PsA) NWI classification: U42P

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:
Data point taken within upland adjacent to Wetland A on the southwestern side.

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 along 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)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ✔

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

Remarks:
Wetland hydrology was not observed.

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

Sampling Point: Up A-PFO

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus taeda	30	Y	FAC
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling Stratum (Plot size: 30-ft radius)			
1. Acer rubrum	10	Y	FAC
2. Quercus nigra	5	Y	FAC
3.			
4.			
5.			
6.			
	15 = Total Cover		

50% of total cover: 7.5 20% of total cover: 3

Shrub Stratum (Plot size: 30-ft radius)			
1. Acer rubrum	5	Y	FAC
2. Pinus taeda	5	Y	FAC
3. Quercus nigra	5	Y	FAC
4. Liquidambar styraciflua	5	Y	FAC
5.			
6.			
	20 = Total Cover		

50% of total cover: 10 20% of total cover: 4

Herb Stratum (Plot size: 30-ft radius)			
1. Vaccinium angustifolium	15	Y	FACU
2. Vitis rotundifolia	5	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		

50% of total cover: 10 20% of total cover: 4

Woody Vine Stratum (Plot size: 30-ft radius)			
1. Vitis rotundifolia	5	Y	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		

50% of total cover: 2.5 20% of total cover: 1

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 90 (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
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

Hydrophytic vegetation was observed.

SOIL

Sampling Point: Up A-PFO

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
1-20"	10YR 5/3	100					LC	

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

[2]Location: PL=Pore Lining, M=Matrix.

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

- ☐ 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[3]:

- ☐ 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)

[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 ☑

Remarks: Hydric soils were not observed.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Steeplechase IP Site City/County: Camden/Kershaw Sampling Date: 4-22-14

Applicant/Owner: Kershaw County State: SC Sampling Point: Wet A-PSS

Investigator(s): Chris Daves & Chris Handley-S&ME Section, Township, Range:

Landform (hillslope, terrace, etc.): Base of hillslope Local relief (concave, convex, none): concave Slope (%): <2%

Subregion (LRR or MLRA): LRR-P Lat: 34.2230 Long: -80.5820 Datum: NAD83

Soil Map Unit Name: Pantego Loam (Pe) NWI classification: PFO1A

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:
Data point taken within Wetland A on the northeastern side.

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 along 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)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ☐	No ✔	Depth (inches):
Water Table Present?	Yes ☐	No ✔	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✔	No ☐	Depth (inches): 3"

Wetland Hydrology Present? Yes ✔ No ☐

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

Remarks:
Wetland hydrology was observed.

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

Sampling Point: Wet A-PSS

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling Stratum (Plot size: 30-ft radius)			
1. Liquidambar styraciflua	30	Y	FAC
2.			
3.			
4.			
5.			
6.			
	30 = Total Cover		

50% of total cover: 15 20% of total cover: 6

Shrub Stratum (Plot size: 30-ft radius)			
1. Liquidambar styraciflua	5	Y	FAC
2.			
3.			
4.			
5.			
6.			
	5 = Total Cover		

50% of total cover: 2.5 20% of total cover: 1

Herb Stratum (Plot size: 30-ft radius)			
1. Liquidambar styraciflua	10	Y	FAC
2. Lonicera japonica	10	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		

50% of total cover: 10 20% of total cover: 4

Woody Vine Stratum (Plot size: 30-ft radius)			
1. Lonicera japonica	10	Y	FAC
2. Vitis rotundifolia	10	Y	FAC
3. Gelsemium sempervirens	5	Y	FAC
4.			
5.			
	25 = Total Cover		

50% of total cover: 12.5 20% of total cover: 5

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

Hydrophytic vegetation was observed.

SOIL

Sampling Point: Wet A-PSS

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
1-6"	10YR 3/2	98	10YR 4/6	2	C	M	LS	
6-12"	10YR 4/2	95	10YR 6/8	5	C	M	S	
12-20"	10YR 4/2	95	10YR 6/8	5	C	M	S	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

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

- ☐ 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[3]:

- ☐ 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)

[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 ☐

Remarks: Hydric soils were observed.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Steeplechase IP Site City/County: Camden/Kershaw Sampling Date: 4-22-14

Applicant/Owner: Kershaw County State: SC Sampling Point: Up A-PSS

Investigator(s): Chris Daves & Chris Handley-S&ME Section, Township, Range:

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): <2%

Subregion (LRR or MLRA): LRR-P Lat: 34.2230 Long: -80.5820 Datum: NAD83

Soil Map Unit Name: Pantego Loam (Pe) NWI classification: PFO1A

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:
Data point taken within upland adjacent to Wetland A on the northeastern side.

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 along 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)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] FAC-Neutral Test (D5)
- [ ] Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches):
Water Table Present?	Yes [ ]	No [✔]	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches):

Wetland Hydrology Present? Yes [ ] No [✔]

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

Remarks:
Wetland hydrology was not observed.

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

Sampling Point: Up A-PSS

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling Stratum (Plot size: 30-ft radius)			
1. Liquidambar styraciflua	10	Y	FAC
2. Prunus serotina	10	Y	FACU
3. Acer rubrum	10	Y	FAC
4.			
5.			
6.			
	30 = Total Cover		

50% of total cover: 15 20% of total cover: 6

Shrub Stratum (Plot size: 30-ft radius)			
1. Rubus cuneifolius	10	Y	FACU
2. Acer rubrum	5	Y	FAC
3. Rhus copallinum	5	Y	UPL
4. Liquidambar styraciflua	5	Y	FAC
5.			
6.			
	25 = Total Cover		

50% of total cover: 12.5 20% of total cover: 5

Herb Stratum (Plot size: 30-ft radius)			
1. Lonicera japonica	5	Y	FAC
2. Rubus cuneifolius	5	Y	FACU
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 radius)			
1. Smilax rotundifolia	5	Y	FAC
2. Vitis rotundifolia	5	Y	FAC
3.			
4.			
5.			
	10 = Total Cover		

50% of total cover: 5 20% of total cover: 2

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 64 (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
- ☑ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☑ No ☐

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

Hydrophytic vegetation was observed.

SOIL

Sampling Point: Up A-PSS

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
1-20"	10YR 4/4						LS	

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

[2]Location: PL=Pore Lining, M=Matrix.

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

- ☐ 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[3]:

- ☐ 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)

[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 ☑

Remarks: Hydric soils were not observed.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Steeplechase IP Site City/County: Camden/Kershaw Sampling Date: 4-25-14

Applicant/Owner: Kershaw County State: SC Sampling Point: Wet B

Investigator(s): Chris Daves & Chris Handley-S&ME Section, Township, Range:

Landform (hillslope, terrace, etc.): Base of hillslope Local relief (concave, convex, none): concave Slope (%): <2%

Subregion (LRR or MLRA): LRR-P Lat: 34.2180 Long: -80.5860 Datum: NAD83

Soil Map Unit Name: Persanti Sandy Loam (PsA) NWI classification: N/A

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:
Data point taken within Wetland B on the southwestern side.

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 along 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)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [✔] FAC-Neutral Test (D5)
- [ ] Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes [✔]	No [ ]	Depth (inches): 1"		
Water Table Present?	Yes [✔]	No [ ]	Depth (inches): 0"		
Saturation Present? (includes capillary fringe)	Yes [✔]	No [ ]	Depth (inches): 0"	**Wetland Hydrology Present?**	Yes [✔] No [ ]

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

Remarks:
Wetland hydrology was observed.

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

Sampling Point: Wet B

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling Stratum (Plot size: 30-ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Shrub Stratum (Plot size: 30-ft radius)			
1. Pinus taeda	5	Y	FAC
2.			
3.			
4.			
5.			
6.			
	5 = Total Cover		

50% of total cover: 2.5 20% of total cover: 1

Herb Stratum (Plot size: 30-ft radius)			
1. Scirpus cyperinus	10	Y	OBL
2. Juncus biflorus	5	Y	FAC
3. Cyperus strigosus	5	Y	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		

50% of total cover: 10 20% of total cover: 4

Woody Vine Stratum (Plot size: 30-ft radius)			
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: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes [x] No [ ]

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

Hydrophytic vegetation was observed.

SOIL

Sampling Point: Wet B

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
1-6"	10YR 4/2	80	10YR 5/8	20	C	M	L	
6-20"	10YR 5/2	50	10YR 5/8	50	C	M	LC	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

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

- ☐ 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[3]:

- ☐ 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)

[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 ☐

Remarks: Hydric soils were observed.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Steeplechase IP Site City/County: Camden/Kershaw Sampling Date: 4-25-14

Applicant/Owner: Kershaw County State: SC Sampling Point: Up B

Investigator(s): Chris Daves & Chris Handley-S&ME Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): <2%

Subregion (LRR or MLRA): LRR-P Lat: 34.2180 Long: -80.5860 Datum: NAD83

Soil Map Unit Name: Persanti Sandy Loam (PsA) NWI classification: U42P

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:
Data point taken in upland adjacent to Wetland B on the southwestern side.

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 along 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)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] FAC-Neutral Test (D5)
- [ ] Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes [ ]	No [✔]	Depth (inches): _____
Water Table Present?	Yes [ ]	No [✔]	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes [ ]	No [✔]	Depth (inches): _____

Wetland Hydrology Present? Yes [ ] No [✔]

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

Remarks:
Wetland hydrology was not observed.

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

Sampling Point: Up B

Tree Stratum (Plot size: 30-ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling Stratum (Plot size: 30-ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Shrub Stratum (Plot size: 30-ft radius)			
1. Pinus taeda	10	Y	FAC
2.			
3.			
4.			
5.			
6.			
	10 = Total Cover		

50% of total cover: 5 20% of total cover: 2

Herb Stratum (Plot size: 30-ft radius)			
1. Andropogon virginicus	5	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5 = Total Cover		

50% of total cover: 2.5 20% of total cover: 1

Woody Vine Stratum (Plot size: 30-ft radius)			
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: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes [x] No [ ]

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

Hydrophytic vegetation was observed.

SOIL

Sampling Point: Up B

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
1-3"	10YR 4/2	100					SL	
3-20"	10YR 5/3	70	10YR 5/8	30	C	M	LC	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

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

- ☐ 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[3]:

- ☐ 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)

[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 ☑

Remarks: Hydric soils were not observed.

Appendix C

Previous USACE JD Letter SAC 2001-34608-5JK, dated May 29, 2009

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

REPLY TO
ATTENTION OF

May 29, 2009

Regulatory Division

Allen W. Conger
MACTEC Engineering and Consulting, Inc.
720 Gracern Road, Suite 132
Columbia, South Carolina 29210

SUBJECT: SAC-2001-34608-5JK, Kershaw County

Dear Mr. Conger:

This is in response to your letter of September 5, 2008, requesting a wetland determination, on behalf of Mr. Nelson Lindsay, Kershaw County Economic Development, for a 458 acre tract located south of and adjoining to Black River Road, S-28-12, north of Interstate 20, and east of U.S. Highway 521, Kershaw County, South Carolina. The project area is depicted on the survey plat you submitted which was prepared by J. Henry Walker, III, S.C. P.L.S. No. 14532, dated May 29, 1996, and entitled "Wetland Survey Prepared for Kershaw County of Wetlands on Gravel Hill Site".

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 108.063 acres of federally defined jurisdictional freshwater wetlands or other waters of the United States subject to the jurisdiction of this office. The location and configuration of these areas are reflected on the plat referenced above.

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. Enclosed is a form describing the basis of jurisdiction for the areas in question. You should also be aware that these areas may be subject to restrictions or requirements of other state or local governmental entities.

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-2001-34608-5JK. 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, Bureau of Water. A copy of this letter is being forwarded to them for their information.

If you have any questions concerning this matter, please contact Leslie L. Parker at 803-253-3444.

Respectfully,

for Brice McKoy
Chief, Northwest Branch

Enclosures:

Basis for Jurisdiction
Notification of Appeal Options

Copy Furnished:

Mr. Chuck Hightower
South Carolina Department of
Health and Environmental Control
Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201