

Appendix G

Preliminary Jurisdictional Determination

CORRIDOR IMPROVEMENTS Casting a Light on the Community's Transportation Future

June 2021

JD Checklist*

	Action		SCDOT Confirmation		Consultant Confirmation	
1	Is the Jurisdictional Determiniation Request Form completed and signed?	Y	N	Y	N	
2	Does the JD packet include:	Y	N	Y	N	
a)	Location Map	Y	N	Y	Ν	
b)	Aerial photograph with project boundary?	Y	Ν	Y	Ν	
c)	Topographic map with project boundary?	Y	N	Y	N	
d)	Soil survey map with project boundary?	Y	N	Y	N	
e)	Photographs of the site, wetlands, streams, ditches, etc?	Y	N	Y	N	
f)	Table with Latitude and Longitude for each jurisdictional feature (wetland, stream pond, etc.)?	Y	Ν	Y	Ν	
3	Is the project boundary large enough to encompass all potential impacts including construction access?	Y	Ν	Y	Ν	
4	Is the acerage for the project area included on the wetland map?	Y	Ν	Y	Ν	
5	Are all wetlands and streams identified on a map or drawing?	Y	Ν	Y	Ν	
6	Is there a map included showing the surface connection of how the stream, wetland, or ditch connects to a downstream (named) tributary?	Y	N	Y	Ν	
b)	Do all identified streams contain a clear line or polygon with linear footage?	Y	N	Y	Ν	
7	Could you use the maps and drawings to easily locate the site and the boundaries of the wetlands within the project area <u>without the consultant</u> <u>present</u> ?	Y	Ν	Y	N	
8	Data Sheets:					
a)	Are data sheets included?	Y	N	Y	N	
b)	Is a refrence map included to indicate where the data points are located?	Y	N	Y	N	

Chris Beckham

SCDOT

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Consultant

* This checklist includes information that is not necessarily required for a Jurisdictional Determiniation but will ensure a streamlined review

U.S. Army Corps of Engineers – Charleston District - Regulatory Division **REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD) / DELINEATION**

(For Jurisdictional Status and Identifying Wetlands and Other Aquatic Resources)

I. PROPERTY AND AGENT INFORMATION

A. Site Details/Location:		
Site Name:	Date:	
City/Township/Parish:	County:	
Latitude/Longitude:	Acreage:	
Tax Map Sequence (TMS) #(s):		
Property Address(es):		
Please attach a survey/plat map and vicini	ity map identifying location and review area for the	JD/delineation

An accurate depiction of the review area must be provided (survey, tax map, or GPS coordinates). Tax maps may only be used if the site includes the entire tax map parcel.

B. Requestor of Jurisdictional Determination/Delineation (if there are multiple property owners, please attach additional pages) Name:

Company Name (<i>if applicable</i>):					
Email:					

C. Agent/Environmental Consultant Acting on Behalf of the Requestor (if applicable):

Consultant/Agent Name:	
Company Name:	
Address:	Phone:
Email:	

II. REASON FOR REQUEST (check all that apply)

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	Charleston Office:	Columbia Office:	Conway Office:	Greenville Office:
	US Army Corps of Engineers	US Army Corps of Engineers	US Army Corps of Engineers	US Army Corps of Engineers
	Regulatory Division	Regulatory Office	Regulatory Office	Regulatory Office
	69A Hagood Avenue	1835 Assembly Street, Room 865 B-1	1949 Industrial Park Road, Room 140	150 Executive Center Drive, Suite 205
	Charleston, SC 29403	Columbia, SC 29201	Conway, SC 29526	Greenville, SC 29615
	(ph) 843-329-8044	(ph) 803-253-3444	(ph) 843-365-4239	(ph) 864-609-4326
	SAC.RD.Charleston@usace.army.mil	SAC.RD.Columbia@usace.army.mil	SAC.RD.Conway@usace.army.mil	SAC.RD.Greenville@usace.army.mil

*Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an jurisdictional determination cannot be evaluated nor can a jurisdictional determination be issued.

III. TYPE OF REQUEST:

Delineation Concurrence¹

- _____Approved² Jurisdictional Determination (AJD) Only
- Preliminary³ Jurisdictional Determination (PJD) Only
- Approved Jurisdictional Determination (AJD) with submittal of a Pre-Construction Notification or Department of the Army permit application
- Preliminary Jurisdictional Determination (PJD) with submittal of a Pre-Construction Notification or Department of the Army permit application
- Delineation of Wetlands and/or Other Aquatic Resources Only Conducted By Agent/Environmental Consultant with submittal of a Pre-Construction Notification or Department of the Army permit application (No jurisdictional determination requested)
- I request that the **Corps delineate** the wetlands and/or other aquatic resources that may be present on my property with the attached **Pre-Construction Notification or Department of the Army permit application**
- I request that the **Corps delineate** the wetlands and/or other aquatic resources that may be present on my property **with a Delineation Only, an AJD or PJD**
 - ____ "No Permit Required" (NPR) Letter as I believe my proposed activity is not regulated⁴
 - _**Unclear** as to which jurisdictional determination I would like to request and require additional information to inform my decision

¹ <u>Delineation Concurrence (DC) – A DC</u> provides concurrence that the delineated boundaries of wetlands on a property are a reasonable representation of the aquatic resources on-site. A DC does not address the jurisdictional status of the aquatic resources.

²<u>Approved</u> – An AJD is defined in Corps regulations at 33 CFR 331.2. As explained in further detail in RGL 16-01, an AJD is used to indicate that this office has identified the presence or absence of wetlands and/or other aquatic resources on a site, including their accurate location(s) and boundaries, as well as their jurisdictional status. AJDs are valid for 5 years.

³<u>Preliminary</u> – A PJD is defined in Corps regulations at 33 CFR 331.2. As explained in further detail in RGL 16-01, a PJD is used to indicate that this office has identified the approximate location(s) and boundaries of wetlands and/or other aquatic resources on a site that are presumed to be subject to regulatory jurisdiction of the Corps of Engineers. Unlike an AJD, a PJD does not represent a definitive, official determination that there are, or that there are not, jurisdictional aquatic resources on a site, and does not have an expiration date.

⁴ "No Permit Required" (NPR) Letter- A NPR letter may be provided by the Corps to notify the requestor that an activity will not require a permit (authorization) from the Corps; this letter can only be used if the proposed activity is not a regulated activity, regardless of where the activity may occur. A NPR letter cannot be used to indicate the presence or absence of wetlands and/or other aquatic resources, nor can it be used to determine their jurisdictional status.

IV. LEGAL RIGHT OF ENTRY

hris Beckham

By signing below, I am indicating that I have the authority, or am acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant U.S. Army Corps of Engineers personnel right of entry to legally access the property(ies) subject to this request for the purposes of conducting on-site investigations (e.g., digging and refilling shallow holes) and issuing a jurisdictional determination. I acknowledge that my signature is an affirmation that I possess the requisite property rights to request a jurisdictional determination on the properties subject to this request.

Mailing Address

Email Address

Property Address / TMS #(s)

Daytime Phone Number

Chris Beckham 2/2/2021

*Signature:

Printed Name and Date

*<u>Authorities</u>: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

<u>Disclosure</u>: Submission of requested information is voluntary; however, if information is not provided, the request for an jurisdictional determination cannot be evaluated nor can a jurisdictional determination be issued.

US 278 Corridor Improvements

Beaufort County, South Carolina

Preliminary Jurisdictional Determination Package





Prepared by:



1022 State Street, Building 2 Cayce, South Carolina 29033

January 22, 2020

<u>Supplemental</u> <u>Maps</u>































Vertex #	Latitude	Longitude
1	32.23786	-80.80937
2	32.23610	-80.80571
3	32.23564	-80.80455
4	32.23513	-80.80336
5	32.23518	-80.80288
6	32.23514	-80.80234
7	32.23499	-80.80183
8	32.23361	-80.79872
9	32.23263	-80.79617
10	32.23253	-80.79602
11	32.22899	-80.78606
12	32.22915	-80.78593
13	32.23056	-80.78460
14	32.23061	-80.78446
15	32.23038	-80.78406
16	32.23027	-80.78406
17	32.22913	-80.78485
18	32.22880	-80.78442
19	32.22870	-80.78428
20	32.22850	-80.78410
21	32.22827	-80.78400
22	32.22803	-80.78398
23	32.22787	-80.78401
24	32.22758	-80.78369
25	32.22717	-80.78330
26	32.22248	-80.77906
27	32.22234	-80.77859
28	32.22246	-80.77821
29	32.22245	-80.77811
30	32.22055	-80.77633
31	32.22043	-80.77621
32	32.22033	-80.77607
33	32.22025	-80.77591
34	32.22019	-80.77575
35	32.22014	-80.77548
36	32.22004	-80.77407
37	32.22016	-80.77403
38	32.22023	-80.77391
39	32.22021	-80.77347
40	32.22014	-80.77336
41	32.22002	-80.77335

Vertex #	Latitude	Longitude
42	32.21983	-80.76891
43	32.21989	-80.76877
44	32.21995	-80.76843
45	32.21990	-80.76828
46	32.21970	-80.76820
47	32.21942	-80.76815
48	32.21915	-80.76814
49	32.21888	-80.76815
50	32.21868	-80.76820
51	32.21863	-80.76725
52	32.21868	-80.76711
53	32.21869	-80.76687
54	32.21861	-80.76667
55	32.21857	-80.76397
56	32.21858	-80.76213
57	32.21857	-80.76185
58	32.21855	-80.76157
59	32.21853	-80.76129
60	32.21846	-80.76074
61	32.21842	-80.76044
62	32.21834	-80.76004
63	32.21829	-80.75973
64	32.21823	-80.75941
65	32.21723	-80.75497
66	32.21732	-80.75498
67	32.21828	-80.75567
68	32.21847	-80.75577
69	32.21866	-80.75590
70	32.21917	-80.75618
71	32.21928	-80.75619
72	32.21952	-80.75580
73	32.21951	-80.75567
74	32.21900	-80.75523
75	32.21873	-80.75503
76	32.21867	-80.75495
77	32.21764	-80.75426
78	32.21744	-80.75415
79	32.21730	-80.75411
80	32.21703	-80.75393
81	32.21673	-80.75238
82	32.21652	-80.75092

Vertex #	Latitude	Longitude
83	32.21663	-80.75059
84	32.21688	-80.75027
85	32.21691	-80.75012
86	32.21662	-80.74977
87	32.21652	-80.74976
88	32.21634	-80.74995
89	32.21592	-80.74779
90	32.21628	-80.74767
91	32.21679	-80.74752
92	32.21749	-80.74712
93	32.21756	-80.74704
94	32.21756	-80.74691
95	32.21745	-80.74662
96	32.21737	-80.74653
97	32.21698	-80.74659
98	32.21643	-80.74681
99	32.21621	-80.74688
100	32.21577	-80.74696
101	32.21573	-80.74659
102	32.21564	-80.74627
103	32.21556	-80.74617
104	32.21506	-80.74604
105	32.21495	-80.74607
106	32.21489	-80.74620
107	32.21490	-80.74672
108	32.21494	-80.74699
109	32.21331	-80.74666
110	32.21317	-80.74672
111	32.21307	-80.74735
112	32.21314	-80.74749
113	32.21512	-80.74796
114	32.21531	-80.74859
115	32.21557	-80.75072
116	32.21594	-80.75189
117	32.21633	-80.75397
118	32.21637	-80.75425
119	32.21622	-80.75429
120	32.21610	-80.75413
121	32.21595	-80.75405
122	32.21562	-80.75433
123	32.21557	-80.75449

Vertex #	Latitude	Longitude
124	32.21577	-80.75480
125	32.21594	-80.75495
126	32.21614	-80.75503
127	32.21643	-80.75503
128	32.21656	-80.75538
129	32.21670	-80.75588
130	32.21705	-80.75757
131	32.21742	-80.75939
132	32.21764	-80.76160
133	32.21768	-80.76254
134	32.21775	-80.76422
135	32.21785	-80.76506
136	32.21783	-80.76662
137	32.21788	-80.76719
138	32.21793	-80.76860
139	32.21796	-80.77297
140	32.21801	-80.77330
141	32.21781	-80.77342
142	32.21773	-80.77355
143	32.21787	-80.77405
161	32.22660	-80.78483
162	32.22649	-80.78492
163	32.22631	-80.78515
164	32.22619	-80.78541
165	32.22614	-80.78570
166	32.22615	-80.78598
167	32.22622	-80.78627
168	32.22739	-80.78928
169	32.22750	-80.78932
170	32.22846	-80.78882
171	32.23072	-80.79511
172	32.23094	-80.79552
173	32.23367	-80.80231
174	32.23393	-80.80389
175	32.23563	-80.80708
176	32.23723	-80.81009
177	32.23732	-80.81012
178	32.23741	-80.81008
179	32.21938	-80.77328
180	32.21922	-80.76923
181	32.21919	-80.76896

Vertex #	Latitude	Longitude
182	32.21870	-80.76897
183	32.21881	-80.77319
184	32.21905	-80.77320
144	32.21795	-80.77415
145	32.21804	-80.77415
146	32.21806	-80.77468
147	32.21809	-80.77486
148	32.21811	-80.77523
149	32.21817	-80.77560
150	32.21825	-80.77597
151	32.21835	-80.77633
152	32.21849	-80.77668
153	32.21865	-80.77701
154	32.21883	-80.77732
155	32.21904	-80.77761
156	32.21927	-80.77789
157	32.21949	-80.77811
158	32.21965	-80.77842
159	32.22065	-80.77987
160	32.22641	-80.78464

Delineated Features Map & Table

















Table 2: Delineated Features

Delineated Features					
Freshwater Wetlands	Area (acres)	Lat	Long	Figure	
WTD	0.05	32.218258	-80.764284	6	
WTH	0.11	32.218277	-80.76656	6	
WWA	0.12	32.216517	-80.747501	8	
WWF	0.13	32.219539	-80.776162	5	
WWG	0.05	32.219656	-80.776517	5	
WWH	0.12	32.219248	-80.774978	5	
WWI	0.37	32.235184	-80.805966	2	
LMM	1.78	32.227175	-80.787312	4	
WWK	4.55	32.226979	-80.785386	4	
WWL	0.10	32.219551	-80.77029	5,6	
WWM	0.11	32.219393	-80.770693	5,6	
Total	7.5				
Critical Area Wetlands	Area (acres)	Lat	Long	Figure	
САТА	1.72	32.218403	-80.761888	6,7	
САТВ	1.63	32.217786	-80.761992	6,7	
CATC	0.02	32.218479	-80.764299	6	
CATD	1.68	32.227976	-80.784217	4	
CATF	0.23	32.226423	-80.786009	4	
CAWA	0.89	32.217834	-80.758368	6,7	
CAWB	1.80	32.220348	-80.778996	5	
CAWC	2.69	32.220754	-80.777217	5	
CAWD	22.32	32.224167	-80.781604	4,5	
CAWE	51.65	32.231083	-80.794122	2,3,4	
CAWF	2.60	32.234554	-80.804594	2	
CAWW	1.54	32.214408	-80.746895	8	
CAWX	0.06	32.219445	-80.755746	7,8	
CAWY	0.05	32.219284	-80.756121	7,8	
CAWZ	0.22	32.220232	-80.778074	5	
Total	89.1				

Photo Log



Photo #1 CAWE, facing US 278 and Bluffton Pkwy ramp (32.233728, -80.801883) Figure 2



Photo #2 CAWE, north of US 278 (32.234634, -80.80178) Figure 2


Photo #3 CAWE, facing beneath US 278 bridge (32.231095, -80.794091) Figure 3



<u>Photo #4</u>

CAWE, from Pinckney Island NWR facing Mackay Creek (32.227826, -80.788218) Figure 4



<u>Photo #5</u>

WWJ (Pinckney Island NWR) (32.227104, -80.787348) Figure 4



<u>Photo #6</u>

CATF, facing WWK (Pinckney Island NWR) (32.226362, -80.786122) Figure 4



Photo #7 WWK, near boat ramp entrance (Pinckney Island NWR) (32.227853, -80.786027) Figure 4



Photo #8 WWK (Pinckney Island NWR) (32.227614, -80.785389) Figure 4



Photo #9 WWK (Pinckney Island NWR) (32.226719, -80.785202) Figure 4



Photo #10 WWK (Pinckney Island NWR) (32.226789, -80.784675) Figure 4





Photo #11 CAWD, near Skull Creek (Pinckney Island NWR) (32.22708, -80.783524) Figure 4

<u>Photo #12</u>

CAWD, facing Skull Creek and Hog Island (Pinckney Island NWR) (32.226315, -80.782894) Figure 4





Photo #13 Beach of Pinckney Island NWR along Skull Creek (32.225523, -80.783528) Figure 4 Photo #14 CAWD, facing Skull Creek from Hog Island (32.222557, -80.780585) Figure 5





<u>Photo #15</u>

CAWB, near Blue Heron Point Rd (32.220524, -80.778787) Figure 5

<u>Photo #16</u>

CAWC, facing proposed Hog Island Connector road (32.220005, -80.777193) Figure 5



Photo #17 WWG meets roadside ditch, north of US 278 (32.219521, -80.77651) Figure 5



<u>Photo #18</u>

Near UpWWH, facing densely vegetated uplands (32.219045, -80.775298) Figure 5 and 6



<u>Photo #19</u>

WWL, through powerline corridor (32.219509, -80.770397) Figure 6

<u>Photo #20</u>

WTD, south of US 278 (32.217973, -80.764317) Figure 6





<u>Photo #21</u>

CATA, north of US 278 (32.218338, -80.762809) Figure 7 Photo #22 CAWA, north of US 278 (32.219509, -80.770397) Figure 6



<u>Photo #23</u>

WWA, off of Wild Horse Rd (32.216518, -80.747368) Figure 8

<u>Photo #24</u>

CAWW, East of intersection between US 278, Spanish Wells Rd and Wild Horse Rd (32.215073, -80.746658) Figure 8



<u>Photo #25</u>

WWI, facing US 278 (32.235216, -80.806128) Figure 2



<u>Photo #26</u>

CAWX, by Squire Pope Rd (32.219337, -80.755858) Figure 7

Data Forms

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Atlantic and G See ERDC/EL TR-07-24; the proponent agency i	ulf Coastal Plain Region s CECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)				
Project/Site: US 278 Corridor Improvements	City/County: Hilton Head Is	land/Beaufort Sampling Date: 07/10/19				
Applicant/Owner: SCDOT	_ , ,	State: SC Sampling Point: WWJ				
Investigator(s): Three Oaks Engineering S	ection, Township, Range: Blu					
Landform (hillside, terrace, etc.): None Loca	al relief (concave, convex, non	a): None Slope (%): 1%				
Subregion (LRR or MLRA): LRR T Lat: 32 227225	Long: -80.7	8696 Datum: NAD83				
Soil Map Linit Name: Vemassee loamy fine sand	20g.	NWI classification: None				
Are climatic / hydrologic conditions on the site typical for this time of yea	r? Ves X I	(If no, evplain in Remarks)				
Are Vegetetion X Soil X or Hydrology significantly dis	turbod? Are "Normal Circu	metances" procent? Voc X No				
Are Vegetation, soil, or Hydrologysignificantly dis	urbed? Are Normal Circul					
Are vegetation, Soli, or Hydrologynaturally proble	malic? (Il needed, explain	any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations	s, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: K K K K	Is the Sampled Area within a Wetland?	Yes <u>X</u> No				
Wetland Hydrology Indicators:	Sec	condary Indicators (minimum of two required)				
Surface Water (A1) Aquatic Fauna (B13)		Surface Soli Cracks (Bo) Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2) Marl Deposits (B15) (I	 LRR U)	Drainage Patterns (B10)				
Saturation (A3) Hydrogen Sulfide Odd	or (C1)	Moss Trim Lines (B16)				
Water Marks (B1) Oxidized Rhizosphere	s on Living Roots (C3)	Dry-Season Water Table (C2)				
Sediment Deposits (B2) Presence of Reduced	Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3)	n in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Thin Muck Surface (C	7) <u>X</u>	Geomorphic Position (D2)				
Iron Deposits (B5) Other (Explain in Rem	iarks)	Shallow Aquitard (D3)				
Mundation Visible on Aerial Imagery (D7)		Sphagpum Moss (D8) (LRR T 11)				
Field Observations:						
Surface Water Present? Yes No X Depth (inches	s).					
Water Table Present? Yes No X Depth (inches	s):					
Saturation Present? Yes No X Depth (inches	s): Wetland Hyd	rology Present? Yes X No				
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if availa	ble:				
Remarks:						
Rained in the morning						

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

Sampling Point: WWJ

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Quercus virginiana	40	Yes	FACW	Number of Dominant Species
2. Sabal palmetto	20	Yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
3. Celtis laevigata	10	No	FACW	Total Number of Dominant
4. Pinus taeda	8	No	FAC	Species Across All Strata: 7 (B)
5				
6				Percent of Dominant Species
0.				
	<u> </u>		10	
50% of total cover:	39 20%	of total cover:	16	I otal % Cover of: Multiply by:
<u>Sapling Stratum</u> (Plot size: <u>30 ft radius</u>)				OBL species $0 \times 1 = 0$
1. Sabal palmetto	20	Yes	FACW	FACW species 70 x 2 = 140
2. Quercus nigra	10	Yes	FAC	FAC species 108 x 3 = 324
3				FACU species 0 x 4 = 0
4				UPL species 0 x 5 = 0
5.				Column Totals: 178 (A) 464 (B)
6.				Prevalence Index = B/A = 2.61
	30 =	=Total Cover		Hydrophytic Vegetation Indicators:
50% of total cover	15 20%	of total cover	6	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft radius)	2070			X 2 - Dominance Test is >50%
<u>Sindb Stratum</u> (Flot Size. <u>50 it radids</u>)	25	Vaa		\times 2 - Dominance rest is > 30 %
				$\frac{1}{2}$ S - Prevalence index is ≤ 5.0
2. Ilex vomitoria	10	Yes	FAC	Problematic Hydrophytic Vegetation' (Explain)
3				
4.				
5				¹ Indicators of hydric soil and wetland hydrology must be
6				present, unless disturbed or problematic.
	35	Total Cover		Definitions of Five Vegetation Strata:
50% of total cover:	18 20%	of total cover:	7	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size:)				approximately 20 ft (6 m) or more in height and 3 in.
1				(7.6 cm) or larger in diameter at breast height (DBH).
2				Conting Woody plants, evaluding woody vince
3				approximately 20 ft (6 m) or more in height and less
3				than 3 in. (7.6 cm) DBH.
4.				
5				Shrub - Woody Plants, excluding woody vines,
6				
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
9				plants, except woody vines, less than approximately 3
10.				it (i m) in neight.
11.				Woody Vine – All woody vines, regardless of height.
		=Total Cover		
50% of total cover		of total cover		
	20%			
WOODV VIDE STRATIM (PIOUSIZE: SUIT FADILIS)	20%			
<u>woody vine Stratum</u> (Piot size: <u>30 it radius</u>)	20%	Vee		
<u>Vitis rotundifolia</u>	20% 35	Yes	FAC	
Voody Vine Stratum (Plot size:) Vitis rotundifolia	20% 35	Yes	FAC	
Woody Vine Stratum (Plot size:) 1. Vitis rotundifolia 2.	20% 	Yes	FAC	
Woody Vine Stratum (Piot Size:	20% 	Yes	FAC	
Woody Vine Stratum (Piot Size:	20% 	Yes	FAC	Hydrophytic
Vitis rotundifolia	20% 	Yes 	FAC	Hydrophytic Vegetation
Vitis rotundifolia	20% 	Yes 	FAC	Hydrophytic Vegetation Present? Yes <u>X</u> No

SOIL

Depth	Matrix		Redo	x Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Те	xture		Rem	arks
0-4	10YR 2/1	100					Loam	y/Clayey			
4-6	10YR 3/1	100					Loam	y/Clayey			
6-12	10YR 6/2	100					S	andy			
		·									
¹ Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, I	MS=Maske	d Sand	Grains.		² Location:	PL=Por	e Lining, M=I	Matrix.
Hydric Soil	Indicators: (Applica	able to all L	RRs, unless oth	erwise not	ed.)			Indicators	for Pro	blematic Hy	dric Soils ³ :
Histosol (A1)Thin Dark Surface (S9) (LRR S, T, L								1 cm M	luck (A9) (LRR O)	
Histic Epipedon (A2) Barrier Islands 1 cm Muck (S12)								2 cm N	luck (A1	0) (LRR S)	
Black Histic (A3) (MLRA 153B, 153D)								Coast I	Prairie F	Redox (A16)	
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O)							(outs	ide ML	RA 150A)		
X Stratified Layers (A5) Loamy Gleyed Matrix (F2)						Reduce	ed Vertio	c (F18)			
Organic	Bodies (A6) (LRR P	, T, U)	X Depleted Ma	atrix (F3)				(outs	ide ML	RA 150A, 15	0B)
5 cm Μι	ucky Mineral (A7) (LF	RR P, T, U)	Redox Dark	Surface (F	6)			Piedmo	ont Floo	dplain Soils ((F19) (LRR P, T
Muck Pr	esence (A8) (LRR U)	Depleted Da	ark Surface	(F7)			Anoma	lous Bri	ght Floodplai	in Soils (F20)
1 cm Mu	uck (A9) (LRR P, T)		Redox Depr	essions (Fa	8)			(MLF	RA 153B	5)	
X Deplete	d Below Dark Surface	e (A11)	Marl (F10) (LRR U)				Red Pa	arent Ma	terial (F21)	
 Thick Da	ark Surface (A12)	· · /	Depleted Oc	chric (F11)	(MLRA	151)		Very S	hallow D	Dark Surface	(F22)
Coast P	rairie Redox (A16) (N	/LRA 150A) Iron-Mangar	nese Masse	、 es (F12) (LRR (), P, T)	(outs	ide ML	RA 138, 152	A in FL, 154)
Sandy N	/ucky Mineral (S1) (L	.RR 0, S)	Umbric Surf	ace (F13) (. T. U)		Barrier	Islands	Low Chroma	a Matrix (TS7)
Sandy G	Gleved Matrix (S4)		Delta Ochrid	(F17) (ML	.RA 15	1)		(MLF	RA 153B	3. 153D)	()
Sandy Redox (S5) Reduced Vertic (F18) (MI RA 150A 150B							50B)	Other (Explain	in Remarks)	
Stripped	Matrix (S6)		Piedmont Fl	oodplain S	oils (F1	9) (MLR	A 149A)			,	
Dark Su	rface (S7) (LRR P. S	5. T. U)	Anomalous	Bright Floo	dolain	Soils (F2	0)				
Polyvalu	ie Below Surface (S8	3)	(MLRA 14	I9A. 153C.	153D)		•)	³ Indicat	tors of h	vdrophytic ve	egetation and
(I RR	S T U)	·)	Verv Shallov	v Dark Sur	face (F	22)		wetla	and hvdi	rology must k	pe present
(-, -, -,		(MLRA 13	38, 152A in	FL, 15	<i>)</i> 54)		unle	ss distu	rbed or probl	ematic.
Restrictive	Layer (if observed):										
Type:											
Depth (i	nches):						Hydri	c Soil Prese	ent?	Yes X	No
Remarks:											

U.S. Army WETLAND DETERMINATION DATA S See ERDC/EL TR-07-24; th	Coastal Plain Region ECW-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)					
Project/Site: US 278 Corridor Improvement	S	City/County: Hilton Head Is	land/Beaufort Sa	mpling Date: 07/10/19			
Applicant/Owner: SCDOT			State:SCSa	mpling Point: Up WWK			
Investigator(s): Three Oaks Engineering	Secti	on, Township, Range: Blu	ffton, SC (2017), 24k				
Landform (hillside, terrace, etc.): Hillslope	Local re	elief (concave, convex, none	e): None	Slope (%): 3%			
Subregion (LRR or MLRA): LRR T	Lat: <u>32.22738</u>	Long: -80.7	8617	Datum: NAD83			
Soil Map Unit Name: Bertie loamy fine sand			NWI classification	None			
Are climatic / hydrologic conditions on the site	e typical for this time of year?	Yes X I	No (If no, expl	ain in Remarks.)			
Are Vegetation , Soil , or Hydro	logy significantly disturb	ed? Are "Normal Circu	mstances" present?	Yes X No			
Are Vegetation Soil or Hydro	logy naturally problemat	ic? (If needed explain	any answers in Rema	rks)			
	site man showing sam	nling point locations	transacts impo	rtant foaturos oto			
SUMMART OF FINDINGS - Allaci	site map showing sam	ping point locations	s, transects, impo				
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No I Yes X No No No Yes No X No No	s the Sampled Area within a Wetland?	Yes N	• <u>×</u>			
Remarks: This data form reflects conditions for upland	s between WWK and WWJ						
HYDROLOGY							
Primary Indicators (minimum of one is requi	red [.] check all that apply)	<u></u>	Surface Soil Cracks (B6)			
Surface Water (A1)	Aquatic Fauna (B13)		- Sparsely Vegetated C	Concave Surface (B8)			
High Water Table (A2)	Marl Deposits (B15) (LRF	R U)	Drainage Patterns (B10)				
Saturation (A3)	Hydrogen Sulfide Odor (C	.1)	Moss Trim Lines (B16)				
Water Marks (B1)	Oxidized Rhizospheres or	n Living Roots (C3)	Dry-Season Water Table (C2)				
Sediment Deposits (B2)	Presence of Reduced Iron	n (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3)	Recent Iron Reduction in	Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		Geomorphic Position	(D2)			
Inundation Visible on Aerial Imagery (B2		s)	- Shallow Aquitard (D3))			
Water-Stained Leaves (B9)		<u></u>	- Sphagnum Moss (D8)) (LRR T. U)			
Field Observations:			(, (,,,			
Surface Water Present? Yes	No X Depth (inches):						
Water Table Present? Yes	No X Depth (inches):						
Saturation Present? Yes	No X Depth (inches):	Wetland Hyd	rology Present?	Yes No X			
(includes capillary fringe)							
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos, pre	vious inspections), if availa	ble:				
Remarks:							
Noniario.							

Г

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

Sampling Point: Up WWK

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Celtis laevigata	10	Yes	FACW	Number of Dominant Species
2. Sabal palmetto	10	Yes	FAC	That Are OBL, FACW, or FAC: 9 (A)
3. Quercus virginiana	5	Yes	FACU	Total Number of Dominant
4				Species Across All Strata: 10 (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 90.0% (A/B)
	25	=Total Cover		Prevalence Index worksheet:
50% of total cover: 1	3 20%	of total cover:	5	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft radius)				OBL species 0 x 1 = 0
1. Sabal palmetto	10	Yes	FAC	FACW species 10 x 2 = 20
2. Morella cerifera	15	Yes	FAC	FAC species 130 x 3 = 390
3. Ilex vomitoria	10	Yes	FAC	FACU species 5 x 4 = 20
4.				UPL species 0 x 5 = 0
5.				Column Totals: 145 (A) 430 (B)
6				Prevalence Index = $B/A = 2.97$
	35	=Total Cover		Hydrophytic Vegetation Indicators:
50% of total cover: 1	8 20%	of total cover:	7	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft radius)	2070			X 2 Dominanco Tost is >50%
<u>Siliub Stratum</u> (Flot size. <u>50 it radius</u>)	20	Voc	EAC	$\frac{1}{2}$ - Dominance rest is 200%
		Yes		$\frac{1}{2}$
		<u>Yes</u>	FAC	
3. Ilex vomitoria	20	Yes	FAC	
4				
5				¹ Indicators of hydric soil and wetland hydrology must be
6				present, unless disturbed or problematic.
	60	=Total Cover		Definitions of Five Vegetation Strata:
50% of total cover:3	20%	of total cover:	12	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size:)				approximately 20 ft (6 m) or more in height and 3 in.
1				
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
5				Shrub - Woody Plants, excluding woody vines,
6.				approximately 3 to 20 ft (1 to 6 m) in height.
7.				Herb – All berbaceous (non-woody) plants, including
8.				herbaceous vines, regardless of size, and woody
9.				plants, except woody vines, less than approximately 3
10.				ft (1 m) in height.
11.				Woody Vine – All woody vines, regardless of height.
		=Total Cover		
50% of total cover:	20%	of total cover:		
Woody Vine Stratum (Plot size: 30 ft radius)				
1 Vitis rotundifolia	25	Ves	FAC	
		103		
2				
4				
ə				Hydrophytic
	25	= I otal Cover	_	Vegetation
50% of total cover:	<u>3</u> 20%	of total cover:	5	Present? Yes X No
Remarks: (If observed, list morphological adaptation	ns below.)			

Profile Desci	ription: (Describe 1 Matrix	o the dep	oth needed to doc	ument t	he indica	tor or co	onfirm th	ie absence o	of indica	tors.)		
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Те	exture		R	emarks	
0-6	10YR 2/1	98	2.5YR 2.5/4	2	С	PL	S	andy	Pron	ninent re	dox con	centrations
6-16	10YR 3/2	95	2.5YR 2.5/4	5	С	PL	S	andy	Pron	ninent re	dox con	centrations
						·						
						·						
¹ Type: C=Co	ncentration, D=Depl	etion, RM	=Reduced Matrix, I	MS=Mas	ked Sand	Grains.		² Location: F	PL=Pore	Lining, N	/I=Matrix	ζ.
Hydric Soil In Histosol (Histic Epi Black His Hydroger Stratified Organic E 5 cm Muc Muck Pre 1 cm Muc Depleted Thick Dal Coast Pra Sandy Mu Sandy Gl X Sandy Re	ndicators: (Applica (A1) ipedon (A2) itic (A3) n Sulfide (A4) Layers (A5) Bodies (A6) (LRR P, Cky Mineral (A7) (LR esence (A8) (LRR U) Ck (A9) (LRR P, T) Below Dark Surface rk Surface (A12) airie Redox (A16) (M ucky Mineral (S1) (L eyed Matrix (S4) edox (S5)	T, U) R P, T, U (A11) LRA 150, RR O, S)	LRRs, unless oth Thin Dark S Barrier Islan (MLRA 19 Loamy Muc Loamy Gley Depleted Ma Depleted Da Redox Dark Depleted Da Redox Depr Marl (F10) (Depleted Oc A) Iron-Mangan Umbric Surf Delta Ochric Reduced Ve	erwise r urface (\$ ds 1 cm 53B, 153 ky Miner ed Matri atrix (F3) Surface ark Surfa essions LRR U) chric (F1 nesse Ma ace (F1?) (ertic (F18)	noted.) S9) (LRR Muck (S SD) al (F1) (L ix (F2)) (F6) ace (F7) (F8) 1) (MLRA sses (F1) 3) (LRR F MLRA 15 3) (MLRA	S, T, U) 12) RR O) (LRR O) (LRR C (, T, U) 1) 150A, 15	0, P, T) 10B)	Indicators f 1 cm Mu 2 cm Mu Coast P (outsi Reduce (outsi Piedmon Anomale (MLRa Very Sh (outsi Barrier I (MLRa Other (E)	or Prob Juck (A9) Juck (A10 Irairie Re de MLR d Vertic de MLR nt Flood ous Brig A 153B) rent Mate allow Da de MLR slands L A 153B, Explain ir	lematic I (LRR O) () (LRR S edox (A16 A 150A) (F18) A 150A, plain Soil ht Floodp erial (F21 ark Surfa A 138, 1 .ow Chro 153D) n Remark	Hydric \$ (5) (5) (5) (5) (5) (5) (5) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	(LRR P, T) (LRR P, T) ils (F20)) F L, 154) rix (TS7)
Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Polyvalue Below Surface (S8) (LRR S, T, U) Polytalue Comparison of the structure Layer (if observed): Type:					19) (MLR Soils (F2 22) 54)	RA 149A) ² 20) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				tion and esent, ic.		
Depth (in	ches):						Hydri	c Soil Prese	nt?	Yes_	<u> </u>	No

U.S. Arm WETLAND DETERMINATION DATA See ERDC/EL TR-07-24;	y Corps of Engineers SHEET – Atlantic and Go the proponent agency is	ulf Coastal Plain Region	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)	į
Project/Site: US 278 Corridor Improvemer	ıt	Citv/Countv: Hilton Head Is	sland/ Beaufort Sampling Date: 07/19/	/19
Applicant/Owner: SCDOT			State: SC Sampling Point: WW	/K2
Investigator(s): Three Oaks Engineering	Sé	ection Townshin Range Blut	ffton SC (2017) 24K	
Landform (hillside, torrace, etc.): None		l roliof (concavo, convox, pop	(2017), 240	
Subrogion (LPR or MLRA): LPR T	Lot: 22.227412		Stope (%). 13	<u>/0</u>
	Lat. <u>52.227415</u>	Longou.70	NAU classification Nana	3
Soli Map Unit Name: Bertie laomy line san				
Are climatic / hydrologic conditions on the s	te typical for this time of year	r? Yes <u>X</u> N	No (If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydr	ologysignificantly dist	urbed? Are "Normal Circui	mstances" present? Yes X No _	
Are Vegetation, Soil, or Hydr	ology naturally probler	natic? (If needed, explain	n any answers in Remarks.)	
SUMMARY OF FINDINGS – Attac	h site map showing sa	ampling point locations	s, transects, important features,	etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area		
Hydric Soil Present?	Yes X No	within a Wetland?	Yes_X_ No	
Wetland Hydrology Present?	Yes X No			
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required. X Surface Water (A1) X 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 (B Water -Stained Leaves (B9) Field Observations: Surface Water Present? Yes X Yes X (includes capillary fringe) Describe Recorded Data (stream gauge, m Rained in AM	uired; check all that apply) Aquatic Fauna (B13) Marl Deposits (B15) (L Hydrogen Sulfide Odo Oxidized Rhizospheres Presence of Reduced Recent Iron Reduction X X Other (Explain in Rem. 37) No Depth (inches No Depth (inches No Depth (inches No Depth (inches No Depth (inches	Sec .RR U) r (C1) s on Living Roots (C3) Iron (C4) in Tilled Soils (C6) 7) arks) X): 0 Wetland Hyde previous inspections), if availa	condary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8 Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum Moss (D8) (LRR T, U)	<u>(d)</u>

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

Sampling Point: WWK2

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Triadica sebifera	15	Yes	FAC	Number of Dominant Species
2. Sabal palm	25	Yes	FAC	That Are OBL, FACW, or FAC: 10 (A)
3. Celtis laevigata	10	Yes	FACW	Total Number of Dominant
4				Species Across All Strata: 11 (B)
5				
5				Percent of Dominant Species
0.				
	50	= I otal Cover		Prevalence Index worksheet:
50% of total cover:	25 20%	o of total cover:	10	Total % Cover of:Multiply by:
<u>Sapling Stratum</u> (Plot size: <u>30 ft radius</u>)				OBL species 15 x 1 =15
1. Sabal palmetto	15	Yes	FAC	FACW species 45 x 2 = 90
2. Quercus virginiana	5	Yes	FACU	FAC species 103 x 3 = 309
3. Ilex vomitoria	3	No	FAC	FACU species 5 x 4 = 20
4.				UPL species 0 x 5 = 0
5.				Column Totals 168 (A) 434 (B)
6				$\frac{1}{2} \frac{1}{2} \frac{1}$
· · · · · · · · · · · · · · · · · · ·		-Total Cover		
500/ 64 4	23		-	
50% of total cover:	12 20%	of total cover:	5	1 - Rapid Test for Hydrophytic Vegetation
<u>Shrub Stratum</u> (Plot size: <u>30 ft radius</u>)				X 2 - Dominance Test is >50%
1. Sabal palmetto	10	Yes	FAC	X_3 - Prevalence Index is $\leq 3.0^1$
2. Ilex vomitoria	15	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Morella cerifera	10	Yes	FAC	
4. Celtis laevigata	5	No	FACW	
5.				¹ Indiastore of hydric soil and watland hydrology must
6				he present unless disturbed or problematic
·	40	-Total Covor		Definitions of Eive Vegetation Strata:
	40			Deminitions of Five vegetation Strata.
EO0/ of total approxim	20 200/	of total aquar	0	
50% of total cover:	20 20%	o of total cover:	8	Tree – Woody plants, excluding woody vines,
50% of total cover: Herb Stratum (Plot size:30 ft radius _)	<u>20</u> 20%	of total cover:	8	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)
50% of total cover: <u>Herb Stratum</u> (Plot size: <u>30 ft radius</u>) 1. <u>Echinochloa crus-galli</u>	20 20% 30	o of total cover:	8 FACW	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).
50% of total cover:	20 20% 30 15	o of total cover: Yes Yes	8 FACW OBL	 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,
50% of total cover: <u>Herb Stratum</u> (Plot size: <u>30 ft radius</u>) 1. <u>Echinochloa crus-galli</u> 2. <u>Typha angustifolia</u> 3	20 20% 30 15	of total cover: Yes Yes	8 FACW OBL	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
50% of total cover: <u>Herb Stratum</u> (Plot size: <u>30 ft radius</u>) 1. <u>Echinochloa crus-galli</u> 2. <u>Typha angustifolia</u> 3 4	20 20% 30 15	of total cover: Yes Yes	8 FACW OBL	 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.
50% of total cover: <u>Herb Stratum</u> (Plot size: <u>30 ft radius</u>) 1. <u>Echinochloa crus-galli</u> 2. <u>Typha angustifolia</u> 3 4 5.	20 20% 30 15	Yes Yes	8 FACW OBL	 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,
50% of total cover: Herb Stratum (Plot size: 30 ft radius) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6.	20 20% 30 15	Yes Yes Yes	8 FACW OBL	 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.
50% of total cover: Herb Stratum (Plot size: 30 ft radius) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6. 7.	20 20% 30 15	Yes Yes	8 FACW OBL	 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.
50% of total cover: Herb Stratum (Plot size: 30 ft radius) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6. 7. 8	20 20% 30 15	Yes Yes	8 FACW OBL	 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 berbaceous vines, regardless of size, and woody
50% of total cover: Herb Stratum (Plot size: 30 ft radius) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6. 7. 8. 9	20 20% 30 15	Yes Yes Yes	8 FACW OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
50% of total cover: Herb Stratum (Plot size: 30 ft radius) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6. 7. 8. 9. 40	20 20% 30 15	Yes Yes	8 FACW OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
50% of total cover: Herb Stratum (Plot size: 30 ft radius) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6. 7. 8. 9. 10.	20 20%	Yes Yes Yes Yes	8 FACW OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
50% of total cover: Herb Stratum (Plot size: 30 ft radius) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6. 7. 8. 9. 10. 11.	20 20% 30 15	Yes Yes Yes Yes	8 FACW OBL	 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover: Herb Stratum (Plot size: <u>30 ft radius</u>) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6. 7. 8. 9. 10. 11.	20 20% 30 15	Yes Yes Yes Total Cover	8 FACW OBL	 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
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50% of total cover: Herb Stratum (Plot size: 30 ft radius) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: Woody Vine Stratum (Plot size: 30 ft radius)	20 20% 30 15	Yes Yes Yes Yes Total Cover of total cover:	8 FACW OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover: Herb Stratum (Plot size: 30 ft radius) 1. Echinochloa crus-galli 2. Typha angustifolia 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: Woody Vine Stratum (Plot size: 30 ft radius) 1. Vitis rotundifolia	20 20% 30 15	<pre> Yes Yes Yes Total Cover of total cover: Yes </pre>	8 FACW OBL	 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
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50% of total cover:	20 20% 30 15 15 45 23 20% 10	<pre> Yes Yes Yes Total Cover of total cover: Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes</pre>	8 FACW OBL 9 FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:	20 20% 30 15	e of total cover:	8 FACW OBL 9 FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
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SOIL

Inches Color (moist) % Color (moist) % Loc Lexture Kemarks 0-16 10YR 2/1 100 Mucky Leam/Clay Mucky Leam/Clay Mucky Leam/Clay	Jepui		0/			- 1	. 2				
0-16 10YR 2/1 100 Mucky Loam/Clay	nches)	Color (moist)		Color (moist)		Туре	Loc	Texture	· ·	Remark	(S
Ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Histosol (A1) Thin Dark Surface (S9) (LRR S, T, U) 1 cm Muck (A0) (LRR O) Black Histic (A3) (MLRA 1538, 153D) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) (outside MLRA 150A) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Piedmont Floodplain Soils (F19) (LRR P, T, U) Cast Prairie Redox (A16) Mark (F10) (LRR U) Depleted Dark Surface (F7) Anomalous Bright Floodplain Soils (F20) Cast Prairie Redox (A16) (MLRA 150A Tom Muck (A9) (LRR P, T) Red Parent Material (F21) Very Shallow Dark Surface (F22) Coast Prairie Redox (A16) (MLRA 150A Depleted Ochric (F11) (MLRA 151) (outside MLRA 138, 152A in FL, 154) Sandy Mucky Mineral (S1) (LRR P, S, T, U) Piedmont Floodplain Soils (F20) Murka 1538, 153D) Sandy Mucky Mineral (S1) (LRR O, S) Wurbin Surface (F12) (LRR O, P, T) Guest Matrix (S1) Mark (F10) (LRR A 151) Sandy Mucky Mineral (S1) (LRR O, S)	0-16	10YR 2/1	100					Mucky Loam	/Clay		
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. yper: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. yper: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Indicators for Problematic Hydric Soils ³ : Histosol (A1) Thin Dark Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histosol (A2) Barrier Islands 1 cm Muck (S12) 2 cm Muck (A10) (LRR S) Black Histic (A3) (MLRA 153B, 153D) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) (outside MLRA 150A) 150B) S tratified Layers (A5) Loamy Gleyed Matrix (F3) (outside MLRA 150A) Muck Presence (A8) (LRR P, T, U) Redox Depressions (F8) (MLRA 153B) Muck Y Mineral (A7) (LRR P, T) Redox Depressions (F8) (MLRA 153B, 152D) Coast Prairie Redox (A16) (MLRA 150A Depleted Ochric (F11) (MLRA 151) Very Shallow Dark Surface (F22) Coast Prairie Redox (A15) Depleted Ochric (F17) (MLRA 150A, 150B) Other (Explain in Remarks) Sandy Redox (S5) Reduced											
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. ypic: Solution: PL=Pore Lining, M=Matrix. Histosol (A1) Thin Dark Surface (S9) (LRR S, T, U) Indicators for Problematic Hydric Soils ³ : Histosol (A1) Thin Dark Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histosol (A1) Barrier Islands 1 cm Muck (S12) 2 cm Muck (A10) (LRR S) Black Histic (A3) (MLRA 1538, 153D) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) (outside MLRA 150A) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) Organic Bodies (A6) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) Muck (A9) (LRR P, T) Redox Depressions (F8) (MLRA 153B) Coast Prairie Redox (A16) (MLRA 150A Iron-Manganese Masses (F12) (LRR O, P, T) Barrier Islands Low Chroma Matrix (TS7) Sandy Mucky Mineral (S1) Matrix (F3) (outside MLRA 138, 152A in FL, 154) Sandy Mucky Mineral (S1) (LRR O, S) Wibbit Surface (F13) (MLRA 150A, 150B) Other (Explain in Remarks) Stripped Matrix (S6) Peledmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Floodplain Soils (F20)											
Applicable to all LRRs, unless otherwise noted.) Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators: for Problematic Hydric Soils ³ : Histosol (A1) Thin Dark Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histosol (A2) Barrier Islands 1 cm Muck (S12) 2 cm Muck (A10) (LRR S) Black Histic (A3) (MLRA 153B, 153D) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) (outside MLRA 150A) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) Organic Bodies (A6) (LRR P, T, U) Depleted Dark Surface (F7) Reduced Vertic (F18) X Muck Presence (A8) (LRR P, T) Redox Depressions (F8) (MLRA 153B) Depleted Below Dark Surface (A11) Marl (F10) (LRR U) Red Parent Material (F21) Yery Shallow Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Very Shallow Dark Surface (F22) Coast Prairie Redox (A16) (MLRA 150A Iron-Manganese Masses (F12) (LRR O, P, T) Barrier Islands Low Chroma Matrix (TS7) Sandy Mucky Mineral (S1) (LRR O, S) X Umbric Surface (F13) (LRR O, F, T) Barrier Islands Low Chroma Matrix (TS7) Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F20) Stripped Matrix (S6)	Type: C=C	oncentration. D=Der	bletion. RI	/-Reduced Matrix.	 MS=Ma	sked Sa	nd Grain	s. ² Loc	ation: PL=Pc	pre Lining. M=Mat	rix.
	ydric Soil	Indicators: (Applic	able to al	I LRRs, unless ot	nerwise	noted.)		Indi	cators for Pr	oblematic Hydri	c Soils ³ :
Histic Epipedon (A2) Barrier Islands 1 cm Muck (S12) 2 cm Muck (A10) (LRR S) Black Histic (A3) (MLRA 153B, 153D) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) (outside MLRA 150A) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) (outside MLRA 150A, 150B) X 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Piedmont Floodplain Soils (F19) (LRR P, X Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) Anomalous Bright Floodplain Soils (F20) X 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) (MLRA 153B) Depleted Below Dark Surface (A11) Marl (F10) (LRR U) Red Parent Material (F21) Coast Prairie Redox (A16) (MLRA 150A, Iron-Manganese Masses (F12) (LRR O, P, T) (outside MLRA 138, 152A in FL, 154) Sandy Mucky Mineral (S1) (LRR O, S) X Umbric Surface (F13) (MLRA 150A, 150B) Otrey (Explain in Remarks) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Floodplain Soils (F20) Muck R4 138, 152A in FL, 154) Barrier Islands Low Chroma Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Other (Explain in Remarks) O	Histosol	(A1)		Thin Dark S	urface (59) (LRF	R S, T, U)	1 cm Muck (A	49) (LRR O)	
Black Histic (A3) (MLRA 153B, 153D) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) (outside MLRA 150A) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) (outside MLRA 150A, 150B) X 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Piedmont Floodplain Soils (F19) (LRR P, X X 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) (MLRA 153B) Depleted Below Dark Surface (A11) Marl (F10) (LRR U) Red Parent Material (F21) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Very Shallow Dark Surface (F22) Coast Prairie Redox (A16) (MLRA 150A Iron-Manganese Masses (F12) (LRR O, P, T) (outside MLRA 138, 152A in FL, 154) Sandy Mucky Mineral (S1) (LRR O, S) X Umbric Surface (F13) (LRR P, T, U) Barrier Islands Low Chroma Matrix (TS7) Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A) Other (Explain in Remarks) Other (Explain in Remarks) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Other (Explain in Remarks) Sindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Muck Presence (IR observed): <td< td=""><td>Histic Ep</td><td>oipedon (A2)</td><td></td><td>Barrier Islar</td><td>ids 1 cm</td><td>Muck (S</td><td>S12)</td><td></td><td>2 cm Muck (A</td><td>(10) (LRR S)</td><td></td></td<>	Histic Ep	oipedon (A2)		Barrier Islar	ids 1 cm	Muck (S	S12)		2 cm Muck (A	(10) (LRR S)	
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) (outside MLRA 150A) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) Reduced Vertic (F18) X 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Piedmont Floodplain Soils (F19) (LRR P, X Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) Anomalous Bright Floodplain Soils (F20) Muck (A9) (LRR P, T) Redox Depressions (F8) (MLRA 153B) Depleted Below Dark Surface (A11) Marl (F10) (LRR U) Red Parent Material (F21) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Very Shallow Dark Surface (F22) Coast Prairie Redox (A16) (MLRA 150A Iron-Manganese Masses (F12) (LRR O, P, T) Guutside MLRA 1538, 152A in FL, 154) Sandy Mucky Mineral (S1) (LRR O, S) X Umbric Surface (F13) (MLRA 150A, 150B) Other (Explain in Remarks) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Other (Explain in Remarks) Sindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Mucky Mineral (if observed): (MLRA 138, 152A in FL, 154) No Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.<	Black Hi	stic (A3)		(MLRA 1	53B, 153	SD)			Coast Prairie	Redox (A16)	
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Reduced Vertic (F18) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) (outside MLRA 150A, 150B) X 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Piedmont Floodplain Soils (F19) (LRR P, X X 1 cm Muck (A9) (LRR P, T) Redox Dark Surface (F7) Anomalous Bright Floodplain Soils (F20) X 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) (MLRA 153B) Depleted Below Dark Surface (A11) Marl (F10) (LRR U) Red Parent Material (F21) Y Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Very Shallow Dark Surface (F22) Coast Prairie Redox (A16) (MLRA 0, S) X Umbric Surface (F13) (LRR O, F, T, U) Barrier Islands Low Chroma Matrix (TS7) Sandy Mucky Mineral (S1) (LRR O, S) X Umbric Surface (F13) (MLRA 150A, 150B) Other (Explain in Remarks) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Other (Explain in Remarks) 3 ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed):: Type:	Hydroge	en Sulfide (A4)		Loamy Muc	ky Miner	al (F1) (LRR O)		(outside M	LRA 150A)	
Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) (outside MLRA 150A, 150B) K 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Piedmont Floodplain Soils (F19) (LRR P, K Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) Anomalous Bright Floodplain Soils (F20) K 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) (MLRA 153B) Depleted Below Dark Surface (A11) Marl (F10) (LRR U) Red Parent Material (F21) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Very Shallow Dark Surface (F22) Coast Prairie Redox (A16) (MLRA 150A Iron-Manganese Masses (F12) (LRR O, P, T) (outside MLRA 138, 152A in FL, 154) Sandy Mucky Mineral (S1) (LRR O, S) X Umbric Surface (F13) (MLRA 150A, 150B) Other (Explain in Remarks) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Other (Explain in Remarks) 3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type:	Stratified	d Layers (A5)		Loamy Gley	ed Matri	x (F2)			Reduced Ver	tic (F18)	
X 5 cm Mucky Mineral (A/) (LRR P, T, U) Redox Dark Surface (F6) Piedmont Floodplain Soils (F19) (LRR P, Y, Muck P, Anomalous Bright Floodplain Soils (F20) X Muck (A9) (LRR P, T) Redox Depressions (F8) (MLRA 153B) Depleted Below Dark Surface (A11) Marl (F10) (LRR U) Red Parent Material (F21) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Very Shallow Dark Surface (F22) Coast Prairie Redox (A16) (MLRA 150A Iron-Manganese Masses (F12) (LRR O, P, T) (outside MLRA 138, 152A in FL, 154) Sandy Mucky Mineral (S1) (LRR O, S) X Umbric Surface (F13) (LRR P, T, U) Barrier Islands Low Chroma Matrix (TS7) Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 150B) Other (Explain in Remarks) Stripped Matrix (S6) Piedmont Floodplain Soils (F20) Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. testrictive Layer (if observed): Type:	Organic	Bodies (A6) (LRR P	P, T, U)	Depleted M	atrix (F3))			(outside M	LRA 150A, 150B)
X Muck Presence (A8) (LRR U)		icky Mineral (A7) (L	RR P, T, I	J) Redox Dark	Surface	(F6)			Piedmont Flo	odplain Soils (F1	9) (LRR P, 1
x 1 cm Muck (A9) (LRR P, 1)		resence (A8) (LRR L	J)	Depleted Da	ark Surfa				Anomalous B	right Floodplain S	50lls (F20)
Depleted Below Dark Surface (A11) Man (F10) (LRR 0) Red Parent Material (F21) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Very Shallow Dark Surface (F22) Coast Prairie Redox (A16) (MLRA 150A Iron-Manganese Masses (F12) (LRR 0, P, T) (outside MLRA 138, 152A in FL, 154) Sandy Mucky Mineral (S1) (LRR 0, S) X Umbric Surface (F13) (LRR P, T, U) Barrier Islands Low Chroma Matrix (TS7) Sandy Gleyed Matrix (S4) Delta Ochric (F17) (MLRA 151) (MLRA 153B, 153D) Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 150B) Other (Explain in Remarks) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Floodplain Soils (F20) Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. testrictive Layer (if observed): Type:		ICK (A9) (LRR P, T)	- (1 1 1)		essions	(F8)			(IVILRA 153	B)	
Inick Dark Surface (A12) Depleted Ocninc (F11) (MLRA 151) Very Shallow Dark Surface (F22) Coast Prairie Redox (A16) (MLRA 150A Iron-Manganese Masses (F12) (LRR O, P, T) (outside MLRA 138, 152A in FL, 154) Sandy Mucky Mineral (S1) (LRR O, S) X Umbric Surface (F13) (LRR P, T, U) Barrier Islands Low Chroma Matrix (TS7) Sandy Gleyed Matrix (S4) Delta Ochric (F17) (MLRA 151) (MLRA 153B, 153D) Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 150B) Other (Explain in Remarks) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Other (Explain in Remarks) Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. testrictive Layer (if observed): Type:	Depleted	d Below Dark Surfac	æ (A11)	Mari (F10) (LRR U)					laterial (F21)	
Coast Pranie Redux (A10) (MERK 1504		rairia Paday (A12)					A 131)	о в т) —	very Snallow		22) DEL 154)
Sandy Widely Wineral (ST) (ERC C, S) X Office Sufface (TS) (ERC P, T, G) Defice Sufface (TS) (ERC P, T, G) Defice Sufface (TS) (ERC P, T, G) Sandy Gleyed Matrix (S4) Delta Ochric (F17) (MLRA 151) (MLRA 153B, 153D) Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 150B) Other (Explain in Remarks) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Dark Surface (S7) (LRR P, S, T, U) Anomalous Bright Floodplain Soils (F20) Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) (LRR S, T, U) Very Shallow Dark Surface (F22) Wetland hydrology must be present, (MLRA 138, 152A in FL, 154) unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No Remarks: No	Sandy M	Aucky Mineral (S1) (D T II)	U, F, I)	Rarrior Island	LA 130, 132A I	otriv $(TS7)$
Sandy Gleyed Matrix (G4)	Sandy 6	loved Matrix (S4)		Delta Ochri	ace (F13)		F, I, U) 51)				allix (157)
Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Dark Surface (S7) (LRR P, S, T, U) Anomalous Bright Floodplain Soils (F20) Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) (LRR S, T, U) Very Shallow Dark Surface (F22) Wetland hydrology must be present, (MLRA 138, 152A in FL, 154) unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Sandy E	(0+)		Beduced Ve	$F_{\rm rtic}$ (F18		Δ 150Δ ·	150B)	Other (Evolai	n in Remarks)	
	Stripped	Matrix (S6)		Piedmont F	loodnlair	Soils (F	=19) (MI	RA 149A)		in in Remarks)	
Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D) (MLRA 149A, 153C, 153D) (MLRA 138, 152A in FL, 154) (MLRA 138, 152A in FL, 154) unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Popth (Dark Su	rface (S7) (I RR P §	ят ш	Anomalous	Bright F	loodnlair	Soils (F	-20)			
(LRR S, T, U)	Polyvalu	e Below Surface (S	8)	(MI RA 14	19A 153	C 153D)	20)	³ Indicators of	hydrophytic yeae	tation and
(MLRA 138, 152A in FL, 154) unless disturbed or problematic. Restrictive Layer (if observed):	(LRR	S. T. U)	-	Verv Shallo	w Dark S	Surface (, F22)		wetland hv	drology must be i	oresent.
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	,	-, , -,		(MLRA 13	38, 152A	in FL, 1	l54) [′]		unless dist	urbed or problem	atic.
Type:	estrictive	Layer (if observed)	:								
Depth (inches): Hydric Soil Present? Yes X No	Туре:										
Remarks:	Depth (i	nches):						Hydric Soi	I Present?	Yes X	No
tomante.	Remarks:							1			

WETLAND DETERMINAT See ERDC/EL	U.S. Army ION DATA S TR-07-24; th	Plain Region D-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)						
Project/Site: US 278 Corridor	r Improvement	ts		City/County	: Hilton Head Is	land/Beaufort	Sampling Date: 07/10/19		
Applicant/Owner: SCDOT	•			State: SC Sampling Point: WWK1					
Investigator(s). Three Oaks Fr	naineerina		S	ection Towns	nip Range [.] Bluf	— ffton SC (2017) 24	к – – – – – – – – – – – – – – – – – – –		
Landform (hillside terrace etc.	:): None			al relief (conca	ve convex none	a): None	Slope (%): 3%		
Subregion (I RR or MI RA):	RR T	Lat [.]	32 226456		l ong: -80 78	34297	Datum: NAD83		
Soil Man Unit Name: Vemass		eand	52.220450		Long00.70	NIW/L classificat	ion: None		
Are elimetic / hydrologic condit			this time of you				valein in Remerke)		
						10 <u> </u>			
Are Vegetation X, Soil	X, or Hydro	logy	significantly dist	urbed? Ar	e "Normal Circur	nstances" present	? Yes X No		
Are Vegetation, Soil	, or Hydro	ology	naturally probler	matic? (If	needed, explain	any answers in Re	emarks.)		
	3S – Attach	n site map	o showing s	ampling po	oint locations	s, transects, in	nportant features, etc.		
Hydrophytic Vegetation Prese	ent?	Yes X	No	Is the Sam	pled Area				
Hydric Soil Present?		Yes X	No	within a W	etland?	Yes X	No		
Wetland Hydrology Present?		Yes X	No						
HYDROLOGY									
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Marl Deposits (B15) Saturation (A3) Hydrogen Sulfide Od Water Marks (B1) Oxidized Rhizospher Sediment Deposits (B2) Presence of Reducer Drift Deposits (B3) Recent Iron Reduction Algal Mat or Crust (B4) Thin Muck Surface (C Iron Deposits (B5) Other (Explain in Ref Inundation Visible on Aerial Imagery (B7) X Water-Stained Leaves (B9) Water-Stained Leaves (B9)				Secondary Indic Surface Soil Sparsely Ve Drainage Pa or (C1) es on Living Roots (C3) d Iron (C4) on in Tilled Soils (C6) C7) X Geomorphic marks) X FAC-Neutra Sphagnum I			Minimum of two required) (B10) B16) (C2) (C8) on Aerial Imagery (C9) ion (D2) D3) (D5) D8) (LRR T, U)		
Surface Water Present?	Yes	No X	Depth (inches	s):					
Water Table Present?	Yes	No X	Depth (inches	s):					
Saturation Present?	Yes	No X	Depth (inches	s):	Wetland Hydr	ology Present?	Yes X No		
(includes capillary fringe)									
Describe Recorded Data (stre	∍am gauge, m	onitoring we	ll, aerial photos,	previous insp	ections), if availa	able:			
Remarks:									
Rained in the morning									

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

Sampling Point: WWK1

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Celtis laevigata	50	Yes	FACW	Number of Dominant Species
2. Sabal palmetto	30	Yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
3				()
· · · · · · · · · · · · · · · · · · ·				Total Number of Dominant
4				Species Across All Strata:(B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC:100.0% (A/B)
	80	Total Cover		Prevalence Index worksheet:
50% of total cover:	40 20%	of total cover:	16	Total % Cover of: Multiply by:
Sanling Stratum (Plot size: 30 ft radius)				$\frac{1}{\text{OBL species}} \qquad 0 \qquad \text{ x1 = } 0$
<u>Saping Stratum</u> (For size. <u>So it radius</u>)	10	Mar		
	10	res	FACW	FACW species $60 \times 2 = 120$
2. Sabal palmetto	20	Yes	FAC	FAC species 165 x 3 = 495
3				FACU species 0 x 4 = 0
4.				UPL species 0 x 5 = 0
5				$\begin{array}{c c} \hline \\ Column Totals \\ \hline \\ 225 \\ \hline \\ (A) \\ \hline \\ 615 \\ \hline \\ (B) \\ \hline \\ \end{array}$
· · · · · · · · · · · · · · · · · · ·				
0				
	30:	Total Cover=		Hydrophytic Vegetation Indicators:
50% of total cover:	15 20%	of total cover:	6	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft radius)				X 2 - Dominance Test is >50%
1 llex vomitoria	20	Ves	FAC	X_{3} - Prevalence Index is $\leq 3.0^{1}$
		<u> </u>		$\frac{1}{1000}$
2. Sabai paimetto	60	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)
3				
4				
5.				¹ Indicators of hydric soil and wetland hydrology must
6				be present unless disturbed or problematic
		-Total Cover		Definitions of Eive Vegetation Strate:
			10	Deminitions of Five vegetation Strata.
50% of total cover:	40 20%	of total cover:	16	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size:)				approximately 20 ft (6 m) or more in height and 3 in.
1.				(7.6 cm) or larger in diameter at breast height (DBH).
2.				Sanling – Woody plants, excluding woody vines
3				approximately 20 ft (6 m) or more in height and less
· · · · · · · · · · · · · · · · · · ·				than 3 in. (7.6 cm) DBH.
4				
5				Shrub - Woody Plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7.				Harb All borbasseus (non woody) planta including
8				herbaceous vines, regardless of size, and woody
0				plants except woody vines less than approximately 3
9	- <u> </u>			ft (1 m) in height.
10	<u> </u>			
11				Woody Vine – All woody vines, regardless of height.
	:	Total Cover=		
50% of total cover	20%	of total cover		
Weedy Vine Stratum (Plat aize: 20 ft radius)				
1. Vitis rotundifolia	35	Yes	FAC	
2				
3.				
4.				
5				
·		Tatal Carrier		Hydrophytic
	35	- I OLAI COVER		Vegetation
50% of total cover:	18 20%	of total cover:	7	Present? Yes X No

SOIL

(inches)	Color (moist)	%	Color (moist)	% Type ¹	Loc ²	Texture		Remarks		
0.4	10VP 2/1	100	× /							
0-4	101K 2/1	100				Loanty/Glayey				
4-9	10YR 3/1	100				Loamy/Clayey				
9-12	10YR 6/2	100				Sandy				
1 <u>Turnet</u> 0-0						21 ageties		N-Matrix		
Type: C=C	Indicators: (Applic	able to all		MS=Masked Sa	and Grains	s. Location	rs for Problemat	j, M=Matrix.		
		able to all	Thin Dork S	urfage (S0) (LP)	рети		rs for Proplemat			
	(AT) ninodon (A2)			de 1 em Musk (R 3, 1, U) 812)		Muck (A9) (LRR			
	pipedon(A2)				512)	2 01	t Brairia Baday (N 3)		
	Suc(A3)			(530, 1530)		(0	st Fraine Redux (A	- 10 <i>)</i>		
				ky Matrix (F1)	LKK U)	(U Ded		A)		
X Stratified Layers (A5) Loamy G				ed Matrix (F2)			uced vertic (F18)			
Organic	Bodies (A6) (LRR P	', I, U) 		atrix (F3)		(0 Diad	utside MLRA 150	A, 150B)		
	ucky Mineral (A7) (Li	κκ Ρ, Ι, ι) Redox Dark	Surface (F6)				Solis (F19) (LRR P, I)		
)				Ano	maious Bright Flo	odpiain Solis (F20)		
1 cm Mu	ICK (A9) (LRR P, 1)	<i></i>	Redox Depr	essions (F8)		(M	LRA 153B)			
X Depleted	d Below Dark Surfac	e (A11)	Marl (F10) (LRR U)		Red Parent Material (F21)				
Thick Da	ark Surface (A12)		Depleted O	chric (F11) (MLF	RA 151)	Very	Shallow Dark Su	rface (F22)		
Coast P	rairie Redox (A16) (I	MLRA 150	A Iron-Manga	nese Masses (F	12) (LRR	O, P, T) (o	utside MLRA 138	, 152A in FL, 154)		
Sandy N	/lucky Mineral (S1) (l	LRR O, S	Umbric Surf	face (F13) (LRR	P, T, U)	Barr	ier Islands Low Cl	nroma Matrix (TS7)		
Sandy G	Gleyed Matrix (S4)		Delta Ochrid	c (F17) (MLRA 1	51)	(M	LRA 153B, 153D)		
Sandy F	Redox (S5)		Reduced Ve	ertic (F18) (MLR	A 150A, 1	1 50B) Othe	er (Explain in Rem	arks)		
Stripped	I Matrix (S6)		Piedmont F	loodplain Soils (F19) (ML I	RA 149A)				
Dark Su	rface (S7) (LRR P, S	S, T, U)	Anomalous	Bright Floodplai	n Soils (F	20)				
Polyvalu	(MLRA 14	49A, 153C, 153E))	³ Indi	cators of hydroph	ytic vegetation and				
(LRR S, T, U) Very Shallow Dark Surface (F22					(F22)	w	etland hydrology r	nust be present,		
			(MLRA 13	38, 152A in FL,	154)	u	nless disturbed or	problematic.		
Restrictive	Layer (if observed)	:								
Type:										
Depth (i	nches):					Hydric Soil Pr	esent? Yes	s <u>X</u> No		
Remarks:						1				

U.S. Arm WETLAND DETERMINATION DATA See ERDC/EL TR-07-24;	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)			
Project/Site: US 278 Corridor Improvemen	ts	City/County: Hilton Head Is	land/Beaufort	Sampling Date: 05/22/19
Applicant/Owner: SCDOT		_ , ,	State: SC S	Sampling Point: WWG
Investigator(s) Three Oaks Engineering	Se	ection Township Range [.] Blu		· · · · ·
Landform (billside terrace etc.): None		I relief (concave, convex, none	a): None	Slope (%): 1%
Subregion (LRR or MLRA): LRR T	Lat: 32 219563	Long: -80.7	76589	Objec (%)
Soil Man Unit Name: Vemassee loamy fine	241. 02.210000	Long	NWI classificatio	n: None
Are climatic / hydrologic conditions on the si	te typical for this time of year	2 Ves X N		plain in Remarks)
Are Vegetetion X Soil X or Hydro	alogy a significantly dist	rhod? Are "Normal Circu	no (ii no, exp	
	ologysignificantly dist	arbeu: Ale Normai Circui		
SUMMARY OF FINDINGS – Attacl	h site map showing sa	malic? (If needed, explain	any answers in Rem	ortant features, etc.
			,	
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area		
Hydric Soil Present?	Yes X No	within a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes X NO			
This data form is representative of wetland	s WWF and WWG			
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of one is requested one is requested on an is requested on a strain of the	ired; check all that apply) Aquatic Fauna (B13) Arl Deposits (B15) (L Hydrogen Sulfide Odor Oxidized Rhizospheres Presence of Reduced Recent Iron Reduction Thin Muck Surface (C7 Other (Explain in Rema 7) No X Depth (inches No X Depth (inches No X Depth (inches onitoring well, aerial photos,	Sec X X RR U) r (C1) s on Living Roots (C3) Iron (C4) in Tilled Soils (C6) 7) arks) X):):):): Wetland Hyde previous inspections), if availa	condary Indicators (m Surface Soil Cracks Sparsely Vegetated Drainage Patterns (l Moss Trim Lines (B Dry-Season Water T Crayfish Burrows (C Saturation Visible or Geomorphic Positio Shallow Aquitard (D FAC-Neutral Test (D Sphagnum Moss (D	<u>hinimum of two required)</u> (B6) Concave Surface (B8) B10) 16) Fable (C2) 8) n Aerial Imagery (C9) n (D2) 3) 05) 8) (LRR T, U)
Remarks:				

I

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

Sampling Point: WWG

	Absolute Dominant Indicator	
<u>Iree Stratum</u> (Plot size: <u>30 ft radius</u>)	<u>% Cover</u> Species? Status	Dominance Test worksheet:
1		Number of Dominant Species
2		$\frac{111}{111} \text{ (A)} = \frac{111}{111} \text{ (A)}$
3		Total Number of Dominant
4		
5		Percent of Dominant Species
0	-Total Cover	Prevalence Index worksheet:
50% of total cover	20% of total cover	Total % Cover of Multiply by
Sapling Stratum (Plot size: 30 ft radius)		$\frac{1}{\text{OBL species}} = 30$
		$EACW \text{ species} \qquad 20 \qquad x^2 = 40$
2		FAC species $8 \times 3 = 24$
3		$\frac{1}{1} = \frac{1}{1} = \frac{1}$
3		$\frac{1}{1} \text{Pl species} = 0 \qquad x = 0$
		$\begin{array}{c} \text{Column Totals:} & 58 \\ Column Total$
5		$\frac{162}{Provolonco Indox = P/A = 1.62}$
0	-Total Cover	Hydrophytic Vegetation Indicators:
50% of total covor:		1 Papid Tast for Hydrophytic Vagatation
Shruh Stratum (Plat size: 30 ft radius)		X 2 Dominanco Tost is >50%
<u>Siliub Stratum</u> (Flot size. <u>50 it radius</u>)		$\frac{1}{2}$ 2 - Dominiance rest is >30 %
		$\frac{1}{2} \frac{1}{2} \frac{1}$
3		
4		
5		Indicators of hydric soil and wetland hydrology must be
0.		Definitions of Five Vegetation Strate:
50% of total cover: 7	20% of total cover: 3	
Herb Stratum (Plot size: 30 ft radius)		approximately 20 ft (6 m) or more in height and 3 in
	15 Yes OBI	(7.6 cm) or larger in diameter at breast height (DBH).
2 Carex sp	15 Yes FACW	Senting Weedy plants, evaluating weedy vince
3 Typha latifolia	15 Yes OBI	approximately 20 ft (6 m) or more in height and less
4		than 3 in. (7.6 cm) DBH.
5		Shrub - Woody Plants, excluding woody vines
6		approximately 3 to 20 ft (1 to 6 m) in height.
7		
8		herbaceous vines regardless of size and woody
9.		plants, except woody vines, less than approximately 3
10.		ft (1 m) in height.
11.		Woody Vine – All woody vines, regardless of height.
	45 =Total Cover	
50% of total cover: 2	3 20% of total cover: 9	
Woody Vine Stratum (Plot size: 30ft radius)		
<u></u> ,		
2		
3		
4		
5		
	=Total Cover	Hydrophytic
50% of total cover:	20% of total cover:	Present? Yes X No
Remarks: (If observed, list morphological adaptation	s below.) retland houndary	
very distinct break in herbaceous vegetation along w	cuanu bounuary.	

Profile Desc	ription: (Describe t	o the dep	th needed to docu	iment th	he indica	tor or c	onfirm th	e absence o	of indic	ators.)	
Depth	Matrix		Redox	k Featur	res						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Te	xture		Rei	marks
0-4	10YR 4/2	80	7.5YR 4/6	20	C	M	Sa	andy	Pro	ominent redo	ox concentrations
4-16	10YR 4/1	50	7.5YR 5/8	10	С	M	Sa	andy	Pro	ominent redo	ox concentrations
¹ Type: C=Co	ncentration, D=Depl	etion, RM=	Reduced Matrix, N	IS=Masl	ked Sand	Grains.		² Location: F	PL=Por	e Lining, M=	Matrix.
Hydric Soil I	ndicators: (Applica	ble to all l	RRs, unless othe	rwise n	oted.)			Indicators f	or Pro	blematic H	ydric Soils [°] :
	(A1) inadan (A2)		Thin Dark Su	Irface (S	59) (LRR	S, T, U)		1 cm Mi	uck (As) (LRR O)	
	Ipedon (A2)					12)			UCK (A1	10) (LRR S) Dedax (A16)	
	$\operatorname{Suc}(A3)$			30, 153 v Minor				Coast P	ide MI	Redux (A 10)	
Stratified	Lavers (A5)			d Matrix	ai (E2)	KK ()		Reduce	d Vorti	c (E18)	
	Bodies (A6) (I PP P	τ ιι	Loaniy Cleye	triv (E3)	~ (I Z)				ido MI	DA 150A 1	50B)
5 cm Mu	cky Mineral (A7) (LRR P ,	, с <i>)</i> вртіі	Bedox Dark	Surface	(F6)			Piedmo	nt Floo	dolain Soils	(F19) (I RR P T)
Muck Pre		ix i , i , 0)	Neoleted Da	rk Surfa	(F7)				ous Bri	apiani oons	(1.13) (EIGCT, T)
			Bedox Depre	ne ouna	(E8)				Δ 153F	8)	
Depleted	Below Dark Surface	(Δ11)	Narl (F10) (I	BR II)	(10)			Red Par	rent Ma	•) aterial (F21)	
Thick Da	rk Surface (A12)			hric $(E1)$	1) (MI R	151)		Verv Sh) Jark Surface	(F22)
Coast Pr	airie Redox (A12)	I RA 1504	Licon-Mandan	ese Mas	-) (INE (2) (I RR (О Р Т)	(outsi			2Δ in FL 154)
Sandy M	ucky Mineral (S1) (I			CSC 1112			0,1,1)	Barrier I	lelande	Low Chrom	a Matrix (TS7)
Sandy G	leved Matrix (S4)		Delta Ochric	(F17) (N		, , , O, 1)		(MLR)	Δ 153F	2 153D)	
X Sandy B	edox (S5)		Beduced Ver	(F18		150A 1	50B)	Other (F	- roor	in Remarks	
Stripped	Matrix (S6)		Piedmont Flo	podplain	Soils (F	19) (MLF	RA 149A)		_лріаш	Intromatica	')
Dark Sur	face (S7) (LRR P. S	. T. U)	Anomalous E	Bright Fl	oodplain	Soils (F2	20)				
Polvvalue	e Below Surface (S8)	(MLRA 14	9A. 153	C. 153D)	,	- /	³ Indicate	ors of h	vdrophytic	vegetation and
(LRR \$	S, T, U)	, ,	Very Shallow	/ Dark S	urface (F	22)		wetla	nd hyd	rology must	be present,
			(MLRA 13	8, 152A	in FL, 1	54)		unles	s distu	rbed or prot	plematic.
Restrictive L	ayer (if observed):										
Type:											
Depth (in	ches):						Hydrid	: Soil Prese	nt?	Yes	No
Remarks:											
The other col	ors observed 4-16" v	vere [10YF	R 6/1, 25%, sand] a	nd [6/10)GY, 15%	b, clay]					

U.S. Army Corps of E WETLAND DETERMINATION DATA SHEET – Atla See ERDC/EL TR-07-24; the proponer	Engineers antic and Gulf Coastal Plair nt agency is CECW-CO-R	n Region	OMB Control #: 0710-xxxx, Exp: Penc Requirement Control Symbol EXEMI (Authority: AR 335-15, paragraph 5-2	ling PT: ?a)
Project/Site: US 278 Corridor Improvements	City/County: Hil	lton Head Isl	and/Beaufort Sampling Date: 05/	22/19
Applicant/Owner: SCDOT			State: SC Sampling Point: U	wwh
Investigator(s): Three Oaks Engineering	Section, Township, F	Range: Bluf		
Landform (hillside, terrace, etc.): None	Local relief (concave, c	onvex, none): None Slope (%):	3%
Subregion (LRR or MLRA): LRR T Lat: 32	.18886	Long: -80.77	4795 Datum: NA	D83
Soil Map Unit Name: Yemassee laomy fine sand			NWI classification: None	
Are climatic / hydrologic conditions on the site typical for thi	s time of vear? Yes	Ν	A (If no. explain in Remarks.)	
Are Vegetation Soil or Hydrology sid	- Inificantly disturbed? Are "N	ormal Circun	nstances" present? Yes N	o X
Are Vegetation Soil or Hydrology na	turally problematic? (If need	ded explain	any answers in Remarks)	
SUMMARY OF FINDINGS Attach site man		locationa	transacta important factures	oto
SUMMARY OF FINDINGS – Attach site map s	nowing sampling point	locations	, transects, important features	s, etc.
Hydrophytic Vegetation Present? Yes X N Hydric Soil Present? Yes N Wetland Hydrology Present? Yes N	lo Is the Sampled lo _X within a Wetlar lo _X	Area nd?	Yes <u>No X</u>	
HYDROLOGY				
Wetland Hydrology Indicators:		Sec	ondary Indicators (minimum of two requ	<u>iired)</u>
Primary Indicators (minimum of one is required; check all	that apply)		Surface Soil Cracks (B6)	50)
Surface Water (A1) Aquatic I	-auna (B13)		Sparsely Vegetated Concave Surface (88)
Saturation (A3)	n Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1) Oxidized	Rhizospheres on Living Roots (C3)	Dry-Season Water Table (C2)	
Sediment Deposits (B2)	e of Reduced Iron (C4)	·	Crayfish Burrows (C8)	
Drift Deposits (B3)	ron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C	9)
Algal Mat or Crust (B4) Thin Mu	ck Surface (C7)		Geomorphic Position (D2)	
Iron Deposits (B5) Other (E	xplain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)		<u></u>	FAC-Neutral Test (D5)	
			Spnagnum Moss (D8) (LRR 1, U)	
Field Observations:	Denth (inches):			
Water Table Present? Yes No X	Depth (inches):			
Saturation Present? Yes No X	Depth (inches): W	etland Hydr	ology Present? Yes No	ъх
(includes capillary fringe)		-		
Describe Recorded Data (stream gauge, monitoring well, a	aerial photos, previous inspection	ns), if availal	ble:	
Remarks [.]				

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

Sampling Point: Up WWH

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Acer rubrum	25	Yes	FAC	Number of Dominant Species
2. Sabal palmetto	20	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
3				Total Number of Dominant
4				Species Across All Strata: 5 (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
	45	=Total Cover		Prevalence Index worksheet:
50% of total cover:23	3 20%	of total cover:	9	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft radius)				OBL species 0 x 1 = 0
1. Acer rubrum	10	Yes	FAC	FACW species 0 x 2 = 0
2.				FAC species 105 x 3 = 315
3.				FACU species $0 x 4 = 0$
4.				UPL species 0 x 5 = 0
5.				Column Totals: 105 (A) 315 (B)
6.				Prevalence Index = $B/A = 3.00$
	10	=Total Cover		Hydrophytic Vegetation Indicators:
50% of total cover: 5	20%	of total cover	2	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft radius)	2070			X 2 - Dominance Test is >50%
1 llev vomitoria	40	Ves	FAC	$3 - $ Prevalence Index is $\leq 3 0^{1}$
			170	Problematic Hydrophytic Vegetation ¹ (Explain)
2				
3				
4.				
5				¹ Indicators of hydric soil and wetland hydrology must be
0		-Tatal Cause		present, unless disturbed or problematic.
	40	= I otal Cover	•	Definitions of Five vegetation Strata:
50% of total cover: 20	20%	of total cover:	8	Tree – Woody plants, excluding woody vines,
<u>Herb Stratum</u> (Plot size: <u>30 ft radius</u>)				(7.6 cm) or larger in diameter at breast height (DBH)
1				
2.				Sapling – Woody plants, excluding woody vines,
3				than 3 in (7.6 cm) DBH
4				
5				Shrub - Woody Plants, excluding woody vines,
6				approximately 5 to 20 it (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, <u>and</u> woody
9				plants, except woody vines, less than approximately 3 ft (1 m) in height
10				
11				Woody Vine – All woody vines, regardless of height.
		=Total Cover		
50% of total cover:	20%	of total cover:		
<u>Woody Vine Stratum</u> (Plot size: <u>30ft radius</u>)				
1. Vitis rotundifolia	10	Yes	FAC	
2.				
3.				
4.				
5.				Hydrophytic
	10	=Total Cover		Vegetation
50% of total cover: 5	20%	of total cover:	2	Present? Yes X No
Remarks: (If observed, list morphological adaptation	s below.)			

SOIL

Depth	Matrix		Redo	x Feature	s							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Te	xture		Rei	marks	
0-12	7.5YR 4/3	100					Sa	andy		~80%	coatin	ıg
Type: C=C	oncentration. D=Dep	letion. RM=F	Reduced Matrix. N	//S=Mask	ed Sand	Grains.		² Location: F	 L=Pore	e Linina. M=	=Matrix	۲.
Hydric Soil	Indicators: (Applica	ble to all L	RRs, unless othe	erwise no	ted.)			Indicators f	or Prob	olematic H	ydric S	Soils ³ :
Histosol	(A1)		Thin Dark S	urface (S) (LRR	S, T, U)		1 cm Mu	uck (A9)) (LRR O)	-	
Histic E	pipedon (A2)		Barrier Islan	ds 1 cm N	/luck (Sŕ	2)		2 cm Mı	uck (A1	0) (LRR S)		
Black H	istic (A3)		(MLRA 15	3B, 153D)			Coast P	rairie R	edox (A16)		
Hydroge	en Sulfide (A4)		Loamy Muck	ky Mineral	(F1) (L	rr o)		(outsi	de MLF	RA 150A)		
Stratifie	d Layers (A5)		Loamy Gley	ed Matrix	(F2)			Reduce	d Vertic	(F18)		
Organic	Bodies (A6) (LRR P,	T, U)	Depleted Ma	atrix (F3)				(outsi	de MLF	RA 150A, 1	50B)	
5 cm Mu	ucky Mineral (A7) (LR	RR P, T, U)	Redox Dark	Surface (F6)			Piedmor	nt Flood	lplain Soils	(F19)	(LRR P, T
Muck Pr	esence (A8) (LRR U)	Depleted Da	irk Surfac	e (F7)			Anomal	ous Brig	ght Floodpl	ain Soi	ls (F20)
1 cm Mu	uck (A9) (LRR P, T)		Redox Depre	essions (F	8)			(MLR/	A 153B))		
Deplete	d Below Dark Surface	e (A11)	Marl (F10) (I	LRR U)				Red Par	ent Ma	terial (F21)		
Thick Da	ark Surface (A12)		Depleted Oc	hric (F11)	(MLRA	151)		Very Sh	allow D	ark Surface	e (F22))
Coast P	rairie Redox (A16) (N	ILRA 150A)	Iron-Mangar	nese Mass	ses (F12) (LRR (), P, T)	(outsi	de MLF	RA 138, 15	2A in F	⁻ L, 154)
Sandy N	/lucky Mineral (S1) (L	.RR O, S)	Umbric Surfa	ace (F13)	(LRR P	, T, U)		Barrier I	slands	Low Chrom	na Mati	rix (TS7)
Sandy C	Gleyed Matrix (S4)		Delta Ochric	: (F17) (M	LRA 15	1)		(MLR/	A 153B,	, 153D)		
Sandy F	Redox (S5)		Reduced Ve	rtic (F18)	(MLRA	150A, 15	50B)	Other (E	xplain i	n Remarks	5)	
Stripped	l Matrix (S6)		Piedmont Fl	oodplain \$	Soils (F1	9) (MLR	A 149A)					
Dark Su	rface (S7) (LRR P, S	, T, U)	Anomalous	Bright Flo	odplain	Soils (F2	0)					
Polyvalu	e Below Surface (S8)	(MLRA 14	9A, 153C	, 153D)			³ Indicato	ors of hy	ydrophytic ^y	vegeta	tion and
(LRR	S, T, U)		Very Shallow	v Dark Su	rface (F	22)		wetla	nd hydr	ology must	be pre	esent,
			(MLRA 13	8, 152A i	n FL, 15	54)		unles	s distur	bed or prob	olemati	с.
Restrictive	Layer (if observed):											
Type:												
Depth (i	nches):						Hydrid	c Soil Presei	nt?	Yes		No X
Remarks:												

OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
land/Beaufort Sampling Date: 07/10/19
State: SC Sampling Point: WWL
a): None Slone (%): 1%
20447
No (If no, explain in Remarks.)
mstances" present? Yes X No
any answers in Remarks.)
s, transects, important features, etc.
Yes_X_ No
condary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum Moss (D8) (LRR T, U)
rology Present? Yes X No
able:

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

Sampling Point: WWL

Trop Stratum (Plot size: 20 ft radius)	Absolute	Dominant	Indicator	Dominanaa Toot warkabaati
<u>Thee Stratum</u> (Plot size. <u>30 it radius</u>)	% Cover	Species?		Dominance rest worksheet:
	<u> </u>	Yes		Number of Dominant Species
2. Morus rubra	15	Yes	FACU	That Are OBL, FACW, of FAC:9(A)
3. Triadica sebitera	15	Yes	FAC	Total Number of Dominant
4				Species Across All Strata:(B)
5.	. <u> </u>			Percent of Dominant Species
6	. <u> </u>			That Are OBL, FACW, or FAC: 81.8% (A/B)
	60	=Total Cover		Prevalence Index worksheet:
50% of total cover:	30 20%	of total cover:	12	Total % Cover of: Multiply by:
<u>Sapling Stratum</u> (Plot size: <u>30 ft radius</u>)				OBL species <u>5</u> x 1 = <u>5</u>
1. Morus rubra	10	Yes	FACU	FACW species 0 x 2 = 0
2. Acer rubrum	40	Yes	FAC	FAC species 165 x 3 = 495
3.				FACU species x 4 =0
4.				UPL species 0 x 5 = 0
5.				Column Totals: 195 (A) 600 (B)
6.				Prevalence Index = B/A = 3.08
	50	=Total Cover		Hydrophytic Vegetation Indicators:
50% of total cover:	25 20%	of total cover:	10	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft radius)				X 2 - Dominance Test is >50%
1 llex vomitoria	10	Yes	FAC	3 - Prevalence Index is < 3.01
2 Morella cerifera	20	Ves	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3 Acer ruhrum	20	Ves	EAC	
		163	170	
т. 	·			
5				Indicators of hydric soil and wetland hydrology must
0.		Tatal Cause		Definitions of Five Vegetation Strate:
	50		10	Definitions of Five vegetation Strata:
50% of total cover:	25 20%	of total cover:	10	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 30 ft radius)	_			(7.6 cm) or larger in diameter at breast height (DBH)
1. Juncus effusus	5	Yes	OBL	
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				
5				Shrub - Woody Plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
9.				plants, except woody vines, less than approximately 3
10				it (i m) in neight.
11.				Woody Vine – All woody vines, regardless of height.
	5	=Total Cover		
50% of total cover:	3 20%	of total cover:	1	
Woody Vine Stratum (Plot size: 30 ft radius)				
1. Rubus pensilvanicus	15	Yes	FAC	
2. Ampelopsis arborea	5	No	FAC	
3. Vitis rotundifolia	10	Yes	FAC	
4.				
5				
	30	=Total Cover		Hydrophytic
50% of total cover	15 20%	of total cover	6	vegetation Present? Yes X No
Pomarke: (If obcariad list merchalagical edgets	tions bolow			

SOIL

Profile Desc	ription: (Describe	to the de	pth needed to do	cument	the indi	cator or o	confirm the absence	of indicators.)	
Depth	Matrix		Redo	x Featur	Turn a ¹	1 2	Taxtura	Demente	
(Inches)			Color (moist)		Туре	LOC	Texture	Remarks	
0-3	10YR 2/2	100				<u> </u>	Loamy/Clayey		
3-14	10YR 3/2	90	5YR 3/4	10	C		Loamy/Clayey	Prominent redox conce	ntrations
14-16	10YR 5/2	60				<u> </u>	Sandy		
						·			
			-Poducod Motrix				² l apation: D	Doro Lipipa M-Motriy	
	Indicatora: (Applic		PReduced Matrix,		isked Sal	nd Grains	Location: P	r Problematic Hydria So	ilo ³ .
		able to all	Thin Dark S			рети		or Problematic Hydric So	
Histic Fr	(AT) pipedon (A2)		Barrier Islan	unace (S9) (LRP Muck (S	(3, 1, 0) (12)	1 CIII MU	ick (A9) (LRR O)	
Black Hi	stic (A3)			53B 153	חאומטוג (כ מו	512)	2 cm we	rairie Redox (A16)	
Hydroge	n Sulfide (A4)		Loamy Muc	kv Miner	al (F1) (I		(outsid	de MI RA 150A)	
Stratified	l avers (A5)		Loamy Glev	ed Matri	ix (F2)		Reduced	d Vertic (F18)	
Organic	Bodies (A6) (LRR P	. T. U)	X Depleted Ma	atrix (F3)		(outsi	de MLRA 150A. 150B)	
5 cm Mu	icky Mineral (A7) (Lf	RR P, T, U) X Redox Dark	Surface	, e (F6)		Piedmor	nt Floodplain Soils (F19) (L	RR P, T)
Muck Pr	esence (A8) (LRR U)	Depleted Da	ark Surfa	ace (F7)		Anomalo	ous Bright Floodplain Soils	(F20)
1 cm Mu	ick (A9) (LRR P, T)		Redox Depr	essions	(F8)		(MLRA	A 153B)	
Depleted	d Below Dark Surfac	e (A11)	Marl (F10) (LRR U)			Red Par	ent Material (F21)	
Thick Da	ark Surface (A12)		Depleted Oc	chric (F1	1) (MLR	A 151)	Very Sh	allow Dark Surface (F22)	
Coast P	rairie Redox (A16) (I	MLRA 150	A Iron-Mangai	nese Ma	sses (F1	2) (LRR (O, P, T) (outsi	de MLRA 138, 152A in FL	, 154)
Sandy M	lucky Mineral (S1) (I	_RR O, S)	Umbric Surf	ace (F1	3) (LRR	P, T, U)	Barrier I	slands Low Chroma Matrix	(TS7)
Sandy G	leyed Matrix (S4)		Delta Ochrid	c (F17) (MLRA 1	51)	(MLRA	A 153B, 153D)	
Sandy R	edox (S5)		Reduced Ve	ertic (F18	8) (MLR A	A 150A, 1	50B) Other (E	xplain in Remarks)	
Stripped	Matrix (S6)		Piedmont F	loodplair	n Soils (F	⁻ 19) (MLF	RA 149A)		
Dark Su	rface (S7) (LRR P, S	6, T, U)	Anomalous	Bright F	loodplain	n Soils (F2	20)		
Polyvalu	e Below Surface (S8	3)	(MLRA 14	19A , 153	BC, 153D)	³ Indicato	ors of hydrophytic vegetatio	n and
(LRR	S, T, U)		Very Shallo	w Dark S	Surface (F22)	wetlar	nd hydrology must be prese	ent,
			(MLRA 13	38, 152A	in FL, 1	54)	unles	s disturbed or problematic.	
Restrictive I	Layer (if observed):								
Туре:									
Depth (ir	nches):						Hydric Soil Prese	nt? Yes <u>X</u> No	
Remarks:						I			
14-16: 10YR	4/2 40%								

U.S. Army WETLAND DETERMINATION DATA S See ERDC/EL TR-07-24; th	Corps of Engineers HEET – Atlantic and Gul he proponent agency is (f Coastal Plain Region CECW-CO-R	OMB Control #: (Requirement Co (Authority: AR :	0710-xxxx, Exp: Pending ontrol Symbol EXEMPT: 335-15, paragraph 5-2a)
Project/Site: US 278 Improvements		City/County: Hilton Head Is	land/Beaufort S	Sampling Date: 07/02/20
Applicant/Owner: SCDOT			State: SC S	Sampling Point: Up WWL
Investigator(s): Three Oaks Engineering	Sec	tion, Township, Range: Bluf	ffton, SC (2017) 24k	
Landform (hillside, terrace, etc.): none	Local ı	relief (concave, convex, none	e): none	Slope (%): 0
Subregion (LRR or MLRA): LRR T	Lat: 32.219501	Long: -80.77	7011	Datum: NAD 83
Soil Map Unit Name: Bertie loamy fine sand			NWI classificatio	n: None
Are climatic / hydrologic conditions on the site	e typical for this time of year?	Yes X N	— Jo (lf no. ext	plain in Remarks.)
Are Vegetation Soil or Hydrol	ogy significantly distur	bed? Are "Normal Circur	mstances" present?	Yes X No
Are Vegetation Soil or Hydrol	logy orginiteditity diotal	atic? (If needed explain	any answers in Rem	parke)
SUMMARY OF FINDINGS Attach	ogy naturally problema			artant factures ato
SUMMART OF FINDINGS - Allach	site map showing san	npling point locations	, transects, imp	ortant leatures, etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area		
Hydric Soil Present?	Yes No _X	within a Wetland?	Yes	No <u>X</u>
Wetland Hydrology Present?	Yes <u>No X</u>			
HYDROLOGY				
Primary Indicators (minimum of one is required and and and and and and and and and an	red; check all that apply) Aquatic Fauna (B13) Arring Deposits (B15) (LR Hydrogen Sulfide Odor (Oxidized Rhizospheres of Presence of Reduced Iro Recent Iron Reduction ir Thin Muck Surface (C7) Other (Explain in Remar)	Sec IR U) (C1) on Living Roots (C3) on (C4) n Tilled Soils (C6)	Surface Soil Cracks Sparsely Vegetated Drainage Patterns (I Moss Trim Lines (B Dry-Season Water T Crayfish Burrows (C Saturation Visible of Geomorphic Positio Shallow Aquitard (D FAC-Neutral Test (E Sphagnum Moss (D	(B6) Concave Surface (B8) B10) 16) Fable (C2) 8) n Aerial Imagery (C9) n (D2) 3) 05) 8) (LRR T, U)
Field Observations:				
Surface Water Present? Yes	No Depth (inches):			
Saturation Present? Yes	No Depth (inches):	Wetland Hydr	ology Present?	Yes No X
(includes capillary fringe)				
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, pr	revious inspections), if availal	ble:	
Remarks:				

U.S. Army Corps of Engineers

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

Sampling Point: Up WWL

	Absolute	Dominant	Indicator					
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Dominance Test worksheet:				
1. Celtis occidentalis	5	Yes	FACU	Number of Dominant Species				
2.				That Are OBL, FACW, or FAC: 7 (A)				
3.				Total Number of Dominant				
4.				Species Across All Strata: 11 (B)				
5								
6				Percent of Dominant Species				
0		-Tatal Causer		Prevalence Index workshoet				
	5			Tetal % Occurred				
50% of total cover:	20%	of total cover:	1	I otal % Cover of: Multiply by:				
Sapling Stratum (Plot size: 30 ft)				OBL species x 1 =				
1. <u>Acer rubrum</u>	20	Yes	FAC	FACW species <u>5</u> x 2 = <u>10</u>				
2				FAC species <u>125</u> x 3 = <u>375</u>				
3				FACU species 25 x 4 = 100				
4				UPL species 10 x 5 = 50				
5				Column Totals: 165 (A) 535 (B)				
6.				Prevalence Index = B/A = 3.24				
	20	=Total Cover		Hydrophytic Vegetation Indicators:				
50% of total cover: 1	0 20%	of total cover	4	1 - Rapid Test for Hydrophytic Vegetation				
Shrub Stratum (Plot size: 30 ft)			<u> </u>	X 2 - Dominance Test is >50%				
	20	Vaa	EAC	$\frac{1}{2}$ - Dominance rest is > 30 /0				
1. Acer rubrum	20	Yes		$\frac{1}{2}$				
2. Baccharis hailmitolia	15	<u>Yes</u>	FAC					
3. <i>Phytolacca americana</i>	10	Yes	FACU					
4								
5				¹ Indicators of hydric soil and wetland hydrology must be				
6.				present, unless disturbed or problematic.				
	45	=Total Cover		Definitions of Five Vegetation Strata:				
50% of total cover: 2	45 3 20%	=Total Cover	9	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines,				
50% of total cover: <u>2</u> <u>Herb Stratum</u> (Plot size: 30 ft)	45 320%	=Total Cover of total cover:	9	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.				
50% of total cover: <u>2</u> <u>Herb Stratum</u> (Plot size: <u>30 ft</u>) 1. <i>Solidago sp.</i>	45 3 20% 10	=Total Cover of total cover: Yes	9 FACU	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).				
50% of total cover: 23 <u>Herb Stratum</u> (Plot size: <u>30 ft</u>) 1. <u>Solidago sp.</u> 2. Setaria faberi	<u>45</u> 3 20% <u>10</u> 10	=Total Cover of total cover: Yes Yes	9 FACU	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).				
50% of total cover: 23 <u>Herb Stratum</u> (Plot size: 30 ft) 1. <u>Solidago sp.</u> 2. <u>Setaria faberi</u> 3. Verbena brasiliensis		=Total Cover of total cover: Yes Yes Vas	9 FACU UPL	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less				
50% of total cover:2 <u>Herb Stratum</u> (Plot size:30 ft) 1. <u>Solidago sp.</u> 2. <u>Setaria faberi</u> 3. <u>Verbena brasiliensis</u>	45 3 20% 10 10 5	=Total Cover of total cover: Yes Yes Yes	9 FACU UPL FACW	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. 				
50% of total cover: 2 Herb Stratum (Plot size: 30 ft) 1. Solidago sp. 2 2. Setaria faberi 3 3. Verbena brasiliensis 4.	45 3 20% 10 10 5	=Total Cover of total cover: Yes Yes Yes	9 FACU UPL FACW	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. 				
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50% of total cover:2 Herb Stratum (Plot size:30 ft) 1. Solidago sp. 2. Setaria faberi 3. Verbena brasiliensis 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover:1 Woody Vine Stratum (Plot size:30 ft) 1. Ampelopsis arborea 2. Vitis rotundifolia 3. Rubus pensilvanicus 4.	$ \begin{array}{r} $	=Total Cover of total cover: Yes Yes Yes = Total Cover of total cover: Yes Yes Yes Yes Yes Yes	9 FACU UPL FACW 	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height. 				
50% of total cover:2 Herb Stratum (Plot size:30 ft) 1. Solidago sp. 2. Setaria faberi 3. Verbena brasiliensis 4	<u>45</u> <u>10</u> <u>10</u> <u>5</u> <u>25</u> <u>3</u> <u>25</u> <u>25</u> <u>20</u>	=Total Cover of total cover: Yes Yes Yes = Total Cover of total cover: Yes Yes Yes Yes Yes Yes	9 FACU UPL FACW 5 FAC FAC FAC FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height. 				
50% of total cover:2 Herb Stratum (Plot size:30 ft) 1. Solidago sp. 2. Setaria faberi 3. Verbena brasiliensis 4	<u>45</u> <u>10</u> <u>10</u> <u>5</u> <u>25</u> <u>25</u> <u>20</u> <u>70</u>	=Total Cover of total cover: Yes Yes Yes = Total Cover of total cover: Yes Yes Yes Yes Yes Yes = Total Cover	9 FACU UPL FACW 	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height. Hydrophytic Vegetation 				
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Depth	Matrix		Redo	x Featur	res			
--	--	---	---	---	--	--	-----------------	---
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Te	exture Remarks
0-12	10yr 3/2	100					S	Sandy Not 100% coated
12-16	7.5yr 3/2	95	5yr 4/6	5	<u> </u>	<u>M</u>	S	Sandy Prominent redox concentration
		·				·		
Type: C=C	oncentration, D=Depl	etion, RM	=Reduced Matrix, N	/IS=Mas	ked Sand	d Grains.		² Location: PL=Pore Lining, M=Matrix.
Histosol Histic E; Black Hi Hydroge Stratified Organic 5 cm Mu Muck Pr 1 cm Mu Depleted Thick Da Coast P Sandy M Sandy O Sandy F	(A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) Bodies (A6) (LRR P, ucky Mineral (A7) (LR resence (A8) (LRR U) uck (A9) (LRR P, T) d Below Dark Surface ark Surface (A12) rairie Redox (A16) (N Mucky Mineral (S1) (L Sleyed Matrix (S4)	T, U) R P, T, U) (A11) ILRA 150/ RR O, S)	Thin Dark S Thin Dark S Barrier Islan (MLRA 15 Loamy Mucl Loamy Gley Depleted Ma Depleted Da Redox Dark Depleted Da Redox Depr Marl (F10) (Depleted Oc Marl (F10) (Depleted Oc Marl Surf Depleta Ochric Reduced Ve	arwise in urface (\$ ds 1 cm i 3B, 153 cy Miner ed Matri atrix (F3) Surface urk Surfa essions L RR U) chric (F1 nese Ma ace (F1; c (F17) ([S9) (LRR Muck (S D) al (F1) (L (F2) (F3) (F6) (F8) 1) (MLR7 Sses (F1: 3) (LRR F MLRA 15	S, T, U) 12) .RR O) .RR O) 2) (LRR O 2) (LRR O 2, T, U) 51) .1504 15	9, P, T) 0B)	I cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Coast Prairie Redox (A16) (outside MLRA 150A) Reduced Vertic (F18) (outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR P, Anomalous Bright Floodplain Soils (F20) (MLRA 153B) Red Parent Material (F21) Very Shallow Dark Surface (F22) (outside MLRA 138, 152A in FL, 154) Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D) Other (Explain in Remarks)
Sandy F Stripped Dark Su Polyvalu (LRR	(edox (S5) I Matrix (S6) Irface (S7) (LRR P, S Ie Below Surface (S8 S, T, U) Layer (if observed):	, T, U))	Piedmont Fl Anomalous (MLRA 14 Very Shallov (MLRA 13	oodplain Bright Fl 1 9A, 153 v Dark S 8 8, 152A	a Soils (F loodplain SC, 153D) Surface (F	522)	A 149A)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Type:								
Depth (i	nches):						Hydri	ic Soil Present? Yes No X

U.S. Army Corps of Enginee WETLAND DETERMINATION DATA SHEET – Atlantic and See ERDC/EL TR-07-24; the proponent agenc	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)	
Project/Site: US 278 Corridor Improvement	City/County: Hilton Head Is	land/Beaufort Sampling Date: 07/10/19
Applicant/Owner: SCDOT		State: SC Sampling Point: WTH
Investigator(s): Three Oaks Engineering	Section, Township, Range: Blu	ffton, SC (2017), 24K
Landform (hillside, terrace, etc.): None L	 .ocal relief (concave, convex, none	a): None Slope (%): 1%
Subregion (LRR or MLRA): LRR T Lat: 32.21842	Long: -80.76	66528 Datum: NAD83
Soil Map Unit Name: Wando fine sand. 0 to 6 percent slopes	0	NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes X	lo (If no explain in Remarks)
Are Vegetation X Soil X or Hydrology significantly	disturbed? Are "Normal Circu	nstances" present? Yes X No
Are Vegetation Soil or Hydrology naturally pro	hlematic? (If needed, explain	any answers in Remarks)
SUMMARY OF FINDINGS Attach site man showing		
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations	, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the Sampled Area within a Wetland?	Yes X No
Remarks: Occurs within powerline corridor.		
HYDROLOGY		
Primary Indicators (minimum of one is required; check all that apply) X Surface Water (A1) High Water Table (A2) Marl Deposits (B15) X Saturation (A3) Water Marks (B1) Oxidized Rhizosph Sediment Deposits (B2) Presence of Reduct	3) b) (LRR U) Ddor (C1) eres on Living Roots (C3) ced Iron (C4)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Cravfish Burrows (C8)
Drift Deposits (B3)	tion in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	(C7) X	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in R	emarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
		Sphaghum Moss (Do) (LRR 1, 0)
Field Observations: Surface Water Present? Yes X No Depth (inc	hes): 2	
Water Table Present? Yes No X Depth (inc	hes):	
Saturation Present? Yes X No Depth (inc	hes): 0 Wetland Hydr	rology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if availa	ble:
Remarks:		

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Sampling Point: WTH

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test worksheet:
1				Number of Dominant Species
2				That Are OBL, FACW, or FAC:5(A)
3				Total Number of Dominant
4				Species Across All Strata: 7 (B)
5				Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 71.4% (A/B)
		=Total Cover		Prevalence Index worksheet:
50% of total cover:	20%	of total cover:		Total % Cover of: Multiply by:
Sapling Stratum (Plot size:)				OBL species 15 x 1 = 15
1				FACW species 15 x 2 = 30
2.				FAC species 45 x 3 = 135
3.				FACU species 10 x 4 = 40
4.				UPL species 10 x 5 = 50
5.				Column Totals: 95 (A) 270 (B)
6.				Prevalence Index = $B/A = 2.84$
		=Total Cover		Hydrophytic Vegetation Indicators:
50% of total cover	20%	of total cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft radius)				X 2 - Dominance Test is >50%
1 Sabal palmetto	5	Yes	FAC	X 3 - Prevalence Index is <3 0 ¹
2 Juniperus virginiana	5	Ves	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
		163	1,400	
3				
4.				
5				¹ Indicators of hydric soil and wetland hydrology must be
o				present, unless disturbed or problematic.
	10	= Total Cover	0	Definitions of Five vegetation Strata:
50% of total cover: 5	20%	of total cover:	2	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 30 ft radius)			0.01	(7.6 cm) or larger in diameter at breast height (DBH).
1. Juncus effusus	15	Yes	OBL	(
2. Sesbania herbacea	10	Yes	FACW	Sapling – Woody plants, excluding woody vines,
3. Lamiaceae	5	No	FAC	than 3 in (7.6 cm) DBH
4. <u>Carex sp.</u>	5	No	FACW	
5				Shrub - Woody Plants, excluding woody vines,
6				approximately 3 to 20 it (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
9				plants, except woody vines, less than approximately 3 ft (1 m) in height
10				
11				Woody Vine – All woody vines, regardless of height.
	35	=Total Cover		
50% of total cover:18	320%	of total cover:	7	
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				
1. Ipomoea purpurea	10	Yes	UPL	
2. Ampelopsis arborea	20	Yes	FAC	
3. Vitis rotundifolia	5	No	FAC	
4. Rubus pensilvanicus	10	Yes	FAC	
5. Vitis aestivalis	5	No	FACU	Hydrophytic
	50	=Total Cover		Vegetation
50% of total cover: 25	5 20%	of total cover:	10	Present? Yes X No
Remarks: (If observed, list morphological adaptation	s below.)			·
, , , , , , , , , , , , , , , , , , , ,	,			

(inchoo)	Color (moint)	0/	Color (moint)	0/.	Tuno ¹	1.002	Та	vturo	Pomorko		
(inches)		70		70	Туре	LOC	16	xiure	Remarks		
0-1	10YR 2/1	100					Mucl	ky Sand			
1-13	10YR 4/1	83	10YR 4/6	5	С	PL	S	andy	Prominent redox concentrations		
13-16	10YR 4/1	60					S	andy			
						<u> </u>					
¹ Type: C=Co	oncentration, D=Dep	etion, RM=	Reduced Matrix, N	/IS=Mas	ked Sand	d Grains.		² Location: I	PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applica	ble to all L	RRs, unless othe	erwise n	oted.)			Indicators	for Problematic Hydric Soils ³ :		
Histosol	(A1)		Thin Dark S	urface (S	69) (LRR	S, T, U)		1 cm M	uck (A9) (LRR O)		
Histic Ep	oipedon (A2)		Barrier Islan	ds 1 cm	Muck (S	12)		2 cm M	uck (A10) (LRR S)		
Black Hi	stic (A3)		(MLRA 15	53B, 153	D)			X Coast F	Prairie Redox (A16)		
Hydroge	n Sulfide (A4)		Loamy Mucl	ky Miner	al (F1) (L	.RR O)		(outs	ide MLRA 150A)		
X Stratified	l Layers (A5)		Loamy Gley	ed Matri	x (F2)		Reduced Vertic (F18)				
Organic	Bodies (A6) (LRR P,	T, U)	Depleted Ma	atrix (F3)				(outs	ide MLRA 150A, 150B)		
5 cm Mu	icky Mineral (A7) (LR	R P, T, U)	Redox Dark	Surface	(F6)			Piedmo	ont Floodplain Soils (F19) (LRR P, T)		
Muck Pr	esence (A8) (LRR U		Depleted Da	irk Surfa	ce (F7)			Anoma	lous Bright Floodplain Soils (F20)		
1 cm Mu	ick (A9) (LRR P, T)		Redox Depr	essions	(F8)			(MLR	2A 153B)		
X Depleted	Below Dark Surface	e (A11)	Marl (F10) (LRR U)				Red Pa	rent Material (F21)		
Thick Da	ark Surface (A12)		Depleted Oc	hric (F1	1) (MLRA	A 151)		Very Sł	nallow Dark Surface (F22)		
Coast Pi	rairie Redox (A16) (N	ILRA 150A)Iron-Mangar	nese Ma	sses (F12	2) (LRR C), P, T)	(outs	ide MLRA 138, 152A in FL, 154)		
Sandy M	lucky Mineral (S1) (L	RR O, S)	Umbric Surf	ace (F13	B) (LRR F	P, T, U)		Barrier	Islands Low Chroma Matrix (TS7)		
Sandy G	ileyed Matrix (S4)		Delta Ochric	: (F17) (MLRA 15	1)		(MLR	A 153B, 153D)		
X Sandy R	edox (S5)		Reduced Ve	rtic (F18	3) (MLRA	150A, 15	50B)	Other (I	Explain in Remarks)		
Stripped	Matrix (S6)		Piedmont Fl	oodplain	Soils (F	19) (MLR	A 149A)				
Dark Su	rface (S7) (LRR P, S	, T, U)	Anomalous	Bright Fl	oodplain	Soils (F2	0)	3			
Polyvalu	e Below Surface (S8)	(MLRA 14	9A, 153	C, 153D)			Indicat	ors of hydrophytic vegetation and		
(LRR	S, T, U)		Very Shallov	ery Shallow Dark Surface (F22)				wetla	and hydrology must be present,		
			(MLRA 13	8, 152A	in FL, 1	54)		unles	ss disturbed or problematic.		
Restrictive I	Layer (if observed):										
Туре:											
Depth (ir	nches):						Hydri	c Soil Prese	ent? Yes <u>X</u> No		
Remarks:											
1-13: 10YR 6	5/2 10%; 13 - 16: 10YF	₹6/220%,	10YR 6/4 10%, G	ley 1 6/2	10%						

U.S. Army WETLAND DETERMINATION DATA See ERDC/EL TR-07-24; t	<pre>/ Corps of Engineers SHEET – Atlantic and Gulf C he proponent agency is CE</pre>	oastal Plain Region CW-CO-R	OMB Control #: 0 Requirement Cor (Authority: AR 3	710-xxxx, Exp: Pending htrol Symbol EXEMPT: 35-15, paragraph 5-2a)
Project/Site: US 278 Corridor Improvement	ts Cit	ty/County: Hilton Head Is	land/Beaufort Sa	ampling Date: 05/21/19
Applicant/Owner: SCDOT		· · · ·	State: SC Sa	ampling Point: Up WTH
Investigator(s): Three Oaks Engineering	Section	n. Township. Range: Blu		· · ·
Landform (hillside terrace etc.): None	L ocal relie	ef (concave, convex, none	e): None	Slope (%): 3%
Subregion (I RR or MI RA): I RR T	Lat: 32 21841	l ong [.] -80 76	6034	
Soil Man Unit Name: Seabrook fine sand			NWI classification	· None
Are climatic / hydrologic conditions on the sit	te typical for this time of year?	Vec N	(If no evol	ain in Remarks)
Are Vegetation Soil or Hydro		12 Are "Normal Circur		Voc No Y
Are Vegetation, on Hydro				
			any answers in Rema	irks.)
SUMMARY OF FINDINGS – Attach	n site map showing samp	ling point locations	, transects, impo	ortant features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Is Yes No X with Yes No X with	the Sampled Area thin a Wetland?	Yes N	o_X
Remarks: There was no preciptiation within a month p This data form represents the conditions pre	prior. esent in the roadside uplands arou	und WTH and WTD.		
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of one is requination of one is requination) 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 (B Water-Stained Leaves (B9) Field Observations: Surface Water Present?	ired; check all that apply) Aquatic Fauna (B13) Marl Deposits (B15) (LRR L Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on L Presence of Reduced Iron (Recent Iron Reduction in Ti Thin Muck Surface (C7) Other (Explain in Remarks) 7) No X Depth (inches):	J)	condary Indicators (min Surface Soil Cracks (Sparsely Vegetated C Drainage Patterns (B Moss Trim Lines (B10 Dry-Season Water Ta Crayfish Burrows (C8 Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D8 Sphagnum Moss (D8	nimum of two required) (B6) Concave Surface (B8) 10) 6) able (C2) (D2) (D2)) 5) (LRR T, U)
Water Table Present? Yes	No X Depth (inches):	—		
Saturation Present? Yes	No Depth (inches):	Wetland Hydi	ology Present?	Yes <u>No X</u>
(includes capillary fringe) Describe Recorded Data (stream gauge, mo Remarks:	onitoring well, aerial photos, previ	ous inspections), if availa	ble:	

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Sampling Point: Up WTH

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Pinus taeda	5	Yes	FAC	Number of Dominant Species
2. Quercus virginiana	5	Yes	FACU	That Are OBL, FACW, or FAC: 5 (A)
3. Quercus laurifolia	5	Yes	FACW	Total Number of Dominant
4.				Species Across All Strata: 8 (B)
5.				Percent of Dominant Species
6.				That Are OBL, FACW, or FAC: 62.5% (A/B)
	15	=Total Cover		Prevalence Index worksheet:
50% of total cover:	8 20%	of total cover:	3	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft radius)				OBL species 0 $x = 0$
1. Prunus caroliniana	5	No	FACU	FACW species $25 \times 2 = 50$
2 Cornus asperifolia	10	Yes	FACW	FAC species $95 \times 3 = 285$
3 llex vomitoria	5	No	FAC	$FACU \text{ species} \qquad 33 \qquad x.4 = 132$
A Prunus serotina	15	Ves		$\frac{11}{100} \text{ species} \qquad 0 \qquad x5 = 0$
	15	165	TACO	$\begin{array}{c} \text{OFL species} \\ \text{Column Totals:} \\ 152 \\ \text{(A)} \\ 167 \\ \text{(P)} \\ \end{array}$
<u> </u>				$\frac{1}{2} \frac{1}{2} \frac{1}$
b				Prevalence Index = B/A = 3.05
	35	= I otal Cover		Hydrophytic Vegetation Indicators:
50% of total cover:	18 20%	of total cover:	7	1 - Rapid Test for Hydrophytic Vegetation
<u>Shrub Stratum</u> (Plot size: <u>30 ft radius</u>)				X 2 - Dominance Test is >50%
1. Ilex vomitoria	75	Yes	FAC	3 - Prevalence Index is ≤3.0 ¹
2. Cornus asperifolia	10	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Prunus caroliniana	5	No	FACU	
4.				
5				¹ Indicators of hydric soil and wetland hydrology must be
6.				present, unless disturbed or problematic.
	90	=Total Cover		Definitions of Five Vegetation Strata:
50% of total cover:	45 20%	of total cover:	18	Tree – Woody plants, excluding woody vines
Herb Stratum (Plot size:)				rice - woody plants, excluding woody vines,
				approximately 20 ft (6 m) or more in height and 3 in.
1				approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
1				approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
1. 2.				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,
1. 2. 3.				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.
1. 2. 3. 4.				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.
1. 2. 3. 4. 5.				 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 2 to 20 ft (1 to 6 m) in height
1. 2. 3. 4. 5. 6.				 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.
1. 2. 3. 4. 5. 6. 7.				 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
1. 2. 3. 4. 5. 6. 7. 8.				 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, <u>and</u> woody
1. 2. 3. 4. 5. 6. 7. 8. 9.				 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, <u>and</u> woody plants, except woody vines, less than approximately 3 6 (4 m) in height.
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.				 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11.				 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11.				 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover:		=Total Cover of total cover:		 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: Woody Vine Stratum (Plot size: 30 ft radius)		=Total Cover of total cover:		 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: Woody Vine Stratum (Plot size:30 ft radius) 1 Vitis rotundifolia		=Total Cover of total cover:		 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: Woody Vine Stratum (Plot size:30 ft radius_)) 1. Vitis rotundifolia 2. Vitis contuctifolia		=Total Cover of total cover: Yes		 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1.		Total Cover of total cover: <u>Yes</u> Yes		 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1.		=Total Cover of total cover: Yes Yes		 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1.		=Total Cover of total cover: <u>Yes</u> Yes		 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1.		=Total Cover of total cover: Yes Yes		 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: Woody Vine Stratum (Plot size:30 ft radius _) 1. Vitis rotundifolia 2. Vitis aestivalis 3. 4. 5.		=Total Cover Yes Yes Total Cover		 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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height. Hydrophytic Vegetation
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover:	 	=Total Cover of total cover: Yes Yes Total Cover of total cover:		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height. Hydrophytic Vegetation Present? Yes X No

0-12 10YR 4/2 100 12-16 10YR 5/6 60 12-17 10YR 5/6 60 1 10YR 5/6 60 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Sandy Indicators for Problematic Hydric Soils? T, U) 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Coast Prairie Redox (A16) (outside MLRA 150A) Reduced Vertic (F18) (outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR Anomalous Bright Floodplain Soils (F19) (LR
0-12 10YR 4/2 100 12-16 10YR 5/6 60 12-16 10YR 5/6 60 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Gi Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Thin Dark Surface (S9) (LRR S, G) Histic Epipedon (A2) Barrier Islands 1 cm Muck (S12) Black Histic (A3) (MLRA 153B, 153D) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR Stratified Layers (A5) Loamy Gleyed Matrix (F2) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U)	Sandy Sandy Sandy Sandy rains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ T, U) 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Coast Prairie Redox (A16) (outside MLRA 150A) Reduced Vertic (F18) (outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR Anomalous Bright Floodplain Soils (F19)
12-16 10YR 5/6 60 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Gi Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Thin Dark Surface (S9) (LRR S, G) Histosol (A1) Barrier Islands 1 cm Muck (S12) Black Histic (A3) (MLRA 153B, 153D) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR Stratified Layers (A5) Loamy Gleyed Matrix (F2) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U)	Sandy rains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ T, U) 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Coast Prairie Redox (A16) (outside MLRA 150A) Reduced Vertic (F18) (outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR Anomalous Bright Floodplain Soils (F2)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Gi Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Thin Dark Surface (S9) (LRR S, Histic Epipedon (A2) Barrier Islands 1 cm Muck (S12) Black Histic (A3) (MLRA 153B, 153D) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR Stratified Layers (A5) Loamy Gleyed Matrix (F2) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U)	rains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ T, U) 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Coast Prairie Redox (A16) (outside MLRA 150A) Reduced Vertic (F18) (outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR Anomalous Bright Floodplain Soils (F2)
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Type: C-Concentration, D-Depletion, RM-Reduced Matrix, MS-Masked Sand G Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Thin Dark Surface (S9) (LRR S, Barrier Islands 1 cm Muck (S12) Black Histic (A3) (MLRA 153B, 153D) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR Stratified Layers (A5) Loamy Gleyed Matrix (F2) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U)	Tailins. Location. PL-Pole Lining, M-Matrix. Indicators for Problematic Hydric Soils ³ T, U) 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Coast Prairie Redox (A16) (outside MLRA 150A) Reduced Vertic (F18) (outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR Anomalous Bright Floodplain Soils (F2)
Histosol (A1) Thin Dark Surface (S9) (LRR S, Histic Epipedon (A2) Barrier Islands 1 cm Muck (S12) Black Histic (A3) (MLRA 153B, 153D) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR Stratified Layers (A5) Loamy Gleyed Matrix (F2) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U)	T, U) 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Coast Prairie Redox (A16) (outside MLRA 150A) Reduced Vertic (F18) (outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR Anomalous Bright Floodplain Soils (F2)
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Black Histic (A3) (MLRA 153B, 153D) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR Stratified Layers (A5) Loamy Gleyed Matrix (F2) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U)	Coast Prairie Redox (A16) (outside MLRA 150A) Reduced Vertic (F18) (outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR Anomalous Bright Floodplain Soils (F2
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR Stratified Layers (A5) Loamy Gleyed Matrix (F2) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U)	R O) (outside MLRA 150A)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U)	Reduced Vertic (F18) (outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR Anomalous Bright Floodplain Soils (F2
Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F3) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U)	(outside MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (LRR Anomalous Bright Floodplain Soils (F2
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Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) 1 cm Muck (A9) (LRR P, T) Redox Depressions (F8) Depleted Below Dark Surface (A11) Marl (F10) (LRR U) Thick Park Surface (A12)	Anomalous Bright Floodplain Soils (F2
1 cm Muck (A9) (LRR P, T)Redox Depressions (F8) Depleted Below Dark Surface (A11)Marl (F10) (LRR U)	
Depleted Below Dark Surface (A11)Marl (F10) (LRR U)	(MLRA 153B)
	Red Parent Material (F21)
	51) Very Shallow Dark Surface (F22)
Coast Prairie Redox (A16) (MLRA 150A) Iron-Manganese Masses (F12) (I	LRR O, P, I) (Outside MLRA 138, 152A in FL, 1
Sandy Mucky Milleral (S1) (LRR O, S)Ombrid Surface (F13) (LRR P, 1,	, U) Barrier Islands Low Chroma Matrix (13
Sandy Bedox (S5) Beduced Vertic (F17) (MLRA 151)	(MLKA 1336, 1330)
Stripped Matrix (S6) Piedmont Floodplain Soils (F19)	
Dark Surface (S7) (LRR P. S. T. U) Anomalous Bright Floodplain Sol	(iii_i) (1000) ils (F20)
Polyvalue Below Surface (S8) (MLRA 149A. 153C. 153D)	³ Indicators of hydrophytic vegetation a
(LRR S, T, U) Very Shallow Dark Surface (F22)) wetland hydrology must be present,
(MLRA 138, 152A in FL, 154)	unless disturbed or problematic.
Restrictive Layer (if observed):	
Туре:	
Depth (inches):	Hydric Soil Present? Yes No
Remarks:	
12-16: 10YR 4/2 40%	

U.S. Arm WETLAND DETERMINATION DATA See ERDC/EL TR-07-24;	y Corps of Engineers SHEET – Atlantic and Gulf Coas the proponent agency is CECW	tal Plain Region /-CO-R	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
Project/Site: US 278 Corridor Improvemen	ts City/Co	ounty: Hilton Head Is	sland/ Beaufort Sampling Date: 05/20/19
Applicant/Owner SCDOT		, <u> </u>	State: SC Sampling Point: WTD
Investigator(c): Three Oaks Engineering	Section To	whethin Pango: Blu	
Landform (hilloide torrage etc.): None			$\frac{1}{2} = \frac{1}{2} $
		bricave, convex, non	
Subregion (LRR or MLRA): LRR I	Lat: <u>32.217983</u>	Long: <u>-80.76</u>	<u>264331</u> Datum: <u>NAD83</u>
Soil Map Unit Name: Seabrook fine sand			NWI classification: None
Are climatic / hydrologic conditions on the si	te typical for this time of year?	Yes N	No X (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydro	ologysignificantly disturbed?	Are "Normal Circu	umstances" present? Yes No _X
Are Vegetation, Soil, or Hydro	ology naturally problematic?	(If needed, explain	n any answers in Remarks.)
SUMMARY OF FINDINGS – Attac	h site map showing sampling	point location	ns, transects, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Is the second	Sampled Area a Wetland?	Yes X No
Remarks: There was no precipitation within a month	prior		
L HYDROLOGY			
Wetland Hydrology Indicators: Primary Indicators (minimum of one is requested one is requested on a second constraint of the second constraint on the second constraint o	uired; check all that apply) Aquatic Fauna (B13) Marl Deposits (B15) (LRR U) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Thin Muck Surface (C7) Other (Explain in Remarks) 37) No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): NO Depth (inches):	g Roots (C3)	scondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum Moss (D8) (LRR T, U)

Sampling Point: WTD

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Quercus virginiana	15	Yes	FACU	Number of Dominant Species
2. Celtis laevigata	15	Yes	FACW	That Are OBL, FACW, or FAC: 6 (A)
3. Sabal palmetto	5	No	FAC	Total Number of Dominant
4.				Species Across All Strata: 7 (B)
5				
6	·			That Are OBL EACW or EAC' 85.7% (A/B)
0.		-Tatal Causer		
	35	= I otal Cover	_	Prevalence index worksneet:
50% of total cover:	18 20%	of total cover:		I otal % Cover of: Multiply by:
<u>Sapling Stratum</u> (Plot size: <u>30 ft radius</u>)				OBL species x 1 =0
1. Celtis laevigata	10	Yes	FACW	FACW species 25 x 2 = 50
2.				FAC species 45 x 3 = 135
3				FACU species 15 x 4 = 60
4.				UPL species 0 x 5 = 0
5.				Column Totals: 85 (A) 245 (B)
6				$\frac{1}{2}$
·	10	-Total Covor		
	IU		0	A Denid Test for Ludge bath Mentality
50% of total cover:	5 20%	of total cover:	2	1 - Rapid Test for Hydrophytic Vegetation
<u>Shrub Stratum</u> (Plot size: <u>30 ft radius</u>)				X 2 - Dominance Test is >50%
1. Ilex vomitoria	20	Yes	FAC	X 3 - Prevalence Index is $\leq 3.0^{1}$
2. Sabal palmetto	5	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3.				
4.				
5				
6				he present unless disturbed or problematic
· · · · · · · · · · · · · · · · · · ·		-Tatal Cavar		Definitions of Eive Venetation Strate:
			_	Definitions of Five vegetation Strata:
50% of total cover:	13 20%	of total cover:	5	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size:)				approximately 20 ft (6 m) or more in height and 3 in.
1				
2.				Sapling – Woody plants, excluding woody vines,
3.				approximately 20 ft (6 m) or more in height and less
4.				than 3 in. (7.6 cm) DBH.
5.	. <u> </u>			Shrub - Woody Plants, excluding woody vines
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				
7	·			Herb – All herbaceous (non-woody) plants, including
8	·			herbaceous vines, regardless of size, <u>and</u> woody
9				ft (1 m) in height
10				
11				Woody Vine – All woody vines, regardless of height.
		=Total Cover		
50% of total cover:	20%	of total cover:		
Woody Vine Stratum (Plot size: 30 ft radius)				
Vitio rotundifolio	10	Vee	EAC	
		Yes		
2. Ampelopsis arborea	5	Yes	FAC	
3				
4				
5	. <u> </u>			Hydrophytic
	15	=Total Cover		Vegetation
50% of total cover:	8 20%	of total cover:	3	Present? Yes X No
Remarks: (If observed, list morphological adapta	tions below)		ı	· · · · · · · · · · · · · · · · · · ·

U.S. Army WETLAND DETERMINATION DATA S See ERDC/EL TR-07-24; th	Corps of Engineers HEET – Atlantic and Gulf Co e proponent agency is CEC	astal Plain Region W-CO-R	OMB Control #: 0 Requirement Co (Authority: AR 3	710-xxxx, Exp: Pending ntrol Symbol EXEMPT: 35-15, paragraph 5-2a)
Project/Site: US 278 Corridor Improvements	City	County: Hilton Head Is	land/Beaufort S	ampling Date: 07/10/19
Applicant/Owner: SCDOT			State: SC S	ampling Point: WWA
Investigator(s): Three Oaks Engineering	Section,	Township, Range: Blu		
Landform (hillside, terrace, etc.): None	Local relief	(concave, convex, none	e): None	Slope (%): 1%
Subregion (LRR or MLRA): LRR T	Lat: 32.216441	Long: -80.74	17453	Datum: NAD83
Soil Map Unit Name: Wando fine sand, 0 to 6) percent slopes	0	NWI classificatior	 ו: PFO1F
Are climatic / hydrologic conditions on the site	typical for this time of year?	Yes N	— JoX (Ifnoexp	lain in Remarks)
Are Vegetation Soil or Hydrold	ogy significantly disturbed?	Are "Normal Circur	nstances" present?	Yes No X
Are Vegetation Soil or Hydrol	ogy ogi initiality problematic?	(If needed, explain	any answers in Rem	arks)
SUMMARY OF FINDINGS – Attach	site map snowing samplin	ng point locations	, transects, imp	ortant features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Is th Yes X No with Yes X No with	e Sampled Area in a Wetland?	Yes <u>X</u> N	ło
Remarks: There was no precipitation within a month pri	or			
HYDROLOGY				
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required) Surface Water (A1) High Water Table (A2) X Saturation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) X Water-Stained Leaves (B9)	ad; check all that apply) Aquatic Fauna (B13) Marl Deposits (B15) (LRR U) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Liv Presence of Reduced Iron (C Recent Iron Reduction in Tille Thin Muck Surface (C7) Other (Explain in Remarks)	ring Roots (C3)	condary Indicators (m Surface Soil Cracks Sparsely Vegetated Drainage Patterns (E Moss Trim Lines (B1 Dry-Season Water T Crayfish Burrows (Ca Saturation Visible on Geomorphic Position Shallow Aquitard (D3 FAC-Neutral Test (D Sphagnum Moss (D8	inimum of two required) (B6) Concave Surface (B8) 310) 6) Table (C2) 8) A Aerial Imagery (C9) 6 (D2) 3) 5) 3) (LRR T, U)
Surface Water Present? Yes	No X Depth (inches):			
Water Table Present? Yes	No X Depth (inches):			
Saturation Present? Yes X	No Depth (inches):5	Wetland Hydi	rology Present?	Yes <u>X</u> No
(Includes capillary fringe)	nitoring well aprial photos, proviou	us inspections), if availa	blo	
Describe Recorded Data (stream gauge, moi	intoring well, aerial priotos, previou	is inspections), il avalla	DIE.	
Remarks:				

Sampling Point: WWA

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	% Cover	Species?	Status	Dominance Test worksheet:
1. Liquidambar styraciflua	10	No	FAC	Number of Dominant Species
2. Acer rubrum	40	Yes	FAC	That Are OBL, FACW, or FAC: 8 (A)
3 Diospyros virginiana	5	 No	FAC	Total Number of Deminent
A Celtis laevigata	5	No	FACW	Species Across All Strate: 8 (B)
			EACU	
	<u> </u>		FACU	Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
	63	=Total Cover		Prevalence Index worksheet:
50% of total cover: 32	2 20%	of total cover:	13	Total % Cover of: Multiply by:
<u>Sapling Stratum</u> (Plot size: <u>30 ft radius</u>)				OBL species <u>5</u> x 1 = <u>5</u>
1. Liquidambar styraciflua	15	Yes	FAC	FACW species 10 x 2 = 20
2. Diospyros virginiana	5	Yes	FAC	FAC species 126 x 3 = 378
3.				FACU species 3 x 4 = 12
4				UPL species $0 \times 5 = 0$
5				$\begin{array}{c} c = c \\ c = c \\$
5				$\frac{144}{10} (A) = \frac{110}{10} (B)$
0.				
	20	=Total Cover		Hydrophytic Vegetation Indicators:
50% of total cover:10) 20%	of total cover:	4	1 - Rapid Test for Hydrophytic Vegetation
<u>Shrub Stratum</u> (Plot size: <u>30 ft radius</u>)				X 2 - Dominance Test is >50%
1. Liquidambar styraciflua	20	Yes	FAC	X_3 - Prevalence Index is ≤3.0 ¹
2. Diospyros virginiana	10	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Quercus niara	5	No	FAC	
4 Quercus laurifolia	5	No	FACW	
		No		
		NO	FAC	'Indicators of hydric soil and wetland hydrology must be
0				present, unless disturbed or problematic.
	45	=Total Cover		Definitions of Five Vegetation Strata:
50% of total cover:23	45 320%	=Total Cover of total cover:	9	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines,
50% of total cover:3 <u>Herb Stratum</u> (Plot size:30 ft radius)	45 3 20%	=Total Cover of total cover:	9	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of total cover:23 <u>Herb Stratum</u> (Plot size:30 ft radius) 1 <i>Carex comosa</i>	<u>45</u> 20% 5	=Total Cover of total cover: Yes	9 OBL	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
50% of total cover: 23 <u>Herb Stratum</u> (Plot size: <u>30 ft radius</u>) 1. <u>Carex comosa</u> 2. Acer rubrum	45 20% 5 3	=Total Cover of total cover: Yes Yes	9 OBL FAC	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines.
50% of total cover: 23 <u>Herb Stratum</u> (Plot size: <u>30 ft radius</u>) 1. <u>Carex comosa</u> 2. <u>Acer rubrum</u> 3.	45 20% 5 3	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
50% of total cover:23 <u>Herb Stratum</u> (Plot size:30 ft radius) 1. <u>Carex comosa</u> 2. <u>Acer rubrum</u> 3 4.	45 20% 5 3	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
50% of total cover: 23 Herb Stratum (Plot size: 30 ft radius) 1. Carex comosa	45 20% 5 3	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody Plants, excluding woody vines.
50% of total cover: 23 Herb Stratum (Plot size: 30 ft radius) 1. Carex comosa	45 20% 5 3	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
50% of total cover: 23 Herb Stratum (Plot size: 30 ft radius) 1. Carex comosa	45 20% 5 3 	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
50% of total cover: 23 Herb Stratum (Plot size: 30 ft radius) 1. Carex comosa	45 20% 5 3 	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
50% of total cover: 23 Herb Stratum (Plot size: 30 ft radius) 1. Carex comosa	45 20% 5 3 	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 tf (1 m) in height.
50% of total cover: 23 Herb Stratum (Plot size: 30 ft radius) 1. Carex comosa	45 20% 5 3 	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes 	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius _) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes 	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes 	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius _) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes = Total Cover of total cover:	9 OBL FAC	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius _) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes = 	9 OBL FAC 	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius _) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes 	9 OBL FAC 	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes = 	9 OBL FAC 	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes = Total Cover of total cover: Yes	9 OBL FAC 	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes = Total Cover of total cover: Yes	9 OBL FAC 	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius _) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: Yes Yes = Total Cover of total cover: Yes = Total Cover = Total Cover	9 OBL FAC 	 Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover:23 Herb Stratum (Plot size:30 ft radius _) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: <u>Yes</u> <u>Yes</u> = Total Cover of total cover: <u>Yes</u> = Total Cover	9 OBL FAC 	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height. Hydrophytic Vegetation Present? Yes X
50% of total cover:23 Herb Stratum (Plot size:30 ft radius) 1. Carex comosa 2. Acer rubrum 3	45 20% 5 3 	=Total Cover of total cover: <u>Yes</u> <u>Yes</u> =Total Cover of total cover: <u>Yes</u> =Total Cover	9 OBL FAC 	Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height. Hydrophytic Vegetation Present? Yes X No

Profile Description: (Describe to the d	epth needed to docu	ument the inc	licator or c	onfirm th	e absence of in	dicators.)			
Depth Matrix	Redo	x Features	1 . 2	_		_			
(inches) Color (moist) %	Color (moist)	Тур	e' Loc ²	Te	kture	Remarks			
0-5 10YR 2/1 100				Loamy	/Clayey				
5-16 7.5YR 2.5/1 90	10YR 3/6	10 C	PL	Loamy	/Clayey	Prominent redox concentrations			
·									
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, M	/IS=Masked S	and Grains.		² Location: PL=P	Pore Lining, M=Matrix.			
Hydric Soil Indicators: (Applicable to a	II LRRs, unless othe	rwise noted.)		Indicators for P	Problematic Hydric Soils ³ :			
Histosol (A1)	Thin Dark Su	Thin Dark Surface (S9) (LRR S, T, U)				1 cm Muck (A9) (LRR O)			
Histic Epipedon (A2)	Barrier Islan	Barrier Islands 1 cm Muck (S12)				2 cm Muck (A10) (LRR S)			
Black Histic (A3)	Black Histic (A3) (MLRA 153B, 153D)				Coast Prairie Redox (A16)				
Hydrogen Sulfide (A4)	Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O)				(outside MLRA 150A)				
Stratified Layers (A5)	Loamy Gleye	Loamy Gleyed Matrix (F2)				Reduced Vertic (F18)			
Organic Bodies (A6) (LRR P, T, U)	Depleted Ma	Depleted Matrix (F3)				(outside MLRA 150A, 150B)			
5 cm Mucky Mineral (A7) (LRR P, T,	U) X Redox Dark	X Redox Dark Surface (F6)				Piedmont Floodplain Soils (F19) (LRR P, T)			
Muck Presence (A8) (LRR U)	Depleted Da	Depleted Dark Surface (F7)				Bright Floodplain Soils (F20)			
1 cm Muck (A9) (LRR P, T) Redox Depression					(MLRA 153B)				
Depleted Below Dark Surface (A11) Marl (F10) (LRR U					Red Parent Material (F21)				
Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 15			_RA 151)	-	Very Shallow Dark Surface (F22)				
Coast Prairie Redox (A16) (MLRA 150A) Iron-Manganese Masses (F12) (LRR (D, P, T) (outside MLRA 138, 152A in FL, 154)				
Sandy Mucky Mineral (S1) (LRR O, S	3) X Umbric Surfa	ace (F13) (LR	R P, T, U)		Barrier Islands Low Chroma Matrix (TS7)				
Sandy Gleyed Matrix (S4)	Delta Ochric	(F17) (MLRA	151)	(MLRA 153B, 153D)					
Sandy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 1				50B)	50B) Other (Explain in Remarks)				
Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLR						,			
Dark Surface (S7) (LRR P, S, T, U) Anomalous Bright Floodplain Soils (F20									
Polyvalue Below Surface (S8)	Polyvalue Below Surface (S8) (MLRA 149A, 153C, 153D)				³ Indicators o	of hydrophytic vegetation and			
(LRR S. T. U)	Very Shallow Dark Surface (F22)			wetland hydrology must be present.					
(MLRA 138, 152A in FL, 154)					unless disturbed or problematic.				
Restrictive Layer (if observed):				1					
Туре:									
Depth (inches):					Soil Present?	Yes X No			
Remarks:									

U.S. Army Corps of Eng WETLAND DETERMINATION DATA SHEET – Atlant See ERDC/EL TR-07-24; the proponent a	OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)					
Proiect/Site: US 278 Corridor Improvements	Citv/County: Hilton Head Is	land/Beaufort Sampling Date: 07/02/20				
Applicant/Owner: SCDOT		State: SC Sampling Point: Up WWA				
Investigator(s): Three Oaks Engineering	Section Townshin Range: Blut					
Landform (hillside terrace etc.): None		$\frac{1}{2}$ None Slone (%): 1%				
Subragion (LPP or MLPA): LPP T		17//10				
Sold Man Linit Name: Wandefine aand 0.6% alapse	Long00.7-					
Are elimentia (hudeelaria conditions on the site turical for this ti						
Are climatic / hydrologic conditions on the site typical for this tir	me of year? Yes X	(If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrologysignific	cantly disturbed? Are "Normal Circur	nstances" present? Yes X No				
Are Vegetation, Soil, or Hydrologynatura	illy problematic? (If needed, explain	any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point locations	, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: Image: No Image: No	X Is the Sampled Area X within a Wetland?	Yes No _X				
HYDROLOGY Wetland Hydrology Indicators:	<u>Sec</u>	condary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that	apply)	Surface Soil Cracks (B6)				
Surface Water (A1) Aquatic Fau	na (B13)	Sparsely Vegetated Concave Surface (B8)				
High Water Lable (A2) Mari Deposit	is (B15) (LRR U)	Drainage Patterns (B10)				
Water Marks (B1)	izospheres on Living Roots (C3)	Dry-Season Water Table (C2)				
Sediment Deposits (B2) Presence of	Reduced Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3)	Reduction in Tilled Soils (C6)	n in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Surface (C7)	7) Geomorphic Position (D2)				
Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3)						
Inundation Visible on Aerial Imagery (B7)	_ <u>×</u>	FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)				
Field Observations:						
Surface Water Present? Yes No Dep	oth (inches):					
Saturation Present? Yes No Der	oth (inches): Wetland Hyde	rology Present? Yes No X				
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aeria	al photos, previous inspections), if availa	ble:				
Remarks:						

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Sampling Point: Up WWA

Tree Statum Optimizer Status Dominance Test worksheet: 1. Liquidambar styracitua 5 Yes FAC 2.		Absolute	Dominant	Indicator	
1. Liquidambar styracitue 5 Yes FAC 2.	Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Dominance Test worksheet:
2.	1. Liquidambar styraciflua	5	Yes	FAC	Number of Dominant Species
3.	2.				That Are OBL, FACW, or FAC: 7 (A)
4.	3.				Total Number of Dominant
5	4				Species Across All Strata: 8 (B)
6.	5				
0.	5				Percent of Dominant Species
Softe of total cover: Softe of total cover: Tervalence index worsheet: Saping Stratum (Plot size: 30 ft 1 Ves FAC 1. Liquidamber styraciflua 15 Yes FAC FAC FACW species 5 x 2 = 10 2. Quercus nigra 10 Yes FAC FACU species 75 x 3 = 225 4. Prunus serotine 10 Yes FAC FACU species 73 x 4 = 52 5 Yes FAC FACU species 13 x 4 = 52 0 6	0.				
Subs of total accever: 3 20% of total accever: 1 Iotal % Cover Model with a styractifue 1. Liquidambar styractifue 15 Yes FAC FAC FAC species 0 x 1 = 0 2. Quercus nigra 10 Yes FAC FAC FAC species 3 x 2 = 10 4. Prunus serotina 10 Yes FAC FAC FAC species 0 x 5 = 0 Column Totals: 03 (k) 2 = 0 FAC FAC species 0 x 5 = 0 Column Totals: 03 (k) 2 = 0 Column Totals: 03 (k) 2 = 0 Column Totals: 03 (k) 2 = 0 = 0 = 3 No FAC Yes FAC Yes FAC Simula Stratum (Plot size: 30 ft 1 Yes FAC Yes FAC Yes Simula Stratum (Plot size: 30 ft 1 Yes FAC Yes FAC Yes Yes Yes Yes Yes Yes Yes		5	= I otal Cover		Prevalence index worksneet:
Statum (Plot size: 30 ft) 1. Liguidation styred/flue 15 Yes FAC 2. Quercus nigra 10 Yes FAC 3. Liguidation styred/flue 10 Yes FAC 4. Pranus servina 10 Yes FAC 5.	50% of total cover:	320%	of total cover:	1	I otal % Cover of: Multiply by:
1. Liquidambar styrad/lia 15 Yes FAC FAC FAC FAC FAC FAC Solution and the standard stand	<u>Sapling Stratum</u> (Plot size: <u>30 ft</u>)				OBL species x 1 =
2. Quercus nigra 10 Yes FAC FAC FAC Use species 75 x 3 = 225 3. Ugustrum japonicum 10 Yes FAC FAC FAC Use species 13 x 4 = 52 4. Prunus serdina 10 Yes FAC Use species 0 x 5 = 0 6.	1. Liquidambar styraciflua	15	Yes	FAC	FACW species <u>5</u> x 2 = <u>10</u>
3. Ligustrum japonicum 10 Yes FACU FACU species 13 x 4 = 52 4. Prunus serctina 10 Yes FACU UPL species 13 x 4 = 52 6.	2. Quercus nigra	10	Yes	FAC	FAC species 75 x 3 = 225
4. Prunus servina 10 Yes FACU UPL species 0 x 5 = 0 5.	3. Ligustrum japonicum	10	Yes	FAC	FACU species 13 x 4 = 52
5.	4. Prunus serotina	10	Yes	FACU	UPL species 0 x 5 = 0
6.	5.				Column Totals: 93 (A) 287 (B)
	6.				Prevalence Index = B/A = 3.09
50% of total cover: 23 20% of total cover: 9 Shrub Stratum (Plot size: 30 ft) 15 Yes FAC 2. llex glabra 5 Yes FACU 3 3 No FACU 3. Eldeagnus sp. 3 No FACU Problematic Hydrophytic Vegetation ¹ (Explain) 4.		45	=Total Cover		Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: 30 ft 1 Ligustrum japonicum X 2 Providence Test is >50% 1. Ligustrum japonicum 15 Yes FAC 3	50% of total cover: 2	3 20%	of total cover	q	1 - Rapid Test for Hydrophytic Vegetation
Sinuturi (Plot size: 30 ft 15 Yes FAC 1 Ligustrum japonicum 15 Yes FACW 3 Flaeagnus sp. 3 No FACU 4.	Shruh Stratum (Plot size: 20 ft)	2070			X 2 Deminance Test is >50%
1. Ligustrum appondum 15 Yes FAC 2. liex glabra 5 Yes FACU 3. No FACU 4.	<u>Siliub Stratum</u> (Flot size. <u>30 it</u>)	45	Vee	EAC	\times 2 - Dominance rest is >50%
2. Iter glatra 5 Yes FACW Problematic Hydrophytic Vegetation' (Explain) 3. Elaeagnus sp. 3 No FACU Problematic Hydrophytic Vegetation' (Explain) 4.			<u>Yes</u>	FAC	3 - Prevalence Index is \$3.0
3. Elseagnus sp. 3 No FACU 4.	2. Ilex glabra	5	Yes	FACW	Problematic Hydrophytic Vegetation' (Explain)
4.	3. Elaeagnus sp.	3	No	FACU	
5.	4				
6.	5				¹ Indicators of hydric soil and wetland hydrology must be
23 =Total Cover Definitions of Five Vegetation Strata: 50% of total cover: 12 20% of total cover: 5 Herb Stratum (Plot size: 30 ft) 1. 1.	6				present, unless disturbed or problematic.
50% of total cover: 12 20% of total cover: 5 Herb Stratum (Plot size: 30 ft) 1. 2.		23	=Total Cover		Definitions of Five Vegetation Strata:
Herb Stratum (Plot size:	50% of total cover: 1	2 20%	of total cover:	5	Tree – Woody plants, excluding woody vines
1.	Herb Stratum (Plot size: 30 ft)				approximately 20 ft (6 m) or more in height and 3 in.
2.	1				(7.6 cm) or larger in diameter at breast height (DBH).
2.	2				One line a Manda da standa and dia any a da sina a
3.	2				Sapling – woody plants, excluding woody vines,
4.	3				than 3 in. (7.6 cm) DBH.
5.	4.				
6. approximately 3 to 20 it (1 to 6 m) in height. 7.	5				Shrub - Woody Plants, excluding woody vines,
7.	6				approximately 3 to 20 ft (1 to 6 m) in height.
8.	7				Herb – All herbaceous (non-woody) plants, including
9.	8				herbaceous vines, regardless of size, and woody
10.	9.				plants, except woody vines, less than approximately 3
11.	10.				ft (1 m) in height.
=Total Cover 50% of total cover: 20% of total cover: 20% of total cover: 1. Vitis rotundifolia 20 2. 3.	11.				Woody Vine – All woody vines, regardless of height.
50% of total cover: 20% of total cover: Woody Vine Stratum (Plot size: 30 ft 1. Vitis rotundifolia 2. 20 3. 20 4. 20 5. 20 20 Yes FAC			=Total Cover		
Woody Vine Stratum (Plot size: 30 ft) 20 Yes FAC 1. Vitis rotundifolia 20 Yes FAC 2.	50% of total cover	20%	of total cover		
Vitis rotundifolia 20 Yes FAC 2.	Woody Vine Stratum (Plot size: 20 ft	2070			
1. Vitis rotundifolia 20 Yes FAC 2.	Woody vine Stratum (Plot size. <u>30 it</u>)			540	
2	1. Vitis rotundifolia	20	Yes	FAC	
3.	2				
4.	3				
5 20 =Total Cover Hydrophytic	4				
20 =Total Cover Vegetation	5				Hydrophytic
		20	=Total Cover		Vegetation
50% of total cover: 10 20% of total cover: 4 Present? Yes X No	50% of total cover: 1	0 20%	of total cover:	4	Present? Yes X No
Remarks: (If observed, list morphological adaptations below.)	Remarks: (If observed, list morphological adaptation	ns below.)			,

Profile Desci	ription: (Describe to	o the depth	needed to docu	Iment the indic	cator or co	onfirm the ab	sence of ind	licators.)		
Ueptn (inches)	Color (moist)		Color (moist)	K Features		Texture		Rema	arke	
				<u></u>		Texture		Neille		
0-10	10yr 6/4	100				Sandy				
10-16	10yr 6/4	60				Sandy				
					·					
¹ Type: C=Cc	ncentration, D=Deple	etion, RM=R	educed Matrix, N	IS=Masked Sar	d Grains.	² Loc	ation: PL=P	ore Lining, M=N	latrix.	
Hydric Soil I	ndicators: (Applicat	ble to all LR	Rs, unless othe	rwise noted.)		Indie	cators for Pr	roblematic Hyd	ric Soils ³ :	
Histosol ((A1)	_	Thin Dark Su	ırface (S9) (LRI	R S, T, U)	1 cm Muck (A9) (LRR O)				
Histic Ep	ipedon (A2)	_	Barrier Island	ds 1 cm Muck (S12)		2 cm Muck (A10) (LRR S)			
Black His	stic (A3)		(MLRA 15	(MLRA 153B, 153D)			Coast Prairie Redox (A16)			
Hydroger	n Sulfide (A4)	-	Loamy Mucky Mineral (F1) (LRR O)				(outside MLRA 150A)			
Stratified	Layers (A5)	-	Loamy Gleye	ed Matrix (F2)			Reduced Vertic (F18)			
Organic I	Bodies (A6) (LRR P,	T, U) _	Depleted Ma	trix (F3)			(outside MLRA 150A, 150B)			
5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F			Surface (F6)			Piedmont Floodplain Soils (F19) (LRR P,				
Muck Presence (A8) (LRR U)			Depleted Dark Surface (F7)				Anomalous Bright Floodplain Soils (F20)			
1 cm Muck (A9) (LRR P, T)			Redox Depressions (F8)				(MLRA 153B)			
Depleted Below Dark Surface (A11)			Marl (F10) (LRR U)				Red Parent Material (F21)			
Thick Dark Surface (A12)D			Depleted Oc	_ Depleted Ochric (F11) (MLRA 151)			Very Shallow Dark Surface (F22)			
Coast Prairie Redox (A16) (MLRA 150A) Iron-Mang			Iron-Mangan	anganese Masses (F12) (LRR O, P, T)			(outside MLRA 138, 152A in FL, 154)			
Sandy Mucky Mineral (S1) (LRR O, S) Umbric Surface (F13) (LRR P, T			P, T, U)	Barrier Islands Low Chroma Matrix (TS7)						
Sandy Gleyed Matrix (S4) Delta Ochric (F17) (MLRA 151)			51)	(MLRA 153B, 153D)						
Sandy Re	edox (S5)	-	Reduced Ver	rtic (F18) (MLR	A 150A, 1	50B)	Other (Explai	in in Remarks)		
Stripped	Matrix (S6)	-	Piedmont Flo	oodplain Soils (I	F19) (MLR	RA 149A)				
Dark Sur	face (S7) (LRR P, S ,	T, U) _	Anomalous E	Bright Floodplai	n Soils (F2	20)				
Polyvalue Below Surface (S8)			(MLRA 149A, 153C, 153D)				³ Indicators of hydrophytic vegetation and			
(LRR S, T, U) Very Sha			Very Shallow	/ery Shallow Dark Surface (F22)			wetland hydrology must be present,			
			(MLRA 13	8, 152A in FL, ⁻	154)	-	unless dis	turbed or proble	ematic.	
Restrictive L	ayer (if observed):									
Туре:										
Depth (in	ches):					Hydric Soi	I Present?	Yes	No X	
Remarks:										
Additional col	ors: 10-16in 10yr 5/4	40%								













