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: Airport Industrial Park

County: Sumter

Property Owner: Sumter County Economic Dev.

Address: (c/o Rebecca Murrell - Alliance CE)

Address: 303 East Liberty Street

Phone: Sumter, SC 29151

Email: (803) 436-2558

Date: 3-31-2010

Total Acreage of Tract:	268.20

Agent: S&ME, Inc. (c/o Chris Daves, P.W.S.)

Address: 134 Suber Road

Address: Columbia, SC 29210

Phone: (803) 561-9024

Email: cdaves@smeinc.com

Information Required to Accompany Request - Check the items submitted - forward as much information as is available. At a minimum, the first two items must be forwarded:

X Accurate Location Maps (from County Map, USGS Quad Sheet, etc.)

Survey Plat or Tax Map of the Property in Question

Soil Survey Sheet (from USDA-NRCS) or Aerial Photo (from County Assessor's Office or other source). Property boundaries should be shown on the soil survey / photo.

Topographic Survey

Conceptual Site Plan for the Overall Development

Z Description of the proposed use of the property (residential, commercial, industrial, silvicultural, agricultural, etc.)

Status of the project (on-going site work for development, development in planning stages no plans at this time, etc.)

Type of Determination Requested - Choose one:

O Preliminary – Preliminary determinations will identify whether wetlands or other waters are present on the site and will presume that they are jurisdictional. This type of determination is likely to be made more quickly and require less information be submitted.

• Approved – Approved determinations will identify whether wetlands or other waters are present on the site and will include a determination of their jurisdictional status. This type of determination is likely to take longer and require more detailed information be submitted.

IMPORTANT NOTE: Legible printed name and signature required. The person signing this form <u>must</u> 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. <u>Do not sign</u> 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:_____

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 1853 Assembly St., Room 865-B Columbia, SC 29201 803-253-3444

Copies of this form may be obtained at: http://www.sac.usace.army.mil/assets/pdf/regulatory/permits/request_jurisdictional_determination_form.pdf



March 31, 2010

U.S. Army Corps of Engineers Conway Regulatory Field Office 1949 Industrial Park Road, Room 140 Conway, South Carolina 29526

Attention: Watershed 4 Project Manager

Reference: Request for Jurisdictional Determination Airport Industrial Park – 268.20 Acres Sumter, Sumter County, South Carolina S&ME Project No. 1614-10-044

Dear Watershed 4 Project Manager:

On behalf of Sumter County and Alliance Consulting Engineers, S&ME, Inc. (S&ME) has completed a Wetland Delineation at the above-referenced site. The 268.20-acre site is located northwest of the intersection of U.S. Highway 15 and Brewington Road approximately one mile north of Sumter in Sumter County, South Carolina as depicted on Figure 1 (Vicinity Map) and Figure 2 (Topographic Map) in Appendix A. The site is located in the Black River watershed (HUC 03040205 and USACE Watershed Group 4).

PREVIOUS WETLAND DELINEATION

S&ME previously conducted a wetland delineation on an approximate 200-acre site in 2005 under sca 80-2005-0182-4. The USACE issued an approximation letter on March 14, 2006 indicating approximately 43.27 acres of jurisdictional waters on the site. Please see Appendix D for a copy of this letter.

CURRENT WETLAND DELINEATION

On February 2, 2010, S&ME Biologists Chris Daves and Amanda White conducted the wetland delineation. Six jurisdictional wetlands (Wetlands A-F), three jurisdictional ponds (Ponds G-I), and three jurisdictional linear features (Non-RPW #1, PRPW #2, and Non-RPW #3) were observed on-site.

The six on-site wetlands are jurisdictional and are part of a significant nexus with Whites Mill Branch. Two of the wetlands (Wetlands D and E) directly abut Whites Mill Branch, one wetland (Wetland A) is adjacent to an off-site tributary of Whites Mill Branch, and the other three wetlands (Wetlands B, C and F) directly abut Non-RPWs that flow into Whites Mill Branch. The on-site wetlands eventually drain into Rocky Bluff Swamp (RPW) and then the Black River, a Traditional Navigable Water (TNW).

Please refer to Figure 3 (Aerial Map) in Appendix A and the Draft Copy of Site Plat by Survey One, Inc. in Appendix C for the approximate locations of these jurisdictional features.

WETLANDS AND WATERS

Please refer to the tables below for information regarding the on-site features included in the delineation.

ID	Photo ID	Feature Type	Jurisdictional Designation	Approximate Acreage
Α	1-2	Forested/ Riparian	Abuts off-site PRPW	1.60
В	3	Forested/ Depressional	Abuts Non-RPW #1	1.85
С	4-5	Forested/ Depressional	Abuts Non-RPW #1	8.29
D	6	Forested/ Riparian	Abuts PRPW #2	21.89
Е	7	Forested/ Riparian	Abuts PRPW #2	5.34
F	8-9	Forested/ Depressional	Abuts Non-RPW #3	12.85
			Total	51.82

 Table 1 – Jurisdictional Wetlands

 Table 2 – Linear Jurisdictional Waters

ID	Photo ID	Feature Type	Approximate Linear Footage	Approximate Acreage
Non-RPW #1	10	Man-made ditch	1,558	0.27
PRPW #2 (Whites Mill Branch)	11	Straightened stream	3,581	0.86
Non-RPW #3	12	Man-made ditch	731	0.17
		Total	5,869	1.30

The major drainage feature on the site is a portion of Whites Mill Branch (PRPW #2). This drainage is a Relatively Permanent Water with perennial flow (PRPW). It flows from west to east across the site. Two additional linear features were recognized within the site boundaries. These Non-Relatively Permanent Waters (Non-RPWs #1 and #3) were characterized as having a Ordinary High Water Mark (OHWM) and standing water, but exhibited few indicators of year-round flow.

In addition to the above jurisdictional features, three open water ponds were observed on the site. These ponds are considered jurisdictional since they were likely excavated from wetland areas.

ID	Photo ID	Associated Wetlands	Jurisdictional Designation	Approximate Acreage
Pond G	13	Wetland C	Open water pond	0.34
Pond H	14	Wetland D	Open water pond	0.09
Pond I	15	Wetland E	Open water pond	0.23
			Total	0.66

 Table 3 – Jurisdictional Ponds

UPLANDS

Upland areas (Photographs 16-18) on the site consist of fallow farmland, recently cut-over forestland, and pine-mixed hardwood forestland. These portions of the site consist of non-hydric soil series such as Goldsboro and Norfolk as listed in the USDA-NRCS Soil Survey of Florence and Sumter Counties (Figure 4 – Soils Map).

ENCLOSURES

Included 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, USACE JD Forms

Appendix C

Draft Copy of Site Plat – Survey One, Inc.

<u>Appendix D</u>

Previous USACE letter – March 14, 2006 (SAC-80-2005-0182-4)

CLOSING

Thank you for your time and attention to this project. If you require a field visit to verify the stream and wetland areas, we look forward to meeting you onsite. If we can provide additional information, please do not hesitate to contact Chris Daves at 803-561-9024.

Sincerely, S&ME, Inc.

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Amanda White Biologist

Chris Daves, P.W.S. Biologist

Senior reviewed by Tom Behnke, P.G. Environmental Department Manager

cc: Rebecca Murrell, Alliance Consulting Engineers

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Appendix A

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











Airport Industrial Park - Sumter S&ME Project No. 1614-10-044 Taken: February 4, 2010 by C. Daves & A. White



Photo #1 Wetland A is a riparian wetland located along the southern boundary of the site.



Photo #3 Wetland B is a Carolina Bay wetland located in the southern portion of the site.



Photo #5 Hydric soils in Wetland C. 10YR 3/1





Photo #2 Hydric soils in Wetland A. 10YR 3/1



Photo #4 Wetland C is a Carolina Bay wetland located in the southeastern portion of the site.



Photo #6 Wetland D on central portion of site.

Airport Industrial Park - Sumter S&ME Project No. 1614-10-044 Taken: February 4, 2010 by C. Daves & A. White



Photo #7 Wetland E on western portion of site.



Photo #9 Hydric soils in Wetland F. 10YR 2/1



Photo #11 PRPW #2 (Whites Mill Branch) flows through the site from west to east.





Photo #8 Wetland F on the northern portion of the site.



Photo #10 Non-RPW #1 is a man-made ditch that connects Wetlands B and C to an off-site tributary.



Photo #12 Non-RPW #3 is a man-made ditch that is a hydrologic connection from Wetland F to an off-site tributary.

Airport Industrial Park - Sumter S&ME Project No. 1614-10-044 Taken: February 4, 2010 by C. Daves & A. White



Photo #13 Pond G is part of Wetland C.



Photo #14 Pond H is a portion of Wetland D.



Photo #15 Pond I is a portion of Wetland E.



Photo #17 Upland soils north of Wetland E. 2.5YR 5/4.



Photo #16 Upland farm fields are located to the north of Wetland E.



Photo #18 Planted pines near northern portion of site.

Appendix **B**

Wetland/Upland Datasheets USACE JD Forms

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

Project/Site: Airport Industrial Site	City/County: Su	mter/ Sumter	Sampling Date: 2/3/2010
Applicant/Owner: Sumter County	Chyobany,	State, SC	Sampling Point: Wetland A
Investigator(s): C. Daves/ A. White	Section Toward	in Bango, Northwest of	Hwy 15/ Brewington Rd insct.
Landform (hillslope, terrace, etc.): Drainageway		cave, convex, none): Conc	
Subregion (LRR or MLRA): LRR - P	Lat: 33.9905	Long: <u>~80.3467</u>	
Soli Map Unit Name: Rd - Rains sandy loam, mode	Lat	Long:	Datum: 10000
Are climatic / hydrologic conditions on the site typical for th	Voe	NWI cla	ssification: Forested
Are climatic / hydrologic conditions on the site typical for th Are Vegetation Soil, or Hydrology Are Vegetation Soil, or Hydrology SUMMARY OF FINDINGS - Attach site map	significantly disturbed? naturally problematic?	Are "Normal Circumstand (If needed, explain any ar	es* present? Yes <u>X</u> No <u>E</u> iswers in Remarks.)
Hydric Soil Present? Yes	No El	mpled Area Wetland? Yes	🖾 _{No} 🛄
The sampling point is within Wetland A.			
HYDROLOGY	<u> </u>		
Wetland Hydrology Indicators:		Secondary I	ndicators (minimum of two required)
Primary Indicators (minimum of one is required; check all	i that apply)	Surface	Soil Cracks (B6)
	ater-Stained Leaves (B9)		Vegetated Concave Surface (B8)
	uatic Fauna (B13)		e Patterns (B10)
	rl Deposits (B15) (LRR U)		im Lines (B16)
	drogen Sulfide Odor (C1)		son Water Table (C2)
	idized Rhizospheres on Livin		Burrows (C8)
	esence of Reduced Iron (C4)		on Visible on Aerial Imagery (C9)
	cent Iron Reduction in Tilled		phic Position (D2)
	in Muck Surface (C7)		Aquitard (D3)
	her (Explain in Remarks)	FAC-Ne	utral Test (D5)
Field Observations:			
Surface Water Present? Yes Vo D	epth (inches):		
Surface Water Present? Yes No No D Water Table Present? Yes No D D Saturation Present? Yes No D	epth (inches): <u>"</u>		न्त्र जि
Saturation Present? Yes <u>IX</u> No <u>La</u> Da (includes capillary fringe)	epth (inches): 4"	Wetland Hydrology Pr	esent? Yes 🗵 No 🛄
Describe Recorded Data (stream gauge, monitoring well,	, aerial photos, previous insp	ections), if available:	
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Remarks:			
			• • • • • • • • • • • • • • • • • • •
Wetland hydrology indicators present.			
S Army Corps of Engineers		Atlantic and Gulf Co	astal Plain Region – Interim Version
· · · · · · · · · · · · · · · · · · ·			

VEGETATION - Use scientific names of plants.

Sampling Point: Wetland A

20 feet radius	Absolute		Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30 foot radius) 1, Liquidambar styraciflua	<u>% Cover</u> 30%	<u>Species?</u> Yes	<u>Status</u> FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)
2 Acer rubrum	20%	Yes	FAC	
3				Total Number of Dominant Species Across All Strata: 8 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A/B)
·				Prevalence Index worksheet:
7	50%			Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 foot radius)	0070	= Total Co	ver	OBL species x 1 =
Acer rubrum	10%	Yes	FAC	
Parson borbania	5%	Yes	FACW	FACW species x 2 =
E		163	TAGW	FAC species x 3 =
3				FACU species x 4 =
4				UPL species x 5 =
5				Column Totals: (A) (B)
6				
7				Prevalence Index = B/A =
	15%	- Total Cov	er	Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: 30 foot radius)		,00,001	-	Dominance Test is >50%
1. Lyonia lucida	10%	Yes	FACW	Prevalence Index is ≤3.0 ¹
2 Persea borbonia	10%	Yes	FACW	Problematic Hydrophylic Vegetation ¹ (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				
6				Definitions of Vegetation Strata:
7				Tree - Woody plants, excluding woody vines,
E foot radius	20%	= Total Cov	er	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 foot radius)	4004		540	(7.6 cm) or larger in diameter at breast height (DBH).
1. Arundinaria gigantea	10%	Yes	FAC	Sapling – Woody plants, excluding woody vines,
2. Smilax rotundifolia	5%	Yes	FAC	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. Includes woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				
10				Woody vine - All woody vines, regardless of height.
11				
12.				
	15%	= ⊤otal Cov	er	
Woody Vine Stratum (Plot size: 5 foot radius				
1				
12.				
2				
2				
234				Hydrophytic
2				Vegetation
2				
2 3 4 5				Vegetation
2345 Remarks: (If observed, list morphological adaptations				Vegetation
2345 Remarks: (If observed, list morphological adaptations				Vegetation
2 3 4				Vegetation
2				Vegetation

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Depth	Matrix	ute wept		cument the indicato edox Features		s and appended of it	monoray		
inches)	Color (moist)	%	Calor (moist)		Loc ²	Texture	Rema	arks	
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									_
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		-				. 2			
	oncentration, D=De Indicators:	pletion, RM=	Reduced Matrix	, CS=Covered or Coa	ted Sand Gr		on: PL=Pore Lin Problematic Hy		
] Histoso			Polyvalue	Below Surface (S8)			(A9) (LRR O)	dife oona .	
	pipedon (A2)			Surface (S9) (LRR S			(A10) (LRR S)		
	listic (A3)			ucky Mineral (F1) (LF				side MLRA 150A	i,B)
	en Sulfide (A4)			leyed Matrix (F2)				(F19) (LRR P. S.	, T)
	d Layers (A5)			Matrix (F3)			s Bright Loamy S	Soils (F20)	
Organic 5 cm M	: Bodies (A6) (LRR ucky Mineral (A7) (I	P, I, U) PP P T 10		ark Surface (F6) Dark Surface (F7)		(MERA 1	53B) t Material (TF2)		
	resence (A8) (LRR			epressions (F8)				(TF12) (LRR T,	տ
	uck (A9) (LRR P, T)) (LRR U)			lain in Remarks		-,
	d Below Dark Surfa	ce (A11)		Ochric (F11) (MLRA					
	ark Surface (A12)			ganese Masses (F12)			s of hydrophytic		
	Prairie Redox (A16) Mucky Mineral (S1)			urface (F13) (LRR P, vric (F17) (MLRA 151			l hydrology must disturbed ar prot		
	Gleved Matrix (S4)	(Link 0, 0)		Vertic (F18) (MLRA			and the of pro-	Siemens.	
	Redox (S5)			Floodolain Soits (F1					
	d Matrix (S6)		🗋 Anomalo	us Bright Loamy Soils	(F20) (MLR	A 149A, 153C, 15	3D)		
	urface (S7) (LRR P,								
	Layer (if observed):)							
Type:						Hydric Soil Pre	sent? Yes	🗵 No 🔜	
						nyunc son rie	sentr res	NO	=
	iches):								
	icnes):								
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WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Airport Industrial Site	City/County: Sumter/ Sumter Sampling Date: 2/3/2010
Applicant/Owner: Sumter County	State, SC Sampling Paint, Wetland B
Investigator(s): C. Daves/ A. White	Section, Township, Range: Northwest of Hwy 15/ Brewington Rd inset.
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, none): <u>Сопсаve</u> Stope (%): <u>1%</u>
Subregion (LRR or MLRA): LRR - P Lat: 33.	9932 Long: -80.3486 Datum: WGS84
Soil Map Unit Name: CV - Coxville fine sandy loam	Long: Datum: Datum:
Soil Map Unit Name:	NWI classification: Scrub/shrub
	f year? Yes 1995 No (If no, explain in Remarks.) ntly disturbed? Are "Normal Circumstances" present? Yes 🗵 No 🛄 problematio? (If needed, explain any answers in Remarks.) ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Xo Hydric Soil Present? Yes Xo Wetland Hydrology Present? Yes Xo Remarks: Remarks: Remarks:	Is the Sampled Area within a Wetland?
The sampling point is within Wetland B.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	
	ed Leaves (B9) Sparsely Vegetated Concave Surface (B8)
🔀 High Water Table (A2)	
	its (B15) (LRR U) Moss Trim Lines (B16)
	Sulfide Odor (C1) Ury-Season Water Table (C2)
	hizospheres on Living Roots (C3) Crayfish Burrows (C8) f Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9)
	Reduction in Tilled Soils (C6) Saturation Visible on Aenal Imagery (C9)
	Surface (C7)
Em	ain in Remarks)
Field Observations:	
Surface Water Present? Yes No Depth (incl	hes):
Water Table Present? Yes 🔛 No 🛄 Depth (incl	hes): 1"
Saturation Present? Yes 🖾 No 🛄 Depth (incl	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial pl	hotos, previous inspections), if available:
Remarks:	
Wetland hydrology indicators present.	
	1
<u></u>	

VEGETATION - Use scientific names of plants.

Sampling Point, Wetland B

ree Stratum (Plot size: 30 foot radius)	Absolute % Cover	Dominant Species?	Status	Dominance Test worksheet: Number of Dominant Species
Quercus nigra	20%	Yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
Pinus taeda	20%	Yes	FAC	
·				Total Number of Dominant Species Across All Strata: 6 (B)
				Species Across All Strata: 0 (B)
•				Percent of Dominant Species
h				That Are OBL, FACW, or FAC: 100% (A/
k				
				Prevalence Index worksheet:
	40%	= Total Co		Total % Cover of: Multiply by:
Capling Stratum (Plot size: 30 foot radius)		- 10tal 00		OBL species x 1 =
Quercus phellos	20%	Yes	FACW	FACW species x 2 =
				FAC species x 3 =
۰				FACU species x 4 =
·				UPL species x 5 =
				Column Totals: (A) (E
				Prevalence Index = B/A =
۰	- 20%			Hydrophytic Vegetation Indicators:
30 foot radius	20%	= Total Cov	er	
Shrub Stratum (Plot size: 30 foot radius)	000/	V	F 4 0111	Dominance Test is >50%
Lyonia lucida	20%	Yes	FACW	Prevalence Index is ≤3.0 ¹
Quercus phellos	10%	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must
·				be present, unless disturbed or problematic.
i				Definitions of Vegetation Strata:
	30%	= Total Cov		Tree – Woody plants, excluding woody vines,
ferb Stratum (Plot size: 5 foot radius			er	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Smilax rotundifolia	10%	Yes	FAC	(rid ein) er larger af diameter at bredat height (bbri).
				Sapling Woody plants, excluding woody vines,
				approximately 20 ft (6 m) or more in height and less
				than 3 in. (7.6 cm) DBH.
l				Shrub - Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
k				
				Herb - All herbaceous (non-woody) plants, including
•				herbaceous vines, regardless of size. Includes wood plants, except woody vines, less than approximately
				3 ft (1 m) in height.
),				s a transmission
0				Woody vine - All woody vines, regardless of height.
1				
2	100/			
E foot radius	10%	= Total Cov	er	
Voody Vine Stratum (Plot size: 5 foot radius)				
•				
·				
k				Hydrophytic
5				Venetation
		= Total Cov	er	Present? Yes No
Remarks: (If observed, list morphological adaptations I	celow).			
vdrophytic variation present				
ydrophytic vegetation present.				
ydrophytic vegetation present.				

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Depth	Matrix	е ко тле њерт		ent the indicator	or continu	the absence of	indicators.)		
(inches)	Color (moist)	%	Color (moist)	K Features	Loc ²	Texture	Rei	marks	
1-4"	10 YR 2/1	100				S. loam			
-16"	10 YR 6/2	100				S. loam			
	Concentration, D=De I Indicators:	pletion, RM=R	educed Matrix, CS	Covered or Coate	d Sand Gra		on: PL=Pore L Problematic I		х.
Histoso				low Surface (S8) (L	PPS T II	_	k (A9) (LRR O)	-	
	Epipedon (A2)			rface (S9) (LRR S,			k (A10) (LRR S		
Black H	listic (A3)			/ Mineral (F1) (LRR			Vertic (F18) (ou		50A,F
	en Sulfide (A4)		Loamy Gleye				Floodplain Soil		P, S, T
	ed Layers (A5)		Depleted Mat				is Bright Loamy	/ Soils (F20)	
	c Bodies (A6) (LRR I lucky Mineral (A7) (L		Redox Dark S	Surface (F6) k Surface (F7)		(MLRA	153B) nt Material (TF2	2/	
	Presence (A8) (LRR		Redox Depre				low Dark Surfa		יו די
	luck (A9) (LRR P, T)		Mari (F10) (L				plain in Remark		,.
	ed Below Dark Surfa			nic (F11) (MLRA 1	51)				
	Dark Surface (A12)			ese Masses (F12) (I			rs of hydrophyt		nd
	Prairie Redox (A16)			ce (F13) (LRR P, T	U)		d hydrology mu		
	Mucky Mineral (S1) (Gleyed Matrix (S4)	LKK 0, 5j		(F17) (MLRA 151) tic (F18) (MLRA 15	DA 1508)	uniess	disturbed or pr	oplemand.	
	Redox (S5)			odplain Soils (F19)		9A)			
Strippe	d Matrix (S6)			right Loamy Soils (I			i3D)		
	urface (S7) (LRR P,								
	Layer (if observed)):							
Type:								× No	
Depth (i Remarks:	ncnes):		-			Hydric Soil Pro	esent? Yes	NO_	_
(emarks:									
					·				
łydric soi	ils present.								
tydric soi	ils present.								
Hydric soi	lls present.								
Hydric soi	ils present.								
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Hydric soi	ils present.								
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tydric soi	ils present.								
łydric soi	ils present.								

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Airport Industrial Site	City/County: Sumter/ Sumter Sampling Date: 2/3/2010
Applicant/Owner: Sumter County	Stata SC Sampling Roint Wetland C
Investigator(s): C. Daves/ A. White	Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.
Landform (hillslope, terrace, etc.): Depression Subregion (LRR or MLRA): LRR - P	
Soil Map Unit Name: Rm - Rembert loam	NW classification: Forested
Are climatic / hydrologic conditions on the site typical for this time	
Are Vegetation, Soil, or Hydrology signific Are Vegetation, Soil, or Hydrology natural	anty disturbed? Are "Normal Circumstances" present? Yes No
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks:	Is the Sampled Area within a Wetland? Yes No
The sampling point is within Wetland C.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap	pply) L Surface Soil Cracks (B6) ined Leaves (B9) Sparsely Vegetated Concave Surface (B8)
	auna (B13) Drainage Patterns (B10)
	usits (B15) (LRR U)
	Sulfide Odor (C1) Dry-Season Water Table (C2)
	Rhizospheres on Living Roots (C3)
Drift Deposits (B3)	of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9)
🛄 Algal Mator Crust (B4) 📃 Recent iro	n Reduction in Tilled Soils (C6)
ron Deposits (85)	Surface (C7)
	plain in Remarks) 🔛 FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes L No M Depth (in	
Water Table Present? Yes Image: Comparison of the second	ches); <u>'</u> ches); 1" Wetland Hydrology Present? Yes 🗶 No 🗔
Saturation Present? Yes Xes Depth (in (includes capillary fringe)	ches); <u>1"</u> Wetland Hydrology Present? Yes <u>IX</u> No <u>Li</u>
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:
Remarks:	
t	
Wetland hydrology indicators present.	

VEGETATION - Use scientific names of plants.

Sampling Point: Wetland C

Tree Stratum (Plot size: 30 foot radius) 1 Quercus nigra	Absolute <u>% Cover</u> 20%	Species? Yes	Indicator Status FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)
2. Pinus taeda	20%	Yes	FAC	THAT ARE OBL, FACTOR, OF FAC.
				Total Number of Dominant
3				Species Across All Strata: 0 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A
5				
7				Prevalence Index worksheet:
	40%	= Total Co		Total % Cover of:Multiply by:
Sapting Stratum (Plot size: 30 foot radius)		- 10101 00		OBL species x 1 =
Quercus phellos	20%	Yes	FACW	FACW species x 2 =
2.				FAC species x 3 =
3				FACU species x 4 =
k				UPL species x 5 =
5.				Column Totals: (A) (I
ð				
7				Prevalence Index = B/A =
	20%	- Total Cov		Hydrophytic Vegetation Indicators:
Shrub_Stratum (Plot size: 30 foot radius_)			••	Dominance Test is >50%
Lyonia lucida	20%	Yes	FACW	Prevalence Index is ≤3.0 ¹
Quercus phellos	10%	Yes	FACW	Problematic Hydrophylic Vegetation ² (Explain)
				1
l				¹ Indicators of hydric soil and welland hydrology musi be present, unless disturbed or problematic.
ā				be present, amess distanced of problemate.
5				Definitions of Vegetation Strata:
1.				
	30%	- Total Cov		Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size; 5 foot radius	<u></u> .		er	(7.6 cm) or larger in diameter at breast height (DBH)
1 Smilax rotundifolia	10%	Yes	FAC	
				Sapling - Woody plants, excluding woody vines,
2				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3				uian s in. (7.6 cm) DBH.
4				Shrub - Woody plants, excluding woody vines,
5,				approximately 3 to 20 ft (1 to 6 m) in height.
Б				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size. Includes woo
3				plants, except woody vines, less than approximately
9				3 ft (1 m) in height.
				Woody vine - All woody vines, regardless of height.
10				HOWLY TIME - Full Woody Hiles, regardless of helpit.
11				
12				
E fact	10%	= Total Cov	er	
Woody Vine Stratum (Plot size: 5 foot radius)				
1				
2				
3				
4				
				Hydrophytic
5				Vegetation
		= Total Cov	er	Present? Yes No
Remarks: (If observed, list morphological adaptation	s helow)			
veniarita. In observeu, list morphological adaptation	o ociowj.			
lydrophytic vegetation present.				

US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region - Interim Version

US Army Corps of Engineers

Profile Description: (Description: (Description: Color (makin)	SOIL							Sampling	_{Point:} Wetlan	nd C
Instruction Sector (moiet) % Type Loc ² Texture Remarks 1-20" 10 YR 2/1 100 S. loam S. loam S. loam S. loam			o the depth			or confirm	the absence of			
1:20* 10 YR 2/1 100 S. loam						12	T	-		
Type: C=Concentration. D=Depletion. RM=Reduced Matrix. CS=Covered or Coated Sand Grains. 1: coation:: PL=Pore Lining. M=Matrix. Hydric Soil Indicators: Indicators (A) Indicators (A) Indicators (A) Histool (A1) Polyvalue Balow Surface (S5) (LRR S, T, U) I om Muck (A10) (LRR 0) Histool (A2) I commy Mucky (Mneral (F) (LRR P, T, U) Reduce Verait (F15) (LRR P, T, U) Stratified Layers (A5) Depleted Matrix (F2) Polytalue Balow Surface (F7) Organic Bodies (A6) (LRR P, T, U) Redux Dark Surface (F7) (MLRA 1536) Muck Yenesci (A8) (LRR P, T, U) Depleted Dark Surface (F7) (MLRA 1536) Depleted Both Surface (F7) (MLRA 1536) Polymony Solis (F20) Muck Yenesci (A8) (LRR P, T) Depleted Ontric (F11) (MLRA 151) Dother (Explain in Remarks) Depleted Both Surface (F12) (LRR N, D) Depleted Ontric (F11) (MLRA 1504, 1505) Intercators of hydrophydive exceptation and will and hydrology must be present, unless disturbed or problematic. Sandy Mucky Maeral (S1) (LRR 0, S1) Bandy Reduc (S2) (LRR 0, S1) Poledmont Floophina Solis (F20) (MLRA 1494, 1532, 153D) Bandy Reduc (S2) (LRR 0, S1) Heidmont Floophina Solis (F20) (MLRA 1494, 1532, 153D) Polemont Floophina Solis (F20) (MLRA 1494, 1532, 153D) Bandy Reduc (S2) (LRR P, S1, U) Polem				Gelor (meist)	% Type'	Loc		Rem	arks	
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ¹ : Histosal (A1) Polyvalue Below Surface (S8) (LRR 5, T, U) Histo Epipedon (A2) Thin Dark Surface (S9) (LRR 5, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR 0) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Drignic Bodies (A6) (LRR P, T, U) Dopleted Matrix (F2) Muck Presence (A8) (LRR P, T, U) Dopleted Dark Surface (F7) Muck (A9) (LRR P, T) Dopleted Dark Surface (F7) Muck (A9) (LRR P, T) Dopleted Dark Surface (F1) (MLRA 151) Thick Dark Surface (A11) Dipleted Ochric (F11) (MLRA 151) Dopleted Dark Surface (F12) (LRR 0, P, T) Other (Explain in Remarks) Depleted Dark Surface (F12) (LRR 0, P, T) Other (Explain in Remarks) Depleted Relw (A6) (MLRA 150A) Durbric Surface (F12) (LRR 0, P, T) Sandy Mucky Mineral (S1) (LRR 0, S) Bedato Chric (F17) (MLRA 151) Sandy Mucky Mineral (S1) (LRR 0, S) Depleted Ochric (F17) (MLRA 151) Sandy Redox (S5) Hedmont Floodplain Soile (F19) (MLRA 149A) Stripped Matrix (S4) Pedmont Floodplain Soile (F19) (MLRA 149A) Stripped Matrix (S6) Hedmont Floodplain Soile (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U	1-20		<u> </u>				S. Ioam			
Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: Histoscal (A1) Polyvalue Below Surface (S3) (LRR S, T, U) 1 cm Muck (A9) (LRR 0) Histo Eppedon (A2) Data Histic (A3) Polyvalue Below Surface (S3) (LRR S, T, U) 1 cm Muck (A9) (LRR 0) Black Histic (A3) Dopleted Matrix (F2) Pedwont Floodplain Solis (F19) (LRR 0, S, T) Pedmont Floodplain Solis (F19) (LRR 7, S, T) Strafied Layers (A5) Dopleted Matrix (F2) Pedmont Floodplain Solis (F12) (LRR 7, S, T) Muck (A9) (LRR P, T, U) Depleted Matrix (F2) Redox Dark Surface (F7) Muck (A9) (LRR P, T, U) Redox Dark Surface (F1) Redox Dark Surface (F12) (LRR T, U) Muck (A9) (LRR P, T, U) Depleted Matrix (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Coast Printine Redox (A16) (MLRA 150) Depleted Ochic (F11) (MLRA 151) Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Redox (S5) Pedeuced Veric (F12) (LRR A, 150A) Pedeuced Veric (F10) (MLRA 150A, 150B) Sandy Gleyed Matrix (S6) Piedmont Floodplain Solis (F10) (MLRA 149A, 153C, 153D) Piedmont Floodplain Solis (F20) (MLRA 149A, 153C, 153D) Back Filter Layer (if observed): Type: Piedmont Floodplain Solis (F20) (MLRA 149A, 153C, 153D) Bardy Rinci (S7) (LRR P, S, T, U) Piedmo										
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Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR D) Histo Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Back Histo (A3) Loamy Mucky Mineral (F1) (LRR O) Redox Dark Surface (F19) (LAR A 150A,B) Organie Bodies (A4) Depleted Matrix (F2) Anomalous Bright Loamy Soils (F20) Muck Presence (A8) (LRR P, T, U) Redox Dark Surface (F6) Muck A 1610 (LRR U) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Redox Depressions (F3) Very Shallwo Dark Surface (TF12) (LRR T, U) Depleted Below Dark Surface (A11) Depleted Dark Surface (F13) (LRR P, T, U) Offente (S11) (MLRA 151) Very Shallwo Dark Surface (TF12) (LRR T, U) Sandy Mucky Mineral (S1) (LRR P, S) Depleted Ochric (F11) (MLRA 151) Very Shallwo Dark Surface (TF12) (LRR T, U) Very Shallwo Dark Surface (TF12) (LRR T, U) Sandy Macky Mineral (S1) (LRR P, S, T, U) Deta Ochric (F13) (MLRA 150A, 150B) Very Shallwo Dark Surface (TF12) (LRR T, U) Back Histoge (S7) Reduce Verific (F13) (MLRA 150A, 150B) Very Shallwo Dark Surface (TF12) (LRR T, S, T) Sandy Grade (S6) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Very Shallwo Dark Surface (S7) (MLRA 154) Back Surface (S7) (IRR P, S, T, U) Derk Surface (S7) (IRR P, S, T, U)			etion, RM=R	educed Matrix, CS	=Covered or Coate	d Sand Gr				
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Comm Mucky Mineral (F1) (LRR 0) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Mucky (Mineral (F1) Reduced Vertic (F18) (outside MLRA 150A,B) Stratified Layers (A5) Depleted Matrix (F2) Reduced Vertic (F18) (outside MLRA 150A,B) S om Mucky Mineral (A1) (LRR P, T, U) Redox Dark Surface (F6) Redox Dark Surface (F7) Muck (A9) (LRR P, T, U) Redox Dark Surface (F7) Redox Dark Surface (F7) Muck (A6) (LRR P, T, U) Redox Dark Surface (F11) Redox Dark Surface (F12) (LRR V, U) Depleted Dark Surface (F11) Depleted Outric (F11) (MLRA 151) Redox CP arent Material (TF2) Image: Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Mucky Mineral (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Image Saty Redox (S5) Image Saty Mucky Mineral (S4) Stripped Matrix (S4) Sandy Mucky Mineral (S5) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Image Saty Redox (S5) Stripped Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Hearit Matrix (S4) Image Saty Redox (S5) Stripped Matrix (S4) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Hydric Soil Present? Yes No Image Saty Redox (E			_		yaric solis :	
Bick Histic (A3) Loamy Mucky Mineral (F1) (LRR 0) Reduced Vertic (F18) (cutside MLRA 150A,B) Hydrogen Sulfide Layers (A5) Depleted Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) S om Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) Muck Presence (A8) (LRR P, T, U) Redox Dark Surface (F7) Redox Dark Surface (F7) Depleted Dark Surface (A17) Redox Dark Surface (F13) (LRR P, T, U) Redox Chark Surface (A17) Depleted Dark Surface (A17) Depleted Ochric (F13) (LRR P, T, U) Redox Chark Surface (A17) Coast Prairie Redox (A16) (LRR A150A) Umbric Surface (F13) (LRR P, T, U) Depleted Matrix (S4) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Reduced Vertic (F13) (LRR A150A) Stripped Matrix (S4) Anomalous Bright Loamy Soils (F20) (MLRA 149A) aniesa disturbed or problematic. Reduced Vertic (F13) (MLRA 150A, 150B) Piedmont Floodplain Soils (F12) (MLRA 149A) aniesa disturbed or problematic. Stripped Matrix (S4) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Z bark functione (S7) (LRR P, S, T, U) Reduced Vertic (F13) (MLRA 150A, 150B) Hydric Soil Present? Yes No No Remarks: No No No										
Hydrogen Sulidie (A4) Loamy Cleved Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Organie Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Muck Presence (A8) (LRR U) Redox Dark Surface (F7) Redox Dark Surface (F7) Muck Presence (A8) (LRR P, T) Depleted Dark Surface (F1) Redox Dark Surface (F7) Depleted Below Dark Surface (A11) Depleted Dark Surface (F1) (LRR P, T, U) Ward (F10) (LRR U) Trick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Inon-Manganese Masses (F12) (LRR O, P, T) Indicators of hydrophytic vegetation and unbric Surface (F13) (LRR P, S, T, U) Sandy Micky Minerai (S1) (LRR P, S, T) Deta Cohic (F13) (MLRA 150, 150B) Weland hydrology must be present, unless disturbed or problematic. Sandy Macky (S6) Bripped Matrix (S4) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Matrix (S4) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Returne (ff observed): Type: Hydric Soil Present? Yes No Depletion (files): Remarks: No Remarks:										
Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 1538) S om Mucky (Mineral (A7) (LRR P, T, U) Redox Dark Surface (F7) Redox Persent Material (TF2) Muck Presence (A8) (LRR P, T) Redox Depressions (F8) Charlen (F10) (LRR U) Depleted Bolew Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Ochric (F11) (MLRA 151) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Sandy Mucky Mineral (A16) (MLRA 150A) Umbric Surface (F12) (LRR P, T, U) welland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (A16) Reduced Vertic (F18) (MLRA 150A, 150B) Pledmont Floodplain Soils (F20) (MLRA 149A) Stripped Matrix (S4) Pledmont Floodplain Soils (F12) (LRR P, T, U) unless disturbed or problematic. Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) anomalous Bright Loamy Soils (F20) (MLRA 149A) Zype:						0)				
Coganic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) S om Muoky Mineral (A7) (LRR P, T, U) Redox Depressions (F6) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T) Redox Depressions (F6) Very Shaltow Dark Surface (T12) (LRR T, U) Depleted Blew Dark Surface (A17) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Vark Surface (A12) Umbric Surface (F13) (LRR P, T, U) mless disturbed or problematic. S andy Mucky Mineral (S1) (LRR O, S) Detta Ochric (F17) (MLRA 151) "indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. S andy Mucky Mineral (S1) (LRR O, S) Detta Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Solis (F19) (MLRA 154A) Stripped Matrix (S4) Reduced Verio (F18) (MLRA 154A, 153C, 153D) mless disturbed or problematic. X bardy Redox (S7) (LRR P, S, T, U) Reduced Verio (F12) (MLRA 149A, 153C, 153D) Moder Present? X pre										5, 1)
Som Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) (LRR T, U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Inon-Muck (F12) (LRR 0, P, T, U) Other (Explain in Remarks) Coast Printie Redox (A6) (ILRR 166) (MLRA 166) (Surface (F12) (ILR 0, P, T, U) Depleted Ochric (F13) (MLRA 150) ³ Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. Sandy Mecky Mineral (S1) (LRR 0, S) Detta Ochric (F17) (MLRA 150A, 150B) Pletamort Floodplath Solie (F19) (MLRA 149A, 150A, 153D) Sandy Redox (S5) Detta Ochric (F18) (MLRA 149A, 150A, 153D) Anomalous Bright Learny Soils (F20) (MLRA 149A, 153C, 153D) Zhribace (S7) (LRR P, S, T, U) Remarks: Mark 100A, 150B Mark 100A, 150B Remarks: Depletion Construction of the Construction of			T 10						Solis (F20)	
Muck Presence (A8) (LRR U) I om Muck (A9) (LRR P, T) Depteted Below Dark Surface (A12) Depteted Below Dark Surface (A12) Thick Dark Surface (A12) Sandy Mucky Mheral (S1) (LRR 0, S) Sandy Mucky Mheral (S1) (LRR 0, S) Sandy Mucky Mheral (S1) Sandy Mucky Mitrix (S4) Sandy Redox (S5) Defted Matrix (S4) Stripped Matrix (S4) Stripped Matrix (S4) Stripped Matrix (S4) Derk Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Depth (inches): Remarks:										
1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR 0, S) Deted Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Sleved Matrix (S4) Deted Veric (F13) (MLRA 154). unless disturbed or problematic. Stripped Matrix (S6) Piedmont Floodplain Solis (F19) (MLRA 149A). antess disturbed or problematic. Type:										T 10
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Trick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Trick Dark Surface (A12) Sandy Reide (MLRA 166) (MLRA 166) (MLRA 166) (MLRA 166) Sandy Redx (S5) Sandy Redx (S5) Detta Ochric (F17) (MLRA 150A, 150B) Sandy Redx (S5) Detta Ochric (F18) (MLRA 160A, 150B) Detta Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks:										1,0,
□ Thick Dark Surface (A12) □ Iron-Manganese Masses (F12) {LRR 0, P, T, U welland hydrology must be present, unless disturbed or problematic. □ Sandy Mucky Mherai (S1) {LRR 0, S} □ Detta Cohic (F17) (MLRA 151) unless disturbed or problematic. □ Sandy Mucky Mherai (S4) □ Detta Cohic (F17) (MLRA 150A, 150B) unless disturbed or problematic. □ Sandy Mucky Michael (S5) □ Detta Cohic (F17) (MLRA 150A, 150B) unless disturbed or problematic. □ Sandy Mucky Michael (S6) □ Detta Cohic (F17) (MLRA 154) unless disturbed or problematic. □ Sandy Muchy Michael (S6) □ Detta Cohic (F17) (MLRA 150A, 150B) □ □ Dark Surface (S7) (LRR P, S, T, U) □ Anomalous Bright Learny Soils (F20) (MLRA 149A, 153C, 153D) □ Dark Surface (S7) (LRR P, S, T, U) □ Hydric Soil Present? Yes			(411)			545		кранти кетака	·)	
Coast Preirie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) welland hydrology must be present, unless disturbed or problematic. Sandy Macky Mneral (S1) (LRR 0, S) Sandy Redox (S6) Pledmont Floodplain Solie (F19) (MLRA 149A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks:			. (,				T) ³ indicat	ors of hydronhytic	: vegetation and	н
Sandy Mucky Mineral (S1) (LRR O, S) Detta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Verific (F18) (MLRA 150A, 150B) Bady Reduced (S7) Sandy Stripped Matrix (S6) Piedmont Floodplain Solis (F19) (MLRA 149A) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type:			ILRA 150A)							-
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Pledmont Floodplain Solis (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Learny Solis (F20) (MLRA 149A, 153C, 153D) Z Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type:						,				
☐ Stripped Matrix (S6) ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) ⊠ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type:						0A, 150B)		•		
Image: Strate (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes Remarks:	Sandy I	Redox (S5)		D Piedmont Flo	odplain Soils (F19)	(MLRA 14	9A)			
Restrictive Layer (if observed): Type:	Strippe	d Matrix (S6)		Anomalous B	right Loamy Soils (I	20) (MLR.	A 149A, 153C, 1	53D)		
Type:	🛛 🛛 Dark Su	urface (S7) (LRR P, S,	, T, U)							
Depth (Inches): Hydric Soil Present? Yes No	Restrictive	Layer (if observed):								
Remarks:	Type:								_	_
	Depth (in	nches):					Hydric Soil P	resent? Yes _	× No	
Hydric soils present.	Remarks:									
Hydric soils present.	[
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WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Airport Industrial Site	City/County: Sumter/ Sumter	Sampling Date: 2/3/2010
Applicant/Owner: Sumter County	State: SC	Sampling Baint Wets D & E
Investigator(s); C. Daves/ A. White	Section, Township, Range: Northwest (of Hwy 15/ Brewington Rd insct.
Landform (hillslope, terrace, etc.); Floodplain	Local relief (concave, convex, none): Cor	Cave Slope (%): _1%
Subregion (LRR or MLRA): LRR - P	33.9955 Long: -80.3566	
Subregion (LRR or MLRA): Lat:	Long: COLOODO	Datum: HCCC-
Soil Map Unit Name: Ra - Rains sandy loam	NWI d	assification: Scrub/shrub
Are climatic / hydrologic conditions on the site typical for this tim	ne of year? Yes <u>Yes</u> No (If no, expla	in in Remarks.)
Are Vegetation Soil, or Hydrology sign	ificantly disturbed? Are "Normal Circumstar	nces" present? Yes 🔜 🔀 No 💶
Are Vegetation, Soil, or Hydrology natu	rally problematic? (If needed, explain any	answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh		
Hydrophytic Vegetation Present? Yes No _		
Hydric Soil Present? Yes X No	is the Sampled Area	
Wetland Hydrology Present? Yes No	within a Wetland? Yes	; <u>⊠</u> №
Remarks:		
remana.		
The sampling point is near Wetlands D and E.		
Wetland Hydrology Indicators;		
		Indicators (minimum of two required) e Soil Cracks (86)
Primary Indicators (minimum of one is required; check all that		• •
		ely Vegetated Concave Surface (B8) ge Patterns (B10)
		Trim Lines (B16)
		eason Water Table (C2)
		sh Burrows (C8)
		tion Visible on Aerial Imagery (C9)
		erphic Position (D2)
Liron Deposits (B5)	uck Surface (C7)	w Aquitard (D3)
Linundation Visible on Aerial Imagery (B7)	Explain in Remarks) 🔛 FAC-N	eutral Test (D5)
Field Observations:		
	(inches): 0-6"	
	(inches):	
	(inches): Wetland Hydrology I	Present? Yes 🔼 No 🗌
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeri	al shataa maximua inanastimaa). iFayailahlar	
Describe Recorded Data (aveant gauge, motitoring weil, den	al photos, previous inspections), il avallame.	
Remarks:		
Wetland hydrology indicators present.		

VEGETATION – Use scientific names of plants.

Sampling Point: Wet D/ E

<u>Tree Stratum</u> (Plot size: <u>30 foot radius</u>) 1 Liñodendron tulipifera	Absolute <u>% Cover</u> 20%	Dominant Species? Yes		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC; 8 (A)
2 Liquidambar styraciflua	20%	Yes	FAC	
				Total Number of Dominant Species Agreen All Strates 8 (b)
3				Species Across All Strata: 0 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100% (A/E
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 foot radius)	40%	= Total Cov	/er	OBL species x1 =
Acer rubrum	10%	Yes	FAC	
			<u></u>	FACW species x 2 =
2				FAC species x 3 =
3				FACU species x 4 =
4				UPL species x 5 =
5				Column Totals: (A) (B
6				Dravelance Index at R/A m
7				Prevalence Index = B/A =
20 fe et en dir -	10%	= Total Cov	er	Hydrophytic Vegetation Indicators;
Strub Stratum (Plot size: 30 foot radius)				Dominance Test is >50%
1. Persea borbonia	10%	Yes	FACW	Prevalence Index is ≤3.0 ¹
2. Acer rubrum	10%	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3				
4				'indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Vegetation Strata:
				bennitions of vegetation of atta.
7	20%			Tree - Woody plants, excluding woody vines,
Heth Stratum (Plot size: 5 foot radius	<u></u> ;	= Total Cov	er	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Lonicera japonica	10%	Yes	FAC	
2				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				and a million with contra
4		<u> </u>	<u> </u>	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. Includes wood
8				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9				Sitt in megna
10				Woody vine - All woody vines, regardless of height.
11.				
12.				
	10%	= Total Cov		
Woody Vine Stratum (Plot size: 5 foot radius)		10101-004		
1. Smilax laurifolia	5%	Yes	FACW	
2. Vitis rotundifolia	5%	Yes	FAC	
3				
3				Hydrophytic
4				Vegetation
				The New York No. 1
4		= Total Cov	er	Present? Yes X No
4 5	10%	= Total Cov	er	Present? Yes 🖄 No 🛄
45 5 Remarks: (If observed, list morphological adaptations l	10%	= Total Cov	er	Present? Yes X No L
4 5	10%	≂ Total Cov	er	Present7 Yes X No L
45 5 Remarks: (If observed, list morphological adaptations l	10%	≂ Total Cov	er	Present? Yes X No L

US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region – Interim Version

US Army Corps of Engineers

SOIL							Si	ampling I	Point:	Wet f)/ E
:	ription: (Describe	to the depth	needed to docu	ment the indicator	or confirm	n the absence of					
Depth (inches)	Matrix Color (mpist)	%	Color (moist)	% Type ¹	Loc ²	Texture		Rem	-		
1-8"	10 YR 3/2	100	Color (molat)			S. ioam			1115		
8-20"	10 Y/R 6/2	100		-		S. loam					
0.50	10 111 0/2					<u></u> .					
		oletion, RM=Re	educed Matrix, C	S=Covered or Coate	ed Sand G		tion: PL=				x,
Hydric Soil I			—		DD 0 7	Indicators fo			dric S	Soils":	
Histosol	(A1) lipedon (A2)			elow Surface (S8) (I urface (S9) (LRR S,		U) 🚺 1 cm Mu 🚺 2 cm Mu					
Black His				oy Mineral (F1) (LRF		Reduced			side M	ILRA 1	50A.B
	n Sulfide (A4)			ed Matrix (F2)			t Floodpla				
	Layers (A5)		Depleted Ma				us Bright	Loamy S	Gails (F	20)	
	Bodies (A6) (LRR F cky Mineral (A7) (Ll			Surface (F6) irk Surface (F7)		(MLRA	. 1538) ent Materi	-) (TE2)			
	esence (A8) (LRR L			essions (F8)			llow Dark		(TE12	2) (LRS	R T. บา
🛄 1 cm Mu	ck (A9) (LRR P, T)		🛄 Marl (F10) (I				cplain in F			-,	.,.,
· M Depieted	Below Dark Surfac	e (A11)		bric (F11) (MLRA 1							
	rk Surface (A12) airie Redox (A16) (I	MI DA 460A1		iese Masses (F12) (ace (F13) (LRR P, 1			ors of hyd				nd
	lucky Mineral (S1) ((F17) (MLRA 151)	, 0,		nd hydrol: s disturbe				
Sandy G	leyed Matrix (S4)	• •		rtic (F18) (MLRA 19	OA, 1508)						
	edox (S5)			oodplain Soils (Ft9)							
	Matrix (S6) face (S7) (LRR P, S	5 T 10	Anomalous i	Bright Loamy Soils (F20) (MLF	RA 149A, 153C, 1	53D)				
	ayer (if observed)					1					
Type:	,										
Depth (inc	:hes):					Hydric Soil P	resent?	Yes	×	No	
Remarks:						1 *					
Hydric soils	present.										
L											

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Airport Industrial Site	City/County: Sumter/ Sumter	_ Sampling Date: 2/3/2010
Applicant/Owner: Sumter County	State: SC	Sampling Point: Wetland F
Investigator(s). C. Daves/ A. White	Section, Township, Range: Northwest of Hy	vy 15/ Brewington Rd insct.
Landform (Hillslope, terrace, etc.): Depression Subregion (LRR or MLRA): LRR - P Lat: 34. Soil Map Unit Name: Ra - Rembert Ioam	Local relief (concave, convex, none): Concav 0005 Lono: -80.3523	e Slope (%): 1% Datum: WGS84 scation: Scrub/shrub
Are climatic / hydrologic conditions on the site typical for this time o Are Vegetation, Soil, or Hydrologysignifican	f year? Yes Yes No (If no, explain in h htly disturbed? Are "Normal Circumstances" problematic? (If needed, explain any answ	Remarks.) present? Yes 🔛 No 🛄 ers in Remarks.)
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes No Remarks:	L Is the Sampled Area within a Wetland? Yes	<u>× No</u>
The sampling point is within Wetland F.		
HYDROLOGY		
Water Marks (B1) Hydrogen S Sediment Deposits (B2) Oxidized RI Drift Deposits (B3) Presence o Inton Deposits (B5) Thin Muck S Inton Deposits (B5) Other (Expl Other (Expl Field Observations: Surface Water Present? Yes Water Table Present? Yes Water Table Present? Yes No Depth (ind)	Jyy Surface Soi ied Leaves (B9) Sparsely Vi ied Leaves (B9) Draimage P is (B15) (LRR U) Draimage P isdlide Odor (C1) Dry-Season izzosphares on Living Roots (C3) Crayfish Bay Reduction in Tilled Soils (C6) Saturation N Surface (C7) Shallow Aq ala in Remarks) FAC-Neutra hes): Wetland Hydrology Prese	Lines (B16) Water Table (C2) irrows (C8) Visible on Aerial Imagery (C9) c Position (D2) uitard (D3) al Test (D5)
Remarks: Wetland hydrology indicators present.		

VEGETATION -- Use scientific names of plants.

Sampling Point: Wetland F

Tree Stratum (Plot size: 30 foot radius)	Absolute K Course	Dominant Species?		Dominance Test worksheet:
1. Liquidambar styraciflua	20%	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
2. Acer rubrum	15%	Yes	FAC	Total Number of Dominant
3				Species Across All Strata: 7(B)
4				Percent of Dominant Species
5 6				That Are OBL, FACW, or FAC: 100% (A/B)
67				Prevalence (ndex worksheet:
	35%	= Total Cov	er	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 foot radius)				OBL species x 1 =
1. Acer rubrum 2. Cyrilla racemiflora	- 10% 10%	Yes Yes	FAC	FACW species x 2 =
	10 %	163	PAGW	FAC species x 3 = FACU species x 4 =
3				UPL species x 5 =
5				Column Totals: (A) (B)
6				
7				Prevalence Index = B/A =
Shrub Stratum (Plot size: 30 foot radius)	20%	= Total Cov	er -	Hydrophytic Vegetation Indicators: Dominance Test is >50%
<u>Shrub Stratum</u> (Plot size: <u>50 1001 (20105</u>) 1 Cyrilla racemiflora	15%	Yes	FACW	Dominance rest is >50% Prevalence Index is ≤3.01
2 Lyonia lucida	15%	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3.				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Vegetation Strata:
7				Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 foot radius	30%	= Total Cov	er	approximately 20 ft (6 m) or more in height and 3 in.
Smilax rotundifolia	5%	Yes	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2				Sapling – Woody plants, excluding woody vines, 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.
б				Herb All herbaceous (non-woody) plants, including
				herbaceous vines, regardless of size. Includes 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				······
12.				
	5%	= Total Cov	er	
Woodv Vine Stratum (Plot size: 5 foot radius)				
1				
2				
3				
5.				Hydrophytic
		= Total Cov	er	Vegetation Present? Yes X No
Remarks: (If observed, list morphological adaptations b	elow).			I
Hydrophytic vegetation present.				

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SOIL								Point: Wetla	und F
Profile Desc Depth	ription: (Describe Matrix	to the depth		ument the indic lox Features	ator or confirm	n the absence of	indicators.)		
(inches)	Color (moist)	%	Color (moist)		pe ¹ Loc ²	Texture	Ren	arks	
1-20"	10 YR 2/1	100				Loam			·
		·							
¹ Type: C=Ce	incentration, D=Dep	letion, RM=F	Reduced Matrix (S=Covered or C	Coated Sand G	rains ² locati	on: PL=Pore Li	nina M=Matri	<u></u>
Hydric Soil I			leddoed marin, i				Problematic H		<u></u>
Histosol	(A1) iipedon (A2)			Below Surface (S Surface (S9) (LR			k (A9) (LRR O) k (A10) (LRR S)		
🔲 Black Hi				sky Mineral (F1)			Vertic (F18) (ou		50A,B)
	n Sulfide (A4) I Layers (A5)		Loamy Gle	yed Matrix (F2) latrix (F3)			Floodplain Soils Is Bright Loamy		", S, T)
	Bodies (A6) (LRR P.			k Surface (F6)		(MLRA			
	cky Mineral (A7) (LF esence (A8) (LRR U			ark Surface (F7) ressions (F8)			nt Material (TF2)		
	ick (A9) (LRR P, T)	;	Mart (F10)				low Dark Surfac plain in Remarks		< 1, U)
	Below Dark Surface	e (A11)		chric (F11) (MLF	RA 151)	(-7	
Thick Da	ark Surface (A12)			inese Masses (F		T) ³ Indicato	rs of hydrophytic	vegetation a	nd
	rairie Redox (A16) (N			face (F13) (LRR			d hydrology mus		
	lucky Mineral (S1) (L ileyed Matrix (S4)	.RR 0, S)		ic (F17) (MLRA 1 ertic (F18) (MLR			disturbed or pro	blematic.	
	edox (S5)			Toodplain Soils (
	Matrix (S6)					A 149A, 153G, 16	i3D)		
	face (S7) (LRR P, S								
	.ayer (if observed):								
Type: Depth (ind						11.1.1.0.1.0.		× No	
Remarks:	mes):					Hydric Soil Pr	esent? Yes_		
Califarita.							·		
lydric soils	i present.								

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Airport Industrial Site	City/County: Sumter/ Sum	iter s	Sampling Date: 2/3/2010
Applicant/Owner: Sumter County		State. SC	Sempling Point, Upland A
Investigator(s): C. Daves/ A. White	Section Township Bange	orthwest of Hwy	15/ Brewington Rd insct.
Landform (hillslope, terrace, etc.): Slope	Local relief (concave, convex	Convex	Slope (%): 3%
Subregion (LRR or MLRA):	t: 33.9907 Long:	-80.3465	Sible (%) Datum: WGS84
Soll Map Unit Name: MOA - Norfolk loamy sand	Long:		Unland
	Voc	NWI classificat	
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes <u>183</u> No	(If no, explain in Rei	, wa wa
Are Vegetation, Soil, or Hydrology si		al Circumstances" pre	esent? Yes 🔜 No 🛄
Are Vegetation, Soil, or Hydrology na	turally problematic? (If needed,	explain any answers	in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	howing sampling point locati	ons, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes X No			
Hydric Soil Present? Yes No	Is the Sampled Area		
Wetland Hydrology Present? Yes V	within a Wetland?	Yes L	NoX
Remarks:	i		
The sampling point is within Upland adjacent to	Motiond A		1
The sampling point is within optand adjacent to	Welland A.		-
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicate	rs (minimum of two required)
Primary Indicators (minimum of one is required; check all th	at app(v)	Surface Soil C	racks (B6)
Surface Water (A1)	r-Stained Leaves (B9)	Sparsely Vege	tated Concave Surface (B8)
	tic Fauna (B13)	Drainage Patte	erns (810)
	Deposits (B15) (LRR U)	Moss Trim Lin	es (B16)
	gen Sulfide Odor (C1)		ater Table (C2)
	zed Rhizospheres on Living Roots (C3)		
	nce of Reduced Iron (C4)	=	ble on Aerial Imagery (C9)
	nt Iron Reduction in Tilled Soils (C6)	Geomorphic P	
	Muck Surface (C7)	Shallow Aquita	
	(Explain in Remarks)	FAC-Neutral T	est (D5)
Field Observations: Surface Water Present? Yes No 🗵 Dep	h (inches):		
	h (inches):		
Saturation Present? Yes L. No X Dep (includes capillary fringe)	h (inches): Wetland	Hydrology Present?	Yes <u> No </u>
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous inspections), if av	ailable:	
Remarks:			
Remarks			
Wetland hydrology indicators not present.			
In the second of the second seco			

VEGETATION - Use scientific names of plants.

Sampling Point Upland A

	% Cover	Species?	Status	Dominance Test work	!		
<u>Tree Stratum</u> (Plot size: <u>30 foot radius</u>) 1. Liquidambar styraciflua	20%	Yes	FAC	Number of Dominant Sp That Are OBL, FACW, 6			(A)
2. Acer rubrum	10%	Yes	FAC	Total Number of Domin			
3. Quercus nigra	10%	Yes	FAC	Species Across All Stra			(B)
4							
5				Percent of Dominant Sp That Are OBL, FACW,		0%	(A/B
6							
7				Prevalence Index wor			
	40%	= Total Co	/er	Total % Cover of:			
Sapling Stratum (Plot size: 30 foot radius)	100/	¥	FAC		× 1 = _		
Acer rubrum	<u> </u>	Yes	FAC	FACW species			_
Quercus nigra		Yes	FAC		x 3 =		-
3				FACU species			-
4					x 5 =		
5				Column Totals:	(A)		_ (B
5				Prevalence Index	- 8/4 -		
7				Hydrophytic Vegetatio			
<u>Shrub Stratum</u> (Plot size: <u>30 foot radius</u>)	20%	= Total Cov	er	Dominance Test is		-	
				Prevalence Index is			
l. <u></u>				Problematic Hydrop		kien ¹ (Evelai	<u>اما</u>
2				Problemade righting	priyue vegeta	oon (mybia	10
3				findicators of hydric soi	i ond wollond	hudrolocture	aunt
4				be present, unless dist.	arbed or proble	ematic.	nusi
5				Definitions of Vegetat	ion Strata:		
6 7				Tree – Woody plants, e approximately 20 ft (6 n	excluding wood n) or more in h	neight and 3	
5		= Total Cov	er	Tree – Woody plants, e	excluding wood n) or more in h imeter at breas is, excluding w n) or more in h	neight and 3 st height (D voody vines.	BH),
6. 7. <u>Heth Stratum</u> (Plot size: 5 foot radius) 1) 2. 3. 4 5		= Total Cov	er 	Tree – Woody plants, e approximately 20 ft (6 n (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 n	excluding wood n) or more in h imeter at breas is, excluding w n) or more in h i. , excluding wo	neight and 3 st height (D voody vines. neight and k ody vines,	BH),
6		= Total Cov	er	Tree – Woody plants, e approximately 20 ft (6 rt (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 rt than 3 in. (7.6 cm) DBH Shrub - Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi	excluding wood n) or more in h imeter at breas is, excluding w n) or more in h t. excluding wo t (1 to 6 m) in l (non-woody) p ardless of size.	eight and 3 st height (D voody vines, neight and k ody vines, height, plants, inclu	BH). ess ding vood
6			er 	Tree – Woody plants, e approximately 20 ft (6 m (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 m than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) in height.	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h t. excluding wo t (1 to 6 m) in l (non-woody) p rolless of sp ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BH), ess ding voody tely
6			er 	Tree – Woody plants, e approximately 20 ft (6 rt (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 rt than 3 in. (7.6 cm) DBH Shrub - Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h t. excluding wo t (1 to 6 m) in l (non-woody) p rolless of sp ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BH), ess ding voody tely
6			er 	Tree – Woody plants, e approximately 20 ft (6 m (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 m than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) in height.	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h t. excluding wo t (1 to 6 m) in l (non-woody) p rolless of sp ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BHi), ess ding vood tely
5			er 	Tree – Woody plants, e approximately 20 ft (6 m (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 m than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) in height.	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h t. excluding wo t (1 to 6 m) in l (non-woody) p rolless of sp ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BHi), ess ding vood tely
6			er 	Tree – Woody plants, e approximately 20 ft (6 m (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 m than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) in height.	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h t. excluding wo t (1 to 6 m) in l (non-woody) p rolless of sp ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BH), ess ding voody tely
6		= Total Cov	er	Tree – Woody plants, e approximately 20 ft (6 m (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 m than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) in height.	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h i. , excluding wo t (1 to 6 m) in l (non-woody) p rolless of size ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BH), ess ding voody tely
5		= Total Cov	er 	Tree – Woody plants, e approximately 20 ft (6 m (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 m than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) in height.	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h i. , excluding wo t (1 to 6 m) in l (non-woody) p rolless of size ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BH), ess ding voody tely
5		= Total Cov	er	Tree – Woody plants, e approximately 20 ft (6 m (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 m than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) in height.	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h i. , excluding wo t (1 to 6 m) in l (non-woody) p rolless of size ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BH), ess ding voody tely
6		= Total Cov	er	Tree – Woody plants, e approximately 20 ft (6 m (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 m than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) in height.	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h i. , excluding wo t (1 to 6 m) in l (non-woody) p rolless of size ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BH), ess ding voody tely
6		= Total Cov	er	Tree – Woody plants, e approximately 20 ft (6 n (7.6 cm) or larger in dia Sapling – Woody plants approximately 20 ft (6 n than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) height. Woody vine – All wood	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h i. , excluding wo t (1 to 6 m) in l (non-woody) p rolless of size ines, less than	eight and 3 st height (D voody vines, neight and k ody vines, height, blants, inclu , Includes v approxima	BH), ess ding voody tely
6		= Total Cov	er 	Tree – Woody plants, e approximately 20 ft (6 n (7.6 cm) or larger in dia Sapling – Woody plant approximately 20 ft (6 n than 3 in. (7.6 cm) DBH Shrub – Woody plants, approximately 3 to 20 ft Herb – All herbaceous herbaceous vines, rega plants, except woody vi 3 ft (1 m) height. Woody vine – All wood	excluding wood m) or more in h imeter at breas is, excluding w m) or more in h i. , excluding wo t (1 to 6 m) in l (non-woody) p rolless of size ines, less than	reight and 3 st height (D voody vines, height and k height. Jants, inclu . Includes v approxima rdiess of hei	BH), ess ding voody tely

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SOIL								S	ampling Point:	Uplan	d A
Profile Desc	ription: (Describe	to the dept	n needed to docum	ient the ir	dicator	or confirm	n the absence of				
Depth	Matrix			Features			.				
(inches) 1-20"	<u>Color (moist)</u> 10 YR 5/4	100	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u> Sand		Remarks		
1-20	10 1K 0/4	100					Sanu				. <u> </u>
[
<u> </u>											
	oncentration, D=Dep	Jotion Ether	Paduand Matrix OP	Coursed	or Cento	d Fand Cr	2,	tian: Di-	Pore Lining, M	-	
Hydric Soil		Netion, KM=	Reduced Matrix, Ca	=Covered	or Coate	d Sand Gr			matic Hydric S		
Histosol			Polyvalue Bei	and the set of the set	- /00/4		_				
	(AT) pipedon (A2)		Thin Dark Su								
	istic (A3)		Loamy Mucky						18) (outside M	U (26. 1)	50.6 121
	m Sulfide (A4)		Loamy Gleye			с,			in Soils (F19)		
	d Layers (A5)		Depleted Mat		-)				Loamy Soils (F19)		, 3, 1)
	Bodies (A6) (LRR F	. т. ца	Redox Dark S		51			153B)	Locally costs (I		
	icky Mineral (A7) (LI		Depleted Dar					ent Materi	al (TF2)		
	esence (A8) (LRR L		Redox Depre						Surface (TF12	2) (LRR	τ. υι
	ick (A9) (LRR P, T)	,	Mari (F10) (L		<i>,</i>			xplain in F		· · · · · ·	
	d Below Dark Surfac	æ (A11)	Depleted Och		MLRA 1	51)					
	ark Surface (A12)		Iron-Mangane				T) ³ Indicat	ors of hyd	frophytic veget	ation an	d
Coast P	rairie Redox (A16) (I	MLRA 150A	🛄 Umbric Surfa	ce (F13) (l	.RR P, T	, U)	wetia	nd hydrole	ogy must be pri	esent,	
Sandy N	fucky Mineral (S1) (LRR O, S)	🛄 Delta Ochric I	(F17) (MLI	RA 151)		unles	s disturbe	d or problemat	íc.	
	Sleyed Matrix (S4)		Reduced Ver								
	ledox (S5)		Piedmont Flo								
	Matrix (S6)		Anomalous B	right Loam	ny Soils (I	-20) (MLR	A 149A, 153C, 1	53D}			
	rface (S7) (LRR P,										
1	Layer (if observed)										
Type:											×
Depth (in	ches):						Hydric Soil P	resent?	Yes	No	
Remarks:											
II											
Hydric soil:	s not present.										
1											
1											
L							*************	·····			

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Airport Industrial Site	City/County: Sumter/ Sumter Sampling Date: 2/3/2010
Applicant/Owner: Sumter County	
Investigator(s): C. Daves/ A. White	Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.
	, Local relief (concave, convex, none): Convex Slope (%); 3%
Landiorm (hillstopé, terrace, etc.):	Jacal relief (concave, convex, none): <u>Stope (%): Jacal</u> Jacal Long: <u>-80.3492</u> Datum: WGS84
Subregion (LRR or MLRA): LINK - F Lat: 50.85	332 Long: -80.3492 Datum: WGS84
Soil Map Unit Name: NoA - Norfolk loamy sand	NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this time of y Are Vegetation Soil, or Hydrologysignificant Are Vegetation Soil, or Hydrologynaturally p SUMMARY OF FINDINGS Attach site map showin	y disturbed? Are "Normal Circumstances" present? Yes 🔛 No 🛄
Hydrophytic Vegetation Present? Yes X No X Hydric Soli Present? Yes No X Welland Hydrology Present? Yes No X Remarks:	within a Wetland? Yes L No
The sampling point is within Upland adjacent to Wetlan HYDROLOGY	ds B and C.
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Water Marks (B1) Hydrogen Sui Sediment Deposits (B2) Oxidized Rhiz Drift Deposits (B3) Presence of F Argal Mat or Crust (B4) Recent Iron Recent Iron Recent Iron R Iron Deposits (B5) Thin Muck Su Inundation Visible on Aerial Imagery (B7) Other (Explain Field Observations: Surface Water Present? Yes No Depth (inche Saturation Present? Saturation Present? Yes No Depth (inche Saturation Present?	I Leaves (B9) Sparsely Vegetated Concave Surface (B8) a (B13) Drainage Patterns (B10) (B15) (LRR U) Moss Trim Lines (B16) fide Odar (C1) Dry-Season Water Table (C2) ospheres on Living Roots (C3) Crayfish Burrows (C8) eduction in Tilled Soils (C6) Geomorphic Position (D2) rice (C7) Shallow Aquitar (D3) n in Remarks) FAC-Neutral Test (D5)
(includes capilary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pho Remarks:	tos, previous inspections), if available:
Wetland hydrology indicators not present.	

Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: 30 foot radius) <u>% Cover_Species?</u> Status Number of Dominant Species 3 That Are OBL, FACW, or FAC: 1. 2. Total Number of Dominant Species Across All Strata: 5 3. Percent of Dominant Species That Are OBL, FACW, or FAC: 60% 6. Prevalence Index worksheet: 7 Total % Cover of: Multiply by: = Total Cover Sapling Stratum (Plot size: 30 foot radius OBL species ___ x1=_ 1. FACW species x 2 = _ x 3 = FAC species 2. FACU species _ x 4 = UPL species x 5 = Column Totals: _ (A) 5 6. Prevalence Index = B/A = Hydrophytic Vegetation Indicators: = Total Cover Shrub Stratum (Plot size; 30 foot radius) 1. Rubus spp. Dominance Test is >50% 20% Yes FACU Prevalence Index is ≤3.0 2 Rhus copallinum 10% Yes NI Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

VEGETATION - Use scientific names of plants.

	_			
S				Definitions of Vegetation Strata:
7	30%	_ = Total C	over	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Eupatorium capillifolium	10%	Yes	FACU	(7.6 cm) or larger in diameter at breast height (DBH).
Andropogon virginicus	10%	Yes	FAC	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Verbena brasilliensis	5%	Yes	FAC	than 3 in. (7.6 cm) DBH.
Smilax rotund#olia	5%	Yes	FAC	Shrub - Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
3				Herb - All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size. Includes woody
3				plants, except woody vines, less than approximately 3 ft (1 m) in height.
a				
10	·····			Woody vine – All woody vines, regardless of height.
11				
12				
Noody Vine Stratum (Plot size: 5 foot radius	30%	= Total C	over	
1				· ·
2				
3				
4				Hydrophytic
5				Venetation
		= Total C	over	Present? Yes No
		= Total C	over	Present? Tes Lu No Lu

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Sampling Point: Up B/C

(A)

(B)

(A/B)

(B)

SOIL							Sampling Point; Up f	5/0
Profile Des	cription: (Describe	to the depth	needed to docur	nent the indicator	or confirm	n the absence of in		
Depth	Matrix			x Features		_		
(inches) 1-8"	<u>Color (moist)</u> 2.5 YR 4/3	100	Color (moist)	<u>% Type</u> 1	Loc ²	Sand	Remarks	
		100 - 100		· ·				
8-20*	2.5 YR 5/4	100		·		Sand		
						·		
						·		
1				·				
	Concentration, D=De I Indicators:	pletion, RM=R	educed Matrix, CS	S=Covered or Coat	ed Sand G		1: PL=Pore Lining, M=Mail roblematic Hydric Soils ³	
Histoso				low Surface (S8) (_	(A9) (LRR O)	•
	pipedan (A2)			iface (S9) (LRR S			(A10) (LRR S)	
	listic (A3)			y Mineral (F1) (LR			rtic (F18) (outside MLRA	150A.B
	en Sulfide (A4)			ed Matrix (F2)			ocoplain Soils (F19) (LRR	
	ed Layers (A5)		Depleted Ma				Bright Loamy Soils (F20)	
	c Bodies (A6) (LRR I		Redox Dark			(MLRA 15		
	ucky Mineral (A7) (L			rk Surface (F7)			Material (TF2)	
	resence (A8) (LRR I luck (A9) (LRR P, T)		Mari (F10) (L				w Dark Surface (TF12) (LF ain in Remarks)	RR T, U)
	ed Below Dark Surfa			hric (F11) (MLRA '	51)		an in iteniarka)	
	ark Surface (A12)	, ,		ese Masses (F12)		, T) ³ Indicators	of hydrophytic vegetation	and
Coast F	Prairie Redox (A16)	MLRA 150A)	Umbric Surfa	ce (F13) (LRR P,	r, u)		ydrology must be present	
	Mucky Mineral (S1) (LRR O, S)		(F17) (MERA 151)			sturbed or problematic.	
	Gleyed Matrix (S4)			tic (F18) (MLRA 1				
	Redex (S5)			odplain Soils (F19				
	d Matrix (S6) urface (S7) (LRR P, I	ст н	Lud Anomalous E	right Loamy Solis	(F20) (MLF	RA 149A, 153C, 153	וט	
	Layer (if observed)							
Type:	•••							
Depth (ir	nches):					Hydric Soil Pres	ent? Yes 🔲 No	×
Remarks:								
r								
Hydric soi	ls not present.							
1.8								

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

Project/Site: Airport Industrial Site City/County: Sumter/Sumter Sampling Date: 2/3/2010 Applicant/County: State: Sampling Point: Upland D Investigator(s): C. Daves/ A. White Section, Township, Range: Northwest of Hwy 15/ Brewington Rd instances Landform (hilistope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Stope (%): 3% Subregion (LRR or MLRA): LRR - P Lat: 34.9958 Long: -80.3566 Datum: WGSS Soil Map Unit Name: NoA - Norfolk loamy sand NWI classification: Upland Datum: WGSS Are vegetation Soil
Investigator(s): C. Daves/ A. While
Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3% Subregion (LRR or MLRA): LRR - P Lat: 34.9958 Long: 80.3566 Datum: WGSI Soil Map Unit Name: NoA - Norfolk loarny sand NWI classification: Upland Are climatic / hydrologic conditions on the site typical for this time of year? Yes Yes No
Subtregion (LRR or MLRA): LRR - P Lat: 34.9958 Long: 80.3566 Datum: WGSI Soil Map Unit Name: NoA - Norfolk loarny sand
Soil Map Unit Name: NoA - Norfolk loamy sand NWI classification: Upland Are climatic / hydrologic conditions on the site typical for this time of year? Yes No
Are climatic / hydrologic conditions on the site typical for this time of year? Yes 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, e Hydrophytic Vegetation Present? Yes No Hydrology Present? Yes No Wetland Hydrology Present? Yes No Remarks: The sampling point is within Upland adjacent to Welland D. HyDROLOGY Yes Wetland Hydrology Indicators: Secondary Indicators (minimum of two regulares)
Are Vegetation Soil or Hydrology signilicantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation Soil or Hydrology naturally problematic? (If needed, exptain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, e Hydrologi Present? Yes No Is the Sampled Area Hydrology Present? Yes No Xes No Xes Remarks: No Xes No Xes No Xes No Xes Hydrology Present? Yes No Xes
Are Vegetation Soil or Hydrology signilicantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation Soil or Hydrology naturally problematic? (If needed, exptain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, e Hydrologi Present? Yes No Is the Sampled Area Hydrology Present? Yes No Xes No Xes Remarks: No Xes No Xes No Xes No Xes Hydrology Present? Yes No Xes
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, e Hydrolphytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes No Is the Sampled Area within a Wetland? Yes Is the Sampled Area within a Wetland? Yes
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, e Hydrophytic Vegetation Present? Yes Hydrophytic Vegetation Present? Yes Yes No No Is the Sampled Area within a Wetland? Yes No Remarks: The sampling point is within Upland adjacent to Wetland D. HYDROLOGY Wetland Hydrology Indicators:
Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Hydroiogy Present? Yes No Is the Sampled Area within a Wetland? Remarks: No Is The sampling point is within Upland adjacent to Wetland D. HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two regular)
Hydric Soil Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Wetland Hydrology Present? Yes No Is the Sampled Area Remarks: The sampling point is within Upland adjacent to Wetland D. Yes No HYDROLOGY Secondary Indicators: Secondary Indicators (minimum of two regulize)
Hydric Soil Present? Yes No Xi Wetland Hydrology Present? Yes No Xi Remarks: No Xi Wetland? Yes No The sampling point is within Upland adjacent to Wetland D. Vetland Hydrology No Xi No HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two requires)
Wetland Hydrology Present? Yes L1 No L2 Remarks: The sampling point is within Upland adjacent to Wetland D. HYDROLOGY Secondary Indicators: Secondary Indicators (minimum of two regulizes)
The sampling point is within Upland adjacent to Welland D. HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators:
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two require)
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two require)
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two require)
Wetland Hydrology Indicators: Secondary Indicators (minimum of two require
Wetland Hydrology Indicators: Secondary Indicators (minimum of two require
Primary Indicators (minimum of one is required; check all that apply)
Sparsely Vegetated Concave Surface (B8)
📅 High Water Table (A2) 🔲 Aquatic Fauna (B13) 🔲 Drainage Patterns (B10)
Saturation (A3) Mari Deposits (B15) (LRR U) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Cividized Rhizospheres on Living Roots (C3) Craylish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Liron Deposits (B5) Li Thin Muck Surface (C7) Li Shallow Aquitard (D3)
Linundation Visible on Aerial Imagery (B7) Li Other (Explain in Remarks) Li FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes L No K Depth (inches):
Water Table Present? Yes No Z Depth (inches):
Saturation Present? Yes 🛄 No 🔣 Depth (inches): Wetland Hydrology Present? Yes No
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks;
Wetland hydrology indicators not present.
18

VEGETATION - Use scientific names of plants.

Sampling Point: Upland D

Tree Stratum (Plot size; 30 foot radius)		Species?	Status	Dominance Test worksheet: Number of Dominant Species
1. Pinus taeda	40%	Yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
2.				
3				Total Number of Dominant Species Across All Strata: 7 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 57% (A/R
6				That Are OBL, FACW, of FAC: (Ave
				Prevalence Index worksheet:
7	40%	= Total Co		Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 foot radius)			/ei	OBL species x 1 =
1 Quercus stellata	20%	Yes	FACU	FACW species x 2 =
2. Acer rubrum	10%	Yes	FAC	FAC species x 3 =
3.				FACU species x 4 =
4				UPL species x 5 =
				Column Totais; (A) (B
5				
6				Prevalence Index = B/A =
7.	30%			Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size; 30 foot radius)	30%	= Total Cov	er	Dominance Test is >50%
	10%	Yes	FACU	Prevalence Index is ≤3.0 ¹
				Problematic Hydrophytic Vegetation ¹ (Explain)
2				- Propertatic hydrophytic vegetation" (Explain)
3		<u> </u>		
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				pe present, unless disturbed of problematic.
6				Definitions of Vegetation Strata:
7.				The second secon
	10%	= Total Cov	er	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 foot radius)				(7.6 cm) or larger in diameter at breast height (DBH).
1 Lonicera japonica	5%	Yes	FAC	
2. Asplenium platyneuron	5%	Yes	FACU	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
3	_			than 3 in. (7.6 cm) DBH.
4.				
5				Shrub – Woody plants, excluding woody vines, 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. Includes wood plants, except woody vines, less than approximately
8		·		3 ft (1 m) in height.
9				
10,		·		Woody vine - All woody vines, regardless of height.
11				
12				
F 5	5%	= Total Cov	rer	
Woody Vine Stratum (Plot size: 5 foot radius)		.,		
1. Vitis rotundifolia	5%	Yes	FAC	
2				
3				
4.				
5.				Hydrophytic
v	5%	= Total Cov	/er	Vegetation Present? Yes No
		- 10101 000		
Remarks: (If observed, list morphological adaptations	below).			
ludrephutia vegetation present				
lydrophytic vegetation present.				
Hydrophytic vegetation present.				

US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region – Interim Version

US Army Corps of Engineers

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redux Features Tarkins Remarks 1:20 2.5 YR 5/6 100 Sand Sand Image: Control (Control (Con	SOIL						Sampling	Point: Uplan	ld D
Stand Color (molet) % Type Loc? Texture Remarks 12-20 2.5 YR 5/6 100 Sand Sand Sand 12-20* 2.5 YR 5/6 100 Sand Sand Sand Sand 12-20* 2.5 YR 5/6 100 Sand S	Profile Description: (Descr	ibe to the dept	needed to docum	ent the indicat	or or confirm	n the absence of i			
1.20 2.5 YR 4/3 100 Sand 12.20" 2.5 YR 5/6 100 Sand 12.20" 1.5 Sold hidleators: Init Dark Sold K(A) Init Dark Sold K(A) 12.20" 1.5 Sold Mitticators: Init Dark Sold K(A) Init Dark Sold K(A) Init Dark Sold K(A) 12.20" 1.5 Sold K(A) 1.5 Sold K(A) Init Dark Sold K(A) </td <td></td> <td></td> <td></td> <td></td> <td>1 1 0 2</td> <td>Tautua</td> <td>0</td> <td></td> <td></td>					1 1 0 2	Tautua	0		
12-20* 2.5 YR 5/6 100 Sand Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *:Coetion: PL=Pore Lining, M=Matrix. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *:Coetion: PL=Pore Lining, M=Matrix. Type: D=Depletion RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *:Coetion: PL=Pore Lining, M=Matrix. Histosol Indicators: Imate Case (S8) (LRR S, T, U) Imate Case (S8) (LRR S, T, U) Reduced Vetric (F19) (URR O) Histosol (A1) Polyvalue Balow Surface (S3) (LRR S, T, U) Reduced Vetric (F19) (URR O) Reduced Vetric (F19) (URR O) Histosol (A1) Polyvalue Balow Surface (S3) (LRR S, T, U) Reduce Dark Surface (F3) Reduced Vetric (F19) (URR O) Startified Layers (A5) Depleted Oark Surface (F7) Redox Dark Surface (F1) Matrix (F2) Mick Presence (A8) (LRR P, T, U) Depleted Oark Surface (F1) Other (Explain In Remarks) Depleted Oark Surface (F1) (URR A 150, 1) Organic Bodies (A3) Depleted Oark Surface (F1) (MLRA 150, 1) Other (Explain In Remarks) Depleted Oark Surface (F1) (MLRA 150, 1) Object Oark Surface (S3) (LRR P, T, U) Depleted Oark Surface (F1) (MLRA 150, 1) Other (Explain In Remarks) Deplete Oark Surface (F1) (MLRA 150, 1) </td <td></td> <td></td> <td></td> <td> TVDE</td> <td></td> <td></td> <td>Rem</td> <td>arks</td> <td></td>				TVDE			Rem	arks	
Type: C=Concentration, D=Depieldon, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Histoci (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 on Mixok (A9) (LRR O) Bick Hiels C(A3) Loamy Micky Mineral (F1) (LRR O) Pedmont Floodpain Soils (F19) (LRR P, S, T) Organic Boew Dark Surface (A8) Depleted Dark Surface (F7) Matrix (F3) Muck Phenenc (A8) (LRR P, T, U) Depleted Dark Surface (F7) Redox Dark Surface (F7) Muck Phenenc (A8) (LRR P, T) Depleted Oxtrix (F13) (LRR A153B) Redox Dark Surface (F12) (LRR T, U) Depleted Bow Dark Surface (A11) Depleted Oxtrix (F11) (MLRA 151) Other (Explain in Remarks) Doplevel Below Dark Surface (A12) Inort-Mangance Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and vetamot hydrophytic vegetation and vetamot floadpain Soils (F17) (MLRA 150A) Garky Micry (S1) (MIRA (S1) Depleted Vertic (F18) (MLRA 150A) Unitor Surface (F17) (MLRA 150A) *Indicators of hydrophytic vegetation and vetamot floadpain Soils (F17) (MLRA 150A) Barky Micry (S1) (MIRA (S1) Depleted Vertic (F18) (MLRA 150A) Unitor Surface (F17) (MLRA 150A) *Indicators of hydrophytic vegetation and vetamot surbace (S2) (MLRA 149A)									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils?: Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histosol (A2) Thin Dark Surface (S8) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Suffide Layers (A5) Corganic Bodies (A3) (LRR P, T, U) S om Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck (A8) (LRR P, T, U) Redox Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Dark Surface (F1) Red Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Boark Surface (F1) Red Dark Surface (F1) Muck (A8) (LRR P, T, U) Depleted Ochric (F11) (MLRA 151) Depleted Boark Surface (A12) Depleted Ochric (F11) (MLRA 151) Casat Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Anomalcus Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Hydric Soi	<u></u>	100				Sand			
Hydric Soil Indicators: Indicators for Problematic Hydric Soils?: Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histosol (A2) Thin Dark Surface (S8) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Suffide Layers (A5) Corganic Bodies (A3) (LRR P, T, U) S om Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck (A8) (LRR P, T, U) Redox Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Dark Surface (F1) Red Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Boark Surface (F1) Red Dark Surface (F1) Muck (A8) (LRR P, T, U) Depleted Ochric (F11) (MLRA 151) Depleted Boark Surface (A12) Depleted Ochric (F11) (MLRA 151) Casat Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Anomalcus Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Hydric Soi									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils?: Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histosol (A2) Thin Dark Surface (S8) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Suffide Layers (A5) Corganic Bodies (A3) (LRR P, T, U) S om Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck (A8) (LRR P, T, U) Redox Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Dark Surface (F1) Red Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Boark Surface (F1) Red Dark Surface (F1) Muck (A8) (LRR P, T, U) Depleted Ochric (F11) (MLRA 151) Depleted Boark Surface (A12) Depleted Ochric (F11) (MLRA 151) Casat Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Anomalcus Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Hydric Soi									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils?: Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histosol (A2) Thin Dark Surface (S8) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Suffide Layers (A5) Corganic Bodies (A3) (LRR P, T, U) S om Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck (A8) (LRR P, T, U) Redox Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Dark Surface (F1) Red Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Boark Surface (F1) Red Dark Surface (F1) Muck (A8) (LRR P, T, U) Depleted Ochric (F11) (MLRA 151) Depleted Boark Surface (A12) Depleted Ochric (F11) (MLRA 151) Casat Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Anomalcus Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Hydric Soi									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils?: Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histosol (A2) Thin Dark Surface (S8) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Suffide Layers (A5) Corganic Bodies (A3) (LRR P, T, U) S om Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck (A8) (LRR P, T, U) Redox Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Dark Surface (F1) Red Dark Surface (F7) Muck (A8) (LRR P, T, U) Redox Dark Surface (F1) Depleted Boark Surface (F1) Red Dark Surface (F1) Muck (A8) (LRR P, T, U) Depleted Ochric (F11) (MLRA 151) Depleted Boark Surface (A12) Depleted Ochric (F11) (MLRA 151) Casat Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F13) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Anomalcus Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Retartace (S7) (LRR P, S, T, U) Hydric Soi									
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Image: Statistic Epipedon (A2) Image: Thin Dark Surface (S9) (LRR S, T, U) Image: Construction (A10) Image: Construction (A10	Hydric Soil Indicators:	gagioron, run-1							••
Bick Histic (A3) Loamy Mucky Mineral (F1) (LRR 0) Reduced Vertic (F18) (outside ML RA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Straffied Matrix (F2) Depleted Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Muck Presence (A8) (LRR P, T, U) Redox Dark Surface (F7) Redox Dark Surface (F7) I om Muck (A9) (LRR P, T, U) Redox Dark Surface (F7) Redox Surface (F7) L oppleted Blow Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Verty Shallow Dark Surface (T12) (LRR T, U) D oppleted Blow Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR O, S) Depleted Blow Dark Surface (F13) (LRR A 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Reduced Vertic (F13) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Strafped Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalcus Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dept (inches): Type: Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Remarks:	Histosol (A1)		Polyvalue Bel	ow Surface (S8)	(LRR S, T, I	U) 🔲 1 cm Muck	(A9) (LRR O)		
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Dopleted Layers (A5) Coganic Bodies (A5) (LRR P, T, U) Depleted Dark Surface (F6) Mult RA 153B) Mack Presence (A5) (LRR P, T) Depleted Dark Surface (F7) Redox Depressions (F8) Very Shallow Dark Surface (TF12) (LRR T, U) Depleted Below Dark Surface (A1) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Mari (F10) (LRR U) Other (Explain in Remarks) Coast Printie Redox (A6) (MLRA 150A) Umbrid Surface (F12) (LRR O, P, T) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Bela Ochric (F17) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Remarks: Remarks: No No									
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Som Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) (LRR T, U) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (Explain in Remarks) Trick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ^a Indicators of hydrophytic vegetation and wednah hydrophytic (F13) (MLRA 149A) Stripped Matrix (S6) Pieldemytic (F13) (MLRA 149A, 153C, 153D) Type: Pieldemyti		R P. T. U1						0063 (1 20)	
I orm Muck (A9) (LRR P, T) Imati (F10) (LRR U) Imatic C(T1) (MLRA 150) Depleted Below Dark Surface (A11) Imatic C(T1) (MLRA 150) Imatic C(T1) (MLRA 150) Imatic C(T1) (MLRA 150) Casat Prairie Redox (Af6) (MLRA 150A) Imatic C(T1) (MLRA 151) Imatic C(T1) (MLRA 151) Imatic C(T1) (MLRA 151) Sandy Mucky Mineral (S1) (LRR 0, S) Imatic Control (F17) (MLRA 151) Imatic Control (F17) (MLRA 150A) Imatic Control (F17) (MLRA 150A) Sandy Gleyed Matrix (S4) Imatic Control (F17) (MLRA 150A) Imatic Control (F17) (MLRA 149A) Imatic Control (F17) (MLRA 149A) Stripped Matrix (S6) Imatic Control (F17) (MLRA 149A) Imatic Control (F17) (MLRA 149A) Imatic Control (F17) (MLRA 149A) Restrictive Layer (If observed): Type: Imatic Control (F17) (MLRA 149A) Imatic Control (F17) (MLRA 149A) Remarks: Remarks: Imatic Control (F17) (MLRA 149A) Imatic Control (F17) (MLRA 149A)									
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□ Cast Prairie Redox (A16) (MLRA 150A) □ Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. □ Sandy Mucky Mineral (S1) (LRR 0, S) □ Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. □ Sandy Gleyed Matrix (S4) □ Reduced Vertic (F18) (MLRA 150A, 150B) unless disturbed or problematic. □ Stripped Matrix (S6) □ Pledmont Floodplain Soits (F19) (MLRA 149A) unless disturbed or problematic. □ Dark Surface (S7) (LRR P, S, T, U) Pledmont Floodplain Soits (F19) (MLRA 149A, 153C, 153D) □ □ Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type:						T) ^a Indicator	s of hydrophytic	venetation ar	nd
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Sandy Redox (S5) Pladmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Laamy Soils (F20) (MLRA 149A, 153C, 163D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks:							disturbed or pro	blematic.	
□ Stripped Matrix (\$6) □ Anomalcus Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) □ Dark Surface (\$7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: □ Depth (inches): Remarks:		•)	=						
Contract Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes □ No 区 Remarks:							3D)		
Restrictive Layer (if observed): Type: Type:		P, S, T, U)		ingit mouthy con	, (1 20) (INC)	in 140A, 1000, 10	50)		
Depth (inches): Hydric Soil Present? Yes <u>No </u> Remarks:	Restrictive Layer (if observ	ed):							
Remarks:	Туре:							-	
	Depth (inches):					Hydric Soil Pre	sent? Yes	L. No_	×
Hydric soils not present.	Remarks:								
Hydric soils not present.									·
Hydric soils not present.	Villenad								
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Hydric soils not present.									
	Hydric soils not present.								

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Airport Industrial Site	City/County: Sumter/ Sumter	Sampling Date: 2/3/2010
Applicant/Owner: Sumter County		Sampling Point: Upland F
Investigator(s): C. Daves/ A. White	Section, Township, Range: Northwest	of Hwy 15/ Brewington Rd insct.
andform (hillelone, terrace, etc.). Slope	Local relief (concave, convex, pepe). Con	nvex Slope (%): 3%
Subregion (LRR or MLRA); LRR - P Lat: 34	4.0005 Long: -80.3517	Datum: WGS84
Soil Map Unit Name: NoA - Norfolk loamy sand		assification: Upland
Are climatic / hydrologic conditions on the site typical for this time Are Vegetation, Soil, or Hydrology signific Are Vegetation, Soil, or Hydrology natura SUMMARY OF FINDINGS – Attach site map show	cantly disturbed? Are "Normal Circumstan Ily problematic? (If needed, explain any	answers in Remarks.)
Hydrophytic Vegetation Present? Yes Xo No N	Is the Sampled Area	s No
The sampling point is within Upland adjacent to Wel	lland F.	
HYDROLOGY		
High Water Table (A2) Aquatic F Saturation (A3) Marl Depo Water Marks (B1) Hydrogen Sediment Deposits (B2) Oxidized Drift Deposits (B3) Presence In Inon Deposits (B5) Thin Muc Inon Deposits (B5) Thin Muc Indocessor (B5) Other (Ex Surface Water Present? Yes No Depth (ir Water Table Present? Yes No Depth (ir	prly) Surface ained Leaves (B9) Spars aura (B13) Draim osits (B15) (LRR U) Moss sulfide Odor (C1) Dry-S solfide Odor (C1) Dry-S rof Reduced iron (C4) Satura on Reduction in Tilled Solis (C5) Geom k Surface (C7) Satura pilain in Remarks) FAC-1 nches): modes wetland Hydrology	y Indicators (inhinimum of two required) the Soil Cracks (B6) lely Vegetated Concave Surface (B8) age Patterns (B10) Trim Lines (B16) eason Water Table (C2) sis Burrows (C8) ation Visible on Aerial Imagery (C9) torphic Position (D2) w Aquitard (D3) Neutral Test (D5) Present? Yes No
Remarks:		
Wetland hydrology indicators not present.		

Atlantic and Gulf Coastal Plain Region - Interim Version

Absolute Dominant Indicator Dominance Test worksheet Tree Stratum (Plot size: 30 foot radius % Cover Species? Status 20% Yes FAC Number of Dominant Species 1 Liquidambar styraciflua 5 That Are OBL, FACW, or FAC: (A) 10% 2 Quercus nigra Yes FAC Total Number of Dominant 8 Species Across All Strata: (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 63% (A/B) Prevalence Index worksheet: 30% = Total Cover Total % Cover of: Multiply by: Sapling Stratum (Plot size: 30 foot radius OBL species ____x1=_ 20% 1 Acer rubrum Yes FAC FACW species ____x2= 10% FACU 2 Quercus falcata Yes FAC species x 3 = _ 3. Quercus stellata 10% Yes FACU FACU species x 4 = UPL species ___x5=_ Column Totals: __ _ (A) _ (B) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 40% _ = Total Cover Shrub Stratum (Plot size: 30 foot radius Dominance Test is >50% 1 Quercus stellata 10% Yes FACU ___ Prevalence Index is ≤3.0⁴ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata: 7. Tree - Woody plants, excluding woody vines, 10% approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). _ = Total Cover Herb Stratum (Plot size: 5 foot radius Smilax rotundifolia 5% Yes 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. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 R (1 m) in height. Woody vine - All woody vines, regardless of height. 10 11 12 5% = Total Cover Woody Vine Stratum (Plot size: 5 foot radius 1. Vilis rotundifolia 5% Yes FAC 2. 3 Hydrophytic Vegetation 5 5% = Total Cover Present? Yes_ Remarks: (If observed, list morphological adaptations below). Hydrophytic vegetation present.

US Army Corps of Engineers

VEGETATION - Use scientific names of plants.

Atlantic and Gulf Coastal Plain Region - Interim Version

Sampling Point: Upland F

US Army Corps of Engineers

SOIL							Sampling	Point: Uplan	id F
Profile Des	cription: (Describ	e to the depth	needed to docu	ment the indicator	or confirm	the absence of in	dicators.)		
Depth	Matrix		Redo	x Features			_		
(inches) 1-20"	Color (moist) 10 YR 6/4	<u> </u>	Color (moist)	<u>% Type¹</u>	Loc ²		Rem	arks	
1-20	10 11 0/4	100				L. sand			
Type: C=C	Concentration, D=De	nietion RM=E	educed Matrix C	S=Covered or Cost	d Sand Gr	aine ² ocation	: PL=Pore Lin	ing Maklatris	
	Indicators:	spiedon, raw-r	equiced mann, c.	3-Covered or Coats		Indicators for F			۰.
Histoso			Polyvalue Be	alow Surface (S8) (I	RR S. T. I		-		
	Epipedon (A2)			urface (S9) (LRR S,			(A10) (LRR S)		
	listic (A3)			Wineral (F1) (LRF			ertic (F18) (out	side MLRA 1	50A.B)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)	•	Piedmont F	codplain Soils	(F19) (LRR P	, S, T)
Stratifie	ed Layers (A5)		Depleted Ma	itrix (F3)			Bright Loamy S		
📕 🛄 Organi	c Bodies (A6) (LRR	P, T, U)	Redox Dark	Surface (F6)		(MLRA 12	i3B)		
	lucky Mineral (A7) (I			rk Surface (F7)			Material (TF2)		
	resence (A8) (LRR		Redox Depre				w Dark Surface		ι Τ, U)
	luck (A9) (LRR P, T)		Marl (F10) (L			L. Other (Expl	ain in Remarks)	
	ed Below Dark Surfa Dark Surface (A12)	ice (ATT)		hric (F11) (MLRA 1 iese Masses (F12) (T) ³ la dioptora	of hydrophytic	usastetian or	n d
	Prairie Redox (A16)	(MI RA 150A)		ace (F13) (LRR P, T			virnyaropinyad nydrology musi		ιu
	Mucky Mineral (S1)			(F17) (MLRA 151)	, 0,		sturbed or prol		
	Gleyed Matrix (S4)			rtic (F18) (MLRA 15	0A. 150B)		biarboa at pros	sian(abb,	
	Redox (S5)			odplain Soils (F19)					
🔲 Strippe	d Matrix (S6)		Anomalous E	Bright Loarny Soils (F20) (MLR	A 149A, 153C, 153	D)		
	urface (S7) (LRR P,								
Restrictive	Layer (if observed	l):							
Type:									_
Depth (i)	nches):					Hydric Soil Pres	ent? Yes _	N₀	X
Remarks:									
Hydric soi	ls not present.								
1									
L									

APPROVED JURISDICTIONAL DETERMINATION FORM **U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Airport Industrial Site - Non-RPW #1 and #3 State:South Carolina County/parish/borough: Sumter City: Sumter

Center coordinates of site (lat/long in degree decimal format): Lat. -80.3530° N, Long. 33.9952° W.

Universal Transverse Mercator:

Name of nearest waterbody: Whites Mill Branch

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Black River

Name of watershed or Hydrologic Unit Code (HUC): Black River - 03040205

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

- 1. Waters of the U.S.
 - a. Indicate presence of waters of U.S. in review area (check all that apply): ¹
 - TNWs, including territorial seas
 - Wetlands adjacent to TNWs
 - Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 - Non-RPWs that flow directly or indirectly into TNWs
 - Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 - Impoundments of jurisdictional waters
 - Isolated (interstate or intrastate) waters, including isolated wetlands
 - b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: 2,289linear feet: width (ft) and/or 0.44 acres. Wetlands: 22.99 acres.
 - c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable):³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

 (i) General Area Conditions: Watershed size: acres Drainage area: acres Average annual rainfall: 42-44 inches Average annual snowfall: 0-1 inches

(ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>

 ☐ Tributary flows directly into TNW.
 ☑ Tributary flows through 3 tributaries before entering TNW.

Project waters are 15-20 river miles from TNW.
Project waters are 1 (or less) river miles from RPW.
Project waters are 1 (straight) miles from TNW.
Project waters are 1 (or less) aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: From on-site features to unnamed tributary of Whites Mill Branch to Whites Mill Branch to Rocky Bluff Swamp to Black River.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known: 1st.

b)	General	Tributary	Characteristics	(check all that apply)):
----	---------	-----------	------------------------	------------------------	----

((b)	General Tributary	Characteristics (check all that apply	'):					
		Tributary is:	☐ Natural						
		·	Artificial (man-made). Explai	n: M	an-made ditches constructed to drain Carolina Bays.				
			Manipulated (man-altered). E						
				r					
		Tributary propert Average widt Average dept Average side	h: 3 feet	mate):				
		riveruge side	stopes.						
		Primary tributary s Silts Cobbles Bedrock Other. Ex	substrate composition (check all that Sands Gravel Vegetation. Type/% plain:		Concrete				
		Tributary conditio	n/stability [e.g. highly eroding slou	ıohir	g banks]. Explain: Stable, rooted plants.				
			ffle/pool complexes. Explain: None		g banksj. Explain. Stable, footed plans.				
		Tributary geometr	y: Relatively straight (approximate average slope): 2 %	•					
((c)	Flow:							
			s for: Intermittent but not seasonal						
			number of flow events in review are						
			v regime: Infrequent but long-lived p						
		Other information	on duration and volume: Non-RPW	's fill	infrequently and drain slowly.				
		Surface flow is: Discrete and confined. Characteristics:							
		Subaurfaaa flawy	(Intraction Evaluin findings)						
			Unknown. Explain findings:	•					
			ther) test performed: .						
		Tributory has (abo	alt all that apply).						
		Tributary has (che							
		\square Bed and b							
			(check all indicators that apply):						
			natural line impressed on the bank	M	the presence of litter and debris				
			ges in the character of soil	Ц	destruction of terrestrial vegetation				
		shelv		Ц	the presence of wrack line				
			ation matted down, bent, or absent	Ц	sediment sorting				
			itter disturbed or washed away	Ц	scour				
			nent deposition	Ц	multiple observed or predicted flow events				
			staining		abrupt change in plant community				
		other							
		Discontin	uous OHWM.7 Explain:						
		TCC							
					teral extent of CWA jurisdiction (check all that apply):				
					In High Water Mark indicated by:				
			scum line along shore objects		survey to available datum;				
			hell or debris deposits (foreshore)		physical markings;				
		= • •	cal markings/characteristics		vegetation lines/changes in vegetation types.				
			gauges						
		other	(list):						
/ •• •	~								
(iii)	Che	emical Characteris	tics:						

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Blackwater system with low volume of suspended solids. Identify specific pollutants, if known: .

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. ⁷Ibid.
(iv) Biological Characteristics. Channel supports (check all that apply):

Riparian corridor. Characteristics (type, average width): Tributaries buffered by at least 25 feet of immature bottomland hardwood forest.

- Wetland fringe. Characteristics: Tributaries directly abut wetland areas.
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings: Provides a periodic connection to wetland areas.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a)

- <u>General Wetland Characteristics:</u> Properties: Wetland size:22.99acres Wetland type. Explain:Depressional - former Carolina Bay. Wetland quality. Explain:Impacted. Project wetlands cross or serve as state boundaries. Explain:
- (b) <u>General Flow Relationship with Non-TNW</u>: Flow is: Ephemeral flow. Explain: Wetlands periodically flood and drain into tributaries.
 - Surface flow is: Discrete

Characteristics: Flow occurs is during infrequent flood events.

Subsurface flow: **Unknown**. Explain findings: Dye (or other) test performed:

- (c) Wetland Adjacency Determination with Non-TNW:
 - Directly abutting
 - Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:
- (d) Proximity (Relationship) to TNW

Project wetlands are **15-20** river miles from TNW. Project waters are **10-15** aerial (straight) miles from TNW. Flow is from: **Wetland to navigable waters.** Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Wetland has been impacted by former agricultural practices but surface water is clear. Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:Provides habitat and increases bio-diversity.

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **3** Approximately (22.99) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts	? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)	
Wetland B	Y	1.85			
Wetland C	Y	8.29			
Wetland F	Y	12.85			

Summarize overall biological, chemical and physical functions being performed: The on-site wetland features (Wetlands B, C, and F) contribute to floodwater storage capacity, downstream water quality, and ecosystem biodiversity by means of the on-site Non-RPWs (NonRPW #1 and #3).

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: A direct hydrologic connection exists from the on-site wetlands (Wetlands B, C, and F) to the on-site Non-RPWS (NonRPW #1 and #3) to off-site RPWs and eventually the Black River (TNW). This connection allows for nutrient exchange and habitat continuity from the on-site features to the downstream systems. The on-site features contribute to floodwater storage capacity, downstream water quality, and ecosystem biodiversity by means of this connection.
- **3.** Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

- TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.
- 2. RPWs that flow directly or indirectly into TNWs.
 - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:

Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are
jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows
seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
Tributary waters: linear feet width (ft).
Other non-wetland waters: acres.

Identify type(s) of waters:

- 3. Non-RPWs⁸ that flow directly or indirectly into TNWs.
 - Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

acres.

.

- Tributary waters: 2,289 linear feet width (ft).
 - Other non-wetland waters:

Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
- Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: 22.99 acres.

7. Impoundments of jurisdictional waters.⁹

- As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
 - Demonstrate that impoundment was created from "waters of the U.S.," or
 - Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 - Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

which are or could be used by interstate or foreign travelers for recreational or other purposes.

⁸See Footnote # 3.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos*.

	 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
	Identify water body and summarize rationale supporting determination:
	 Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: . Wetlands: acres.
F.	 NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):
	Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: . Wetlands: acres.
	Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. Wetlands: acres.
<u>SE</u>	CTION IV: DATA SOURCES.
А.	 SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below): Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:S&ME, Inc. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: .
	 Data sheas prepared by the corps. Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps.
	 U.S. Geological Survey map(s). Cite scale & quad name:Sumter East, SC - 1982. USDA Natural Resources Conservation Service Soil Survey. Citation:Soil Survey of Florence and Sumter Counties sheets 44 & 56. National wetlands inventory map(s). Cite name:Sumter East, SC. State/Local wetland inventory map(s): . FEMA/FIRM maps: . 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date):Infrared 2006 NAPP.
	 or Other (Name & Date):Site Photos February 2010. Previous determination(s). File no. and date of response letter:SAC 80-2005-0184-4 (March 14, 2006). Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: Wetlands B, C, and F are jurisdictional features and part of a contiguous hydrologic system associated with the Black River. Wetland F directly abuts a Non-RPW #3 in the northern portion of the site and Wetlands B and C directly abut a Non-RPW #1 in the southern portion of the site. Non-RPW #1 and #3 each have an OHWM, hydric soils, lack rooted vegetation, and contained water during the time of the site visit. They create a direct surface connection from the on-site wetland features to subsurface pipes to off-site RPWs. The off-site RPWs were not assessed in the field but a continuous surface connection from Wetlands B, C, and F is evident on topographic maps, aerial imagery, and the NRCS soil survey. The on-site wetlands and Non-RPWs form a significant nexus with downstream features. The transfer of nutrients is possible from the on-site wetlands to on-site Non-RPWs, to off-site tributaries of Whites Mill Pond/ Rocky Bluff Swamp and eventually to the Black River. This connection creates habitat continuity, contributes to local biodiversity, and increases water quality.

APPROVED JURISDICTIONAL DETERMINATION FORM **U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Airport Industrial Site - PRPW #2

State:South Carolina County/parish/borough: Sumter City: Sumter Center coordinates of site (lat/long in degree decimal format): Lat. -80.3530° N, Long. 33.9952° W.

Universal Transverse Mercator:

Name of nearest waterbody: Whites Mill Branch

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Black River

Name of watershed or Hydrologic Unit Code (HUC): Black River - 03040205

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

- 1. Waters of the U.S.
 - a. Indicate presence of waters of U.S. in review area (check all that apply): ¹
 - TNWs, including territorial seas
 - Wetlands adjacent to TNWs
 - Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 - Non-RPWs that flow directly or indirectly into TNWs
 - Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 - Impoundments of jurisdictional waters
 - Isolated (interstate or intrastate) waters, including isolated wetlands
 - b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: 3,581linear feet: 10.86 width (ft) and/or 0.86 acres. Wetlands: 28.83 acres.
 - c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):
- 2. Non-regulated waters/wetlands (check if applicable):³
 - Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

 (i) General Area Conditions: Watershed size: Pick List Drainage area: Pick List Average annual rainfall: inches Average annual snowfall: inches

(ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>

 ☐ Tributary flows directly into TNW.
 ☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are Pick List river miles from TNW.
Project waters are Pick List river miles from RPW.
Project waters are Pick List aerial (straight) miles from TNW.
Project waters are Pick List aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: . . Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

	General Tributary Characteristics (check all that apply): Gributary is: Image: Antificial (man-made). Explain: Image: Image: Antificial (man-made). Explain: Image: Antificial (man-made). Explain: Image:
Т	Cributary properties with respect to top of bank (estimate): Average width: feet Average depth: feet Average side slopes: Pick List .
Ρ	Primary tributary substrate composition (check all that apply): Concrete Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Other. Explain:
P T	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Tresence of run/riffle/pool complexes. Explain: Tributary geometry: Pick List Tributary gradient (approximate average slope): %
T E	Flow: Fributary provides for: Pick List Estimate average number of flow events in review area/year: Pick List Describe flow regime: Describe flow regime: Other information on duration and volume:
S	Surface flow is: Pick List. Characteristics:
S	Subsurface flow: Pick List. Explain findings: . Dye (or other) test performed: .
Т	Cributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM. ⁷ Explain:
I	f factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Mean High Water Mark indicated by: oil or scum line along shore objects survey to available datum; fine shell or debris deposits (foreshore) physical markings/characteristics tidal gauges other (list):
	ical Characteristics: cterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Explain: Identify specific pollutants, if known:

(iii)

.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. ⁷Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:

Federally Listed species. Explain findings:

- Fish/spawn areas. Explain findings:
- Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

- (a) <u>General Wetland Characteristics:</u> Properties: Wetland size: acres Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Explain:
- (b) <u>General Flow Relationship with Non-TNW</u>: Flow is: **Pick List**. Explain:

Surface flow is: Pick List Characteristics:

Subsurface flow: **Pick List**. Explain findings:

(c) <u>Wetland Adjacency Determination with Non-TNW:</u>

- Directly abutting
- □ Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW. Project waters are **Pick List** aerial (straight) miles from TNW. Flow is from: **Pick List**. Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: . Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List** Approximately () acres in total are being considered in the cumulative analysis. For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.

2. <u>RPWs that flow directly or indirectly into TNWs.</u>

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: PRPW #2 is depicted as a named feature on a USGS quadrangle map and is shown as a drainage feature on the USDA Soil Survey. Flow was observed in PRPW #2 and an OHWM was evident. The stream was further characterized by absence of rooted vegetation, rack lines, sediment sorting, and areas of disturbed leaf litter.

Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: **3,581** linear feet **10.46** width (ft).
- Other non-wetland waters: **0.32** acres.

Identify type(s) of waters: Wetland-dug open water ponds (Ponds H and I).

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
 - Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Wetlands A, D, and E share direct surface connections with USGS blue-line features. Wetlands D and E surround both sides of Whites Mill Branch within the site boundaries. Wetland A is part of a larger off-site wetland system that shares a direct surface connection with a tributary of Whites Mill Pond.
- Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: 24.97 acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

- As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
 - Demonstrate that impoundment was created from "waters of the U.S.," or
 - Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 - Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

which are or could be used by interstate or foreign travelers for recreational or other purposes.

from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

which are or could be used for industrial purposes by industries in interstate commerce.

⁸See Footnote # 3.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos*.

	 Interstate isolated waters. Explain: Other factors. Explain:
	Identify water body and summarize rationale supporting determination:
	 Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: . Wetlands: acres.
F.	 NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):
	Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: .
	Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: . Wetlands: acres.
<u>SE(</u>	CTION IV: DATA SOURCES.
A .	 SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below): Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:S&ME, Inc. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name:Sumter East, SC - 1982. USDA Natural Resources Conservation Service Soil Survey. Citation:Soil survey of Florence and Sumter Counties sheets 44 & 56.
	 U.S. Geological Survey map(s). Cite scale & quad name:Sumter East, SC - 1982. USDA Natural Resources Conservation Service Soil Survey. Citation:Soil survey of Florence and Sumter Counties sheets 44 & 56. National wetlands inventory map(s). Cite name:Sumter East, SC. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date):Infrared 2006 NAPP. or Other (Name & Date):Site Photos February 2010. Previous determination(s). File no. and date of response letter:SAC 80-2005-0184-4 (March 14, 2006). Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: Wetlands D and E directly abut PRPW #2 (White's Mill Branch). Whites Mill Branch is an on-site RPW also depicted on topographic maps and the USDA soil survey. The perennial stream and adjacent wetlands share a continuous surface connection allowing for nutrient transfer and habitat continuity. This system continues off-site and flows east into Whites Mill Pond/ Rocky Bluff Swamp and eventually into the Black River (TNW). Wetlands D and E are adjacent to open water ponds H and I. These features are jurisdictional but total acreage of ponds H and I (0.32 acres) has been calculated independent of the wetlands.

Wetland A is a jurisdictional feature that directly abuts an off-site RPW. This wetland is located in the southeast corner of the site and shares a direct surface connection with a larger wetland system located to the south and east of the site. Flow direction is from south, enters the site through a subsurface pipe, and fans out to a create the on-site wetland (Wetland A). Although hydric soils and standing water exist in this area, the feature (does not form) is not drained by an on-site RPW as no evidence of channelized flow such as an OHWM, disturbed vegetation, or scour was observed. Hydrology from Wetland A continues off-site to the east through approximately 300 feet of off-site wetland, flows through a subsurface pipe and enters a USGS mapped tributary of Whites Mill Branch. This off-site tributary was not assessed but a continuous surface connection from Wetland A to the RPW is evident on several common mapping sources. From this tributary, flow continues to Whites Mill Branch, then Whites Mill Pond/ Rocky Bluff Swamp and eventually into the Black River (TNW).

Appendix C

Draft Copy of Site Plat (Survey One, Inc.)

" I hereby state that to the best of my knowled accordance with the requirements of The Mini South Carolina, and meets or exceeds the rec no visible encroachments or projections other Accregis	Westand Avan D U124 Skol 2013 SEC 66.21 1125 55.972416W 40.21 1126 55.972416W 40.21 1127 55.972416W 40.21 1128 55.972417W 44.21 1129 55.972417W 44.21 1146 55.972417W 44.21 1147 14.9725417E 44.21 1148 55.972417W 45.25 1149 55.972417W 45.25 1141 14.9775417E 45.25 1142 55.972417W
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RVEY ONE, LLC SRTHWOOD ROAD, SUITE C ON, SOUTH CAROLINA 29072) 808-2300 CELL (803)413-9847 'ONE@WINDSTREAM.NET	Ionolitic Bond T 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100 61.00 100



L369	L368	L367	L366	L365	L364	L363	L362	1361	L360	L359	L358	1357	1330	1355	1354	1353	L352	L351	L350	L349	L348	L347	L346	L345	L344	L343	L342	L341	L340	L339	L338	L337	L336	L335	L334	L333	L332	1331	L330	L329	L328	L327	L326	L325	L324	L323	L322	L321	L320	L319	L318	L317	L316	L315	L314	L313	L312	L311	
\$54°17'41''W	N38°38'53''W	N34°31'12''W	N79°12'13''W	\$77°50'46''W	N49°01'23''W	N68°20'44"W	N70°42'05"W		N58°03'42''W	N38°24'14''W		W65°57'57''W	M.87.86.77N	N88°41'06''W	802,92°,00	\$73°55'05''W	\$32°22'17"W	\$21°45'56"W	\$32°36'52''W	500°05'16"W	\$37°38'33"E	546°24'30"E	01°	88°47'08	S72°59'41"E	N89°46'05"E	S65°32'00"E	100	\$63°32'36"₩	N81°55'56"W	N63°41'14''W)°20'22"	0'9'	s62°23'28"E	S20°11,18E	N86°10'51"E	80'11°	N33°25'59''W	N48°05'42"E	N20°26'10"W	N69°06'45"₩	N76°11'05"W	N50°37'38''W	N74°15'39''W	N68°21'12"W	N73°35'05''W	°56'03"	N55°18'58"₩	W76°00'39''W	\$85°01'25"W	N73°53'40''W	N87°38'33''W	N55°15'12''W	N02°07'32"E	N17°30'11''W	N55°20'36"W	N86°29'03''W	42°1	
21.33		47.20	60.75	57.05	65.69	47.05	40.18	128.08	36.09	31.76	69.26	29.63	26.34	34.29	36.20	53.02	53.25	41.02	26.33	40.27	40.25	45.12	42.75	105.70	54.79	108.32	283.60	47.91	34.78	26.36	53.85	96.58	60.32	141.16	215.18	60.02	191.46	26.73	47.82	44.67	45.05	38.63	43.22	38.02		50.45	46.12		16.03	42.74	N	53.86	57.70	52.83	37.75	22.53	62.34	όl	



LOCATION MAP

(N.T.S.)

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Mail Box Utility Manhole — Fence Line — Gas Line — Overhead Electric — Sanitary Sewer — Storm Drain — Storm Drain — Storm Drain — Fiber Optic Line — Fiber Optic Line — Fiber Optic Line	

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Underground Cable	Inderground Utility	Wetlands	Inderground Telephone	Underground Electric	ree Line	Fiber Optic Line	Water Line	Storm Drain	Sanitary Sewer	

Wetla Wetla Wetla Wetla Wetla Wetla Wetlands Summary

Pond "G" Pond "H" Pond "I" =

0.23 Acre

Non-RPW #1 = 0.27 Acre (1557.62 L.F.) P-RPW #2 (Whites Mill Br.)= 0.86 Acre (3581.17 Non-RPW #3 = 0.17 Acre (730.62 L.F.) Ŀ F.)

Jurisdictional Wetlands Total = 51.82 Acres Jurisdictional Ponds Total = 0.66 Acre RPW's Total = 1.3 Acres RPW Total Linear Footant Jurisdiction "

Total Tract Acreage = 268.20 Acres

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Appendix D

Previous USACE Letter March 14, 2006 (SAC-80-2005-0182-4)



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

March 14, 2006

Regulatory Division

Mr. Chris Daves S&ME, Inc. 134 Suber Road Columbia, SC 29210

Re: SAC 80-2005-0182-4 Sumter County

Dear Mr. Daves:

This is in response to your January 10, 2005, request for a wetland determination, on behalf of Sumter County, for a 200-acre tract located between Queen Chapel Road, Brewington Road, and the Sumter County Airport, north of the City of Sumter, Sumter County, South Carolina. The project area is depicted on the drawing you prepared and submitted, dated March 8, 2006, and entitled "Jurisdictional Waters Approximation Map Sumter Airport Industrial Park".

This drawing depicts approximate boundaries of wetlands and 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 representation of wetlands or other waters of the United States within the regulatory authority of this office. The property in question contains approximately 43.27-acres of federally defined freshwater wetlands or other waters of the United States which are subject to the jurisdiction of this office. The location and configuration of these areas are reflected on the drawing referenced above.

Based on an on-site inspection and a review of aerial photography and soil survey information, it has been determined that the boundaries shown on the referenced plat are a reasonable approximation of the location and boundaries of the wetlands or other waters of the United States found on this site. However, you are cautioned that this delineation is approximate, subject to change, and should be used for planning purposes only. This office should be contacted prior to performing any work in or around these approximated wetlands or other waters of the United States. In order for a more accurate determination to be provided, these areas should be surveyed and platted. Upon receipt of such a plat, this office can then issue a letter verifying the accuracy of the actual jurisdictional boundaries. You should also be aware that the areas identified as wetlands or other waters of the United States may be subject to restrictions or requirements of other state or local government entities.

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. Further, be advised that this **preliminary** jurisdictional determination is **not** an appealable action under the Corps of Engineers administrative appeal procedures defined at 33 CFR 331.

In future correspondence concerning this matter, please refer to SAC 80-2005-0182-4. 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 803-253-3444.

Respectfully,

to PB

Colton B. Bowles Biologist

Enclosure: Basis for Jurisdiction Customer Service Survey

Copy Furnished:

Quinton Epps S.C. Department of Health and Environmental Control Bureau of Water 2600 Bull Street Columbia, SC 29201

JURISDICTIONAL DETERMINATION U.S. Army Corps of Engineers

DISTRICT OFFICE: SAC FILE NUMBER 80-2005-0812-4

PROJECT LOCATION INFORMATION:

State: SC County: Sumter Center coordinates of site (latitude/longitude): 33.995633/80.352013 Approximate size of area (parcel) reviewed, including uplands: 200 acres. Name of nearest waterway: White Mill Branch Name of watershed: Waccamaw

JURISDICTIONAL DETERMINATION

Completed: Desktop determination

Site visit(s)

Date: Date(s): 3-21-2005

Jurisdictional Determination (JD):

- Preliminary JD Based on available information, in there appear to be (or) there appear to be no "waters of the United States" and/or "navigable waters of the United States" on the project site. A preliminary JD is not appealable (Reference 33 CFR part 331).
- Approved JD An approved JD is an appealable action (Reference 33 CFR part 331). Check all that apply:

There are "navigable waters of the United States" (as defined by 33 CFR part 329 and associated guidance) within the reviewed area. Approximate size of jurisdictional area:

There are "waters of the United States" (as defined by 33 CFR part 328 and associated guidance) within the reviewed area. Approximate size of jurisdictional area:

There are "isolated, non-navigable, intra-state waters or wetlands" within the reviewed area.
Decision supported by SWANCC/Migratory Bird Rule Information Sheet for Determination

of No Jurisdiction.

BASIS OF JURISDICTIONAL DETERMINATION:

A. Waters defined under 33 CFR part 329 as "navigable waters of the United States":

The presence of waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

B. Waters defined under 33 CFR part 328.3(a) as "waters of the United States":

(1) The presence of waters, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(2) The presence of interstate waters including interstate wetlands¹.

(3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce including any such waters (check all that apply):

- (i) which are or could be used by interstate or foreign travelers for recreational or other purposes.
- (ii) from which fish or shelifish are or could be taken and sold in interstate or foreign commerce.
- (iii) which are or could be used for industrial purposes by industries in interstate commerce.
- (4) Impoundments of waters otherwise defined as waters of the US.

(5) The presence of a tributary to a water identified in (1) - (4) above.

(6) The presence of territorial seas.

(7) The presence of wetlands adjacent² to other waters of the US, except for those wetlands adjacent to other wetlands.

Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above). If the jurisdictional water or wetland is not itself a navigable water of the United States, describe connection(s) to the downstream navigable waters. If B(1) or B(3) is used as the Basis of Jurisdiction, document navigability and/or interstate commerce connection (i.e., discuss site conditions, including why the waterbody is navigable and/or how the destruction of the waterbody could affect interstate or foreign commerce). If B(2, 4, 5 or 6) is used as the Basis of Jurisdiction, document the rationale used to make the determination. If B(7) is used as the Basis of Jurisdiction, document the rationale used to make adjacency determination: Site contains White Mill Branch, which drains into Rocky Bluff Swamp. Rocky Bluff Swamp empties into the Black River, which terminates in the Waccamaw River, a Section 10 waterbody.

High Tide Line indicated by:

tidal gages

other:

Ē

oil or scum line along shore objects

physical markings/characteristics

fine shell or debris deposits (foreshore)

Lateral Extent of Jurisdiction: (Reference: 33 CFR parts 328 and 329)

- Ordinary High Water Mark indicated by:
 - clear, natural line impressed on the bank
 - \boxtimes the presence of litter and debris
 - $\overline{\boxtimes}$ changes in the character of soil
 - \boxtimes destruction of terrestrial vegetation
 - \boxtimes shelving
 - \square other:

Mean High Water Mark indicated by:

survey to available datum; physical markings; vegetation lines/changes in vegetation types.

Wetland boundaries, as shown on the attached wetland delineation map and/or in a delineation report prepared by: S&ME, Inc.

Basis For Not Asserting Jurisdiction:

- The reviewed area consists entirely of uplands.

- Unable to confirm the presence of waters in 35 of it parts of 33 CFR part 328.3(a)(3). Headquarters declined to approve jurisdiction on the basis of 33 CFR part 328.3(a)(3). The Corps has made a case-specific determination that the following waters present on the site are the Corps has made a case-specific determination that the following waters present on the site are the corps of the United States:
 - 328.3.
 - Artificially irrigated areas, which would revert to upland if the irrigation ceased.
 - Artificial lakes and ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 - \Box Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons, \square
 - Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States found at 33 CFR 328.3(a).

Isolated, intrastate wetland with no nexus to interstate commerce.

Prior converted cropland, as determined by the Natural Resources Conservation Service. **Explain rationale:**

Non-tidal drainage or irrigation ditches excavated on dry land. Explain rationale: Other (explain):

DATA REVIEWED FOR JURSIDICTIONAL DETERMINATION (mark all that apply): Maps, plans, plots or plat submitted by or on behalf of the applicant.

- - This office concurs with the delineation report, dated 1-5-2005, prepared by (company): S&ME, Inc. This office does not concur with the delineation report, dated , prepared by (company):
- Data sheets prepared by the Corps.
- Corps' navigable waters' studies:

- U.S. Geological Survey Hydrologic Atlas:
- U.S. Geological Survey 7.5 Minute Topographic maps:
- \boxtimes U.S. Geological Survey 7.5 Minute Historic quadrangles: Sumter East
- U.S. Geological Survey 15 Minute Historic quadrangles:
 - USDA Natural Resources Conservation Service Soil Survey:
- National wetlands inventory maps:
- State/Local wetland inventory maps:
 - FEMA/FIRM maps (Map Name & Date):
- 100-year Floodplain Elevation is: (NGVD) \boxtimes
 - Aerial Photographs (Name & Date): 9-11204:100
 - Other photographs (Date):

Signature: Project Manager

- Advanced Identification Wetland maps:
- Ø Site visit/determination conducted on: 3-21-2005
- Applicable/supporting case law:
- Other information (please specify):

¹Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

²The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.