## 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	:		
County:	Total Acreage of Tr	act:	Date:
Property Owner :		Agent:	
Address:		Address:	
Address:	.	Address:	
Phone:		Phone:	
Email:		Email:	
<ul> <li>property from a nearby n</li> <li>Copy of Survey Plat or T</li> <li>Additional information su</li> </ul>	expedite the wetland deline e first two following items mu (from County Map, USGS Q major intersection. Tax Map of Property. uch as soil survey sheet, aer sed use of property, status o ation for review and verificat	tation process, property owners accompany your request: uad Sheet, etc.), street address ial photograph, topographic of project, etc, may also be project ion by the Corps. Please references.	ers are encouraged to hire ess and directions to survey, conceptual site plan ovided but are not required.
	approximate-Approved	- Accurate-Preliminary	Approximate-Preliminary
Refer to the below definitions: <u>Preliminary</u> – Preliminary determinations wijurisdictional; therefore, a Preliminary can o <u>Approved</u> – Approved determinations will id	often be completed more quickly that	an an Approved jurisdictional determ	I will presume that they are nination.
jurisdictional status.			
Accurate: Verified location and extent of all or represented by a tax map (or by GPS po			Project boundary must be surveyed
Approximate: Verified location and extent represented by a tax map or GPS coordinate		ed <u>approximately</u> on a sketch. Proje	ect boundary may be surveyed or
IMPORTANT NOTE: Legible printed present property owner or have the employees or their agents to enter on the sign this form unless you are	specific authority of the ponto the property for on-sit	roperty owner to authorize te investigations if such is	Corps of Engineers deemed necessary.
PRINTED NAME of person signing the			
Signature of Property Owner or Auth	norized Agent:	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



April 21, 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

Governor's Hill Site – 210.46 acres

SAC 81-2003-0319(K)

Camden, Kershaw County, South Carolina

S&ME Project No. 4261-14-035

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 210.46-acre site is located at 674 Mt. Olivet Road near Camden, Kershaw County, South Carolina. The site consists of a portion of one Kershaw County tax parcel number (301-00-00-002), owned by Kershaw County. The site consists primarily of forestland. 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 September 30, 2005 in response to a letter submitted on behalf of the Kershaw County Economic Development Office. The JD letter (SAC 81-2003-0319 (K)) approximated 20.90 acres of jurisdictional Waters of the U.S. (WOUS). Please refer to Appendix C for the 2005 JD letter.

#### WETLAND DELINEATION

On March 19 and April 3, 4, and 16, 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);
- Six (6) jurisdictional linear features including, five (5) Perennial Relatively Permanent Waters (PRPW-1-5) and one (1) Seasonal Relatively Permanent Water (SRPW-6); and
- Five (5) non-jurisdictional linear conveyances (NJLC-1-5).

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	Forested wetland located on the central portion of the site; abuts PRPW-2 and PRPW-3.	3.336 ac
Wetland B	2	Forested wetland located on the southern portion of the site; abuts PRPW-4 and SRPW-6.	12.177 ac
		Total Approximate Acreage	15.513 ac

Table 2 – Jurisdictional Linear Features

ID	Photo ID	Comments	Approximate Acreage/Linear Footage
PRPW-1	3	Perennial, jurisdictional tributary flowing on the northeastern portion of the site.	0.030 ac/432 lf
PRPW-2	4	Perennial, jurisdictional tributary flowing on the western portion of the site.	0.072 ac/1,047 lf
PRPW-3	5	Perennial, jurisdictional tributary flowing on the western portion of the site; Wetland A abuts.	0.030 ac/437 lf
PRPW-4	6-7	Perennial, jurisdictional tributary flowing on the southern portion of the site; Wetland B abuts.	0.219 ac/1,906 lf
PRPW-5	8	Perennial, jurisdictional tributary flowing on the southwestern portion of the site.	0.015 ac/131 lf
SRPW-6	9	Seasonal, jurisdictional tributary flowing on the southern portion of the site. Flows through a portion of Wetland B.	0.030 ac/649 lf
		Total Approximate Acreage/Linear Footage	0.396 ac/4,602 lf

PRPW = Perennial Relatively Permanent Water

SRPW = Seasonal Relatively Permanent Water

#### **NON-JURISDICTIONAL LINEAR FEATURES**

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	10	NJLC located on the northern portion of the site.	0.159 ac/2,303 lf
NJLC-2	11	NJLC located on the northern portion of the site.	0.093 ac/1,015 lf
NJLC-3	12	NJLC located on the northern portion of the site.	0.008 ac/332 lf
NJLC-4	13	NJLC located on the southern portion of the site.  0.005 ac/11	
		Total Approximate Acreage/Linear Footage	0.265 ac/3,769 lf

*NJLC* = *Non-Jurisdictional Linear Conveyance* 

In summary, the site contains approximately 15.91 acres of jurisdictional Waters of the U.S.

### **UPLANDS**

Upland areas (Photographs 14-16) on the site consist of pine-mixed hardwoods, mixed-hardwoods, and planted pine. These portions of the site consist primarily of non-hydric soil series such as Ailey, Alpin, Pelion, 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 81-2003-0319(K), dated September 30, 2005

### **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

Chris Hundley

**Biologist** 

Chris Daves, P.W.S.

Chris Daves

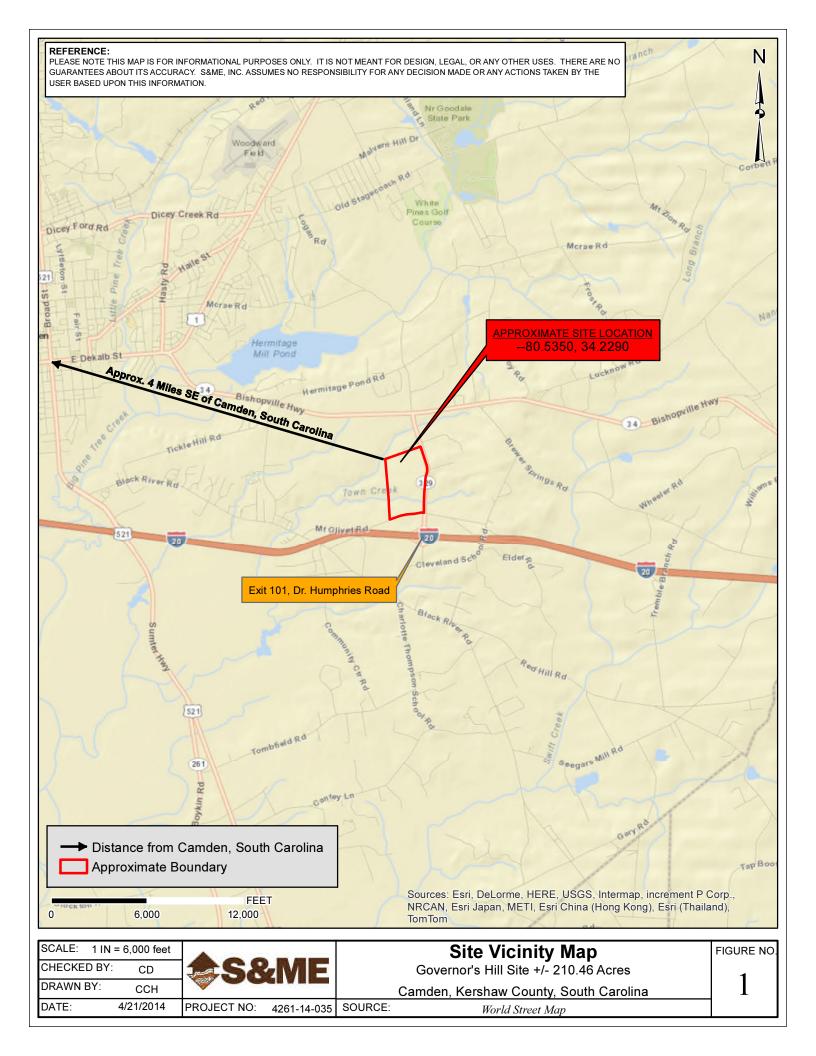
Biologist

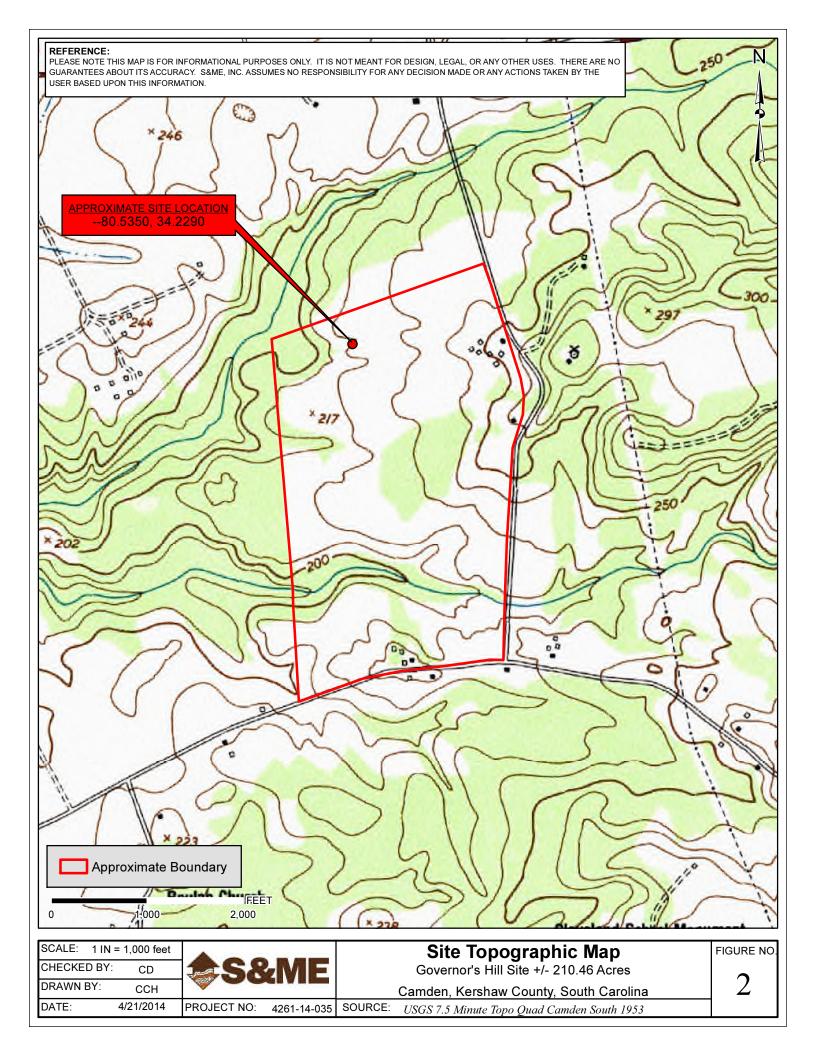
Senior Reviewed by Tom Behnke, P.G. – Environmental Location Coordinator

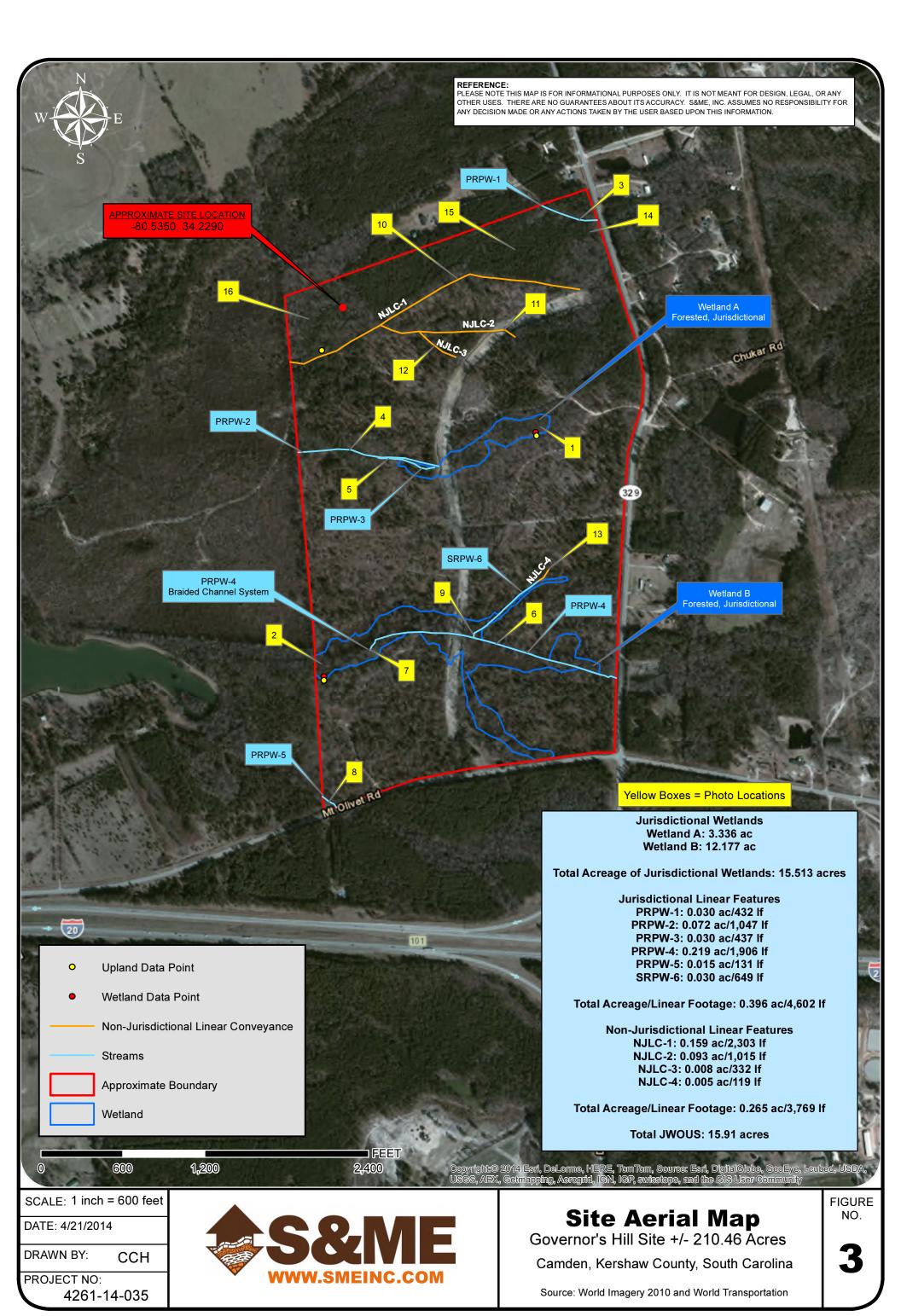
S:\ENVIRON\1 6 1 4 - 014 (2420) JOBS\4261-14-035\ Governor's Hill Site\ JD Request Submittal

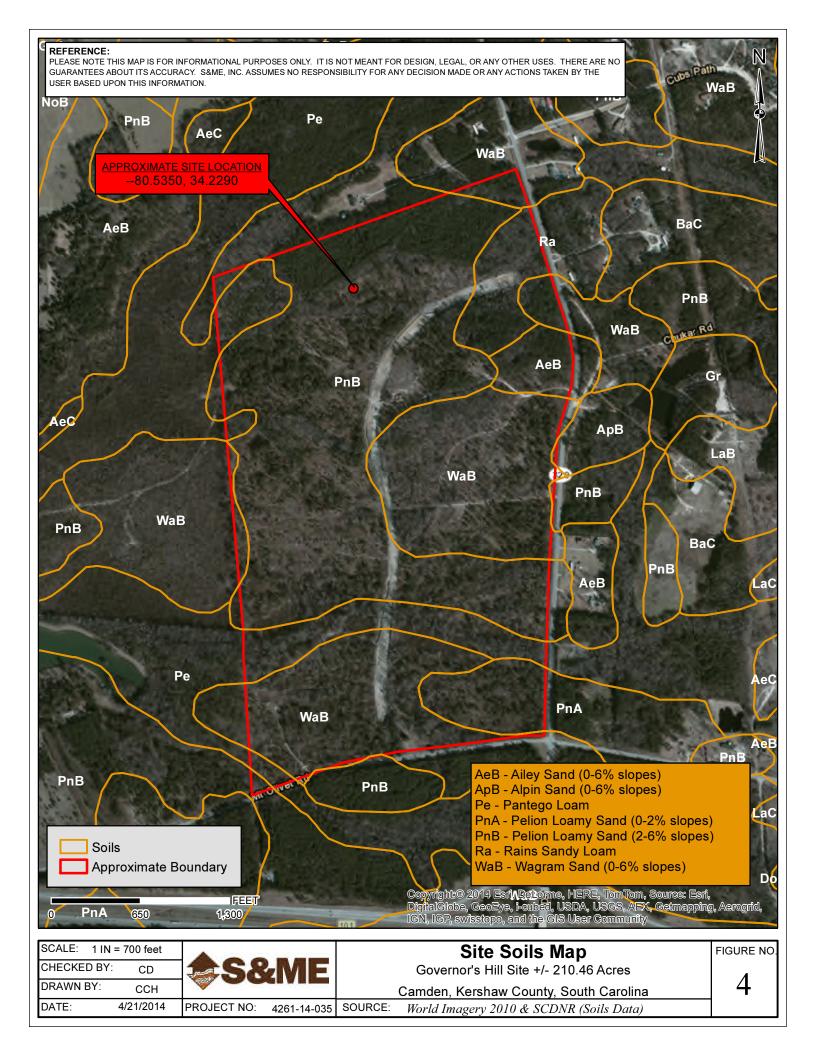
# Appendix A

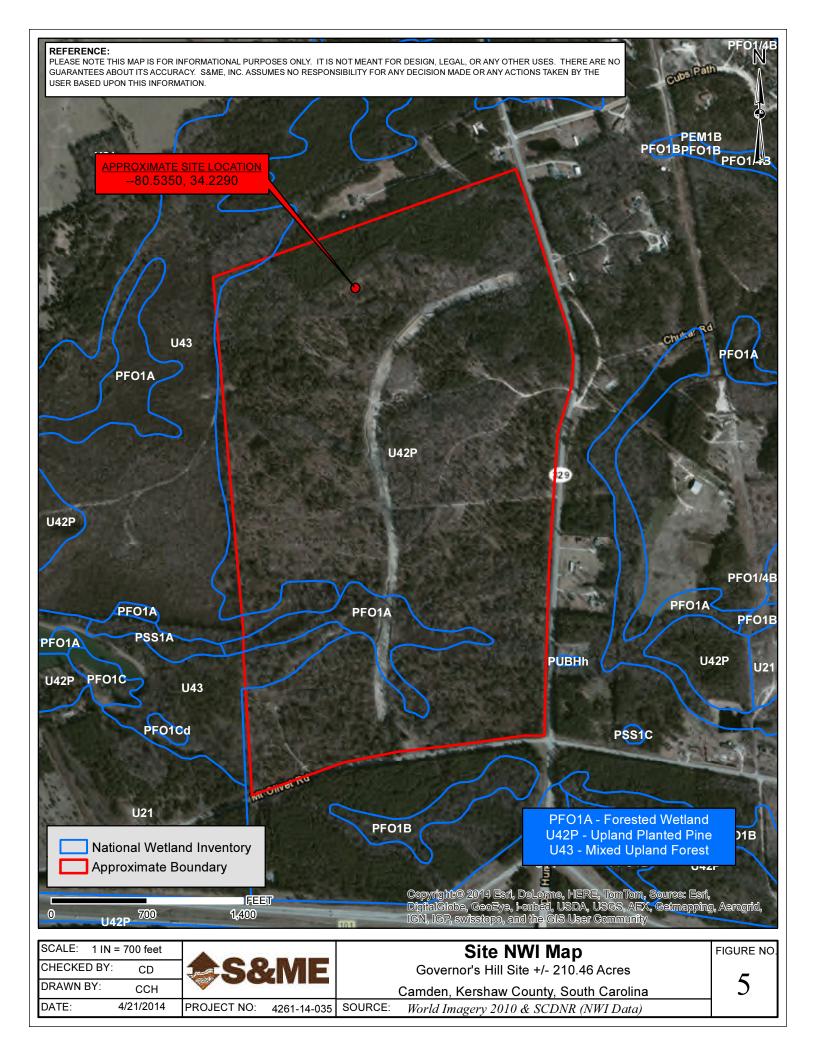
Vicinity Map
Topographic Map
Aerial Map
Soils Map
NWI Map
Site Photographs











# Appendix B

Wetland/Upland Datasheets

# WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Governor's Hill Site	City/County: Can	nden/Kershaw	_ Sampling Date: <u>3-19-14</u>
Applicant/Owner: Kershaw County		State: SC	Sampling Point: Wet A
Investigator(s): Chris Daves & Chris Handley-S&ME	Section, Township	o, Range:	
Landform (hillslope, terrace, etc.): Base of Hillslope	Local relief (conca	ve, convex, none): concav	e Slope (%): <2%
Subregion (LRR or MLRA): LRR-P Lat: 34.2		Long: -80.5320	Datum: NAD83
Soil Map Unit Name: Wagram Sand (WaB)			cation: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	rear? Yes	No (If no, explain in F	
		Are "Normal Circumstances"	
		(If needed, explain any answe	
· , ,, ,,			
SUMMARY OF FINDINGS – Attach site map showing	g sampling poi	nt locations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes No	]  ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	and and America	
Hydric Soil Present? Yes ✔ No	Is the Sam		∕ No □
Wetland Hydrology Present? Yes No	within a W	etiand? Yes	No
Remarks:			
Data point taken within Wetland A on the southeaster	n side.		
HYDROLOGY			
Wetland Hydrology Indicators:			ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)			Cracks (B6)
Surface Water (A1)  Aquatic Fauna (B1)  Mad Danasita (B1)			egetated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B1  Saturation (A3)  Hydrogen Sulfide		Moss Trim L	atterns (B10)
	heres along Living F	=	Water Table (C2)
Sediment Deposits (B2)  Presence of Redu		Crayfish Bu	` ,
	ction in Tilled Soils (		/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	Geomorphic	Position (D2)
Iron Deposits (B5) Other (Explain in I	Remarks)	Shallow Aqu	uitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	, ,
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)
Field Observations:	- > -		
Curiace Water Frescht: Tes No Beptir (inches			
Water Table Present?  Saturation Present?  Yes No Depth (inchest)  Yes No Depth (inchest)		Wetland Hydrology Prese	nt? Yes 🗸 No
(includes capillary fringe)	s). <u> </u>	welland hydrology Prese	ntr res No
Describe Recorded Data (stream gauge, monitoring well, aerial photos	tos, previous inspec	tions), if available:	
Remarks: Wetland hydrology was observed.			
Wettarid flydrology was observed.			

VEGETATION (	(Five Strata)	– Use	scientific	names	of plants
VECEIA IIOII I	li ive Oliala,	- OSC	SOICHILIIC	Halles	OI PIGITIS

/EGETATION (Five Strata) – Use scientific nar	nes of pla	ants.		Sampling Point: Wet A
		Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30-ft radius</u> )  1 Liquidambar styraciflua	<u>% Cover</u> 15	Species?	Status FAC	Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
0				That Are OBL, FACW, or FAC.
2. Quercus nigra			FAC_	Total Number of Dominant
3. Pinus taeda	<u>15</u>	<u>Y</u>	<u>FAC</u>	Species Across All Strata: 10 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A/B)
6				
	45	= Total Cov	/er	Prevalence Index worksheet:
50% of total cover: 22.5	20% of	total cover	9	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30-ft radius )				OBL species x 1 =
1. Acer rubrum	10	Υ	FAC	FACW species x 2 =
Ouercus nigra	10	$\overline{Y}$	FAC	FAC species x 3 =
			<u>FAC</u>	FACU species x 4 =
3				UPL species x 5 =
4				
5				Column Totals: (A) (B)
6.				Dravalance Index - D/A -
		= Total Co		Prevalence Index = B/A =
500/ -54-4-1 10			4	Hydrophytic Vegetation Indicators:
50% of total cover: 10	20% 01	ftotal cover	: —	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30-ft radius	_	V	EAC	2 - Dominance Test is >50%
1. Acer rubrum	5	<u>Y</u>	FAC	3 - Prevalence Index is ≤3.0 <sup>1</sup>
2. Quercus nigra	5	<u>Y</u>	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3				Troblematic Hydrophytic regetation (Explain)
4.				1
				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				<u> </u>
6				Definitions of Five Vegetation Strata:
	10	= Total Cov	/er	Tree – Woody plants, excluding woody vines,
50% of total cover: <u>5</u>	20% of	ftotal cover	: 2	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30-ft radius )				(7.6 cm) or larger in diameter at breast height (DBH).
1 Gelsemium sempervirens	5	Υ	FAC	Sapling – Woody plants, excluding woody vines,
•				approximately 20 ft (6 m) or more in height and less
				than 3 in. (7.6 cm) DBH.
3				
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately 5 to 20 it (1 to 6 iii) iii neight.
6				Herb - All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
^				3 it (1 iii) iii neight.
				Woody vine - All woody vines, regardless of height.
10				
11				
	5	= Total Cov	/er	
50% of total cover: <u>2.5</u>	20% of	ftotal cover	: <u>1                                    </u>	
Woody Vine Stratum (Plot size: 30-ft radius)				
1. Vitis rotundifolia	5	Υ	FAC	
2 Smilax rotundifolia	5	<del></del>	FAC	
-·- <u></u>	<del>-</del>	<del></del>	<del></del>	
3				
4				
5				Hydrophytic
	10	= Total Co	 /er	Vegetation
50% of total cover: 5		f total cover	_	Present? Yes No No
		total cover	· <u> </u>	
Remarks: (If observed, list morphological adaptations below	w).			
Hydrophytic vegetation was observed.				

Sampling Point: Wet A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	<u>Matrix</u>			<u>Feature</u>		<del> </del>		
(inches)	Color (moist)	400	Color (moist)	%	_Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
1-6"	10YR 3/2	100	10VD F/0				LS	
6-20"	10YR 4/2	95	10YR 5/8	5	<u>C</u>	<u>M</u>	<u>L</u>	
17			Deduced Metric MC				21 +:	Di Bara Linia At Matria
	·		Reduced Matrix, MS			ains.		PL=Pore Lining, M=Matrix.  for Problematic Hydric Soils <sup>3</sup> :
Histosol		able to all	Polyvalue Bel		-	PPCTI		luck (A9) (LRR O)
_	ipedon (A2)		Thin Dark Sui					luck (A10) (LRR S)
Black His			Loamy Mucky				I f	ed Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gleye		(F2)			ont Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		Depleted Mat	` '				lous Bright Loamy Soils (F20)
1 1 -	Bodies (A6) <b>(LRR P</b> cky Mineral (A7) <b>(LI</b>		Redox Dark S Depleted Dark		,			RA 153B) arent Material (TF2)
	esence (A8) (LRR U		Redox Depre				1 1	hallow Dark Surface (TF12)
T	ck (A9) (LRR P, T)	,	Marl (F10) (LI	•	-,			Explain in Remarks)
	l Below Dark Surfac	e (A11)	Depleted Och	ric (F11)	(MLRA 1	51)		
	rk Surface (A12)		Iron-Mangane				•	ators of hydrophytic vegetation and
	airie Redox (A16) (I				•	', U)		and hydrology must be present,
	lucky Mineral (S1) (I leyed Matrix (S4)	-KK O, S)	Delta Ochric ( Reduced Verl			OA 150B)		ess disturbed or problematic.
_	edox (S5)		Piedmont Flo		•		•	
Stripped	Matrix (S6)						RA 149A, 153C,	153D)
	face (S7) (LRR P, \$							
_	.ayer (if observed):							
Type:	.l \ .		<del></del>				11	P
Depth (inc	•		<del></del>				Hydric Soil	Present? Yes No No
Remarks: H	ydric soils were	observe	d.					

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Governor's Hill Site	_ City/County: Camden/Kersha	3-19-14 Sampling Date: 3-19-14
Applicant/Owner: Kershaw County	Star	te: SC Sampling Point: Up A
Investigator(s): Chris Daves & Chris Handley-S&ME	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Hillslope	_ Local relief (concave, convex, non	ne): concave Slope (%): <2%
Subregion (LRR or MLRA): LRR-P Lat: 34.2	2270 Long: <u>-</u> 80.	
Soil Map Unit Name: Wagram Sand (WaB)		NWI classification: U42P
Are climatic / hydrologic conditions on the site typical for this time of	vear? Yes V No (If n	no, explain in Remarks.)
		rcumstances" present? Yes V No
		lain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing		
Hydrophytic Vegetation Present?		
Hydrophytic Vegetation Present?  Hydric Soil Present?  Yes  No  No	Is the Sampled Area	
Wetland Hydrology Present?	within a Wetland?	Yes No 🗸
Remarks:		
Data point taken in upland adjacent to Wetland A on	the hillslope.	
HYDROLOGY		
Wetland Hydrology Indicators:	<u>Se</u>	condary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	·)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (E	· ·	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B		Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide	` ′	Moss Trim Lines (B16)
	oheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)  Presence of Red  Presence of Red  Recent Iron Redu	uction in Tilled Soils (C6)	Crayfish Burrows (C8) ☐Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Thin Muck Surface		Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	, <u>–</u>	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	<del>-</del>	Sphagnum moss (D8) (LRR T, U)
Field Observations:		_
Surface Water Present? Yes No Depth (inche		
Water Table Present? Yes No Depth (inche		
Saturation Present? Yes No Depth (inche (includes capillary fringe)	es): Wetland Hyde	rology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pho	l otos, previous inspections), if availab	ole:
Remarks:		
Wetland hydrology was not observed.		

20 # == -1:	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30-ft radius		Species?		Number of Dominant Species That Are ORL FACIAL or FAC: 3
1. Quercus falcata	10	<u>Y</u>	FACU	That Are OBL, FACW, or FAC: 3 (A)
2. Liquidambar styraciflua	10		<u>FAC</u>	Total Number of Dominant
3. Quercus stellata	<u>10</u>	<u>Y</u>	<u>UPL</u>	Species Across All Strata: 11 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 27% (A/B)
6				
	30	= Total Cov	/er	Prevalence Index worksheet:
50% of total cover: <u>15</u>	20% o	f total cover	6	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30-ft radius )				OBL species x 1 =
1. Quercus stellata	10	Υ	UPL	FACW species x 2 =
2. Quercus falcata	10	Y	FACU	FAC species x 3 =
3. Carya tomentosa				FACU species x 4 =
4.			<u> ULL</u>	UPL species x 5 =
				Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
15		= Total Co	_	Hydrophytic Vegetation Indicators:
50% of total cover: <u>15</u>	20% o	f total cover	: 0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30-ft radius	10	V	LIDI	2 - Dominance Test is >50%
1. Quercus marilandica	10	<u>Y</u>	UPL	3 - Prevalence Index is ≤3.0 <sup>1</sup>
2. Vaccinium arboreum	10	Y	FACU	Problematic Hydrophytic Vegetation (Explain)
3				
4				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
	20	= Total Cov	/er	To a 10/a advantanta avaluatia a vocado visa a
50% of total cover: 10	20% o	f total cover	4	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30-ft radius )				(7.6 cm) or larger in diameter at breast height (DBH).
1. Gelsemium sempervirens	5	Υ	FAC	Conline Made plants evaluding week vines
2 Pteridium aquilinum	5	${Y}$	FACU	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
				than 3 in. (7.6 cm) DBH.
3				Shrub – Woody plants, excluding woody vines,
4				approximately 3 to 20 ft (1 to 6 m) in height.
5				
6				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
7				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine - All woody vines, regardless of height.
10				troody time y in troody times, regularises of meight
11				
	10	= Total Co	/er	
50% of total cover: <u>5</u>	20% o	f total cover	: 2	
Woody Vine Stratum (Plot size: 30-ft radius)				
1. Vitis rotundifolia	5	Υ	FAC	
2				
3.		-		
4.				
5	5			Hydrophytic
25		= Total Cov		Vegetation
50% of total cover: 2.5		f total cover	: <u></u>	
Remarks: (If observed, list morphological adaptations belo	ow).			
Hydrophytic vegetation was not observed.				

Sampling Point: Up A

Profile Desc	ription: (Describe	to the depti	n needed to docum	nent the indi	cator or co	onfirm	the absence of	of indicators.)
Depth	<u>Matrix</u>			K Features	1 .	<del></del>	<b>-</b> .	5
(inches)	Color (moist)		Color (moist)	<u> </u>	ype <sup>1</sup> Lo	oc <sup>2</sup>	Texture	Remarks
1-5"	10YR 3/3	_ 100					<u>S</u>	
5-20"	10YR 6/4	_ <u>100</u> _					<u>s</u>	
								_
1= 0 0			De deservat Marketon Mac				21 4:	DI Dana Lining M. Matrica
	oncentration, D=De Indicators: (Applie							PL=Pore Lining, M=Matrix.  for Problematic Hydric Soils <sup>3</sup> :
Histosol		able to all L	Polyvalue Be	-		S T 11		uck (A9) (LRR O)
_	oipedon (A2)		Thin Dark Su					uck (A10) (LRR S)
Black Hi			Loamy Mucky			,	I f	ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gleye					nt Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Mat					ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR I		Redox Dark S	` '				A 153B)
	icky Mineral (A7) <b>(L</b> esence (A8) <b>(LRR I</b>		Depleted Dar		()			rent Material (TF2) nallow Dark Surface (TF12)
17 1	ick (A9) (LRR P, T)	J)	Marl (F10) (L					Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Och	•	.RA 151)			
Thick Da	ark Surface (A12)		Iron-Mangane	ese Masses (	F12) <b>(LRR</b>	O, P,	T) <sup>3</sup> Indica	ators of hydrophytic vegetation and
	rairie Redox (A16) (							and hydrology must be present,
	Mucky Mineral (S1) (	LRR O, S)	Delta Ochric			IEOD)	unle	ss disturbed or problematic.
	Gleyed Matrix (S4) Ledox (S5)		Piedmont Flo		•	•	9Δ)	
1 9 1	Matrix (S6)						4 149A, 153C,	153D)
	rface (S7) (LRR P,	S, T, U)			, ,		, ,	,
Restrictive	Layer (if observed)	):						
			_					
Depth (in							Hydric Soil I	Present? Yes No
Remarks: H	ydric soils were	not obser	ved.					
İ								

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Governor's Hill Site	_ City/County: Camden/I	Kershaw	Sampling Date: 4-16-14
Applicant/Owner: Kershaw County		State: SC	Sampling Point: Wet B
Investigator(s): Chris Daves & Chris Handley-S&ME	_ Section, Township, Range	je:	
Landform (hillslope, terrace, etc.): Base of Hillslope	Local relief (concave, con	nvex, none): concave	Slope (%): <2%
Subregion (LRR or MLRA): LRR-P Lat: 34.2		<sub>ng:</sub> <u>-80.5370</u>	Datum: NAD83
Soil Map Unit Name: Pantego Loam (Pe)		NWI classifica	
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes ✓ No	(If no, explain in Re	
		ormal Circumstances" pr	
		ded, explain any answer	<u> </u>
SUMMARY OF FINDINGS – Attach site map showin	,		,
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wes  No  Wetland Hydrology Present?  Yes  No  No	Is the Sampled All		No
Remarks:  Data point taken within Wetland B on the southweste	rn side.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply		Surface Soil 0	, ,
Surface Water (A1) Aquatic Fauna (B	,		etated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B:  ✓ Saturation (A3)  Hydrogen Sulfide		Drainage Patt  Moss Trim Lir	, ,
	heres along Living Roots (C	=	Vater Table (C2)
Sediment Deposits (B2)  Presence of Red	,	Crayfish Burro	` ,
	uction in Tilled Soils (C6)	<u> </u>	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	, ,	Geomorphic F	
Iron Deposits (B5) Other (Explain in	Remarks)	Shallow Aquit	ard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	Test (D5)
Water-Stained Leaves (B9)		Sphagnum m	oss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes No Depth (inche			
Water Table Present? Yes No Depth (inche			
Saturation Present? Yes V No Depth (inche (includes capillary fringe)	es): O Wetla	and Hydrology Present	? Yes V No No
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), i	if available:	
Remarks: Wetland hydrology was observed.			
Wettaria Hydrology was observed.			

VEGETATION (	(Five Strata)	– Use	scientific	names	of plants
VECEIA IIOII I	li ive Oliala,	- OSC	SOICHILIIC	Halles	OI PIGITIS

<b>/EGETATION (Five Strata)</b> – Use scientific na	mes of pla	ants.		Sampling Point: Wet B		
		Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30-ft radius		Species?		Number of Dominant Species		
<sub>1.</sub> Liquidambar styraciflua	35	<u>Y</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: 11 (A)		
2. Acer rubrum	<u>35</u>	<u>Y</u>	<u>FAC</u>	Total Number of Dominant		
3				Species Across All Strata: 12 (B)		
4						
5.				Percent of Dominant Species That Are OBL, FACW, or FAC: 92% (A/B)		
6.						
	70	= Total Cov		Prevalence Index worksheet:		
50% of total cover: <u>35</u>	20% of			Total % Cover of: Multiply by:		
Sapling Stratum (Plot size: 30-ft radius	20 70 01	total cover		OBL species x 1 =		
1. Liquidambar styraciflua	10	Υ	FAC	FACW species x 2 =		
2 Acer rubrum				FAC species x 3 =		
<b>-</b> '	_ 10	<u>Y</u>	FAC_	FACU species x 4 =		
				UPL species x 5 =		
4				Column Totals: (A) (B)		
5				Column Totals(A)(B)		
6				Prevalence Index = B/A =		
	20	= Total Cov	/er	Hydrophytic Vegetation Indicators:		
50% of total cover: 10	20% of	total cover	4	1 - Rapid Test for Hydrophytic Vegetation		
Shrub Stratum (Plot size: 30-ft radius				2 - Dominance Test is >50%		
1. Acer rubrum	5	Υ	FAC	1 <del></del>		
- Ouerous piero		$\overline{Y}$	FAC	3 - Prevalence Index is ≤3.0 <sup>1</sup>		
-		<u> </u>		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
3						
4				<sup>1</sup> Indicators of hydric soil and wetland hydrology must		
5				be present, unless disturbed or problematic.		
6				Definitions of Five Vegetation Strata:		
	<u>10</u>	= Total Cov	/er	Tree – Woody plants, excluding woody vines,		
50% of total cover: <u>5</u>	20% of	total cover	: 2	approximately 20 ft (6 m) or more in height and 3 in.		
Herb Stratum (Plot size: 30-ft radius )				(7.6 cm) or larger in diameter at breast height (DBH).		
1.Woodwardia areolata	5	Υ	OBL	Sapling – Woody plants, excluding woody vines,		
2 Lonicera japonica	5	<u>Y</u>	FAC	approximately 20 ft (6 m) or more in height and less		
3 Athyrium asplenioides	5	Y	FAC	than 3 in. (7.6 cm) DBH.		
4 Parthenocissus quinquefolia	5	Ÿ	FACU	Shrub – Woody plants, excluding woody vines,		
	<del>-                                    </del>	<del>'</del>	17.00	approximately 3 to 20 ft (1 to 6 m) in height.		
5						
6				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody		
7				plants, except woody vines, less than approximately		
8				3 ft (1 m) in height.		
9				Woody vine – All woody vines, regardless of height.		
10				woody ville – All woody villes, regardless of fleight.		
11						
	20	= Total Cov	/er			
50% of total cover: <u>10</u>		total cover				
Woody Vine Stratum (Plot size: 30-ft radius)	20 70 01	10101 00701				
1. Lonicera japonica	5	Υ	FAC			
2 Smilax rotundifolia	- 5	<u>Y</u>	FAC			
<u></u>	- —	<u>'</u>				
3						
4						
5				Hydrophytic		
	10	= Total Cov	/er	Vegetation		
50% of total cover: 5 20% of total cover: 2				Present? Yes No No		
Remarks: (If observed, list morphological adaptations bel						
rtemarks. (II observed, list morphological adaptations ber	Ow).					
Hydrophytic vegetation was observed.						

Sampling Point: Wet B

Profile Desc	ription: (Describe	to the dept	h needed to docur	ment the	indicator	or confirm	n the absence o	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
1-4"	10YR 4/2	<u>100</u> .					LS .	
4-20"	10YR 4/1	98	10YR 5/8	2	С	M	LC	
				-				
				-				
					-			
								_
								_
1Typo: C=C	oncentration, D=Dep	 Notion DM-	Poduced Metrix M	S-Maaka	d Sand C	roine	2l continu	PL=Pore Lining, M=Matrix.
	ndicators: (Applic					iaiiis.		for Problematic Hydric Soils <sup>3</sup> :
Histosol		abic to all i	Polyvalue Be			прреті		uck (A9) (LRR O)
_	oipedon (A2)		Thin Dark Su					uck (A10) (LRR S)
Black Hi			Loamy Muck				I F	d Vertic (F18) (outside MLRA 150A,B)
1	n Sulfide (A4)		Loamy Gleye			,		nt Floodplain Soils (F19) (LRR P, S, T)
	I Layers (A5)		Depleted Ma		/			ous Bright Loamy Soils (F20)
ır	Bodies (A6) (LRR F	P. T. U)	Redox Dark		<del>-</del> 6)			A 153B)
	cky Mineral (A7) (L		Depleted Da	•	*			rent Material (TF2)
	esence (A8) (LRR l		Redox Depre	essions (F	8)		1 1	nallow Dark Surface (TF12)
1 cm Mu	ck (A9) (LRR P, T)		Marl (F10) <b>(L</b>	.RR U)			Other (E	Explain in Remarks)
Deplete:	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
Thick Da	ark Surface (A12)		Iron-Mangan	ese Mass	es (F12)	(LRR O, P,	•	tors of hydrophytic vegetation and
	airie Redox (A16) (			, ,				and hydrology must be present,
	lucky Mineral (S1) (	LRR O, S)	Delta Ochric					ss disturbed or problematic.
	Sleyed Matrix (S4)		Reduced Ver					
1 9 1	edox (S5)		Piedmont Flo					450P)
	Matrix (S6)	O T 11)	Anomalous E	Bright Loai	my Soils	(F20) (IVILE	RA 149A, 153C,	153D)
	rface (S7) (LRR P, s _ayer (if observed)						1	
		•						
							1	🗸
Depth (in	<u> </u>						Hydric Soil F	Present? Yes V No No
Remarks: H	ydric soils were	observed	d.					

# WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Governor's Hill Site	City/County: Cam	nden/Kershaw	Sampling Date: <u>4-16-14</u>
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 (concav	ve, convex, none): concave	9 Slope (%): <2%
Subregion (LRR or MLRA): LRR-P Lat: 34.2		Long: -80.5370	Datum: NAD83
Soil Map Unit Name: Pantego Loam (Pe)			cation: U43
Are climatic / hydrologic conditions on the site typical for this time of y	rear? Yes	lo (If no, explain in F	
		Are "Normal Circumstances"	
		If needed, explain any answe	
, , , , , , , , , , , , , , , , , , , ,	,		,
SUMMARY OF FINDINGS – Attach site map showin	g sampling poli	nt locations, transects	i, important features, etc.
Hydrophytic Vegetation Present? Yes V No	Is the Samp	nlad Araa	
Hydric Soil Present? Yes No	within a We		No 🗸
Wetland Hydrology Present? Yes No	]	- Tes	<u> </u>
Remarks:	- the hillelene		
Data point taken in upland adjacent to Wetland B on t	ne misiope.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	)		Cracks (B6)
Surface Water (A1) Aquatic Fauna (B			getated Concave Surface (B8)
High Water Table (A2)  Marl Deposits (B1		Drainage Pa	
Saturation (A3) Hydrogen Sulfide		Moss Trim L	
Water Marks (B1) Oxidized Rhizosp	heres along Living R	oots (C3) Dry-Season	Water Table (C2)
Sediment Deposits (B2)	, ,	Crayfish Bur	` '
	ction in Tilled Soils (		isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Thin Muck Surface  Other (Explain in	, ,		Position (D2)
Iron Deposits (B5) Other (Explain in Inundation Visible on Aerial Imagery (B7)	Remarks)	Shallow Aqu	, ,
Water-Stained Leaves (B9)			moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes No Depth (inche	s):		
Water Table Present? Yes No Pepth (inche	s):		
Saturation Present? Yes No Depth (inche	s):	Wetland Hydrology Preser	nt? Yes No 🔽
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspect	tions), if available:	
Joseph Tomas Canada Garage, memoring tren, asian pro-	тос, ртотошо торос.	,	
Remarks:			
Wetland hydrology was not observed.			

- 30-ft radius		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30-ft radius ) 1 Liquidambar styraciflua	<u>% Cover</u> 30	Species? Y	FAC	Number of Dominant Species That are ORL FACIAL or FACIA
a Acor rubrum				That Are OBL, FACW, or FAC:
3		<u>Y</u>		Total Number of Dominant Species Across All Strata: 9 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 89% (A/B)
6				Baselone Indonesia Indonesia
		= Total Co		Prevalence Index worksheet:
50% of total cover: <u>30</u>	20% o	f total cover	<u>: 12                                   </u>	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30-ft radius )				OBL species x 1 =
Liquidambar styraciflua	15		FAC	FACW species x 2 =
<sub>2.</sub> Acer rubrum	15	<u>Y</u>	<u>FAC</u>	FAC species x 3 =
3				FACU species x 4 =
4				UPL species x 5 =
5.				Column Totals: (A) (B)
6.				Provolence Index - P/A -
	30	= Total Co		Prevalence Index = B/A =
50% of total cover: 15			_	Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: 30-ft radius )	20700	i total cover		1 - Rapid Test for Hydrophytic Vegetation
1. Acer rubrum	10	Υ	FAC	2 - Dominance Test is >50%
				3 - Prevalence Index is ≤3.0 <sup>1</sup>
2.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3				
4				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
		= Total Co	_	Tree – Woody plants, excluding woody vines,
50% of total cover: <u>5</u>	20% o	f total cover	: 2	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30-ft radius )				(7.6 cm) or larger in diameter at breast height (DBH).
1. Lonicera japonica	5	<u>Y</u>	FAC	Sapling – Woody plants, excluding woody vines,
2. Asplenium platyneuron	5	<u>Y</u>	<u>FACU</u>	approximately 20 ft (6 m) or more in height and less
3				than 3 in. (7.6 cm) DBH.
4				Shrub – Woody plants, excluding woody vines,
5.				approximately 3 to 20 ft (1 to 6 m) in height.
6.				Herb – All herbaceous (non-woody) plants, including
7.				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately
9.				3 ft (1 m) in height.
	- ——			Woody vine - All woody vines, regardless of height.
10				
<b>1</b> 1	10	T-4-1-0		
5		= Total Co		
50% of total cover: <u>5</u>	20% o	f total cover	:	
Woody Vine Stratum (Plot size: 30-ft radius)	E	V	EAC.	
1. Vitis rotundifolia	- <del>5</del> 5	<u>Y</u>	FAC FAC	
2. Smilax rotundifolia		<u>Y</u>	FAC	
3	- ——			
4				
5				Hydrophytic
_	10	= Total Co	/er	Vegetation
50% of total cover: 5	20% o	f total cover	: 2	Present? Yes No No
Remarks: (If observed, list morphological adaptations beli	ow).			1
Hydrophytic vegetation was observed.				

SOIL Sampling Point: Up B

Profile Desc	ription: (Describe	to the depti	needed to docur	nent the indica	tor or confirr	m the absence of in	dicators.)
Depth	Matrix			x Features			
(inches)	Color (moist)		Color (moist)	. <u>%</u> <u>Typ</u>	e <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
1-3"	10YR 4/2	<u> 100</u> _					
3-20"	10YR 4/3	100				SL	
l ———							
¹Type: C=C	oncentration, D=De	nletion RM=I	Reduced Matrix MS	S=Masked Sand	Grains	<sup>2</sup> Location: PL=	Pore Lining, M=Matrix.
	Indicators: (Appli				Orallis.		Problematic Hydric Soils <sup>3</sup> :
Histosol				low Surface (S8	) (IRRS T		(A9) (LRR O)
_	pipedon (A2)			ırface (S9) <b>(LRR</b>			(A10) (LRR S)
	stic (A3)			y Mineral (F1) <b>(I</b>		I F	ertic (F18) (outside MLRA 150A,B)
1	n Sulfide (A4)		1 1	ed Matrix (F2)	0,		loodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma				Bright Loamy Soils (F20)
	Bodies (A6) (LRR	P, T, U)	Redox Dark	` '		(MLRA 1:	
11 -	ıcky Mineral (A7) <b>(L</b>			rk Surface (F7)			Material (TF2)
	esence (A8) (LRR		Redox Depre	, ,		1 1	w Dark Surface (TF12)
	ıck (A9) (LRR P, T)		Marl (F10) (L				ain in Remarks)
	d Below Dark Surfa		Depleted Ocl	hric (F11) <b>(MLR</b> .	A 151)		·
L Thick Da	ark Surface (A12)		Iron-Mangan	ese Masses (F1	2) <b>(LRR O, P</b>	, <b>T)</b> <sup>3</sup> Indicators	of hydrophytic vegetation and
Coast P	rairie Redox (A16)	MLRA 150A	Umbric Surfa	ice (F13) <b>(LRR</b> I	P, T, U)	wetland	hydrology must be present,
Sandy N	lucky Mineral (S1)	(LRR O, S)	Delta Ochric	(F17) (MLRA 15	51)	unless d	isturbed or problematic.
Sandy G	Gleyed Matrix (S4)		Reduced Ver	rtic (F18) <b>(MLR<i>A</i></b>	150A, 150B	5)	
14 1	Redox (S5)		_	oodplain Soils (F			
	Matrix (S6)		Anomalous E	Bright Loamy So	ils (F20) <b>(MLF</b>	RA 149A, 153C, 153	D)
	rface (S7) (LRR P,						
Restrictive	Layer (if observed	):					
Туре:							
Depth (in	ches):		<u></u>			Hydric Soil Pres	sent? Yes No
Remarks: H	lydric soils were	not obse	ved.			•	
	iyano oono word	7 1101 00001	vou.				
I							

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Governor's Hill Site	City/County: Camo	den/Kershaw	Sampling Date: 3-19-14			
Applicant/Owner: Kershaw County		State: SC	Sampling Point: DP-1			
Investigator(s): Chris Daves & Chris Handley-S&ME	Section, Township, Range:					
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave	e, convex, none): concave	Slope (%): <2%			
Subregion (LRR or MLRA): LRR-P Lat: 34			Datum: NAD83			
Soil Map Unit Name: Pelion Loamy Sand (PnB)		NWI classifica				
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes V No					
		re "Normal Circumstances" p				
		needed, explain any answer				
, , ,			,			
SUMMARY OF FINDINGS – Attach site map show	ing sampling poin	t locations, transects,	, important features, etc.			
Hydrophytic Vegetation Present? Yes V No	□   <b>.</b>	la d'Amar				
Hydric Soil Present? Yes No	Is the Sampl		No 🗸			
Wetland Hydrology Present?	within a Wet	land? Yes				
Remarks:						
Data point taken in upland area on northwestern po	rtion of the site.					
HADDOLOGA						
HYDROLOGY Wetland Hydrology Indicators:		Cacandani Indiani	tors (minimum of two required)			
Primary Indicators (minimum of one is required; check all that app	alv)	Surface Soil (				
Surface Water (A1)  Aquatic Fauna			letated Concave Surface (B8)			
High Water Table (A2)  Marl Deposits (	, ,	Drainage Pat				
✓ Saturation (A3) Hydrogen Sulfin		Moss Trim Lin	` ′			
	spheres along Living Ro	=	Water Table (C2)			
	educed Iron (C4)	Crayfish Burr	ows (C8)			
Drift Deposits (B3)	duction in Tilled Soils (C	Saturation Vis	sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Muck Surf	ace (C7)	Geomorphic I	Position (D2)			
Iron Deposits (B5) Other (Explain	in Remarks)	Shallow Aquit	` '			
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	` '			
Water-Stained Leaves (B9)		Sphagnum m	ioss (D8) (LRR T, U)			
Field Observations:  Surface Water Present?  Yes  No  Depth (inc	haa): 1"					
	hes):					
Water Table Present? Yes V No Depth (inc Saturation Present? Yes V No Depth (inc	hes): 2"	Wetland Hydrology Presen	t? Yes 🗸 No			
(includes capillary fringe)			tr res No			
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspection	ons), if available:				
Remarks:						
Wetland hydrology was observed.						
,						
I .						

<b>VEGETATION</b>	(Five Strata)	I – Lise	scientific	names	of plants
VECEIAIIOII	ii ive Oliala,	- OSC	SOICHILIIO	Harries	OI PIGITES.

/EGETATION (Five Strata) – Use scientific nar	nes of pla	ants.		Sampling Point: DP-1
20.6	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30-ft radius ) 1 Quercus nigra	<u>% Cover</u> 20	Species?	<u>Status</u> FAC	Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
2. Quercus phellos		$\overline{v}$		That Ale OBE, I ACW, OF I AC.
		<u> </u>	FACV	Total Number of Dominant
3				Species Across All Strata: 9 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 67% (A/B)
6				Prevalence Index worksheet:
		= Total Cov	_	
50% of total cover: 20	20% of	total cover	8	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30-ft radius				OBL species x 1 =
1. Quercus nigra	20	<u>Y</u>	FAC	FACW species x 2 =
2. Pinus taeda	10	Y	FAC	FAC species x 3 =
3. Juniperus virginiana	10	Y	FACIL	FACU species x 4 =
			17.00	UPL species x 5 =
				Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
	_	= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover: <u>20</u>	20% of	total cover	8	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30-ft radius )				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 <sup>1</sup>
2				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3.				Troblematic Hydrophytic Vegetation (Explain)
4.				1
				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				· · · · ·
6				Definitions of Five Vegetation Strata:
		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover:	20% of	total cover	:	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30-ft radius )	_		E40	(7.6 cm) or larger in diameter at breast height (DBH).
1. Gelsemium sempervirens	5		FAC	Sapling – Woody plants, excluding woody vines,
2. Juniperus virginiana	5		<u>FACU</u>	approximately 20 ft (6 m) or more in height and less
3. Asplenium platyneuron	5		FACU	than 3 in. (7.6 cm) DBH.
4				Shrub – Woody plants, excluding woody vines,
5.				approximately 3 to 20 ft (1 to 6 m) in height.
6.				Herb – All herbaceous (non-woody) plants, including
7.				herbaceous vines, regardless of size, and woody
				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine - All woody vines, regardless of height.
10				
11	45			
	<u>15</u>	= Total Cov	⁄er	
50% of total cover: <u>7.5</u>	20% of	total cover	: 3	
Woody Vine Stratum (Plot size: 30-ft radius)				
1. Vitis rotundifolia	5	Υ	FAC	
2.				
3				
4				
5				Hydrophytic
2.5		= Total Cov		Vegetation Present? Yes  No
50% of total cover: 2.5	20% of	total cover	: <u>1                                    </u>	Present? Yes V No
Remarks: (If observed, list morphological adaptations belo	w).			1
Hydrophytic vegetation was observed.				

SOIL								Sampling Point: DP-1
	cription: (Describe	to the dept	h needed to docui	ment the i	ndicator	or confirn	n the absence	<u> </u>
Depth	<u>Matrix</u>			x Feature		. 2	<b>-</b> .	5
(inches)	Color (moist)	<u>%</u>	Color (moist)		_Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
1-6"	10YR 4/3	_ 100					LS	
6-20"	10YR 5/4	_ <u>100</u>					LS	
	· -							
	<u> </u>							
	Concentration, D=De					ains.		PL=Pore Lining, M=Matrix.
_	Indicators: (Appli	cable to all l						for Problematic Hydric Soils <sup>3</sup> :
Histoso			Polyvalue Be					luck (A9) (LRR O)
_	pipedon (A2) listic (A3)		Thin Dark Su				1 1	luck (A10) <b>(LRR S)</b> ed Vertic (F18) <b>(outside MLRA 150A,B</b>
	en Sulfide (A4)		Loamy Gleye	-		. •,		ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma	trix (F3)			Anoma	lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR		Redox Dark	,	,			(A 153B)
	ucky Mineral (A7) <b>(L</b> resence (A8) <b>(LRR</b>		Depleted Da				1 1	arent Material (TF2) hallow Dark Surface (TF12)
	uck (A9) (LRR P, T)	•	Marl (F10) (L		0)			Explain in Remarks)
	d Below Dark Surfa		Depleted Oc	•	(MLRA 1	51)		
	ark Surface (A12)		Iron-Mangan					ators of hydrophytic vegetation and
_	Prairie Redox (A16)	•	· 🗀			, U)		and hydrology must be present,
	Mucky Mineral (S1) Gleyed Matrix (S4)	(LKK U, S)	Delta Ochric Reduced Ve	. , .	,	OA. 150B)		ess disturbed or problematic.
_	Redox (S5)		Piedmont Flo					
	d Matrix (S6)		Anomalous E	Bright Loar	my Soils (I	F20) <b>(MLF</b>	RA 149A, 153C,	153D)
	urface (S7) (LRR P,						_	
	Layer (if observed	):						
Type: Depth (ir	nches):		<u> </u>				Hydric Soil	Present? Yes No
Remarks:	Hydric soils were	not obse	rved.					
	-							

# **Appendix C**

Previous USACE JD Letter SAC 81-2003-0319(K), dated September 30, 2005



#### DEPARTMENT OF THE ARMY

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

September 30, 2005

Regulatory Division

Kenneth Smoak Sabine & Waters Post Office Box 1072 Summerville, South Carolina 29484

Re: SAC 81-2003-0319(K) Kershaw County

Dear Mr. Smoak:

This is in response to your letter of January 7, 2003, received March 3, 2003, requesting a wetland determination, on behalf of Kershaw County Economic Development Commission, for a 210.46 acre tract of land located north of Mount Olive Road and west of Dr. Humphries Road, near the City of Camden, Kershaw County, South Carolina. The project area is depicted on the survey plat you submitted on September 3, 2005, which was prepared by Kevin M. Blair, S.C. P.L.S. No. 16173, dated July 28, 2003, and entitled "Wetlands Delineation Survey of 210.46 Acres Surveyed for Kershaw County".

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 20.90 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 of March 20, 2003, 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 81-2003-0319(K). 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 me at 803-253-3444.

Respectfully,

Leslie L, Parker

Biologist

Enclosures: Basis for Jurisdiction

Notification of Appeal Options

Customer Service Survey

Copy Furnished:
Mr. Quinton Epps
South Carolina Department of
Health and Environmental Control
Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201