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 **Date:** 3-31-2010

County: Sumter **Total Acreage of Tract:** 268.20

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

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:

- ☒ 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
- ☒ 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:

○ 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 must be the present property owner or have the specific authority of the property owner to authorize Corps of Engineers employees or their agents to enter onto the property for on-site investigations if such is deemed necessary. Do not sign this form unless you are the owner, or have the specific authority of the property owner.

PRINTED NAME of person signing this form, below: Chris Daves, P.W.S.

Signature of Property Owner or Authorized Agent: Chris Daves

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

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

Northwest Branch
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.

Table 1 – Jurisdictional Wetlands

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

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.

Table 3 – Jurisdictional Ponds

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**

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.

Appendix D
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.

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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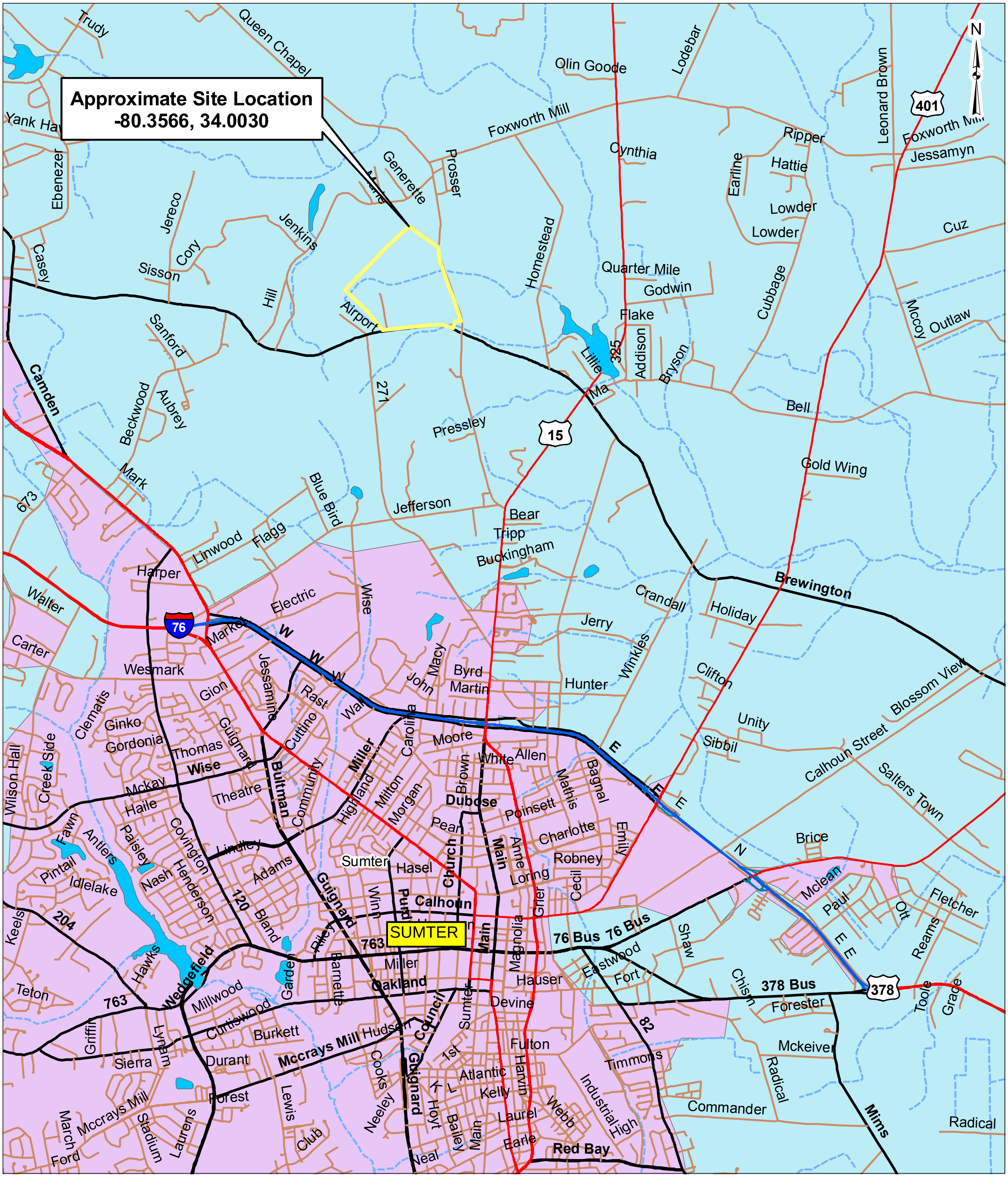
Appendix A

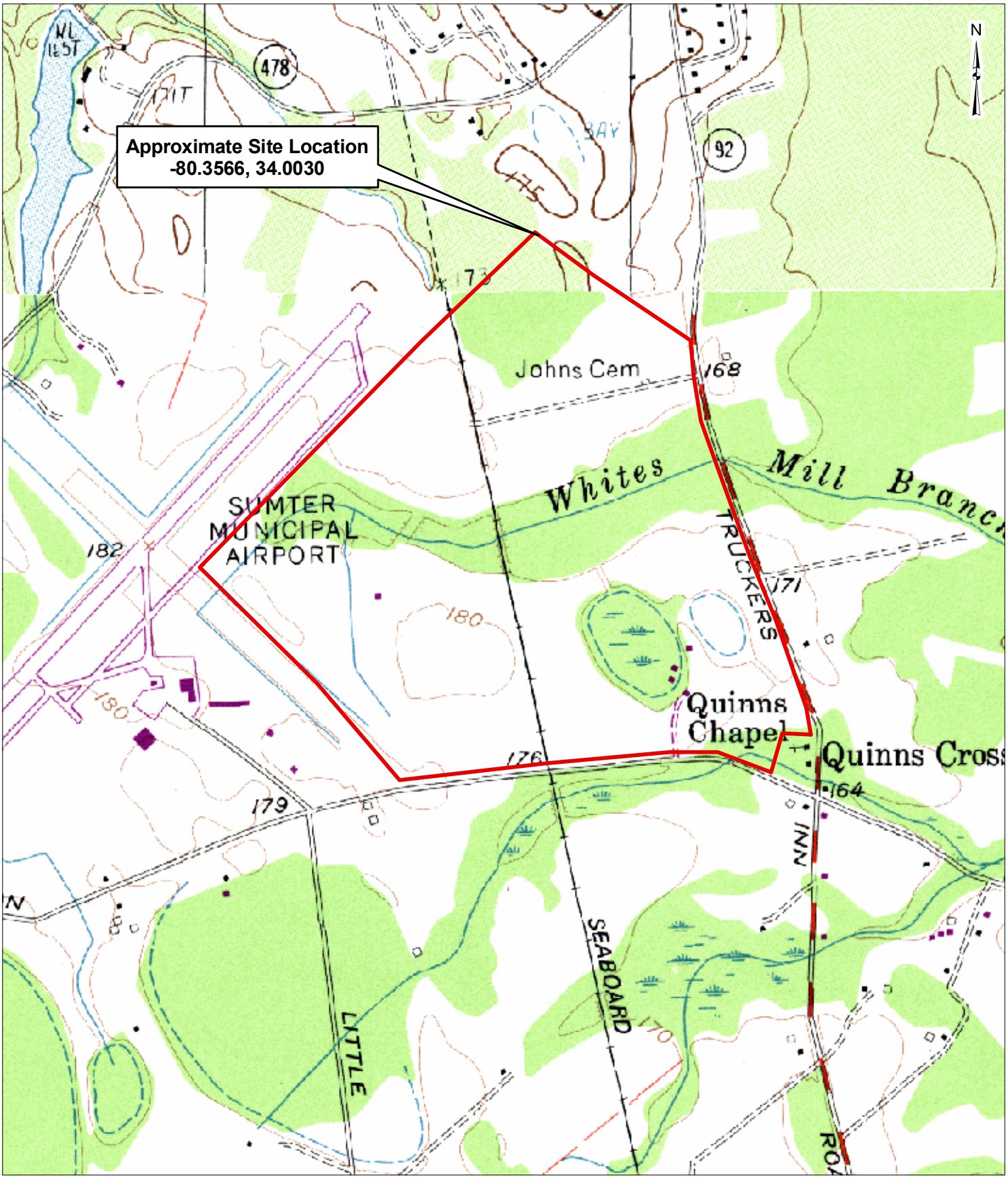
Vicinity Map
Topographic Map
Aerial Map
Soils Map
NWI Map
Site Photographs



SOURCE: ESRI Streetmap - 2007

Miles
0 0.5 1 2 3

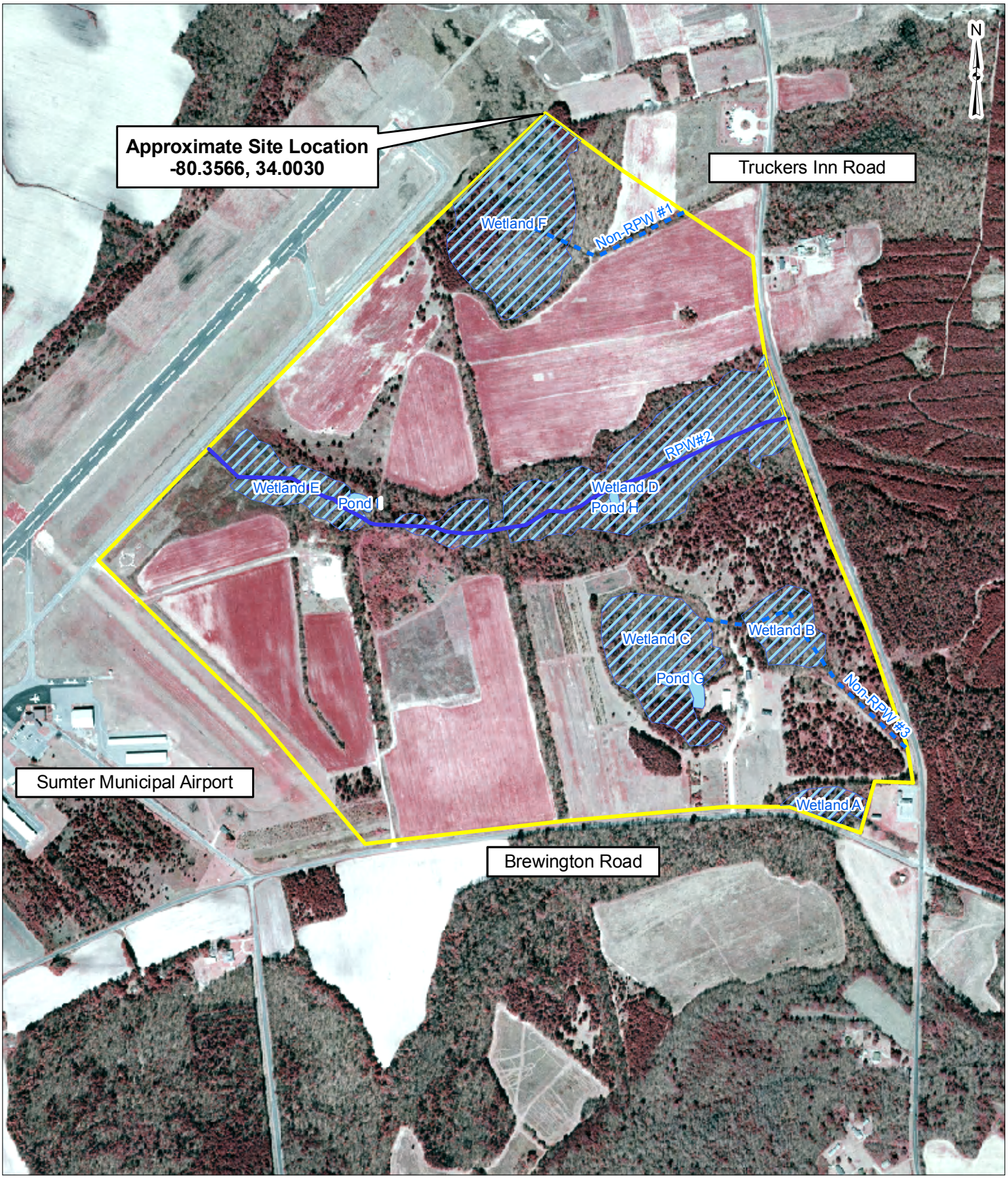
SCALE: 1 inch = 1 mile	S&ME	**Vicinity Map** Airport Industrial Park - 268.20 Acres Sumter, Sumter County, South Carolina	FIGURE NO.
CHECKED BY: WCD			1
DRAWN BY: ADW			
DATE: 3/31/2010		S&ME PROJECT NO. 1614-10-044	



SOURCE: USGS 7.5 - Minute Quadrangle Map
Sumter East - 1982

0 500 1,000 2,000 3,000 Feet

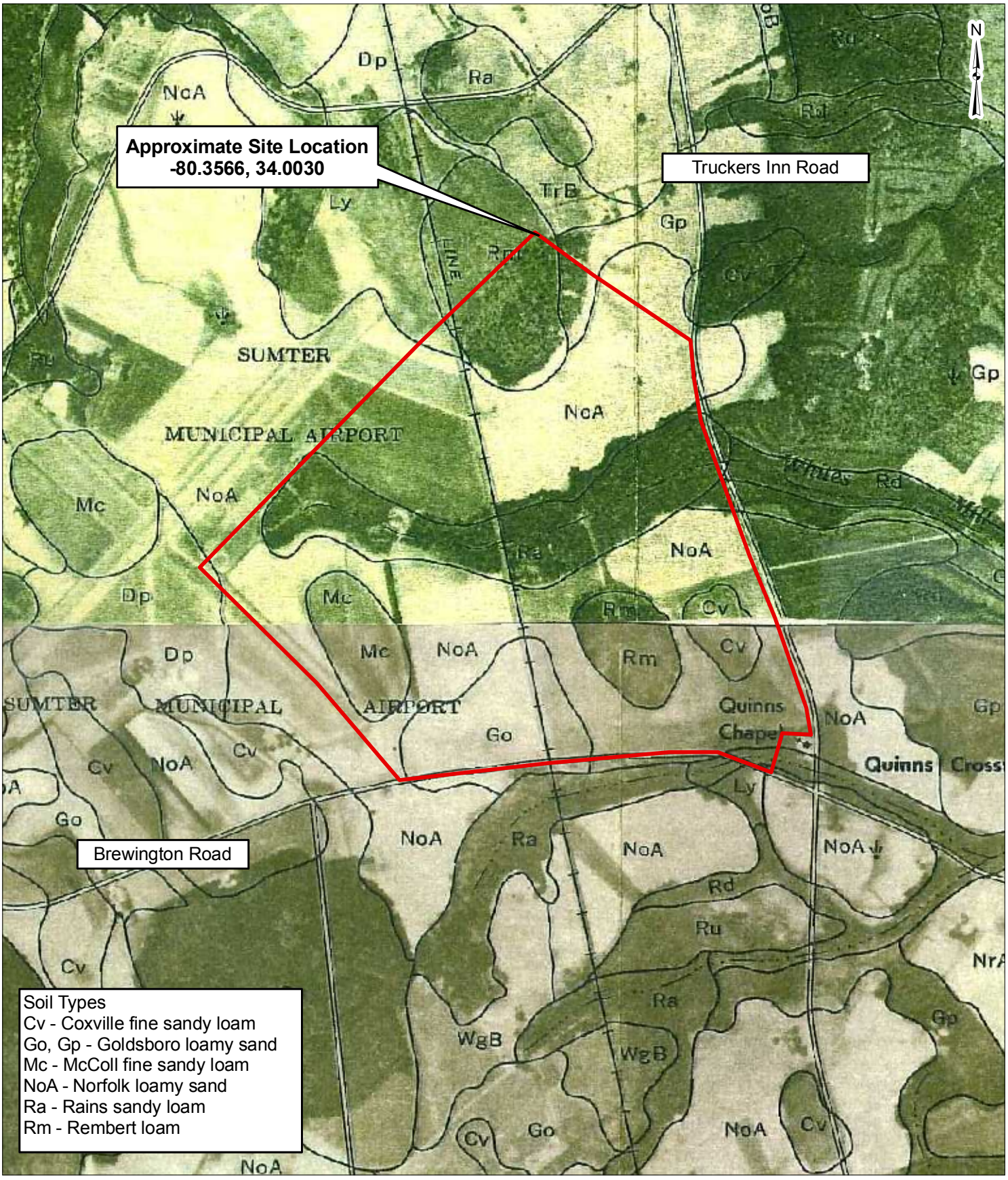
SCALE: 1 inch = 1,000 feet CHECKED BY: WCD DRAWN BY: ADW DATE: 3/31/2010	S&ME	**Topographic Map** Airport Industrial Park - 268.20 Acres Sumter, Sumter County, South Carolina S&ME PROJECT NO. 1614-10-044	FIGURE NO. **2**



SOURCE: NAPP Aerial Photograph - 2006

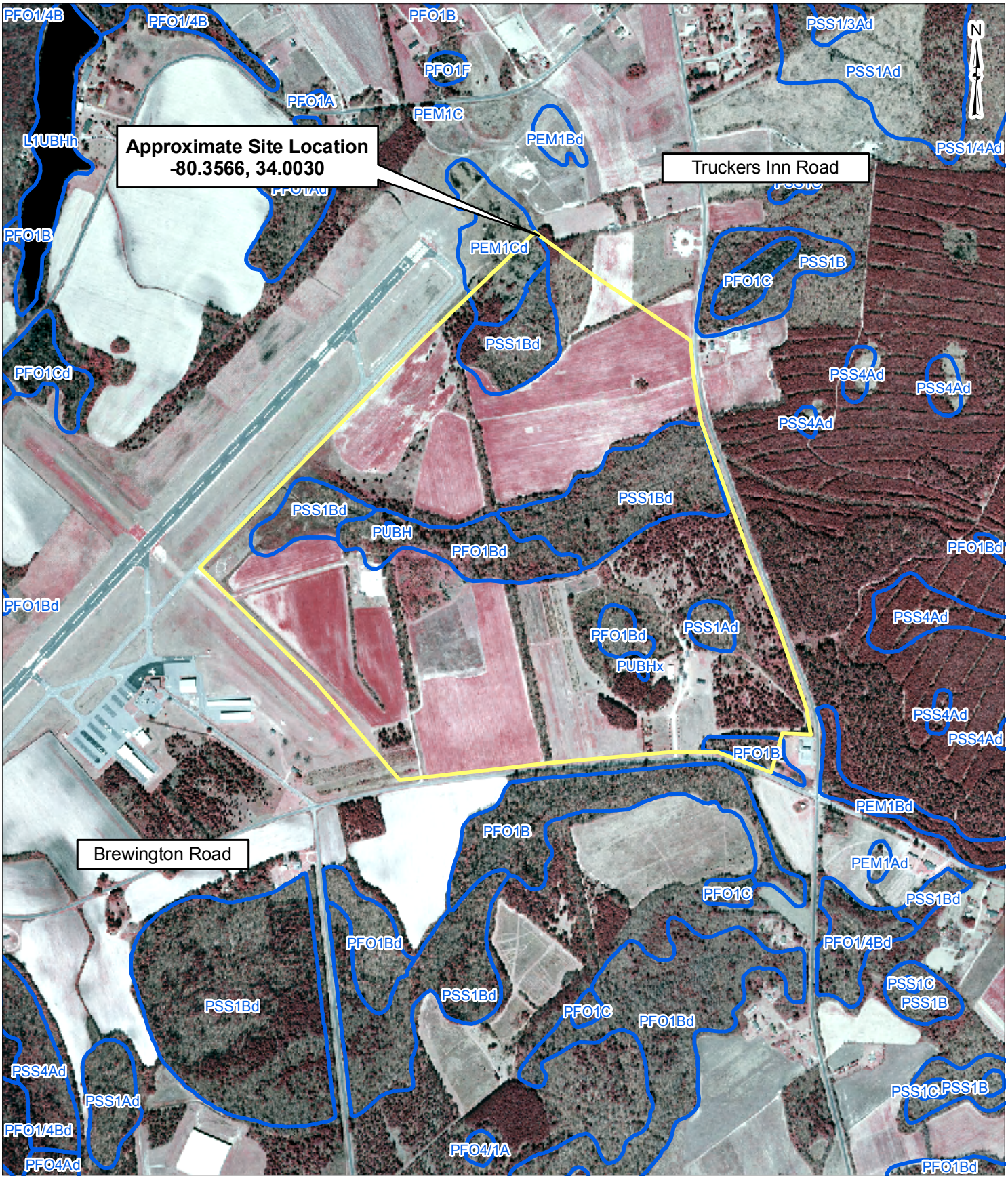
0 385 770 1,540 2,310 Feet

SCALE: 1 inch = 750 feet CHECKED BY: WCD DRAWN BY: ADW DATE: 3/31/2010	S&ME	**Aerial Map** Airport Industrial Park - 268.20 Acres Sumter, Sumter County, South Carolina S&ME PROJECT NO. 1614-10-044	FIGURE NO. **3**



SOURCE: NRCS Soil Survey - Florence and Sumter Counties Sheets 44 and 56

SCALE: 1 inch = 1,000 feet	S&ME	**Soils Map** Airport Industrial Park - 268.20 Acres Sumter, Sumter County, South Carolina	FIGURE NO. 4
CHECKED BY: WCD			
DRAWN BY: ADW			
DATE: 3/31/2010		S&ME PROJECT NO. 1614-10-044	



SOURCE: USFWS - National Wetlands Inventory

SCALE: 1 inch = 1,000 feet	S&ME	**NWI Map** Airport Industrial Park - 268.20 Acres Sumter, Sumter County, South Carolina	FIGURE NO. **5**
CHECKED BY: WCD			
DRAWN BY: ADW			
DATE: 3/31/2010		S&ME PROJECT NO. 1614-10-044	

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

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

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

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

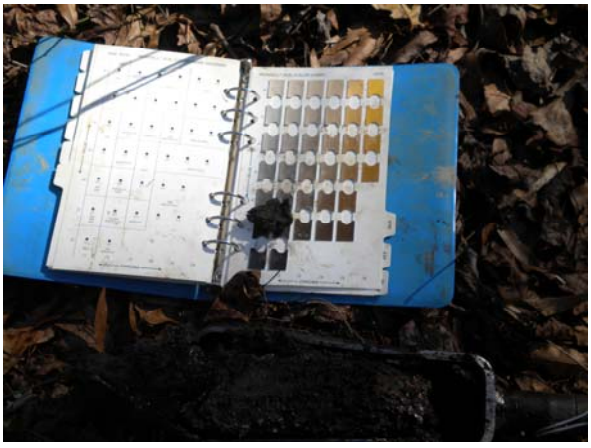


Photo #5 Hydric soils in Wetland C. 10YR 3/1

Photo #6 Wetland D on central portion of site.

Photo #7 Wetland E on western portion of site.

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

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

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

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

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

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

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

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: Sumter/ Sumter Sampling Date: 2/3/2010

Applicant/Owner: Sumter County State: SC Sampling Point: Wetland A

Investigator(s): C. Daves/ A. White Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.

Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR - P Lat: 33.9905 Long: -80.3467 Datum: WGS84

Soil Map Unit Name: Rd - Rains sandy loam, moderately deep variant NWI classification: Forested

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, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks:

The sampling point is within Wetland A.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) **(LRR U)**
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☒ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☐	No ☒	Depth (inches):
Water Table Present?	Yes ☒	No ☐	Depth (inches): 4"
Saturation Present? (includes capillary fringe)	Yes ☒	No ☐	Depth (inches): 4"

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Wetland hydrology indicators present.

VEGETATION – Use scientific names of plants.

Sampling Point: Wetland A

Tree Stratum (Plot size: 30 foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	30%	Yes	FAC
2. Acer rubrum	20%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	50%	= Total Cover	
Sapling Stratum (Plot size: 30 foot radius)			
1. Acer rubrum	10%	Yes	FAC
2. Persea borbonia	5%	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	15%	= Total Cover	
Shrub Stratum (Plot size: 30 foot radius)			
1. Lyonia lucida	10%	Yes	FACW
2. Persea borbonia	10%	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	20%	= Total Cover	
Herb Stratum (Plot size: 5 foot radius)			
1. Arundinaria gigantea	10%	Yes	FAC
2. Smilax rotundifolia	5%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15%	= Total Cover	
Woody Vine Stratum (Plot size: 5 foot radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 8 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Hydrophytic vegetation present.

SOIL

Sampling Point: Wetland A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-20"	10 YR 2/1	100					S. loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☒ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soils 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 | State: SC | Sampling Point: Wetland B

Investigator(s): C. Daves/ A. White | Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave | Slope (%): 1%

Subregion (LRR or MLRA): LRR - P | Lat: 33.9932 | Long: -80.3486 | Datum: WGS84

Soil Map Unit Name: Cv - Coxville fine sandy loam | NWI classification: Scrub/shrub

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, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Hydric Soil Present? Yes ☒ No ☐

Wetland Hydrology Present? Yes ☒ No ☐

Is the Sampled Area within a Wetland? Yes ☒ No ☐

Remarks:

The sampling point is within Wetland B.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) **(LRR U)**
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☒ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): ____

Water Table Present? Yes ☒ No ☐ Depth (inches): 1"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 1"

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Wetland hydrology indicators present.

VEGETATION – Use scientific names of plants.

Sampling Point: Wetland B

Tree Stratum (Plot size: 30 foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus nigra	20%	Yes	FAC
2. Pinus taeda	20%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	40%	= Total Cover	
Sapling Stratum (Plot size: 30 foot radius)			
1. Quercus phellos	20%	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	20%	= Total Cover	
Shrub Stratum (Plot size: 30 foot radius)			
1. Lyonia lucida	20%	Yes	FACW
2. Quercus phellos	10%	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	30%	= Total Cover	
Herb Stratum (Plot size: 5 foot radius)			
1. Smilax rotundifolia	10%	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10%	= Total Cover	
Woody Vine Stratum (Plot size: 5 foot radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Hydrophytic vegetation present.

SOIL Sampling Point: Wetland B

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-4"	10 YR 2/1	100					S. loam	
4-16"	10 YR 6/2	100					S. loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☒ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Mari (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soils 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 State: SC Sampling Point: Wetland C

Investigator(s): C. Daves/ A. White Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1%

Subregion (LRR or MLRA): LRR - P Lat: 33.9932 Long: -80.3496 Datum: WGS84

Soil Map Unit Name: Rm - Rembert loam NWI classification: Forested

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, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐
Hydric Soil Present?	Yes ☒	No ☐	
Wetland Hydrology Present?	Yes ☒	No ☐	

Remarks:

The sampling point is within Wetland C.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☒ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☐	No ☒	Depth (inches):
Water Table Present?	Yes ☒	No ☐	Depth (inches): 1"
Saturation Present? (includes capillary fringe)	Yes ☒	No ☐	Depth (inches): 1"

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Wetland hydrology indicators present.

VEGETATION – Use scientific names of plants.

Sampling Point: Wetland C

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 foot radius)			
1. Quercus nigra	20%	Yes	FAC
2. Pinus taeda	20%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	40%	= Total Cover	
Sapling Stratum (Plot size: 30 foot radius)			
1. Quercus phellos	20%	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	20%	= Total Cover	
Shrub Stratum (Plot size: 30 foot radius)			
1. Lyonia lucida	20%	Yes	FACW
2. Quercus phellos	10%	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	30%	= Total Cover	
Herb Stratum (Plot size: 5 foot radius)			
1. Smilax rotundifolia	10%	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10%	= Total Cover	
Woody Vine Stratum (Plot size: 5 foot radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Hydrophytic vegetation present.

SOIL

Sampling Point: Wetland C

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-20"	10 YR 2/1	100					S. loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☒ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soils 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 State: SC Sampling Point: 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): Concave Slope (%): 1%
Subregion (LRR or MLRA): LRR - P Lat: 33.9955 Long: -80.3566 Datum: WGS84
Soil Map Unit Name: Ra - Rains sandy loam NWI classification: Scrub/shrub
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, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐
Is the Sampled Area within a Wetland? Yes ☒ No ☐

Remarks:
The sampling point is near Wetlands D and E.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☒ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ☒ No ☐ Depth (inches): 0-6"
Water Table Present? Yes ☒ No ☐ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): ____
Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:
Wetland hydrology indicators present.

VEGETATION – Use scientific names of plants.

Sampling Point: Wet D/ E

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 foot radius)			
1. Liriodendron tulipifera	20%	Yes	FAC
2. Liquidambar styraciflua	20%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	40%	= Total Cover	
Sapling Stratum (Plot size: 30 foot radius)			
1. Acer rubrum	10%	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10%	= Total Cover	
Shrub Stratum (Plot size: 30 foot radius)			
1. Persea borbonia	10%	Yes	FACW
2. Acer rubrum	10%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	20%	= Total Cover	
Herb Stratum (Plot size: 5 foot radius)			
1. Lonicera japonica	10%	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	10%	= Total Cover	
Woody Vine Stratum (Plot size: 5 foot radius)			
1. Smilax laurifolia	5%	Yes	FACW
2. Vitis rotundifolia	5%	Yes	FAC
3.			
4.			
5.			
	10%	= Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)
Total Number of Dominant Species Across All Strata: 8 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

SOIL

Sampling Point: Wet D/ E

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-8"	10 YR 3/2	100					S. loam	
8-20"	10 Y/R 6/2	100					S. loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☒ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soils 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 State: SC Sampling Point: Wetland F
Investigator(s): C. Daves/ A. White Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1%
Subregion (LRR or MLRA): LRR - P Lat: 34.0005 Long: -80.3523 Datum: WGS84
Soil Map Unit Name: Ra - Rembert loam NWI classification: Scrub/shrub
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, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐
Is the Sampled Area within a Wetland? Yes ☒ No ☐

Remarks:
The sampling point is within Wetland F.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ☒ No ☐ Depth (inches): 3-4"
Water Table Present? Yes ☒ No ☐ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): ____
Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:
Wetland hydrology indicators present.

VEGETATION – Use scientific names of plants.

Sampling Point: Wetland F

Tree Stratum (Plot size: 30 foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	20%	Yes	FAC
2. Acer rubrum	15%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	35%	= Total Cover	
Sapling Stratum (Plot size: 30 foot radius)			
1. Acer rubrum	10%	Yes	FAC
2. Cyrilla racemiflora	10%	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	20%	= Total Cover	
Shrub Stratum (Plot size: 30 foot radius)			
1. Cyrilla racemiflora	15%	Yes	FACW
2. Lyonia lucida	15%	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	30%	= Total Cover	
Herb Stratum (Plot size: 5 foot radius)			
1. Smilax rotundifolia	5%	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5%	= Total Cover	
Woody Vine Stratum (Plot size: 5 foot radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

SOIL Sampling Point: Wetland F

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-20"	10 YR 2/1	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☒ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Mari (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Hydric soils 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 State: SC Sampling Point: Upland A

Investigator(s): C. Daves/ A. White Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.

Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3%

Subregion (LRR or MLRA): LRR - P Lat: 33.9907 Long: -80.3465 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 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, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Hydric Soil Present? Yes ☐ No ☒

Wetland Hydrology Present? Yes ☐ No ☒

Is the Sampled Area within a Wetland? Yes ☐ No ☒

Remarks:

The sampling point is within Upland adjacent to Wetland A.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) **(LRR U)**
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): ____

Water Table Present? Yes ☐ No ☒ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): ____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

Wetland hydrology indicators not present.

VEGETATION – Use scientific names of plants.

Sampling Point: Upland A

Tree Stratum (Plot size: 30 foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	20%	Yes	FAC
2. Acer rubrum	10%	Yes	FAC
3. Quercus nigra	10%	Yes	FAC
4.			
5.			
6.			
7.			
	40%	= Total Cover	
Sapling Stratum (Plot size: 30 foot radius)			
1. Acer rubrum	10%	Yes	FAC
2. Quercus nigra	10%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	20%	= Total Cover	
Shrub Stratum (Plot size: 30 foot radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	____	= Total Cover	
Herb Stratum (Plot size: 5 foot radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	____	= Total Cover	
Woody Vine Stratum (Plot size: 5 foot radius)			
1. Vitis rotundifolia	5%	Yes	FAC
2.			
3.			
4.			
5.			
	5%	= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Hydrophytic vegetation present.

SOIL

Sampling Point: Upland A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-20"	10 YR 5/4	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Hydric soils 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 State: SC Sampling Point: Up B/C

Investigator(s): C. Daves/ A. White Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.

Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): Convex Slope (%): 3%

Subregion (LRR or MLRA): LRR - P Lat: 33.9932 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 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, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐	No ☒	
Wetland Hydrology Present?	Yes ☐	No ☒	

Remarks:

The sampling point is within Upland adjacent to Wetlands B and C.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

Wetland hydrology indicators not present.

VEGETATION – Use scientific names of plants.

Sampling Point: Up B/C

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 foot radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling Stratum (Plot size: 30 foot radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Shrub Stratum (Plot size: 30 foot radius)			
1. Rubus spp.	20%	Yes	FACU
2. Rhus copallinum	10%	Yes	NI
3.			
4.			
5.			
6.			
7.			
	30% = Total Cover		
Herb Stratum (Plot size: 5 foot radius)			
1. Eupatorium capillifolium	10%	Yes	FACU
2. Andropogon virginicus	10%	Yes	FAC
3. Verbena brasilliensis	5%	Yes	FAC
4. Smilax rotundifolia	5%	Yes	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	30% = Total Cover		
Woody Vine Stratum (Plot size: 5 foot radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

Hydrophytic vegetation present.

SOIL

Sampling Point: Up B/C

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-8"	2.5 YR 4/3	100					Sand	
8-20"	2.5 YR 5/4	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Mari (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Hydric soils 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 State: SC Sampling Point: Upland D
Investigator(s): C. Daves/ A. White Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.
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: WGS84
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 Yes No ____ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐
Hydric Soil Present? Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ 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:

Primary Indicators (minimum of one is required; check all that apply)
- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) **(LRR U)**
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ☐ No ☒ Depth (inches): ____
Water Table Present? Yes ☐ No ☒ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): ____
Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:
Wetland hydrology indicators not present.

VEGETATION – Use scientific names of plants.

Sampling Point: Upland D

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 foot radius)			
1. Pinus taeda	40%	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40% = Total Cover		
Sapling Stratum (Plot size: 30 foot radius)			
1. Quercus stellata	20%	Yes	FACU
2. Acer rubrum	10%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	30% = Total Cover		
Shrub Stratum (Plot size: 30 foot radius)			
1. Quercus stellata	10%	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10% = Total Cover		
Herb Stratum (Plot size: 5 foot radius)			
1. Lonicera japonica	5%	Yes	FAC
2. Asplenium platyneuron	5%	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5% = Total Cover		
Woody Vine Stratum (Plot size: 5 foot radius)			
1. Vitis rotundifolia	5%	Yes	FAC
2.			
3.			
4.			
5.			
	5% = Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 57% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

SOIL Sampling Point: Upland D

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-20	2.5 YR 4/3	100					Sand	
12-20"	2.5 YR 5/6	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Hydric soils 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 State: SC Sampling Point: Upland F
Investigator(s): C. Daves/ A. White Section, Township, Range: Northwest of Hwy 15/ Brewington Rd insct.
Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): Convex Slope (%): 3%
Subregion (LRR or MLRA): LRR - P Lat: 34.0005 Long: -80.3517 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 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, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐
Hydric Soil Present? Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒
Is the Sampled Area within a Wetland? Yes ☐ No ☒

Remarks:
The sampling point is within Upland adjacent to Wetland F.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) **(LRR U)**
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☒ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ☐ No ☒ Depth (inches): ____
Water Table Present? Yes ☐ No ☒ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): ____
Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:
Wetland hydrology indicators not present.

VEGETATION – Use scientific names of plants.

Sampling Point: Upland F

Tree Stratum (Plot size: 30 foot radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	20%	Yes	FAC
2. Quercus nigra	10%	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	30%	= Total Cover	
Sapling Stratum (Plot size: 30 foot radius)			
1. Acer rubrum	20%	Yes	FAC
2. Quercus falcata	10%	Yes	FACU
3. Quercus stellata	10%	Yes	FACU
4.			
5.			
6.			
7.			
	40%	= Total Cover	
Shrub Stratum (Plot size: 30 foot radius)			
1. Quercus stellata	10%	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	10%	= Total Cover	
Herb Stratum (Plot size: 5 foot radius)			
1. Smilax rotundifolia	5%	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5%	= Total Cover	
Woody Vine Stratum (Plot size: 5 foot radius)			
1. Vitis rotundifolia	5%	Yes	FAC
2.			
3.			
4.			
5.			
	5%	= Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
Total Number of Dominant Species Across All Strata: 8 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 63% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

SOIL

Sampling Point: Upland F

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-20"	10 YR 6/4	100					L. sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☐ Muck Presence (A8) **(LRR U)**
- ☐ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Mari (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ☒ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) **(LRR T, U)**
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Hydric soils not present.

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 waters[2] (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).
[3] 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 waterbody[4] 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) Relationship with TNW:
☐ 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 **10-15** aerial (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 TNW[5]: 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):

Tributary is:
- ☐ Natural
- ☒ Artificial (man-made). Explain: Man-made ditches constructed to drain Carolina Bays.
- ☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 3 feet
Average depth: 3 feet
Average side slopes: **2:1.**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable, rooted plants.
Presence of run/riffle/pool complexes. Explain: None.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): 2 %

(c) Flow:
Tributary provides for: **Intermittent but not seasonal flow**
Estimate average number of flow events in review area/year: **2-5**
Describe flow regime: Infrequent but long-lived periods of innundation.
Other information on duration and volume: Non-RPWs fill infrequently and drain slowly.

Surface flow is: **Discrete and confined.** Characteristics: .

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

Tributary has (check all that apply):
- ☐ Bed and banks
- ☒ OHWM[6] (check all indicators that apply):

☒ clear, natural line impressed on the bank	☒ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☒ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

- ☐ Discontinuous OHWM.[7] Explain: .

If 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;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
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: .

[6]A 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.
[7]Ibid.

(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) General Wetland Characteristics:

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) General Flow Relationship with Non-TNW:

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):

1. **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-RPWs[8] 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: **2,289** 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 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.

[8] See 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 sole 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. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION 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.
☒ 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 Branch, then 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 waters[2] (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).
[3] 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 waterbody[4] 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) Relationship with TNW:
☐ 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 TNW[5]: .
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.

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

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If 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;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

[6]A 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.
[7]Ibid.

(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) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. 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 **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):

1. **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: 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-RPWs[8] 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.

[8] See 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 sole 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. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION 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.
☒ 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 contiunous 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.)

Wetland Area "D"		
L124	S20°10'36"E	68.21
L125	S49°37'26"W	27.70
L126	S36°32'04"W	49.02
L127	S72°56'06"W	49.04
L128	S58°25'43"W	58.43
L129	S67°06'16"W	67.37
L130	S53°24'16"W	55.69
L131	S57°20'44"W	48.38
L132	S83°58'34"W	28.94
L133	S58°02'27"W	64.05
L134	S25°42'44"W	73.01
L135	N86°04'11"W	50.07
L136	S65°48'14"W	66.21
L137	S31°20'56"W	55.22
L138	S33°06'50"W	78.50
L139	S50°10'08"W	100.77
L140	S63°52'56"W	85.42
L141	S71°19'05"W	99.13
L142	S42°16'09"W	44.81
L143	S17°44'31"W	67.01
L144	S63°15'43"W	74.53
L145	S62°37'32"W	68.85
L146	S82°52'33"W	61.08
L147	S88°12'54"W	83.59
L148	N89°27'04"W	73.31
L149	N66°21'33"W	75.03
L150	N82°06'27"W	67.77
L151	S88°17'58"W	65.46
L152	S54°54'11"W	64.26
L153	N76°03'11"W	61.54
L154	S81°55'24"W	89.79
L155	N16°50'27"W	109.07
L156	N07°09'44"W	83.57
L157	S75°25'03"W	50.03
L158	S20°05'37"E	59.57
L159	S12°02'51"E	47.41
L160	S00°59'14"E	49.32
L161	S01°33'23"E	61.03
L162	S26°36'59"W	23.19
L163	N71°44'36"W	68.20
L164	N80°17'15"W	60.18
L165	N77°58'16"W	43.98
L166	S60°56'16"W	49.25
L167	N82°39'51"W	54.26
L168	N46°49'08"W	85.11
L169	S82°43'40"W	45.44
L170	N73°08'48"W	69.28
L171	N03°01'20"W	51.77
L172	N19°49'31"W	48.40
L173	N81°47'00"W	84.33
L174	N88°08'25"W	33.25
L175	N87°32'10"W	69.25
L176	S88°17'37"W	28.01
L177	S83°19'51"W	73.50
L178	S76°28'16"W	74.81
L179	S62°58'22"W	77.86
L180	S72°19'18"W	28.90
L181	S79°20'56"W	14.78
L182	S56°03'25"W	53.08
L183	S25°22'23"W	28.66
L184	S54°52'00"W	34.70
L185	S81°54'55"W	90.40
L186	S75°53'38"W	68.95
L187	S73°13'07"W	119.20
L188	S67°44'29"W	77.88
L189	S77°09'01"W	89.30
L190	S78°10'51"W	69.23
L191	S78°30'32"W	99.65
L192	S85°19'17"W	53.77
L193	S75°01'04"W	108.32
L194	S62°28'41"W	87.06
L195	S65°15'28"W	106.68
L196	S63°24'23"W	86.18
L197	S65°17'15"W	67.69
L198	S73°44'27"W	70.00
L199	S60°53'15"W	40.10
L200	S70°31'38"W	73.39
L201	S56°29'26"W	45.06
L202	S69°48'18"W	69.95
L203	S68°09'07"W	91.17
L204	S67°34'18"W	73.75
L205	S75°28'38"W	76.97
L206	S87°41'47"W	14.81
L207	S17°54'12"E	98.54
L208	S20°10'36"E	279.18
L209	N87°33'47"E	13.74
L210	N75°30'05"E	77.84
L211	N67°35'24"E	74.07
L212	N68°09'05"E	91.08
L213	N69°45'03"E	70.45
L214	N56°26'48"E	44.93
L215	N72°52'39"E	73.63
L216	N60°47'04"E	39.76
L217	N75°25'03"E	69.99
L218	N65°19'51"E	68.59
L219	N63°24'14"E	86.09
L220	N66°19'38"E	106.93
L221	N62°24'09"E	86.15
L222	N73°58'15"E	106.02
L223	N85°22'13"E	53.47
L224	N78°31'38"E	100.41
L225	N76°31'35"E	69.22
L226	N77°07'35"E	89.92
L227	N69°14'10"E	78.31
L228	N71°46'32"E	118.42
L229	N76°43'22"E	68.52
L230	N80°28'00"E	91.28
L231	N54°45'59"E	37.54
L232	N25°10'44"E	28.49
L233	N58°25'03"E	50.06
L234	N80°35'00"E	13.77
L235	N72°18'22"E	29.94
L236	N64°23'48"E	77.51
L237	N78°07'32"E	73.03
L238	N81°43'19"E	71.90
L239	S87°33'42"E	28.10
L240	N87°24'07"E	68.04
L241	S77°50'56"E	33.54
L242	S80°18'31"E	48.29
L243	S84°54'35"E	99.29
L244	S03°27'59"W	56.47
L245	S56°19'49"W	21.12
L246	N52°21'09"W	4.66
L247	S55°04'00"W	28.21
L248	N72°42'08"W	42.63
L249	S86°39'07"W	40.38
L250	N60°26'38"W	35.74

Wetland Area "D"		
L251	N65°06'35"W	20.00
L252	N73°56'53"W	44.92
L253	S10°17'08"W	32.11
L254	S39°52'52"W	50.32
L255	S60°12'44"W	70.57
L256	S35°55'31"W	56.67
L257	S57°30'48"W	38.54
L258	S61°55'47"W	59.18
L259	N22°59'54"W	107.19
L260	N08°56'04"W	89.53
L110	S44°33'18"E	147.19
L111	S45°14'53"E	123.29
L112	S44°46'29"E	103.03
L113	S42°19'23"E	61.12
L114	N06°18'59"E	1.54
L115	N43°22'55"W	35.99
L116	N44°24'21"W	101.62
L117	N45°20'41"W	129.07
L118	S44°16'04"W	85.41
L119	S79°14'10"W	64.12
L120	N32°58'26"W	93.15
L121	N19°05'51"W	93.55
L122	N40°29'53"W	54.26
L123	N43°12'57"E	75.21

Wetland Area "B"		
L101	S51°02'01"W	38.81
L102	N81°28'14"W	87.26
L103	S54°03'58"W	43.87
L104	N59°26'11"W	80.91
L105	N55°11'24"W	57.15
L106	N20°45'56"W	95.34
L107	N22°48'54"W	65.21
L108	N08°43'14"W	88.87
L109	N44°08'34"E	52.80
L110	S44°33'18"E	147.19
L111	S45°14'53"E	123.29
L112	S44°46'29"E	103.03
L113	S42°19'23"E	61.12
L114	N06°18'59"E	1.54
L115	N43°22'55"W	35.99
L116	N44°24'21"W	101.62
L117	N45°20'41"W	129.07
L118	S44°16'04"W	85.41
L119	S79°14'10"W	64.12
L120	N32°58'26"W	93.15
L121	N19°05'51"W	93.55
L122	N40°29'53"W	54.26
L123	N43°12'57"E	75.21

Non-RPW #3		
L370	S51°13'30"E	10.87
L371	S65°13'47"W	147.05
L372	S65°20'15"W	165.65
L373	S64°55'05"W	125.44
L374	S67°35'59"W	149.07
L375	N11°52'06"E	8.77
L376	N64°47'22"E	143.36
L377	N66°30'01"E	122.98
L378	N66°27'47"E	165.33
L379	N64°24'27"E	145.41
L380	S74°32'35"E	22.21
L381	N75°35'59"W	105.95
L382	N35°11'19"W	49.07
L383	N82°25'14"E	14.40
L384	N35°11'19"W	45.76
L385	N75°35'59"W	96.11
L386	N21°54'51"E	7.59

Wetland Area "F"		
L488	S32°14'09"E	109.13
L489	S39°32'36"W	61.45
L490	S43°46'10"E	154.26
L491	S02°01'47"W	58.03
L492	S28°25'17"E	118.08
L493	N00°29'59"E	58.88
L494	N10°48'57"W	65.84
L495	N06°58'30"W	55.36
L496	N02°13'01"W	60.11
L497	N09°45'22"E	53.91
L498	N09°33'13"E	86.21
L499	N40°28'14"E	37.75
L500	N82°25'14"E	14.40
L501	N35°11'19"W	49.07
L502	N05°27'04"E	62.16
L503	N38°20'48"E	87.05
L504	N44°39'19"E	82.65
L505	N47°59'55"E	68.09
L506	N44°31'09"E	98.27
L507	N52°09'53"E	62.98
L508	N78°05'05"E	85.45
L509	N23°18'09"E	46.93
L510	S41°02'18"E	56.26
L511	S07°20'08"W	53.55
L512	S29°20'15"E	70.02
L513	S00°38'53"W	62.95
L514	S84°25'34"E	48.75
L515	S55°44'57"E	65.65
L516	N59°39'05"E	36.82
L517	N81°20'51"E	71.33
L518	S32°35'04"E	101.85
L519	S24°58'10"W	93.74
L520	N17°09'28"E	95.87
L521	N07°21'35"E	102.98
L522	N17°11'42"E	112.57
L523	N07°47'26"E	67.72
L524	N24°53'29"E	68.45
L525	N54°50'11"E	77.85
L526	N22°17'18"W	22.11

Pond "G"		
L89	N20°43'22"W	42.63
L90	N63°40'55"E	56.96
L91	N69°46'10"E	52.44
L92	S89°20'44"E	37.40
L93	S57°48'14"E	36.79
L94	S26°17'20"E	93.03
L95	S10°37'13"E	83.65
L96	S74°08'23"W	42.04
L97	N17°30'53"W	66.33
L98	N21°10'07"W	93.16
L99	S86°14'37"W	49.79
L100	S63°39'12"W	74.31

Pond "H"		
L288	S23°42'55"W	30.73
L289	S30°58'14"E	18.26
L290	S19°18'06"E	34.59
L291	S05°34'46"W	37.63
L292	S25°40'07"W	14.97
L293	S46°48'12"W	16.20
L294	N43°47'44"W	10.85
L295	N27°38'48"W	44.01
L296	N06°58'37"W	23.05
L297	N14°13'25"E	39.26
L298	N83°21'24"E	22.37

Pond "I"		
L299	S54°17'41"W	21.33
L300	S84°35'17"W	30.56
L301	N58°35'52"W	45.52
L302	N60°56'41"W	42.33
L303	N00°16'28"W	43.76
L304	N20°53'36"E	44.52
L305	S87°42'02"E	27.10
L306	S49°54'46"E	39.29
L307	S37°36'43"E	52.02
L308	S22°11'37"E	50.43

Wetland Area "A"		
L6	S75°31'08"E	44.81
L7	N45°09'10"E	25.26
L8	N28°16'50"E	56.53
L9	N38°57'34"E	59.85
L10	N67°07'58"E	51.04
L11	N82°39'09"E	45.98
L12	S88°11'04"E	71.16
L13	S87°08'04"E	77.71
L14	S87°38'55"E	82.18
L15	S28°34'01"E	124.76

Non-RPW #1		
L16	S33°08'33"W	5.81
L17	N45°31'46"W	152.62
L18	N44°35'33"W	196.56
L19	N45°01'19"W	178.08
L20	N43°12'17"W	154.42
L21	N43°52'28"W	120.48
L22	N44°20'58"W	139.55
L23	N45°20'41"W	129.07
L24	N44°24'21"W	101.62
L25	N43°22'55"W	35.99
L26	N54°22'44"W	16.38
L27	N57°33'38"E	76.31
L28	N60°08'55"E	18.81
L29	S28°02'04"E	5.74
L30	S58°31'52"W	172.48
L31	S56°36'21"W	71.31
L32	S42°19'23"E	61.12
L33	S44°46'29"E	103.03
L34	S45°14'53"E	123.29
L35	S44°33'18"E	147.19
L36	S42°23'15"E	116.10
L37	S43°36'12"E	156.88
L38	S44°41'39"E	178.12
L39	S45°58'58"E	195.95
L40	S44°02'39"E	150.72
L41	S74°58'59"W	24.18
L42	N54°55'24"E	85.56
L43	S03°10'47"W	19.97
L44	N54°15'51"E	95.58
L45	N25°55'52"W	14.77

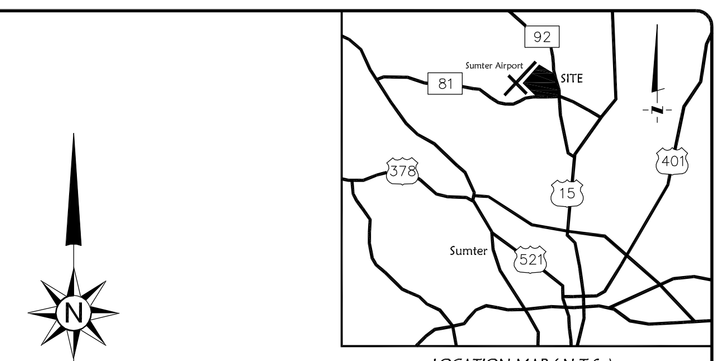
Wetland Area "C"		
L46	N74°38'20"W	112.83
L47	N59°25'41"W	140.48
L48	N61°30'45"W	110.41
L49	N25°42'55"W	101.29
L50	N71°14'39"W	51.06
L51	N43°32'58"W	85.21
L52	N11°26'16"W	79.66
L53	N28°14'07"W	106.25
L54	N37°07'34"W	45.56
L55	N01°52'56"W	81.37
L56	N12°13'20"W	81.81
L57	N21°17'20"E	57.72
L58	N51°57'03"E	133.57
L59	N86°57'46"E	95.34
L60	N71°57'59"E	149.30
L61	S72°48'43"E	35.38
L62	S48°05'38"E	117.88
L63	S53°32'45"E	56.48
L64	S52°58'10"E	81.99
L65	S15°31'39"E	78.92
L66	S03°10'47"W	19.97
L67	S20°02'57"E	45.50
L68	S23°33'10"E	92.75
L69	S06°50'14"W	97.42
L70	S48°54'57"W	54.20
L71	N27°05'07"W	63.81
L72	N50°54'05"W	54.22
L73	S61°39'25"W	51.10
L74	S89°20'44"E	37.40
L75	N09°34'05"E	46.17
L76	S76°31'36"W	82.28
L77	S60°53'21"W	63.32
L78	S35°07'50"E	47.62
L79	N20°43'22"W	42.63
L80	S21°15'12"E	27.72
L81	S82°16'20"E	59.75
L82	S36°45'26"E	110.70
L83	N75°49'33"E	35.45
L84	S74°08'23"W	42.04
L85	S74°41'31"E	69.86
L86	S38°58'05"E	88.61
L87	S19°50'12"W	109.05
L88	S62°10'02"W	93.12

P-RPW #2		
L388	S87°41'47"W	14.81
L389	S75°28'38"W	76.97
L390	S67°34'18"W	73.75
L391	S68°09'07"W	91.17
L392	S69°48'18"W	69.95
L393	S56°29'26"W	45.06
L394	S70°31'38"W	73.39
L395	S60°53'15"W	40.10
L396	S73°44'27"W	70.00
L397	S65°15'28"W	67.69
L398	S63°24'23"W	86.18
L399	S65°15'28"W	106.68
L400	S62°28'41"W	87.06
L401	S75°01'04"W	108.32
L402	S85°19'17"W	53.77
L403	S78°30'32"W	99.65
L404	S78°10'51"W	69.23
L405	S77°09'01"W	89.30
L406	S67°44'29"W	77.88
L407	S73°13'07"W	119.20
L408	S75°53'38"W	68.95
L409	S81°54'55"W	90.40
L410	S54°52'00"W	34.70
L411	S25°22'23"W	28.66
L412	S56°03'25"W	53.08
L413	S79°20'56"W	14.78
L414	S72°19'18"W	28.90
L415	S62°58'22"W	77.86
L416	S76°28'16"W	74.81
L417	S83°19'51"W	73.50
L418	S88°17'37"W	28.01
L419	N87°32'10"W	69.25
L420	N88°08'25"W	33.25
L421	N81°47'00"W	84.33
L422	N83°43'52"W	64.03
L423	N75°17'49"W	63.32
L424	N82°13'12"W	55.83
L425	N73°59'54"W	48.64
L426	N76°15'41"W	52.77
L427	N63°41'14"W	25.00
L428	N63°41'14"W	53.85
L429	N60°20'22"W	85.96
L430	N61°19'04"W	60.32
L431	S62°23'28"E	141.16
L432	S70°11'18"E	215.18
L433	N86°10'51"E	60.02
L434	S85°11'08"E	191.46
L435	S42°06'33"E	46.18
L436	N38°19'36"W	49.70
L437	N49°39'32"W	87.10
L438	N49°39'32"W	87.49
L439	S37°38'33"E	40.25
L440	S46°24'30"E	45.12
L441	S68°10'52"E	42.75
L442	N88°47'08"E	105.70
L443	S72°59'41"E	54.79
L444	N89°46'05"E	108.32
L445	S65°32'00"E	283.60
L446	S55°59'52"E	79.85
L447	S59°00'06"E	85.36
L448	S62°09'10"E	77.71
L449	S76°23'28"E	51.94
L450	S73°57'13"E	48.24
L451	S84°16'45"E	55.71
L452	S75°18'12"E	63.36
L453	S84°54'35"E	99.29
L454	S80°18'31"E	48.29
L455	S77°50'56"E	33.54
L456	N87°24'07"E	68.04
L457	S87°33'42"E	28.10
L458	N81°43'19"E	71.90
L459	N78°07'32"E	73.03
L460	N64°23'48"E	77.51
L461	N72°18'22"E	29.94
L462	N80°35'00"E	13.77
L463	N58°25'03"E	50.06
L464	N25°10'44"E	28.49
L465	N54°45'59"E	37.54
L466	N80°28'00"E	91.28
L467	N76°43'22"E	68.52
L468	N71°46'32"E	118.42
L469	N69°14'10"E	78.31
L470	N77°07'35"E	89.92
L471	N76°31'35"E	69.22
L472	N78°31'38"E	100.41
L473	N85°22'13"E	53.47
L474	N73°58'15"E	106.02
L475	N62°24'09"E	86.15
L476	N66°19'38"E	106.93
L477	N63°24'14"E	86.09
L478	N65°19'51"E	68.59
L479	N75°25'03"E	69.99
L480	N60°47'04"E	39.76
L481	N72°52'39"E	73.63
L482	N56°26'48"E	44.93
L483	N69°45'03"E	70.45
L484	N68°09'05"E	91.08
L485	N67°35'24"E	74.07
L486	N75°30'05"E	77.84
L487	N87°33'47"E	13.74

Wetland "E"		
L309	S41°16'40"W	87.27
L310	S33°30'51"W	67.00
L311	S42°13'50"W	40.10
L312	N86°29'03"W	62.34
L313	N55°20'36"W	22.53
L314	N17°30'11"W	37.75
L315	N02°07'32"E	52.83
L316	N55°15'12"W	57.70
L317	N87°38'33"W	53.86
L318	N73°53'40"W	62.90
L319	S85°01'25"W	42.74
L320	N76°00'39"W	16.03
L321	N55°18'58"W	60.26
L322	N43°56'03"W	46.12
L323	N73°35'05"W	50.45
L324	N68°21'12"W	31.48
L325	N74°15'39"W	38.02
L326	N50°37'38"W	43.22
L327	N76°11'05"W	38.63
L328	N69°06'45"W	45.05
L329	N50°56'10"W	44.67
L330	N48°05'42"E	47.82
L331	N33°25'59"W	26.73
L332	S85°11'08"E	191.46
L333	N86°10'51"E	60.02
L334	S70°11'18"E	215.18
L335	S62°23'28"E	141.16
L336	N61°19'04"W	60.32
L337	N60°20'22"W	85.96
L338	N63°41'14"W	53.85
L339	N81°55'56"W	26.36
L340	S63°32'36"W	34.78
L341	S66°44'50"W	47.91
L342	S65°32'00"E	283.60
L343	N89°46'05"E	108.32
L344	S72°59'41"E	54.79
L345	N88°47'08"E	105.70
L346	S68°10'52"E	42.75
L347	S46°24'30"E	45.12
L348	S37°38'33"E	40.25
L349	S00°05'16"W	40.27
L350	S32°36'52"W	26.33
L351	S21°45'56"W	41.02
L352	S32°22'17"W	53.25
L353	S73°55'05"W	53.02
L354	S68°26'56"W	36.20
L355	N88°41'06"W	34.29
L356	N22°58'28"W	26.54
L357	N65°57'57"W	29.63
L358	N87°36'19"W	69.26
L359	N38°24'14"W	31.76
L360	N58°03'42"W	36.09
L361	N44°50'45"W	128.08
L362	N70°42'05"W	40.18
L363	N68°20'44"W	47.05
L364	N49°01'23"W	65.69
L365	S77°50'46"W	57.05
L366	N79°12'13"W	60.75
L367	N34°31'12"W	47.20
L368	N38°38'53"W	67.95
L369	S54°17'41"W	21.33

Curve	Length	Radius	Chord Bearing	Chord Length
C1	404.89	1046.02	N80°16'55"W	402.36
C2	217.07	4918.94	S84°08'02"W	217.05
C3	292.29	1111.60	S11°41'54"E	291.45
C4	603.55	1938.94	S10°26'31"E	601.12

Line	Bearing	Length
L1	N65°49'41"W	205.70
L2	S01°01'27"E	151.33
L3	N01°25'47"E	227.57
L4	S58°04'07"W	55.32
L5	N65°45'22"W	293.14
L387	N75°42'45"E	81.76



LOCATION MAP (N.T.S.)

Benchmark
Monitoring well
G.S. MON.
Geodetic Monument
Bollard
Drop Inlet
Drainage Manhole
Catch Basin
Junction Box
Sanitary Sewer Manhole
Sanitary Cleanout
Sanitary Sewer Valve
Runway Light
Light Pole
Utility Pole
Electric Manhole
Telephone Manhole
Telephone Pedistal
Taxiway Light
Water Well
Water Fountain
WF
Water Spigot
WS
Fire Hydrant
Water Meter
Water Valve
Gas Valve
Gas Meter
Right of Way Mon.
Aerial Target
Valve Unknown
Sign
Mail Box
Utility Manhole

X Fence Line
GAS Gas Line
OHE Overhead Electric
SS Sanitary Sewer
SD Storm Drain
W Water Line
FOC Fiber Optic Line
UE Tree Line
UE Underground Electric
UT Underground Telephone
H Wetlands
UL Underground Utility
TV Underground Cable

Wetlands Summary

Wetlands Area "A" = 1.60 Acres
Wetlands Area "B" = 1.85 Acres
Wetlands Area "C" = 8.29 Acres
Wetlands Area "D" = 21.89 Acres
Wetlands Area "E" = 5.34 Acres
Wetlands Area "F" = 12.85 Acres

Pond "G" = 0.34 Acre
Pond "H" = 0.09 Acre
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 L.F.)
Non-RPW #3 = 0.17 Acre (730.62 L.F.)

Jurisdictional Wetlands Total = 51.82 Acres
Jurisdictional Ponds Total = 0.66 Acre
RPW's Total = 1.3 Acres
RPW Total Linear Footage = 5869.41 L.F.
Jurisdictional Waters Total = 53.78 Acres

Total Tract Acreage = 268.20 Acres

References:

1. Portion of tax map #232-00-01-003

300 150 0 300
GRAPHIC SCALE

PRELIMINARY

* I hereby state that to the best of my knowledge, information and belief, the survey shown herein was made in accordance with the requirements of The Minimum Standards Manual for the Practice of Land Surveying in South Carolina, and meets or exceeds the requirements for a Class A survey as specified therein; also there are no visible encroachments or projections other than shown.

RUSSELL S. OWENS
S.C. Registered Land Surveyor no. 19404

PROJECT MANAGER	DRAWING SCALE
RSO	1" = 300'
DRAWN BY	PROJECT DATE
MHD	03/08/10
FIELD WORK BY	PROJECT NUMBER
JG,CG	10104
FILE NAME	
10104.DWG	

SURVEY ONE

SURVEY ONE, LLC
601 NORTHWOOD ROAD, SUITE C
LEXINGTON, SOUTH CAROLINA 29072
PHONE (803) 808-2300 CELL (803)413-9847
SURVEYONE@WINDSTREAM.NET

DESCRIPTION	NUMBER
FIELD BOOK	FB152
COGO FILE	10104.CR5
REVISION	
REVISION	

SOUTH CAROLINA
SURVEY ONE LLC
No. C02715
CERTIFICATE OF AUTHORIZATION

PREPARED FOR
SUMTER COUNTY
SUMTER COUNTY, SOUTH CAROLINA

WETLAND EXHIBIT

1/1

Appendix D

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

04-601

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

REPLY TO
ATTENTION OF

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,

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

Revised 8/13/04

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 ☐ Date:
Site visit(s) ☒ Date(s): 3-21-2005

Jurisdictional Determination (JD):

☒ Preliminary JD - Based on available information, ☒ *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 wetlands[1].
☒ (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 shellfish 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 adjacent[2] 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.

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

☒ Ordinary High Water Mark indicated by:
- ☒ clear, natural line impressed on the bank
- ☒ the presence of litter and debris
- ☒ changes in the character of soil
- ☒ destruction of terrestrial vegetation
- ☒ shelving
- ☐ other:

☒ High Tide Line indicated by:
- ☐ oil or scum line along shore objects
- ☐ fine shell or debris deposits (foreshore)
- ☐ physical markings/characteristics
- ☐ tidal gages
- ☐ 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 33 CFR part 328(a)(1, 2, or 4-7).
☒ 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 not Waters of the United States:**

☐ **Waste treatment systems, including treatment ponds or lagoons, pursuant to 33 CFR part 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.**
☐ **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.**
☐ **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.
- ☒ Data sheets prepared/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:
- ☒ 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)
- ☒ Aerial Photographs (Name & Date): 9-11204:100
- ☐ Other photographs (Date):
- ☐ Advanced Identification Wetland maps:
- ☒ Site visit/determination conducted on: 3-21-2005
- ☐ Applicable/supporting case law:
- ☐ Other information (please specify):

Signature: Project Manager 

[1]Wetlands 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).

[2]The 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.