

U.S. Army Corps of Engineers Charleston Regulatory Office 69A Hagood Ave Charleston, SC 29403

Subject: Preliminary Jurisdictional Determination Request

Santee Cooper Johns Island-Queensboro 115kV Line

Charleston County, South Carolina Wood Project No. 6250160115

To Whom it May Concern:

Wood Environment & Infrastructure Solutions, Inc. (Wood), on behalf of our client Santee Cooper, respectfully requests a preliminary jurisdictional determination by the U.S. Army Corps of Engineers (USACE) Charleston District of the Waters of the U.S./Wetlands for their proposed project, Johns Island-Queensboro 115kV Line (Project Study Area). The Project Study Area begins west of the intersection of Comsee Lane and Langston Drive, in Charleston County, South Carolina at coordinates 32.73154 N, -80.0883 W and ties into the existing Dominion Church Creek-Ritter transmission line near Maybank Highway, at coordinates 32.75097 N, -80.03022 W (See Figure 1).

The proposed transmission project area includes a 55-foot wide corridor parallel to an existing Santee Cooper transmission line and a 100-foot wide corridor in all other portions of the Project Study Area. The Project Study Area encompasses approximately 6.38 miles of new transmission line. The proposed transmission line runs north of SC-700 from the Johns Island substation, paralleling the existing Santee Cooper Mateeba-Johns Island transmission line right-of-way (ROW), before running northeast through undeveloped wetlands to Pennys Creek. The proposed transmission line then turns west to parallel the existing Dominion Church Creek-Ritter transmission line ROW towards Maybank Highway. The proposed Santee Cooper transmission line ties into the Dominion Church Creek-Ritter transmission line east of Maybank Highway (See Figure 1).

Methodology

Jurisdictional waters of the U.S., including wetlands, are defined by 33 CFR Part 328.3(b) and are protected by Section 404 of the CWA (33 United States Code [USC] 1344), which is administered and enforced in South Carolina by the USACE (United States Army Corps of Engineers), Charleston District. The landward limits of waters of the U.S. regulatory jurisdiction at the Project Study Area were delineated by Wood. Wood personnel conducted a wetland/waters of the U.S. delineation on March 5, 2019 and September 26, 2019.

Wetlands are defined by the presence of three criteria: hydrophytic vegetation, hydric soils, and evidence of wetland hydrology. Jurisdictional areas were delineated using the three-parameter approach in accordance with the *Corps of Engineers Wetland Delineation Manual*: Atlantic and Gulf Coastal Plain Region (Version 2.0)². Jurisdictional areas were delineated with sequentially numbered flagging tape and mapped using a Trimble Geo XT sub-meter GPS Unit. Paired wetland/upland Atlantic and Gulf Coastal Plain Region Wetland Determination Data Forms (Version 2.0) were completed at several locations (Figure 5) within the Project Study Area.

Wood Environment & Infrastructure Solutions, Inc. 720 Gracern Road, Suite 132 Columbia, South Carolina 29210 Tel: 803-798-1200 www.woodplc.com

¹ USACE. 1987. Corps of Engineers Wetlands Delineation Manual. Environmental Laboratory, Vicksburg, MS.

² USACE. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). Environmental Laboratory, Vicksburg, MS.

RESULTS

Jurisdictional Waters of the U.S./Wetlands

Wood personnel identified jurisdictional waters of the U.S. within the Project Study Area. The following table lists each water of the U.S./wetland feature within the project corridor and their corresponding size. See Figure 5 for waters of the U.S. locations.

Table 1

| Feature Type | Name | Acreage | Linear Footage |
|-------------------------------|-----------------------------|---------|----------------|
| Non-Wetland Water (non-tidal) | Stream A | 0.02 | 94 |
| Non-Wetland Water (tidal) | Stream B | 0.47 | 1,183 |
| Non-Wetland Water (tidal) | Stream C | 0.26 | 181 |
| Non-Wetland Water (tidal) | Stream D | 0.29 | 271 |
| Non-Wetland Water (tidal) | Open Water 1 | 0.05 | N/A |
| Non-Wetland Water (tidal) | Open Water 2 (Pennys Creek) | 1.01 | N/A |
| Non-Wetland Water (tidal) | Open Water 3 | 0.13 | N/A |
| Wetland (non-tidal) | Wetland A | 0.27 | N/A |
| Wetland (non-tidal) | Wetland B | 1.14 | N/A |
| Wetland (non-tidal) | Wetland C | 1.58 | N/A |
| Wetland (non-tidal) | Wetland D | 1.15 | N/A |
| Wetland (non-tidal) | Wetland E | 1.19 | N/A |
| Wetland (non-tidal) | Wetland F | 0.17 | N/A |
| Wetland (non-tidal) | Wetland G | 0.03 | N/A |
| Wetland (non-tidal) | Wetland H | 0.22 | N/A |
| Wetland (non-tidal) | Wetland I | 0.37 | N/A |
| Wetland (non-tidal) | Wetland J | 0.19 | N/A |
| Wetland (non-tidal) | Wetland K | 4.90 | N/A |
| Wetland (non-tidal) | Wetland L | 2.65 | N/A |
| Wetland (tidal) | Wetland M | 5.76 | N/A |
| Wetland (non-tidal) | Wetland N | 15.00 | N/A |
| Wetland (tidal) | Wetland O | 16.16 | N/A |
| Upla | and | 18.65 | |
| Project St | udy Area | 71.66 | |

Wetland and Stream Descriptions

Uplands within the Project Study Area have a dense overstory of loblolly pine (*Pinus taeda*), live oak (*Quercus virginiana*), red maple (*acer rubrum*), and sweetgum (*Liquidambar styraciflua*). The sapling layer is made up of young species of the overstory, water oak (*Quercus nigra*), american hornbeam (*Carpinus caroliniana*), and American beech (*Fagus grandifolia*). The shrub layer is sparser, made up of inkberry (*Ilex glabra*), wax myrtle (*Morella cerifera*), loblolly pine, Chinese tallow (*Triadica sebifera*), and dwarf palmetto (*Sabal minor*). The herbaceous and woody vines stratum contains broom sedge (*Andropogon virginicus*), dogfennel (*Eupatorium capillifolium*), southern waxy sedge (*Carex glaucescens*), netted chain fern (*Woodwardia aerolata*), and sawtooth blackberry (*Rubus argutus*), evening trumpet-flower (*Gelsemium sempervirens*), fringed greenbrier (*Smilax bona-nox*), muscadine (*Vitis rotundifolia*), and laurel-leaf greenbrier (*Smilax laurifolia*).

The freshwater non-tidal wetlands (Wetland A, B, C, D, E, F, G, H, I, J, K, L and N) have a similar overstory as the uplands, but a slightly denser sapling layer, including water oak, American hornbeam, and southern magnolia (*Magnolia grandiflora*). There are scattered loblolly pines within the sapling layer as well. The shrub layer consists of dwarf palmetto, southern magnolia, wax myrtle, and loblolly pine. The herb layer is sparse and mostly consisted of woolgrass (*Scirpus cyperinus*) and broom sedge. Woody vines are sparse but consist of muscadine and yellow jessamine where present.

The tidal wetlands (Wetland M and O) consist of a dense herbaceous layer made up of both black rush (*Juncus roemerianus*) and smooth cordgrass (*Spartina alterniflora*).

Stream A (see photograph 5) is a perennial sandbed stream surrounded by Wetland E. The stream is a freshwater stream with a canopy consisting of bald cypress (*Taxodium distichum*), sweetgum, water oak, laurel oak (*Quercus laurifolia*), and southern magnolia. The stream has a sparse understory consisting of yaupon holly (*Ilex vomitoria*), dwarf palmetto, wax myrtle, and horse sugar (*Symplocos tinctorial*).

Streams B, C, and D are wide tidal canals (excavated) surrounded by both tidal wetlands and non-tidal wetlands. The surrounding vegetation is similar to the aforementioned wetlands.

Connection to Waters of the US

The Project Study Area consists of multiple drainage canals (Stream B, C, and D) which all flow into the Stono River, a Traditional Navigable Water of the United States, according to South Carolina Department of Health and Environmental Control. The eastern portion of the Project Study Area flows into Pennys Creek, which is also considered a Navigable Water of the United States. Pennys Creek flows into the Stono River which flows between Johns Island and James Island before confluencing with the Atlantic Ocean.

SUMMARY

Wood has conducted a delineation of Waters of the U.S. within the approximate 71.66 acres of the Project Study Area. Waters of the US located within the Project Study Area are represented on the attached Figure 5. It is our request that the USACE Charleston District verify these jurisdictional waters of the U.S./wetland boundaries as they are represented on the attached figures.

CLOSING

If you have any questions concerning this document, please contact Mr. Brett Sexton at (803) 798-1200.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

Brett Sexton

Staff Environmental Scientist

Allen W. Conger, PWS

Senior Principal Scientist

Attachments:

Jurisdictional Determination Request Form

Photograph Appendix

Wetland Determination Data Forms (Atlantic and Gulf Coastal Plain – Version 2.0)

Figures

Figure 1 – Site Location Map

Figure 2 – USGS Topographic Map

Figure 3 – NRCS Soils Map

Figure 4 – National Wetland Inventory Map

Figure 5 – Aquatic Resources, Data Point, and Photo Location Map

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 | <u>:</u> |
| City/Township/Parish: | County: | · |
| Latitude/Longitude: | A | creage: |
| Tax Map Sequence (TMS) #(s): | | |
| Property Address(es): | | |
| Please attach a survey/plat map and vice | cinity map identifying location and review a | rea for the JD/delineation. |
| An accurate depiction of the review area mus | t be provided (survey, tax map, or GPS co | ordinates). Tax maps may only be used if the |
| site includes the entire tax map parcel. | | |
| | | |
| B. Requestor of Jurisdictional Determinati | on/Delineation (if there are multiple prope | rty owners, please attach additional pages) |
| Name: | | |
| Company Name (if applicable): | | |
| Address: Phone: Lourrently own this property | <u>-</u> <u>-</u> | |
| Phone: | Email: | |
| Check one realiently own this property | | |
| I plan to purchase this prope | | |
| Other, please explain | | |
| 0.4 | Delete Colon Description (Constitution) | |
| C. Agent/Environmental Consultant Acting | g on Benait of the Requestor (if applicable | e): |
| Consultant/Agent Name: | | |
| Company Name: | - Di | |
| Address: | Pnone: | |
| Email: | | |
| II. <u>REASON FOR REQUEST</u> (check all that a I intend to construct/develop a project or aquatic resources. | perform activities on this site which would | be designed to avoid all |
| • | perform activities on this site which would orps authority. | be designed to avoid all |
| I intend to construct/develop a project or | perform activities on this site which may re | quire authorization from the |
| | on would be used to avoid and minimize in | |
| resources and as an initial step in a futur | e permitting process. | , , |
| | perform activities on this site which may re | cuire authorization from the |
| | y permit application and the jurisdictional c | |
| | perform activities in a navigable water of the | ne U.S. which is subject to the ebb and flow of |
| | quired in order to obtain my local/state auth | norization |
| | icular aquatic resource and the request the | |
| jurisdiction does/does not exist over the | | Corps to confirm that |
| , | • | |
| I believe that the site may be comprised | entifiery of dry land. | |
| Other: | | |
| | | |
| Observatory Off | Output la Carr | 0 |
| Charleston Office: US Army Corps of Engineers | Columbia Office: US Army Corps of Engineers | Conway Office: US Army Corps of Engineers |
| Regulatory Division | Regulatory Office | Regulatory Office |
| 69A Hagood Avenue Charleston, SC 29403 | 1835 Assembly Street, Room 865 B-1 Columbia, SC 29201 | 1949 Industrial Park Road, Room 140 Conway, SC 29526 |
| (nh) 942 220 9044 | (nh) 902 252 2444 | (nh) 042 265 4220 |

*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.

<u>Principal Purpose</u>: 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 Concurrence ¹ | |
| Approved ² Jurisdictional Determination (AJD) Only | |
| Preliminary ³ Jurisdictional Determination (PJD) Only | |
| Approved Jurisdictional Determination (AJD) with submittal of Department of the Army permit application | of a Pre-Construction Notification or |
| Preliminary Jurisdictional Determination (PJD) with submittated Department of the Army permit application | l of a Pre-Construction Notification or |
| Delineation of Wetlands and/or Other Aquatic Resources Or Consultant with submittal of a Pre-Construction Notification or determination requested) | |
| I request that the Corps delineate the wetlands and/or other aq attached Pre-Construction Notification or Department of the | |
| I request that the Corps delineate the wetlands and/or other aq Delineation Only, an AJD or PJD | uatic resources that may be present on my property with a |
| "No Permit Required" (NPR) Letter as I believe my proposed | activity is not regulated ⁴ |
| Unclear as to which jurisdictional determination I would like to reinformation to inform my decision | equest and require additional |
| $1\ Delineation\ Concurrence\ (DC)-A\ DC\ provides\ concurrence\ that\ the\ delineation\ of\ the\ aquatic\ resources\ on-site.\ A\ DC\ does\ not\ address\ the\ just the provides\ that\ the\ delineation\ of\ the\ approximation\ of\ the\ aquatic\ resources\ on-site.\ A\ DC\ does\ not\ address\ the\ just that\ the\ delineation\ of\ the\ approximation\ of\ approximation\ of\ the\ approxim$ | |
| 2 <u>Approved</u> – An AJD is defined in Corps regulations at 33 CFR 331.2. As exposfice has identified the presence or absence of wetlands and/or other aquation 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 exposition of the approximate location(s) and boundaries of wetlands at to regulatory jurisdiction of the Corps of Engineers. Unlike an AJD, a PJD does there are not, jurisdictional aquatic resources on a site, and does not have an | and/or other aquatic resources on a site that are presumed to be subject es not represent a definitive, official determination that there are, or that |
| 4 "No Permit Required" (NPR) Letter- A NPR letter may be provided by the Co (authorization) from the Corps; this letter can only be used if the proposed act occur. A NPR letter cannot be used to indicate the presence or absence of we their jurisdictional status. | tivity is not a regulated activity, regardless of where the activity may |
| IV. LEGAL RIGHT OF ENTRY | |
| By signing below, I am indicating that I have the authority, or am acting authority, to and do hereby grant U.S. Army Corps of Engineers personant this request for the purposes of conducting on-site investigations (e.g. determination. I acknowledge that my signature is an affirmation that determination on the properties subject to this request. | onnel right of entry to legally access the property(ies) subject to j., digging and refilling shallow holes) and issuing a jurisdictional |
| Mailing Address | Property Address / TMS #(s) |
| Email Address | Daytime Phone Number |
| *Signature: | Printed Name and Date |

*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.

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subject to federal jurisdiction under the regulatory authorities referenced above.

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Photographic Log



PHOTOLOG SHEET

Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 1

Photographer: Brett Sexton

Description: View of cleared uplands near the existing Santee Cooper substation, facing south.



Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 2

Photographer: Brett Sexton

Description: View of Wetland B at Data Point WB-7, facing

south.

Photographic Log



PHOTOLOG SHEET

Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 3

Photographer: Brett Sexton

Description: View of Wetland C at Data Point WC-7, facing

southeast.



Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line

Project: 6250160115

Date: 3/5/2019

Photo #: 4

Photographer: Brett Sexton

Description: View of Wetland D within the existing transmission line right-of-way, facing south.

Photographic Log



PHOTOLOG SHEET

Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 5

Photographer: Brett Sexton

Description: View of Stream A,

facing east.



Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 6

Photographer: Brett Sexton

Description: View of Wetland E,

facing east.

Photographic Log



PHOTOLOG SHEET

Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 7

Photographer: Brett Sexton

Description: View of Wetland G at Data Point WG-3, facing

north.



Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 8

Photographer: Brett Sexton

Description: View of Wetland H at Data Point WH-2, facing

north.

Photographic Log



PHOTOLOG SHEET

Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 9

Photographer: Brett Sexton

Description: View of Wetland I at Data Point WI-13, facing

southeast.



Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 10

Photographer: Brett Sexton

Description: View of Stream B, north of Wetland J, facing

southeast.

Photographic Log



PHOTOLOG SHEET

Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 11

Photographer: Brett Sexton

Description: View of Wetland K,

facing south.



Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 12

Photographer: Brett Sexton

Description: View of Stream B, north of Wetland L, facing west.

Photographic Log



PHOTOLOG SHEET

Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 13

Photographer: Brett Sexton

Description: View of Wetland L, at Wetland Data Point DP-1

facing north.



Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 14

Photographer: Brett Sexton

Description: View of Wetland N, facing west, near Data Point

WN-12

Photographic Log



PHOTOLOG SHEET

Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/5/2019

Photo #: 15

Photographer: Brett Sexton

Description: View of Wetland O, facing north towards Open Water

3.



Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

110,000...0200100110

Date: 3/5/2019

Photo #: 16

Photographer: Brett Sexton

Description: View of Wetland O at Rushland Landing Road,

facing northwest.

Prepared by: BWS 11/1/2019 Checked by: BPK 11/19/2019

Page 8 of 9

Photographic Log



PHOTOLOG SHEET

Client: Santee Cooper

Site name: Johns Island – Queensboro 115kV Line Project: 6250160115

Date: 3/6/2019

Photo #: 17

Photographer: Brett Sexton

Description: View of Open Water 1, facing west.

| Project/Site: | Johns Island | d - Queer | nsboro 115k | κV Li <u>ne</u> | _ City/County | : Joh <u>ns Island</u> | l / Charleston | | Sampling Date | e: <u>9/26/2019</u> |
|--|---------------|-------------------|---------------|------------------------------------|--------------------------------------|------------------------|---------------------------------------|---------------------------|--------------------------------|---------------------|
| Applicant/Owner: | Santee Coo | per | | | | | State: SC | | Sampling Poin | nt: DP1 - Wet |
| Investigator(s): | Brett Sexto | n | | | Section, Tov | wnship, Range: | : NA | | | |
| Landform: (hillslope, ter | - | Flat | | | | (concave, convex, | | | | Slope (%):0 |
| Subregion (LRR or MLRA) | LRR T | | | .at: 32.7 | 75394521 | Long: | | 773654 | Datum: | NA |
| Soil Map Unit Name: | Yonges loar | - | | | ^ '/ □ | \Box | | /I Classification: | None | |
| Are climatic/hydrologic Are Vegetation | , Soil | , or Hydro | | is time of year] significantly | | No 📙 | (If no, explain in nal Circumstances" | · · | - 🗔 No | П |
| Are Vegetation Are Vegetation | | , or Hydro | |] significantly] naturally pro | | | explain any answe | • | s 🗸 No | |
| Are regetation. | , 5011 | , or riyars | лову | I liaturally pro | Objettiacie. | (II IICCucu, | explain any anone | 13 III Nemarks., | | |
| SUMMARY OF FII | NDINGS - A | Attach | site map | showing | sampling p | oint location | ons. transects | . important | features, | etc. |
| | | | • | | <u> </u> | - | | <u>/ 1</u> | , | |
| Hydrophytic Vegetation | on Present? | | Yes 🗸 | No \square | | Is the Sample | ed Area | | | |
| Hydric Soil Present? | | | Yes 🗸 | No \square | | within a wetl | | Yes 🗸 | No \square | |
| Wetland Hydrology Pr | esent? | | Yes 🗸 | No 🗌 | | | | | | |
| Remarks: | | | | | | | | | | |
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| HYDROLOGY | | | | | | | | | | |
| Wetland Hydrology Ind | | | | | | | <u>Sec</u> | condary Indicato | | f two required) |
| Primary Indicators (mini | | <u>s required</u> | | | (5.40) | | L | | Cracks (B6) | 0 ((50) |
| Surface Water (A | - | | | Aquatic Faun | | | L | _ | _ | ve Surface (B8) |
| High Water Tabl | e (A2) | | | | ts (B15) (LRR U) | | L | | atterns (B10) | |
| Saturation (A3) Water Marks (B2 | 11 | | | , , | Ilfide Odor (C1) | ····na Doote (C2) | Г | ☐ Moss Trim I | | 221 |
| ☐ Water Marks (B2☐ Sediment Depos | • | | | | zospheres on Liv Reduced Iron (C | |) L [| ☐ Dry-Season☐ Crayfish Bu | Water Table (C | -2) |
| ☐ Drift Deposits (B | | | | | Reduced Iron (C Reduction in Till | • | Γ | | rrows (C8) Visible on Aeria | ul Imageny (CQ) |
| Algal Mat or Cru | - | | | Thin Much Su | | ieu soiis (co) | Γ | | c Position (D2) | |
| ☐ Iron Deposits (B | | | | | in in Remarks) | | - - | Shallow Aqu | • • | |
| Inundation Visib | - | nagery (B) | | Other (Exp.s.) | II III Nemana, | | [| FAC-Neutra | • • | |
| ✓ Water-Stained L | | | , | | | | | | moss (D8) (LRR | (T,U) |
| Field Observations: | , , | | | | | | | | | |
| Surface Water Present? | Yes | ☐ No | o 🗸 | Depth (inche | <u>:</u> s): | | Wetland Hydro | ology | | |
| Water Table Present? | Yes | ✓ No | o 🗌 | Depth (inche | es): 1 | _ | Present? | | Yes 🗸 | No 🗌 |
| Saturation Present? | Yes | ✓ No | o 🗌 | Depth (inche | es): 1 | _ | | | | |
| (includes capillary fringe | ;) | | | | | | | | | |
| Describe Recorded Data | (stream gaug | ge, monito | ring well, ae | rial photos, p | revious inspect | tions), if availab | ole: | | | |
| | | | | | | | | | | |
| Remarks: | | | | | | | | | | |
| Hydrology (| criteria met. | | | | | | | | | |
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VEGETATION (Five Strata) - Use scientific names of plants.

| | | Absolute | Dominant | Indicator | Dominance Test Worksheet: |
|-------------------------------------|--------|----------|------------------------------------|-------------|---|
| Stratum (Plot size: 30 ft) | | % Cover | Species? | Status | Number of Dominant Species |
| Quercus virginiana | _ | 25 | Y | FACU | That Are OBL, FACW, or FAC: 5 |
| Liquidambar styraciflua | _ | 5 | | FAC | Total Number of Dominant |
| | _ | | | | Species Across All Strata: 7 |
| | _ | | | | Percent of Dominant Species |
| | _ | | | | That Are OBL, FACW, or FAC: 71% |
| | - | | | | |
| | _ | 30 | = Total Cover | | Prevalence Index worksheet: |
| 50% of total cover: | 15 | | _ = Total Cover of total cover: | | |
| | 15 | ZU70 (| of total cover. | 6 | OBL species $5 \times 1 = 5$ |
| ng Stratum (Plot size: 30 ft) | | 20 | v | 5 4 6 1 1 | FACW species $35 \times 2 = 70$ |
| Juniperus virginiana | _ | 30 | Y | FACU | FAC species 104 x 3 = 312 |
| Celtis laevigata | _ | 5 | | FACW | FACU species <u>55</u> x 4 = <u>220</u> |
| Pinus taeda | - | 3 | | FAC | UPL species 0 x 5 = 0 |
| Triadica sebifera | _ | 3 | | FAC | Column Totals: 199 (A) 607 |
| | _ | | | | Prevalence Index = B/A = 3.1 |
| | _ | | | | Trevalence mack - 5/11 - 5.12 |
| | _ | 41 | = Total Cover | | Hydrophytic Vegetation Indicators: |
| 50% of total cover: | 20.5 | 20% (| of total cover: | 8.2 | |
| Stratum (Plot size: 30 ft) | | | _ | | ✓ Dominance Test is > 50% |
| Baccharis angustifolia | | 20 | Υ | FACW | Prevalence Index is ≤ 3.0 ¹ |
| Sabal minor | _ | 10 | <u>.</u> Ү | FACW | Problematic Hydrophytic Vegetation (Explain) |
| Triadica sebifera | _ | 5 | <u> </u> | FAC | |
| | - | | | FAC | ¹ Indicators of hydric soil and wetland hydrology must |
| Ligustrum sinense | _ | 5 | | | · · · · · · · · · · · · · · · · · · · |
| Pinus taeda | - | 3 | | FAC | be present, unless disturbed or problematic |
| | _ | 43 | = Total Cover | | Definitions of Vegetation Strata: |
| Panicum virgatum Juncus effusus | - - | 70 5 | Y | FAC OBL | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). |
| | - - | | | | Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. |
| | - | | | | Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. |
| | _ | | | | Herb - All herbaceous (non-woody) plants, including |
| | _ | | | | herbaceous vines, regardless of size. Includes woody |
| | _ | | | | plants, except woody vines, less than approximately 3 ft (1 |
| | _ | | | | m) in height. |
| | _ | 75 | = Total Cover | | Woody vine - All woody vines, regardless of height. |
| 50% of total cover: | 37.5 | 20% (| _ of total cover: | 15 | |
| dy Vine Stratum (Plot size: 30 ft) | | | _ | | |
| Smilax rotundifolia | | 5 | Υ | FAC | |
| Toxicodendron radicans | _ | 5 | Υ | FAC | |
| | _ | | | | Hydrophytic |
| | - | | | | Vegetation Yes 🗸 No 🗌 |
| | - | | | | Present? |
| | _ | 10 | = Total Cover | .—— | Tresent. |
| | _ | | of total cover: | 2 | |
| 50% of total cover: | 5 | 20% u | ייי וטומו נטעפו. | 4 | |

SOIL Sampling Point: DP1 - Wet

| | escription: (Describe to the c | depth nee | eded to document the indic | | | e of indicato | ors). | | |
|-----------------------|---|------------|--|---------------------|----------------------------|------------------|------------------------------------|-----------------------------------|-----------|
| Depth (inches) | Matrix Color (moist) | 0/ | Color (moist) | Redox % | Features Type ¹ | Loc ² | Texture | Remarks | |
| 0-4 | 10YR 2/1 | % 95 | 10YR 3/4 | % 5 | туре | LUC | sandy loam redox | Remarks | |
| 0-12 | 10YR 4/1 | <u>55</u> | 10YR 4/4 | 5 | | | sandy loam redox | | |
| 12-18+ | 10YR 4/1 | 85 | 10YR 5/6 | 15 | | | sandy clay loam redox | | |
| | | | | | | | | | |
| | | | _ | | | | | | |
| | <u> </u> | | | | | | | | |
| | | | | | | | | | |
| ¹ Type C = | Concentration, D = depletion | n, RM = Re | educed Matrix, MS = Maske | d Sand Grain | S | | ² Location: PL = Pore L | ining, M = Matrix | |
| Hydric So | il Indicators: | | | | | | Indicators for Proble | matic Hydric Soils ³ : | |
| ☐ Hi | stosol (A1) | | Polyvalue Below | | - | | 1 cm Muck (A | | |
| | stic Epipedon (A2) | | Thin Dark Surface | | | | 2 cm Muck (A | | |
| | ack Histic (A3) | | Loamy Mucky Mi | | RR O) | | _ | ic (F18) (outside M | · · |
| | drogen Sulfide (A4) | | Loamy Gleyed M | | | | | odplain Soils (F19) (| - |
| | ratified Layers (A5) ganic Bodies (A6) (LRR P,T,U | , | ✓ Depleted Matrix☐ Redox Dark Surfa | - | | | | right Loamy Soils (F. | 20) |
| | ganic Bodies (AB) (LRR P,1,0) cm Mucky Mineral (A7) (LRR | - | Depleted Dark Surfa | • • | | | (MLRA 153B) Red Parent M | | |
| | uck Presence (A8) (LRR U) | . ,.,0, | Redox Depression | | | | _ | Dark Surface (TF12) | \ |
| | cm Muck (A9) (LRR P,T) | | ☐ Marl (F10) (LRR L | | | | Other (Explain | | , |
| | epleted Below Dark Surface (A | A11) | ☐ Depleted Ochric | - | 151) | | _ , , | , | |
| ☐ Th | ick Dark Surface (A12) | | ☐ Iron-Manganese | Masses (F12) | (LRR O,P,T) | | ³ Indicators of | hydrophytic vegeta | ntion and |
| | oast Prairie Redox (A16) (MLR | - | ☐ Umbric Surface (I | 13) (LRR P,T | ,U) | | wetland hydro | ology must be prese | ent, |
| | ndy Mucky Mineral (S1) (LRR | RO,S) | Delta Ochric (F17 | | - | | unless disturb | ed or problematic. | |
| | ndy Gleyed Matrix (S4) | | Reduced Vertic (I | | - | | | | |
| | ndy Redox (S5) | | Piedmont Floodp | • | | - | 1530) | | |
| | ripped Matrix (S6) ark Surface (S7) (LRR P,S,T,U) | | Anomalous Brigh | t Loamy Soils | (F20) (MILKA 1 | 49A, 153C, 1 | 1530) | | |
| | e Layer (if observed): | | | | | | T | | |
| Туре: | z zayer (ii osservea). | | | | | | | | |
| Depth (in | ches) | | | | | | Hydric Soil Present | ? Yes ✓ | No 🗌 |
| Remarks: | | | | | | | | | |
| | | | | | | | | | |
| Hydric soi | l criteria met. | | | | | | | | |
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| Project/Site: | Johns Island | d - Queensb | oro <u>115</u> k | κV L <u>ine</u> | City/County | y: Johns Island | / Charleston | | Sampling Date | e: 3/5/2019 | |
|--|----------------|-----------------------|------------------|--------------------------|------------------------|---------------------|----------------------------|------------------|------------------------------------|----------------|-----------|
| Applicant/Owner: | Santee Coo | per | | | | | State: SC | | Sampling Poin | t: DP2-Wet | |
| Investigator(s): | Brett Sexto | n | | | Section, Tov | wnship, Range: | NA | _ | | | |
| Landform: (hillslope, ter | race, etc.) | Flat | | | Local Relief | (concave, convex, | none): Nor | ie | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | Lí | at: 32.7 | 5926905 | Long: | -80.050 | 38041 | Datum: | NA | |
| Soil Map Unit Name: | Capers silty | / clay loam | | | | | | Classification: | E2EM1N | | |
| Are climatic/hydrologic | conditions on | the site typic | cal for this | | | No 🗌 | (If no, explain in R | • | | _ | |
| Are Vegetation | , Soil | , or Hydrolog | | significantly | | | al Circumstances" p | | ✓ No | | |
| Are Vegetation | , Soil 📙 | , or Hydrolog | 3y 🗀 | naturally pro | oblematic? | (If needed, | explain any answer | s in Remarks.) | | | |
| SUMMARY OF FI | NDINGS - A | Attach sit | e map | showing s | ampling p | oint location | ons, transects, | important | features, e | etc. | |
| | D 13 | | v 🗔 | \Box | | | | | | | |
| Hydrophytic Vegetatio | on Present? | | Yes 🗹 | No ∐ | | Is the Sample | | V [7] | No. | | |
| Hydric Soil Present? | | | Yes 🗸 | No ∐ | | within a wetla | andr | Yes 🗸 | No 🗌 | | |
| Wetland Hydrology Pr | | | Yes 🔽 | No 📙 | | | | | | | |
| Remarks: All three in | | • | | retiand nland (Wetlar | nd () | | | | | | |
| vvetiand d | ata point tak | ken within ti | ne marsn | nano (wetiar | na O). | | | | | | |
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| HYDROLOGY | | | | | | | | | | | |
| | | | | | | | • | 1 1 1 1 | | · · · | 1) |
| Wetland Hydrology Ind | | | | | | | <u>Seco</u> | ondary Indicator | | r two required | <u>1)</u> |
| Primary Indicators (mini | | <u>s required; cl</u> | | | (040) | | L | Surface Soil | | c ((DO | |
| Surface Water (A | - | | | Aquatic Fauna | | | L | _ | getated Concav | ve Surface (B8 | 5) |
| ✓ High Water Tabl | e (A2) | | | | s (B15) (LRR U) | | L | Drainage Pa | | | |
| Saturation (A3) | - 1 | | | , . | fide Odor (C1) | | L | Moss Trim L | | | |
| ☐ Water Marks (B: | • | | | | - | ving Roots (C3) | L | • | Water Table (C | (2) | |
| ☐ Sediment Depos | | | _ | | leduced Iron (C | • | L | Crayfish Bur | , , | | |
| Drift Deposits (B | · · | | | | eduction in Till | led Soils (C6) | L | | isible on Aeria | I Imagery (C9) | |
| ☐ Algal Mat or Cru | | | | Thin Much Su | | | | _ | Position (D2) | | |
| ☐ Iron Deposits (B | • | / > | | Other (Explain | າ in Remarks) | | L | Shallow Aqu | | | |
| Inundation Visib | | nagery (B7) | | | | | <u></u> | | Test (D5) noss (D8) (LRR | T 11\ | |
| Water-Stained L | eaves (B9) | | | | | | |] Spridinguili i | 11035 (D6) (LKK | 1,0) | |
| Field Observations: Surface Water Present? | Voc | ✓ No | | Depth (inches | c). Surface | | Mada ad Hadaal | | | | |
| Water Table Present? | Yes Yes | ✓ No ✓ No | | Depth (inches | | - 1 | Wetland Hydrol Present? | | Yes 🗸 | No 🗌 | |
| Saturation Present? | | ✓ No | | Depth (inches | | - 1 | Present | | res 🖭 | NO 🗀 | |
| (includes capillary fringe | Yes | Ŭ NO | Ш | Depth (inches | s). Surface | - | | | | | |
| Describe Recorded Data | | to monitorin | g woll ao | rial photos n | rovious inspost | tions) if availab | lo: | | | | |
| Describe Recorded Data | (Stream gaug | ;e, monitorin | g well, ael | riai priotos, pi | evious irispect | liolis), ii avaliab | ne. | | | | |
| Remarks: | | | | | | | | | | | - |
| | criteria met. | | | | | | | | | | |
| Hydrology (| Jiteria illet. | | | | | | | | | | |
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VEGETATION (Five Strata) - Use scientific names of plants.

| | | | Absolute | Dominant | Indicator | Dominance Test Worksheet: |
|-------------------|---|-------------------|--------------|-----------------|--|--|
| ee Stratum | (Plot size: 30 ft |) _ | % Cover | Species? | Status | Number of Dominant Species |
| | · | _ | ` | | | That Are OBL, FACW, or FAC: 2 (A |
| | | - | | | | Total Number of Dominant |
| | | | | | | Species Across All Strata: 2 (E |
| | | | | | | Percent of Dominant Species |
| | | | | | | That Are OBL, FACW, or FAC: 100% (A |
| | | | | | | |
| | | | | = Total Cover | · • | Prevalence Index worksheet: |
| | 50% of total cover: | _ : | 20% | of total cover: | | OBL species 100 x 1 = 100 |
| oling Stratum | (Plot size: 30 ft | 1 | • = | - | | FACW species $0 \times 2 = 0$ |
| | (1.100.0.20. | - ′ | | | Ī | FAC species $0 \times 3 = 0$ |
| | | - | | | | FACU species 0 x 4 = 0 |
| | | | | | | UPL species $0 \times 5 = 0$ |
| | · | | | | | Column Totals: 100 (A) 100 (I |
| | | - – | | | | |
| - | | | | | | Prevalence Index = B/A = 1.0 |
| | | - | | = Total Cover | | Hydrophytic Vegetation Indicators: |
| | 50% of total cover: | - | 20% / | of total cover: | | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| ub Stratum | (Plot size: 30 ft |) | | - | | ✓ Dominance Test is > 50% |
| | (· · · · · · · · · · · · · · · · · · · | - ′ | | | | Prevalence Index is $\leq 3.0^{1}$ |
| | | - | | | | Problematic Hydrophytic Vegetation (Explain) |
| | | | | | | |
| - | | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | | | be present, unless disturbed or problematic |
| | | | | | | De present, unless distances of pressure. |
| | | | | = Total Cover | , | Definitions of Vegetation Strata: |
| | 50% of total cover: | . – | 20% | of total cover: | | Definitions of vegetation strate. |
| erb Stratum | (Plot size: 30 ft | 1 | 20, | Ji lutai cove | | Tree - Woody plants, excluding woody vines, approximately |
| Juncus roe | | _' | 65 | Υ | OBL | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in |
| Spartina al | | | 35 | Y | OBL | diameter at breast height (DBH). |
| Jparana | terrigiora | | | | - 055 | Sapling - Woody plants, excluding woody vines, |
| | | | | | | approximately 20 ft (6 m) or more in height and less than 3 |
| | | | | | | in. (7.6 cm) DBH. |
| | | | | | | Shrub - Woody plants, excluding woody vines, |
| | | | | | | approximately 3 to 20 ft (1 to 6 m) in height. |
| | | | | | | |
| | | | | | | Herb - All herbaceous (non-woody) plants, including |
| | | | | | | herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 |
| | | | | | | plants, except woody vines, less than approximately 3 π (1 m) in height. |
| | | | | | | Woody vine - All woody vines, regardless of height. |
| | FOO/ -ft-stal sever | _ | 100 | _ = Total Cover | | Woody vine - All woody vines, regardless of neight. |
| | 50% of total cover: | : 50 | 2U% (| of total cover: | 20 | |
| oody Vine Stratui | m (Plot size: 30 ft | _) | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | Hydrophytic |
| | | | | | | Vegetation Yes No |
| | | | | | | Present? |
| | | _ | | _ = Total Cover | | |
| | 50% of total cover: | | | of total cover: | | |
| * | ed, list morphological adapt REL 2016 Regional Wetla tic vegetation criteria met. | and Plant List (| | and Gulf Coas | tal Plain) usc | ed for indicator status. |

SOIL Sampling Point: DP2-Wet

| | escription: (Describe to the d | lepth neede | ed to document the indic | | | e of indicato | ors). |
|-----------------------|---|--------------|-----------------------------------|------------------|-------------------|------------------|--|
| Depth | Matrix | | | | x Features | 2 | |
| (inches) | , , | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 0-18+ | <u>10YR 2/1</u> | 100 | | | | | Sandy Loam >70% masked |
| | <u> </u> | | | | | | |
| | <u> </u> | | | | | | |
| | <u> </u> | | | | | | |
| | | | | | | | |
| - | <u> </u> | | | | | | |
| - | <u> </u> | | | | | | |
| ¹ Type C = | Concentration, D = depletion | ı, RM = Redı | uced Matrix, MS = Maske | ed Sand Grain | ıs | | ² Location: PL = Pore Lining, M = Matrix |
| Hydric So | il Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ : |
| ☐ Hi: | stosol (A1) | | ☐ Polyvalue Below | Surface (S8) (| (LRR S,T,U) | | ☐ 1 cm Muck (A9) (LRR O) |
| | stic Epipedon (A2) | | Thin Dark Surface | | - | | 2 cm Muck (A10) (LRR S) |
| | ack Histic (A3) | | Loamy Mucky Mi | | RR O) | | Reduced Vertic (F18) (outside MLRA 150A,B) |
| | drogen Sulfide (A4) | | Loamy Gleyed M | | | | ☐ Piedmont Floodplain Soils (F19) (LRR P,S,T) |
| | ratified Layers (A5) | | ☐ Depleted Matrix | | | | Anomalous Bright Loamy Soils (F20) |
| | ganic Bodies (A6) (LRR P,T,U) | | Redox Dark Surfa | | | | (MLRA 153B) |
| | cm Mucky Mineral (A7) (LRR I | P,T,U) | Depleted Dark Su | | | | Red Parent Material (TF2) |
| | uck Presence (A8) (LRR U) | | Redox Depression | | | | ☐ Very Shallow Dark Surface (TF12) |
| | cm Muck (A9) (LRR P,T) | | Marl (F10) (LRR U | | > | | Other (Explain in Remarks) |
| _ | epleted Below Dark Surface (A | 411) | ☐ Depleted Ochric | | - | | 3 |
| | nick Dark Surface (A12) | \A 450A\ | Iron-Manganese | | | | ³ Indicators of hydrophytic vegetation and |
| | past Prairie Redox (A16) (MLR | | Umbric Surface (| | | | wetland hydrology must be present, |
| | ndy Mucky Mineral (S1) (LRR | (0,5) | Delta Ochric (F17 | | - | | unless disturbed or problematic. |
| | ndy Gleyed Matrix (S4) | | Reduced Vertic (I Piedmont Floodp | | | ١ | |
| | ndy Redox (S5) ripped Matrix (S6) | | | • | | | [52D] |
| | ripped Matrix (S6) ark Surface (S7) (LRR P,S,T,U) | | | IL LUCITIY Julia | (FZU) (IVILINA ± | 43A, 133C, 1 | 1530) |
| | e Layer (if observed): | | | | | | T |
| Type: | Luyer (ii observeu). | | | | | | |
| Depth (inc | ches) | | | | | | Hydric Soil Present? Yes 🗸 No 🗌 |
| . ` | , | | | | | | |
| Remarks: | | | | | | | |
| | | | | | | | |
| Hydric soi | l criteria met. | | | | | | |
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| Project/Site: | Johns ! | Island | - Queens | boro 1 | 15kV L | .ine | City/C | County: <u>Jo</u> | hns Islan | nd / Charl | leston | | | Sampling Date | e: <u>3/5/2019</u> | |
|----------------------------|----------------|--------------|------------|----------|------------|----------------|--------------------|-------------------|---------------|---------------|------------|---------------|---------------|----------------------|--------------------|---|
| Applicant/Owner: | Santee | Coop | er | | | | | | | State: | SC | | | Sampling Poin | t: WA-10 Up |) |
| Investigator(s): | Brett S | Sexton | 1 | | | | Sectio | on, Towns | ship, Rang | e: | NA | | | | | |
| Landform: (hillslope, ter | rrace, etc | :.) <u>F</u> | Flat | | | | Local | Relief (cor | ncave, conve | | Noi | | | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | | _ | Lat: | 32. | 73278959 | <u> </u> | Long: | : | -80.0891 | | | Datum: | NA | |
| Soil Map Unit Name: | | | andy loan | | | | | | | | | 'I Classifica | | None | | |
| Are climatic/hydrologic | | | | | | - | | | ☑o | | explain in | | | | _ | |
| Are Vegetation | , Soil | = | or Hydrol | | | | y disturbe | | | | mstances" | • | Yes | N | | |
| Are Vegetation | , Soil | □ , | or Hydrol | ogy | ∐ na | turally p | roblematio | c? | (If needed | d, explain a | any answe | ers in Rem | arks.) | | | |
| SUMMARY OF FI | NDING | iS - A | ttach s | ite m | ap sh | owing | sampli | ng poi | nt locat | ions, tr | ransects | s, impor | tant feat | tures, etc. | | |
| Hydrophytic Vegetation | on Preser | nt? | | Yes | √ | No 🗌 | | Is | the Samp | led Area | | | | | | |
| Hydric Soil Present? | | | | Yes | _ r | No 🗹 | | w | ithin a we | tland? | | | Yes \square | No 🗸 | | |
| Wetland Hydrology Pr | resent? | | | Yes | ı | No 🗹 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | | | | | | | |
| Wetland Hydrology Ind | | | | | | | | | | | Sec | ondary Ind | licators (min | nimum of two red | <u>quired)</u> | |
| Primary Indicators (min | <u>imum of</u> | one is | required; | check a | all that a | <u>:(ylqqı</u> | | | | | | Surfac | e Soil Cracks | s (B6) | | |
| Surface Water (A | A1) | | | |] Aqı | uatic Faui | na (B13) | | | | | Sparse | ely Vegetate | d Concave Surfac | ce (B8) | |
| ☐ High Water Tabl | le (A2) | | | |] Ma | rl Deposi | ts (B15) (L | LRR U) | | | | Draina | ige Patterns | (B10) | | |
| Saturation (A3) | | | | |] Hyc | Irogen Sı | ulfide Odo | or (C1) | | | |] Moss | Trim Lines (E | 316) | | |
| ☐ Water Marks (B | 1) | | | |] Oxi | dized Rhi | izospheres | s on Livin | g Roots (C | 3) | | ☐ Dry-Se | ason Water | Table (C2) | | |
| ☐ Sediment Depos | sits (B2) | | | |] Pre | sence of | Reduced I | Iron (C4) | | | | Crayfis | sh Burrows (| (C8) | | |
| ☐ Drift Deposits (B | 33) | | | |] Rec | ent Iron | Reduction | n in Tilled | Soils (C6) | | | ☐ Satura | tion Visible | on Aerial Imager | ry (C9) | |
| ☐ Algal Mat or Cru | - | | | |] Thir | n Much S | Surface (C7 | 7) | | | | _ | orphic Posit | _ | | |
| ☐ Iron Deposits (B | | | | \vdash | _ | | ain in Rema | - | | | | _ | w Aquitard (| | | |
| ☐ Inundation Visib | • | rial Im: | agery (R7) | | | o. (_/,p.o. | | , | | | | _ | eutral Test (| | | |
| ☐ Water-Stained L | | | agery (D7) | | | | | | | | | | | D8) (LRR T,U) | | |
| Field Observations: | eaves (B | <i>-</i> | | | | | | | | $\overline{}$ | | | , | | | |
| Surface Water Present? | , , | Yes | ☐ No | 4 | Der | oth (inch | es). | | | | | | | | | |
| Water Table Present? | | Yes | ☐ No | ✓ | | oth (inch | | | | | | | | | | |
| Saturation Present? | | Yes | ☐ No | □ | | oth (inch | | | | Wetlar | nd Hydrol | ngv Preser | nt? Yes | □ No | 1 | |
| (includes capillary fringe | | 103 | | ت | DCF | zen (men | | | | VVCtian | na riyaron | ogy i reser | 10. | | 4 | |
| Describe Recorded Data | | ו מפוומנ | - monitor | ing well | l aerial | nhotos | orevious ir | nsnection | ıs) if availa | ahle: | | | | | | |
| Remarks: No hydrolo | | | | | | | | · | | | | | | | | |
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VEGETATION (Five Strata) - Use scientific names of plants.

| VEGETATION (F | ive Strata) - Use scientific | names of plants. | Sampling Point: WA-10 Up |
|-------------------|---|---|--|
| | () | Absolute Dominant Indicator | Dominance Test Worksheet: |
| Tree Stratum | (Plot size: 30 ft) | % Cover Species? Status | Number of Dominant Species |
| 1. | | | That Are OBL, FACW, or FAC: 2 (A) |
| 2. | | | Total Number of Dominant |
| 3. | | | Species Across All Strata: 3 (B) Percent of Dominant Species |
| 4. 5. | | | That Are OBL, FACW, or FAC: 67% (A/B) |
| 6. | | | That Are Obl., FACW, OF FAC. |
| | | = Total Cover | Prevalence Index worksheet: |
| | 50% of total cover: | 20% of total cover: | OBL species 3 x 1 = 3 |
| Sapling Stratum | (Plot size: 30 ft | _ | FACW species 0 x 2 = 0 |
| 1. | · | | FAC species 5 x 3 = 15 |
| 2. | | | FACU species 10 x 4 = 40 |
| 3. | | | UPL species 0 x 5 = 0 |
| 4. | | | Column Totals: 18 (A) 58 (B) |
| 5. | | | Prevalence Index = B/A = 3.2 |
| 6. | | | |
| | 6 | = Total Cover | Hydrophytic Vegetation Indicators: |
| | 50% of total cover: | 20% of total cover: | |
| Shrub Stratum | (Plot size: 30 ft) | | Dominance Test is > 50% |
| 1. Triadica se | <u>ebifera</u> | 5 Y FAC | Prevalence Index is ≤ 3.0 ¹ Problematic Hydrophytic Vegetation ¹ (Explain) |
| 2. | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 3. | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 4. 5. | | | be present, unless disturbed or problematic |
| 6. | | | be present, unless distarbed of problematic |
| | | 5 = Total Cover | Definitions of Vegetation Strata: |
| | 50% of total cover: | 2.5 20% of total cover: 1 | belinitions of research of the |
| Herb Stratum | (Plot size: 30 ft | | Tree - Woody plants, excluding woody vines, approximately 20 ft |
| | ım capillifolium | 10 Y FACU | (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at |
| 2. Carex glau | | 3 Y OBL | breast height (DBH). |
| 3. | | | Sapling - Woody plants, excluding woody vines, approximately 20 |
| 4. | | | ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. |
| 5. | | | |
| 6. | | | Shrub - Woody plants, excluding woody vines, approximately 3 to |
| 7. | | | 20 ft (1 to 6 m) in height. |
| | | | Herb - All herbaceous (non-woody) plants, including herbaceous |
| 9. | | | vines, regardless of size. Includes woody plants, except woody |
| 10. | | | vines, less than approximately 3 ft (1 m) in height. |
| | | 13 = Total Cover | Woody vine - All woody vines, regardless of height. |
| | 50% of total cover: | 6.5 20% of total cover: 2.6 | Woody vine - All woody vines, regulatess of height. |
| Woodv Vine Stratu | um (Plot size: 30 ft | 20% 01 total cover. | |
| 1. | , | | |
| 2. | | | |
| 3 | | | Hydrophytic |
| 4 | | | Vegetation Yes 🗸 No 🗌 |
| 5. | | | Present? |
| | | = Total Cover | |
| | 50% of total cover: | 20% of total cover: | |
| ERDC/CR | ed, list morphological adaptations be RREL 2016 Regional Wetland Plant tic vegetation criteria met. | elow) It List (Atlantic and Gulf Coastal Plain) us | ed for indicator status. |
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SOIL Sampling Point: WA-10 Up

| | Description: (Describe to the | depth need | led to document the indica | | | ce of indicat | ors). | | | |
|-------------------|---|--------------|----------------------------|-------------|-------------------|------------------|--------------------------------|-----------------------|--|----------|
| Deptl | | | | | dox Features | 2 | | | | |
| (inche | , , , | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-6 | 10 YR 4/1 | 100 | | | | | Loamy Sand | <70% coated | | |
| 6-18+ | 10YR 4/2 | 100 | | | | | Sand | <70% coated | <u>i </u> | |
| | | | _ | | | | | | | |
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| 1- 0 | | D14 D | | | | | 2, | 1 | | |
| | = Concentration, D = depletion | on, RM = Red | luced Matrix, MS = Masked | Sand Grain | S | | ² Location: PL = Pc | | | |
| _ | oil Indicators: | | | s (50) | · · · · | | Indicators for Pro | | | |
| | Histosol (A1) | | ☐ Polyvalue Below S | | | | | k (A9) (LRR O) | | |
| | Histic Epipedon (A2) | | ☐ Thin Dark Surface | | | | | k (A10) (LRR S) | - | -1 |
| | Black Histic (A3) | | Loamy Mucky Mir | | RR O) | | | | utside MLRA 150A,B | 3) |
| | Hydrogen Sulfide (A4) | | Loamy Gleyed Ma | | | | | | ils (F19) (LRR P,S,T) | |
| | Stratified Layers (A5) | | ☐ Depleted Matrix (I | - | | | | us Bright Loam | y Soils (F20) | |
| | Organic Bodies (A6) (LRR P,T, | | Redox Dark Surfac | | | | (MLRA 15 | - | | |
| | 5 cm Mucky Mineral (A7) (LRI | K P, I, U) | ☐ Depleted Dark Sur | | | | | nt Material (TF2 | • | |
| | Muck Presence (A8) (LRR U) | | Redox Depression | - | | | | ow Dark Surfa | | |
| | 1 cm Muck (A9) (LRR P,T) | (0.4.4) | Marl (F10) (LRR U) | | 454\ | | ☐ Other (Exp | plain in Remarl | KS) | |
| | Depleted Below Dark Surface | (A11) | Depleted Ochric (F | | | | 3, | | | |
| | Thick Dark Surface (A12) | DA 450A\ | ☐ Iron-Manganese N | | - | | | | tic vegetation and | |
| | Coast Prairie Redox (A16) (MI | | Umbric Surface (F. | | | | | ydrology must | | |
| | Sandy Mucky Mineral (S1) (LF | (K U,S) | Delta Ochric (F17) | - | - | | uniess dis | turbed or prob | nematic. | |
| | Sandy Gleyed Matrix (S4) | | Reduced Vertic (F: | | - | ۸. | | | | |
| | Sandy Redox (S5) | | Piedmont Floodpla | | | | 453D) | | | |
| | Stripped Matrix (S6) Dark Surface (S7) (LRR P,S,T,L | 1) | Anomalous Bright | Loamy Soils | (F2U) (IVILKA | 149A, 153C, | 1530) | | | |
| | | 7) | | | | | 1 | | | |
| | ve Layer (if observed): | | | | | | | | | |
| Type: Depth (i | nchos) | | | | | | Hydric Soil Pres | sent? Yes | s No | 4 |
| Deptii (i | niches) | | | | | | Hydric 30ii Pres | sent: re: | 5 <u> </u> | ŭ |
| Remark | ç· | | | | | | | | | |
| remark. | . . | | | | | | | | | |
| Hydric s | oil criteria not met. | | | | | | | | | |
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| Project/Site: Applicant/Owner: Investigator(s): Landform: (hillslope, ter Subregion (LRR or MLRA) Soil Map Unit Name: Are climatic/hydrologic Are Vegetation Are Vegetation SUMMARY OF FIL Hydrophytic Vegetatic Hydric Soil Present? Wetland Hydrology Pr | Santee Coop Brett Sextor errace, etc.) LRR T Stono fine seconditions on to a conditions on to a condition on to a condit | sandy loam the site typica , or Hydrology , or Hydrology Attach site | Lat al for this t y | time of year? significantly dis | Section, Tow Local Relief (278959 Yes V isturbed? | vnship, Range (concave, convex, Long: No Are "Norn (If needed | State: e: , none): (If no, exp mal Circumstal, explain any ed Area | SC NA None -80.08919 NWI Clablain in Remarkances" pres | 9378 assification: narks.) sent? Yes n Remarks.) | Datum: None No | Slope (%): 0 NA |
|--|--|---|------------------------------|--|--|---|---|--|---|--|------------------|
| HYDROLOGY | parameters pr | esent, area | is a wetla | ₃nd | | | | | | | C: |
| Wetland Hydrology Ind Primary Indicators (mini Surface Water (A High Water Tabl Saturation (A3) Water Marks (B3 Sediment Deposits (B3 Algal Mat or Cru Iron Deposits (B3 Inundation Visib Water-Stained L | nimum of one is (A1) ble (A2) sits (B2) B3) ust (B4) B5) ble on Aerial Ima | | ☑ A □ M □ H □ O □ P □ R □ TI | at apply): Aquatic Fauna (EMarl Deposits (EMAr | B15) (LRR U) de Odor (C1) spheres on Liv duced Iron (Cd duction in Tille face (C7) | ving Roots (C3 (4) | ;) | | Surface Soil C Sparsely Vege Drainage Patt Moss Trim Lir Dry-Season W Crayfish Burro Saturation Vis Geomorphic I Shallow Aquit FAC-Neutral 1 | Cracks (B6) etated Concav terns (B10) nes (B16) Vater Table (Crows (C8) isible on Aerial Position (D2) | l Imagery (C9) |
| Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringed Describe Recorded Data) | Yes Yes re) | ✓ No ✓ No ✓ No | ☐ D | Depth (inches): Depth (inches): Depth (inches): ial photos, prev | Surface Surface | - - - ions), if availa | Pre | d Hydrology esent? | - | ∕es ✓ | No 🗆 |
| Remarks: Adjacent to | o bottomland h criteria met. | | | | | | | | | | |

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

| | | Absolute | Dominant | Indicator | Dominance Test Worksheet: |
|---|---|--|-------------------|---|--|
| (Plot size: 30 ft | _) | % Cover | Species? | Status | Number of Dominant Species |
| | . | | | | That Are OBL, FACW, or FAC: 4 (A |
| | - | | | | Total Number of Dominant |
| | - | | | | Species Across All Strata: 4 (B |
| | - | | | | Percent of Dominant Species |
| | - | | | | That Are OBL, FACW, or FAC: 100% (A |
| | - | | | | |
| 500/ of total covers | | 200/ 4 | _ | | Prevalence Index worksheet: |
| | | 20% 0 | if total cover: | | OBL species 35 x 1 = 35 |
| (Plot size: 30 π | _) | | | | FACW species $0 	 x 2 = 0$ FAC species $10 	 x 3 = 30$ |
| | | | | | FACU species 5 x 4 = 20 |
| | | | | | UPL species $0 \times 5 = 0$ |
| | - | | | | Column Totals: 50 (A) 85 (B |
| | - | | | | Column Totals. 30 (A) 83 (B |
| | | | | | Prevalence Index = B/A = 1.7 |
| | • | | = Total Cover | | Hydrophytic Vegetation Indicators: |
| 50% of total cover: | | 20% c | of total cover: | | |
| (Plot size: 30 ft |) | _ | - | | ✓ Dominance Test is > 50% |
| bifera | _ | 10 | Υ | FAC | Prevalence Index is $\leq 3.0^1$ |
| | _ | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | - | | | | |
| | _ | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | - | | | | be present, unless disturbed or problematic |
| | _ | | | | |
| | | 10 | _ | · | Definitions of Vegetation Strata: |
| | | <u>5</u> 20% o | of total cover: | 2 | |
| | _) | | | | Tree - Woody plants, excluding woody vines, approximately |
| | - | 15 | Y | | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in |
| | - | | | | diameter at breast height (DBH). |
| | - | | Y | | Sapling - Woody plants, excluding woody vines, |
| 1 сарініјонит | , - | 5 | | FACU | approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. |
| | | | | | Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. |
| | • | | | | Herb - All herbaceous (non-woody) plants, including |
| | • | | | | herbaceous vines, regardless of size. Includes woody |
| | , | | | | plants, except woody vines, less than approximately 3 ft (1 |
| | | | | | m) in height. |
| | • | 40 | = Total Cover | • | Woody vine - All woody vines, regardless of height. |
| 50% of total cover: | | 20 20% c | of total cover: | 8 | |
| m (Plot size: <u>30 ft</u> |) | _ | | | |
| | _ | | | | |
| | _ | | | | |
| | - | | | | Hydrophytic |
| | - | | | | Vegetation Yes 🗸 No 🗌 |
| | - | | | | Present? |
| | | | _ | • | |
| | | | of total cover: | | |
| · | | • | | Lal District | and for the disease of the con- |
| • | nd Plant | List (Atlantic a | nd Gulf Coas | tal Plain) us | sed for indicator status. |
| c vegetation criteria met. | | | | | |
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| , / / / / / / / / / / / / / / / / / / / | (Plot size: 30 ft bifera 50% of total cover: (Plot size: 30 ft berinus liternifolia colia in capillifolium 50% of total cover: (Plot size: 30 ft 50% of total cover: d, list morphological adapted | 50% of total cover: (Plot size: 30 ft) bifera 50% of total cover: (Plot size: 30 ft) berinus liternifolia colia in capillifolium 50% of total cover: m (Plot size: 30 ft) 50% of total cover: d, list morphological adaptations belocet. SEL 2016 Regional Wetland Plant | (Plot size: 30 ft | 50% of total cover: (Plot size: 30 ft) = Total Cover: 20% of total cover: (Plot size: 30 ft) bifera | |

SOIL Sampling Point: WA-10 Wet

| | scription: (Describe to the d | epth neede | ed to document the indi | cator or confi | irm the absenc | e of indicato | rs). | |
|-------------------------|-------------------------------------|-------------|-------------------------|-----------------------|----------------------|------------------|---|----------------------------------|
| Depth | Matrix | | | Redox | r Features | 2 | | |
| (inches) | , , | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks |
| 0-18+ | 10YR 3/1 | | | | | | Loamy sand 100% coated | |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| ¹ Type C = 0 | Concentration, D = depletion | , RM = Redu | ıced Matrix, MS = Maske | ed Sand Grain | S | | ² Location: PL = Pore Lining | g, M = Matrix |
| | l Indicators: | , | , | | | | Indicators for Problemati | |
| | stosol (A1) | | ☐ Polyvalue Below | Surface (S8) (| (LRR S,T,U) | | 1 cm Muck (A9) (L | |
| | stic Epipedon (A2) | | Thin Dark Surfac | | - | | 2 cm Muck (A10) (| • |
| | nck Histic (A3) | | Loamy Mucky M | | | | | 18) (outside MLRA 150A,B) |
| □ ну | drogen Sulfide (A4) | | ☐ Loamy Gleyed M | latrix (F2) | | | ☐ Piedmont Floodpla | ain Soils (F19) (LRR P,S,T) |
| | atified Layers (A5) | | ☐ Depleted Matrix | (F3) | | | ☐ Anomalous Bright | Loamy Soils (F20) |
| ☐ Or | ganic Bodies (A6) (LRR P,T,U) |) | Redox Dark Surfa | ace (F6) | | | (MLRA 153B) | |
| □ 5 c | m Mucky Mineral (A7) (LRR I | P,T,U) | ☐ Depleted Dark Si | urface (F7) | | | Red Parent Materi | ial (TF2) |
| □ Мι | uck Presence (A8) (LRR U) | | Redox Depressio | ns (F8) | | | ☐ Very Shallow Dark | Surface (TF12) |
| □ 1 c | m Muck (A9) (LRR P,T) | | ☐ Marl (F10) (LRR | U) | | | Other (Explain in F | Remarks) |
| ☐ De | pleted Below Dark Surface (A | A11) | Depleted Ochric | (F11) (MLRA | 151) | | | |
| ☐ Th | ick Dark Surface (A12) | | ☐ Iron-Manganese | Masses (F12) | (LRR O,P,T) | | ³ Indicators of hydr | rophytic vegetation and |
| ☐ Co | ast Prairie Redox (A16) (MLR | A 150A) | Umbric Surface (| F13) (LRR P,T | ,U) | | wetland hydrology | y must be present, |
| Sai | ndy Mucky Mineral (S1) (LRR | O,S) | Delta Ochric (F17 | 7) (MLRA 151) |) | | unless disturbed o | or problematic. |
| | ndy Gleyed Matrix (S4) | | Reduced Vertic (| F18) (MLRA 1 | .50A, 150B) | | | |
| | ndy Redox (S5) | | ☐ Piedmont Flood | | | - | | |
| | ripped Matrix (S6) | | Anomalous Bright | nt Loamy Soils | (F20) (MLRA 1 | .49A, 153C, 1 | .53D) | |
| ✓ Da | rk Surface (S7) (LRR P,S,T,U) | | | | | | _ | |
| | Layer (if observed): | | | | | | | |
| Type: | | | | | | | | |
| Depth (inc | hes) | | | | | | Hydric Soil Present? | Yes 🗸 No 🗌 |
| Domonko. | | | | | | | | |
| Remarks: | | | | | | | | |
| Hydric soil | criteria met. | | | | | | | |
| riyane son | criteria met. | | | | | | | |
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| Project/Site: | Johns | Island | - Quee | nsboro 1 | 15kV Line | ِ | _City/Coun | nty: <u>Joh</u> | ıns Island | d / Char | leston | | | Sampling Da | te: <u>3/5/2019</u> | |
|--|-----------|--------------|------------|-------------------|--------------|------------|------------------------------|-----------------|--------------|-----------|--------------|---------------------------------------|----------------------------|---------------------------|---------------------|---|
| Applicant/Owner: | Sante | e Coop | er | | | | | | | State: | SC | | | Sampling Poi | nt: WB-7 Up | |
| Investigator(s): | Brett S | Sexton | 1 | | | | Section, T | ownshi | ip, Range | : | NA | | | | | |
| Landform: (hillslope, ter | race, etc | c.) <u>F</u> | Flat | | | | _Local Relie | ef (conca | ave, convex, | , none): | Non | е | | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | | | Lat: | 32.73 | 444893 | | Long: | | -80.08936 | 5624 | | Datum: | NA | |
| Soil Map Unit Name: | | | ny fine s | | | | | | | | | Classification | on: | None | | |
| Are climatic/hydrologic | conditio | ns on t | the site t | ypical for | | - | Yes | √(| | | explain in R | · · · · · · · · · · · · · · · · · · · | | | | |
| | , Soil | | or Hydr | | = | - | isturbed? | | | | mstances" រុ | | Yes | Γ | | |
| Are Vegetation | , Soil | □ , | or Hydr | ology | ☐ natur | ally prob | olematic? | (11 | f needed, | , explain | any answer | rs in Remarl | ks.) | | | |
| SUMMARY OF FIR | NDINC | GS - A | \ttach | site m | ap shov | ving sa | mpling | point | t locati | ons, tr | ransects, | , importa | ant feat | tures, etc. | | |
| Hydrophytic Vegetatic | on Prese | nt? | | Yes | ✓ No | | | Is th | he Sample | ed Area | | | | | | |
| Hydric Soil Present? | | | | Yes | ☐ No | 1 | | | hin a wetl | | | Υ | es 🗌 | No 🗸 | | |
| Wetland Hydrology Pr | resent? | | | Yes | ☐ No | 1 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| HYDROLOGY | l'antour. | | | | | | | | | | Casa | | ataua (main | : | · · · | |
| Wetland Hydrology Ind | | f one is | roquiro | di chack s | all that ann | dv). | | | | | Seco | | | nimum of two r | <u>equirea)</u> | |
| Primary Indicators (mini | | one is | required | <u>ı; cneck a</u> | - | | (D12) | | | | | | Soil Cracks | - | acc (DO) | |
| Surface Water (A | - | | | - | | ic Fauna (| (B13) (B15) (LRR (| 111 | | | | | vegetate Patterns | d Concave Surf | ace (Bo) | |
| High Water Table | e (AZ) | | | | _ | | de Odor (C1 | | | | | | | • • | | |
| Saturation (A3) | 1\ | | | F | _ • | _ | spheres on | • | Poots (C2 | ` | | _ | im Lines (E | Table (C2) | | |
| ☐ Water Marks (B1 | - | | | | - | | - | • | ROOLS (C3) |) | | , , | | , , | | |
| ☐ Sediment Depos | | | | | - | | duced Iron | . , | -: - (66) | | | , | Burrows (| • | (CO) | |
| ☐ Drift Deposits (B | - | | | | _ | | duction in T | rillea Sc | olis (C6) | | | _ | | on Aerial Image | ery (C9) | |
| ☐ Algal Mat or Cru | | | | <u> </u> | _ | luch Surf | | . \ | | | | | phic Positi | , , | | |
| Iron Deposits (B | • | | ·/D | |) Otner | (Explain i | in Remarks) | ') | | | | | Aquitard (| • | | |
| Inundation VisibWater-Stained Let | | | agery (B | /) | | | | | | | | | ıtral Test (ım moss (f | טאן) (LRR T,U) | | |
| Field Observations: | eaves (b |)9) | | | | | | | | | Ш |] Spridingo | 111 111033 (1 | 50) (EIIII 1, 0) | | |
| Surface Water Present? | , | Yes | □ No | 0 🗸 | Denth | (inches): | | | | | | | | | | |
| Water Table Present? | | Yes | | | | (inches): | | _ | | | | | | | | |
| Saturation Present? | | Yes | | | | (inches): | | — | | Wetla | nd Hydrolo | av Procenti | ? Yes | ☐ No | | |
| (includes capillary fringe | | 163 | |) <u>(</u> | Deptii | (inches). | · | | | Wetiai | iiu nyulolo | gy Fresent: | 163 | | 7 | |
| Describe Recorded Data | | n gauge | e, monito | oring well | , aerial ph | otos, pre | vious inspe | ections) | , if availal | ble: | | | | | | |
| Remarks: No hydrolog | gy indica | ators p | resent | | | | | | | | | | | | | |

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

| Tree Stratum (Plot size: 30 ft) | | | Dominant | Indicator | Dominance Test Worksheet: | | |
|---|--------------|------------------|----------------------------------|-----------|--|-----------------|-------|
| · | - | % Cover | Species? | Status | Number of Dominant Species | _ | (.) |
| Pinus taeda Magnolia grandiflora | - | 30 | Υ | FAC | That Are OBL, FACW, or FAC: | 7 | _(A) |
| Magnolia grandiflora Quercus lyrata | - | 25 | Y | FAC | Total Number of Dominant | 0 | (D) |
| | - | 10 | | OBL | Species Across All Strata: | 8 | _(B) |
| | - | | | | Percent of Dominant Species | 000/ | (0) |
| | - | | | | That Are OBL, FACW, or FAC: | 88% | _(A/ |
| | = | C.F. | T-t-l C | - | Duevelouse ladev viewlisheet. | | |
| | 22.5 | 65 | = Total Cover | 12 | Prevalence Index worksheet: | 20 | |
| 50% of total cover: | 32.5 | 20% (| of total cover: _ | 13 | OBL species 30 x 1 | | - |
| Sapling Stratum (Plot size: 30 ft) | | 25 | _ | FACIL | FACW species 15 x 2 | | _ |
| Fagus grandifolia | - | 35 | Υ | FACU | FAC species 110 x 3 | | _ |
| Carpinus caroliniana | - | 25 | Y | FAC | FACU species 35 x 4 | | _ |
| Magnolia grandiflora | - | 10 | | FAC | UPL species 0 x 5 | | |
| | - | | | | Column Totals: 190 (A) | 530 | _(B) |
| | - | | | | Prevalence Index = B/A = 2.8 | | |
| | - | 70 | T | - | | | |
| 500/ 51 1 1 | - | 70 | = Total Cover | 4.4 | Hydrophytic Vegetation Indicators: | | |
| 50% of total cover: | 35 | 20% (| of total cover: _ | 14 | П Б | | |
| hrub Stratum (Plot size: 30 ft) | | 4.5 | <u>-</u> | F 4 6 | Dominance Test is > 50% | | |
| Sabal minor | - | 10 | Υ | FACW | Prevalence Index is $\leq 3.0^1$ | | |
| | _ | | | | Problematic Hydrophytic Vegetation ¹ (E | xplain) | |
| | - | | | | 1 | | |
| | _ | | | | ¹ Indicators of hydric soil and wetland hydrology | must | |
| | _ | | | | be present, unless disturbed or problematic | | |
| | _ | | | | | | |
| | _ | 10 | = Total Cover | | Definitions of Vegetation Strata: | | |
| 50% of total cover: | 5 | 20% (| of total cover: _ | 2 | | | |
| Herb Stratum (Plot size: <u>30 ft</u>) | | | _ | | Tree - Woody plants, excluding woody vines, appro | = | |
| Woodwardia areolata | _ | 20 | Y | OBL | (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, app | proximately 20 | |
| | - | | | | ft (6 m) or more in height and less than 3 in. (7.6 cm | • | |
| | - | | | | | | |
| | _ | | | | Shrub - Woody plants, excluding woody vines, app | roximately 3 to | |
| | _ | | | | 20 ft (1 to 6 m) in height. | | |
| | _ | | | | Herb - All herbaceous (non-woody) plants, includin | g herhaceous | |
| | _ | | | | vines, regardless of size. Includes woody plants, ex | _ | |
| | - | | | | vines, less than approximately 3 ft (1 m) in height. | , | |
| | | | | | | | |
| · | _ | | | | | | |
| l | - | 20 | = Total Cover | | Woody vine - All woody vines, regardless of height | | |
| 50% of total cover: | 10 | | = Total Cover of total cover: | 4 | Woody vine - All woody vines, regardless of height | | |
| 50% of total cover: Woody Vine Stratum (Plot size: 30 ft) | 10 | | _ | 4 | Woody vine - All woody vines, regardless of height | | |
| 50% of total cover: Woody Vine Stratum (Plot size: 30 ft) Vitis rotundifolia | 10 | 20% c | of total cover: Y | 4 FAC | Woody vine - All woody vines, regardless of height | | |
| 50% of total cover: | 10 | 20% (| of total cover: | 4 | | | |
| 50% of total cover: | 10 | 20% c | of total cover: Y | 4 FAC | Hydrophytic | | |
| 50% of total cover: Noody Vine Stratum (Plot size: 30 ft) Vitis rotundifolia | 10 | 20% c | of total cover: Y | 4 FAC | Hydrophytic Vegetation Yes 🗸 | No 🗆 | |
| 50% of total cover: Noody Vine Stratum (Plot size: 30 ft) Vitis rotundifolia | 10 | 20% c 20 5 | of total cover: Y Y | 4 FAC | Hydrophytic | | |
| 50% of total cover: Woody Vine Stratum (Plot size: 30 ft) Vitis rotundifolia | 10 | 20% (| of total cover: Y | 4 FAC | Hydrophytic Vegetation Yes 🗸 | | |

Sampling Point: WB-7 Up

SOIL Sampling Point: WB-7 Up

| Profile Deso Depth | cription: (Describe to the o | depth need | ed to document the indica | | i <mark>rm the absend</mark> dox Features | ce of indicate | ors). | | | | | | | | |
|--------------------------|---|----------------|--|---------------------------------------|--|---|--|-------------------|------------------------|------|----------|--|--|--|--|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Rema | arke | | | | | |
| 0-10 | 10 YR 4/1 | % 100 | Color (Illoist) | 70 | Type | LUC | Loamy Sand | <70% masked | | arks | | | | | |
| 10-18+ | 10 YR 4/2 | 100 | | | | | Sand | <70% masked | | | | | | | |
| 10-10+ | 1011/4/2 | | | | | | Sanu | | | | | | | | |
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |
| ¹ Type C = Co | oncentration, D = depletion | n, RM = Redi | uced Matrix, MS = Masked | d Sand Grain | S | | ² Location: PL = Po | ore Lining, M = N | 1atrix | | | | | | |
| Hydric Soil | Indicators: | | | | | | Indicators for Pro | blematic Hydric | c Soils ³ : | | | | | | |
| ☐ Hist | osol (A1) | | Polyvalue Below S | Surface (S8) (| LRR S,T,U) | | 1 cm Muck (A9) (LRR O) | | | | | | | | |
| ☐ Hist | ic Epipedon (A2) | | ☐ Thin Dark Surface | (S9) (LRR S, | T,U) | | 2 cm Muc | k (A10) (LRR S) | | | | | | | |
| ☐ Blac | k Histic (A3) | | Loamy Mucky Mir | neral (F1) (LF | RR O) | | Reduced Vertic (F18) (outside MLRA 150A,B) | | | | | | | | |
| | rogen Sulfide (A4) | | Loamy Gleyed Ma | trix (F2) | | Piedmont | Floodplain Soils | (F19) (L | RR P,S,T) | | | | | | |
| | tified Layers (A5) | | Depleted Matrix (| - | | ☐ Anomalou | us Bright Loamy : | Soils (F20 | 0) | | | | | | |
| | anic Bodies (A6) (LRR P,T,U | - | Redox Dark Surfac | . , | | | (MLRA 15 | - | | | | | | | |
| | n Mucky Mineral (A7) (LRR | P,T,U) | Depleted Dark Sur | | | | nt Material (TF2) | | | | | | | | |
| | ck Presence (A8) (LRR U) | | Redox Depression | | | | low Dark Surface | | | | | | | | |
| | n Muck (A9) (LRR P,T) | | Marl (F10) (LRR U | - | 454\ | ☐ Other (Exp | plain in Remarks | ,) | | | | | | | |
| | leted Below Dark Surface (| A11) | Depleted Ochric (I | | | 3, | | | | | | | | | |
| | k Dark Surface (A12) | DA 150A) | ☐ Iron-Manganese N☐ Umbric Surface (F | · · · · · · · · · · · · · · · · · · · | - | | s of hydrophytic | _ | | | | | | | |
| | st Prairie Redox (A16) (MLF dy Mucky Mineral (S1) (LRF | - | ☐ Umbric Surface (F☐ Delta Ochric (F17) | | | wetland hydrology must be present, unless disturbed or problematic. | | | | | | | | | |
| | dy Gleyed Matrix (S4) | τ υ, σ, | Reduced Vertic (F. | | | | uniess ais | turbed or proble | illatic. | | | | | | |
| | dy Redox (S5) | | ☐ Piedmont Floodpl | | - | ١, | | | | | | | | | |
| | oped Matrix (S6) | | Anomalous Bright | · · | | - | 153D) | | | | | | | | |
| - | k Surface (S7) (LRR P,S,T,U) |) | | Louiny Sons | (120) (WEIGH | 1437, 1330, | 1330) | | | | | | | | |
| | Layer (if observed): | • | | | | | 1 | | | | | | | | |
| Туре: | | | | | | | | | | | | | | | |
| Depth (inch | es) | | | | | | Hydric Soil Pres | sent? Yes | | No | 4 | | | | |
| | | | | | | | | | | | | | | | |
| Remarks: | | | | | | | | | | | | | | | |
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| Hydric soil o | criteria not met. | | | | | | | | | | | | | | |
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| Project/Site: | Johns Island | d - Queens | sboro 115 | κV Line | City/County | : Johns Island | l / Charleston | <u>_</u> | Sampling Dat | e: <u>3/5/2019</u> |
|----------------------------|---------------|--------------|---------------|-----------------|------------------------|--------------------|--------------------|--------------------|-----------------------|---------------------|
| Applicant/Owner: | Santee Coo | per | | | - | | State: SC | | | nt: WB-7 Wet |
| Investigator(s): | Brett Sexto | n | | | Section, Tov | wnship, Range: | : NA | | | |
| Landform: (hillslope, ter | race, etc.) | Flat | | | Local Relief | (concave, convex, | none): No | ne | | Slope (%): 0 |
| Subregion (LRR or MLRA) | LRR T | | L | _at: 32.7 | '3444893 | Long: | -80.08 | 936624 | Datum: | NA |
| Soil Map Unit Name: | Yonges loar | my fine sar | nd | | | | NW | /I Classification: | None | |
| Are climatic/hydrologic | conditions on | the site typ | pical for thi | s time of year | ? Yes 🗸 | No 🗌 | (If no, explain in | Remarks.) | | |
| Are Vegetation | , Soil | , or Hydrol | ogy | significantly | disturbed? | Are "Norm | nal Circumstances" | present? Yes | √ No | |
| Are Vegetation | , Soil \Box | , or Hydrol | ogy | naturally pro | oblematic? | (If needed, | explain any answe | ers in Remarks.) | | |
| | | | | | | | | | | |
| SUMMARY OF FII | NDINGS - A | Attach si | ite map | showing s | sampling po | oint location | ons, transects | , important | features, e | etc. |
| | | | | | | | | - | | |
| Hydrophytic Vegetatio | on Present? | | Yes 🗸 | No 🗌 | | Is the Sample | ed Area | | | |
| Hydric Soil Present? | | | Yes 🗸 | No 🗌 | | within a wetl | | Yes 🗸 | No 🗌 | |
| Wetland Hydrology Pr | esent? | | Yes 🗸 | No 🗌 | | | | | | |
| Remarks: | | | | | | | | | | |
| | ndicators are | present, a | area is a w | vetland | | | | | | |
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| HYDROLOGY | | | | | | | | | | |
| | | | | | | | C | | | f to one and an all |
| Wetland Hydrology Ind | | | | | | | <u>Sec</u> | condary Indicato | | f two required) |
| Primary Indicators (mini | | s required; | | | | | L | | | |
| ☐ Surface Water (A | - | | | Aquatic Fauna | | | L | _ | _ | ve Surface (B8) |
| High Water Table | e (A2) | | | Marl Deposits | s (B15) (LRR U) | | L | Drainage Pa | tterns (B10) | |
| ✓ Saturation (A3) | | | | Hydrogen Sul | fide Odor (C1) | | L | Moss Trim l | ines (B16) | |
| ☐ Water Marks (B1 | L) | | | Oxidized Rhiz | ospheres on Liv | ving Roots (C3) |) [| ☐ Dry-Season | Water Table (0 | C2) |
| ☐ Sediment Depos | its (B2) | | | Presence of P | Reduced Iron (C | C4) | | Crayfish Bu | rows (C8) | |
| ☐ Drift Deposits (B | 3) | | | Recent Iron R | eduction in Till | led Soils (C6) | | ☐ Saturation \ | /isible on Aeria | al Imagery (C9) |
| ☐ Algal Mat or Cru | st (B4) | | | Thin Much Su | ırface (C7) | | | _ | c Position (D2) | |
| ☐ Iron Deposits (B | | | | Other (Explain | | | | Shallow Aqu | | |
| ☐ Inundation Visib | • | nagery (B7) | | (L. p | , | | [| | | |
| ✓ Water-Stained Lo | | idgery (D7) | | | | | | | noss (D8) (LRR | t T,U) |
| Field Observations: | 24.100 (23) | | | | | | | | ` , , | · · |
| Surface Water Present? | Yes | ☐ No | 1 | Depth (inches | s)· | | Wetland Hydro | Nogy | | |
| Water Table Present? | Yes | ☐ No | | Depth (inches | | _ | Present? | • | Yes 🗸 | No 🗌 |
| Saturation Present? | Yes | ☑ No | | Depth (inches | · | _ | r resent: | | 163 | NO 🗀 |
| (includes capillary fringe | | Ŭ NO | Ш | Deptil (iliches | 5). <u>4 inches</u> | _ | | | | |
| | | | مع المسامة | م معموات امنیت | | iana) if availah | ala. | | | |
| Describe Recorded Data | (stream gaug | e, monitori | ing well, ae | riai pnotos, pr | revious inspect | tions), it availar | oie: | | | |
| Danis de la contra | | | -:4-4 | | | | | | | |
| - | bottomland h | narawood n | iabitat. | | | | | | | |
| Hydrology (| criteria met. | | | | | | | | | |
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VEGETATION (Five Strata) - Use scientific names of plants.

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| 88% |
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| x 1 = 30 |
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| etation ¹ (Explain) |
| station (Explain) |
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| nes, approximately |
| 6 cm) or larger in |
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| vines, |
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SOIL Sampling Point: WB-7 Wet

| | scription: (Describe to the de | epth nee | ded to document the indic | | | nce of indicato | ors). |
|-----------------------|--|--------------|-----------------------------------|-----------------------|---------------------|------------------|--|
| Depth | Matrix | | | Redo | x Features | 2 | |
| (inches) | · · | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 0-10 | 10YR 3/1 | 100 | _ | | | | Loamy sand 100% coated |
| 10-14 | 10YR 4/1 | 100 | | | | | Loamy sand 100% coated |
| 14-18+ | 10YR 4/2 | 95 | 10YR 5/4 | 5 | <u>C</u> | <u>M</u> | Loamy sand |
| | . | | _ | | | | |
| | | | | | - | | |
| | | | | | _ | | |
| | | | _ | | | | |
| ¹ Type C = | Concentration, D = depletion, | RM = Re | duced Matrix, MS = Maske | d Sand Grair | ns | | ² Location: PL = Pore Lining, M = Matrix |
| Hydric Soi | il Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ : |
| | stosol (A1) | | ☐ Polyvalue Below S | | | | 1 cm Muck (A9) (LRR O) |
| | stic Epipedon (A2) | | ☐ Thin Dark Surface | | | | 2 cm Muck (A10) (LRR S) |
| | ack Histic (A3) | | Loamy Mucky Mi | | RR O) | | Reduced Vertic (F18) (outside MLRA 150A,B) |
| | rdrogen Sulfide (A4) | | Loamy Gleyed Ma Depleted Matrix (| | | | ☐ Piedmont Floodplain Soils (F19) (LRR P,S,T) ☐ Anomalous Bright Loamy Soils (F20) |
| | ratified Layers (A5) ganic Bodies (A6) (LRR P,T,U) | | Redox Dark Surfa | ` ' | | | Anomalous Bright Loamy Soils (F20)(MLRA 153B) |
| | cm Mucky Mineral (A7) (LRR P | | Depleted Dark Su | | | | Red Parent Material (TF2) |
| | uck Presence (A8) (LRR U) | ,.,., | Redox Depression | | | | ☐ Very Shallow Dark Surface (TF12) |
| | cm Muck (A9) (LRR P,T) | | Marl (F10) (LRR U | | | | Other (Explain in Remarks) |
| ☐ De | epleted Below Dark Surface (A | .11) | Depleted Ochric (| (F11) (MLRA | 151) | | |
| ☐ Th | ick Dark Surface (A12) | | ☐ Iron-Manganese | Masses (F12 | (LRR O,P,T | | ³ Indicators of hydrophytic vegetation and |
| ☐ Co | ast Prairie Redox (A16) (MLRA | A 150A) | Umbric Surface (F | -13) (LRR P, 7 | T,U) | | wetland hydrology must be present, |
| | ndy Mucky Mineral (S1) (LRR (| O,S) | Delta Ochric (F17 | - | - | | unless disturbed or problematic. |
| | ndy Gleyed Matrix (S4) | | Reduced Vertic (F | | - | | |
| | ndy Redox (S5) | | Piedmont Floodp | - | | - | 1 |
| | ripped Matrix (S6) ork Surface (S7) (LRR P,S,T,U) | | Anomalous Bright | t Loamy Soils | s (F20) (MLR | A 149A, 153C, 1 | 153D) |
| | e Layer (if observed): | | | | | | 1 |
| Type: | Layer (ii observed). | | | | | | |
| Depth (inc | ches) | | | | | | Hydric Soil Present? Yes ✓ No 🗌 |
| | | | | | | | |
| Remarks: | | | | | | | |
| | | | | | | | |
| Hydric soi | l criteria met. | | | | | | |
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| Project/Site: | | | | | | | ty: Johns Island | d / Charle | | Sampling Dat | | |
|----------------------------|----------------|----------------|-------------|-------------|------------|------------------------------|----------------------|-------------|---------------------------|----------------------|----------------|---|
| Applicant/Owner: | | e Coop | | | | | | State: | SC | Sampling Poin | it: WC-7 Up | |
| Investigator(s): | Brend | on Kel | lly / Brett | Sexton | | Section, To | ownship, Range | : | NA | | | |
| Landform: (hillslope, ter | race, et | c.) <u></u> | Flat | | | Local Relie | ef (concave, convex, | , none): | None | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | | _ | Lat: | 32.7373968 | Long: | | -80.0894689 | Datum: | NA | |
| Soil Map Unit Name: | | | ny fine sa | | | | | | NWI Classification: | PFO1/4A | ı | |
| Are climatic/hydrologic | | | | | | | √ 0 | • | explain in Remarks.) | _ | _ | |
| Are Vegetation | , Soil | = | , or Hydrol | · · | = - | icantly disturbed? | | | nstances" present? Yes | N | | |
| Are Vegetation | , Soil | □ , | , or Hydrol | logy | ☐ natur | ally problematic? | (If needed, | , explain a | ny answers in Remarks.) | | | |
| | | | | •- | | | | _ | | _ | | |
| SUMMARY OF FI | NDING | <u> 38 - A</u> | Attach s | ite ma | p show | ving sampling p | point locati | ons, tra | insects, important fea | tures, etc. | | |
| | | | | _ | _ | _ | | | | | | |
| Hydrophytic Vegetation | on Prese | :nt? | | Yes 🔽 | ∠ No | | Is the Sample | ed Area | | | | |
| Hydric Soil Present? | | | | Yes 🗌 |] No | ✓ | within a wet | land? | Yes \square | No 🗸 | | |
| Wetland Hydrology Pr | esent? | | | Yes |] No | 7 | | | | | | |
| Remarks: All three w | vetland | indica | ators are | not prese | ent, area | is not a wetland. | | | | | | |
| | | | | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | | | |
| Wetland Hydrology Ind | | | | | | | | | Secondary Indicators (min | | <u>quired)</u> | |
| Primary Indicators (mini | <u>imum of</u> | one is | required; | check all | that app | <u>ly):</u> | | | Surface Soil Crack | s (B6) | | |
| Surface Water (A | A1) | | | | - | ic Fauna (B13) | | | Sparsely Vegetate | | ce (B8) | |
| ☐ High Water Table | e (A2) | | | | Marl D | Deposits (B15) (LRR L | J) | | Drainage Patterns | (B10) | | |
| Saturation (A3) | | | | | Hydro | gen Sulfide Odor (C1 | .) | | ☐ Moss Trim Lines (| 316) | | |
| ☐ Water Marks (B1 | 1) | | | | Oxidize | ed Rhizospheres on I | Living Roots (C3 | 5) | Dry-Season Water | Table (C2) | | |
| ☐ Sediment Depos | its (B2) | | | | Presen | nce of Reduced Iron (| (C4) | | Crayfish Burrows | (C8) | | |
| ☐ Drift Deposits (B | 3) | | | | Recent | t Iron Reduction in T | illed Soils (C6) | | Saturation Visible | on Aerial Image | ry (C9) | |
| Algal Mat or Cru | st (B4) | | | | Thin M | 1uch Surface (C7) | | | ☐ Geomorphic Posit | ion (D2) | | |
| ☐ Iron Deposits (B | 5) | | | | Other | (Explain in Remarks) |) | | Shallow Aquitard | (D3) | | |
| Inundation Visib | le on Ae | erial Im | agery (B7) |) | | | | | FAC-Neutral Test | (D5) | | |
| ☐ Water-Stained Lo | eaves (B | 39) | | | | | | | Sphangum moss (| D8) (LRR T,U) | | |
| Field Observations: | | | | | | | | | | | | |
| Surface Water Present? | | Yes | ☐ No | 1 | Depth | (inches): | | | | | | |
| Water Table Present? | | Yes | ☐ No | 1 | Depth | (inches): | | | | | | |
| Saturation Present? | | Yes | ☐ No | 1 | Depth | (inches): | | Wetland | d Hydrology Present? Yes | ☐ No | 4 | |
| (includes capillary fringe | <u>e)</u> | | | | | | | | | | | |
| Describe Recorded Data | (strean | n gauge | e, monitor | ing well, a | aerial pho | otos, previous inspe | ctions), if availal | ble: | | | | |
| | | | | | | | | | | | | |
| Remarks: No hydrolog | gy indic | ators p | resent | | | | | | | | | |
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VEGETATION (Five Strata) - Use scientific names of plants.

| | | | | Ak | osolute | Dominant | Indicator | Dominance Test Worksheet: | |
|--------------|-----------------|--|----------|------------|-----------|----------------------|---------------|---|----------------|
| Tree Strati | um | (Plot size: 30 ft |) | % | Cover | Species? | Status | Number of Dominant Species | |
| 1. <u>P</u> | inus taeda | | <u>.</u> | | 40 | Υ | FAC | That Are OBL, FACW, or FAC: 6 | (A) |
| 2. <i>Q</i> | uercus nigra | | _ | | 25 | Υ | FAC | Total Number of Dominant | |
| 3. <i>N</i> | 1agnolia virgi | niana | | | 20 | Υ | FACW | Species Across All Strata: 6 | (B) |
| 4. | | | • | | | | | Percent of Dominant Species | _ |
| <u> </u> | | | • | | | | | That Are OBL, FACW, or FAC: 100% | (A/B) |
| 6. | | | | | | | | | - ` ′ ′ |
| _ | | | • | | 85 | = Total Cover | | Prevalence Index worksheet: | |
| | | F00/ -f+-+-l | 4. | , <u> </u> | | - | 4.7 | | |
| | | 50% of total cover: | . 42 | 2.5 | 20% (| of total cover: _ | 17 | OBL species 0 x 1 = 0 | _ |
| Sapling Str | | (Plot size: 30 ft | _) | | | _ | | FACW species 25 x 2 = 50 | _ |
| | uercus nigra | | | | 50 | Υ | FAC | FAC species 130 x 3 = 390 | _ |
| 2. <u>C</u> | arpinus caroli | iniana | • | | 5 | | FAC | FACU species 0 x 4 = 0 | _ |
| 3. | | | _ | | | | | UPL species 0 x 5 = 0 | _ |
| 4. | | | - | - | | | | Column Totals: 155 (A) 440 | (B) |
| 5. | | | - | | | | | | - |
| 6. | | | • | | | | | Prevalence Index = B/A = 2.8 | |
| · – | | | • | | 55 | = Total Cover | | Hydrophytic Vegetation Indicators: | |
| | | F00/ -f+-+-l | 2. | , _ — | | _ | | nyurophytic vegetation indicators. | |
| ci i e: | | 50% of total cover: | 2. | 7.5 | 20% (| of total cover: _ | 11 | Danie 7 11 500/ | |
| Shrub Stra | | (Plot size: 30 ft | .) | | | _ | | Dominance Test is > 50% | |
| 1. <u>So</u> | abal minor | | <u>-</u> | | 5 | Υ | FACW | Prevalence Index is $\leq 3.0^1$ | |
| 2. | | | _ | | | | | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 3. | | | | | | | | | |
| 4. | | | - | | | | | ¹ Indicators of hydric soil and wetland hydrology must | |
| 5 . | | | • | | | | | be present, unless disturbed or problematic | |
| 6. <u> </u> | | | - | | | | | so process, amos distances or processing. | |
| · | | | | | | Total Caver | - | Definitions of Venetation Chartes | |
| | | | | | 5 | = Total Cover | | Definitions of Vegetation Strata: | |
| | | 50% of total cover: | | 2.5 | 20% (| of total cover: _ | 1 | | |
| Herb Strat | tum | (Plot size: 30 ft | _) | | | _ | | Tree - Woody plants, excluding woody vines, approximately 20 ft | |
| 1. | | | _ | | | | | (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at | |
| 2. | | | | | | | | breast height (DBH). | |
| 3. | | | • | | | | | | |
| 4. | | | • | | | | | Sapling - Woody plants, excluding woody vines, approximately 20 | |
| 5. <u> </u> | | | | | | | | 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 | |
| 6. | | | - | | | | | 20 ft (1 to 6 m) in height. | |
| 7. <u> </u> | | | | | | | | 20 it (1 to 0 iii) iii neigiit. | |
| 8. | | | | | | | | Herb - All herbaceous (non-woody) plants, including herbaceous | |
| 9 | | | | | | | | vines, regardless of size. Includes woody plants, except woody | |
| 10. | | | | | | | | vines, less than approximately 3 ft (1 m) in height. | |
| 11. | | | _ | | | | | | |
| | | | | | | = Total Cover | | Woody vine - All woody vines, regardless of height. | |
| | | 50% of total cover: | | | 20% (| - of total cover: | | | |
| Woodv Vir | ne Stratum | (Plot size: 30 ft |) | | | _ | | | |
| - | Gelsemium ser | · | .′ | | 10 | Υ - | FAC | | |
| | iciscimulii sel | npervirens | - | | 10 | | 176 | | |
| 2 | | | - | | | | | Hardan allaste | |
| 3. | | | | | | | | Hydrophytic | |
| 4. | | | | | | | | Vegetation Yes 🗸 No 🗌 | |
| 5 | | | | | | | | Present? | |
| | | | | | 10 | = Total Cover | | | |
| | | 50% of total cover: | | 5 | 20% (| of total cover: | 2 | | |
| E | RDC/CRREL | st morphological adapt 2016 Regional Wetla egetation criteria met. | | - | tlantic a | nd Gulf Coast | al Plain) use | ed for indicator status. | |
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Sampling Point: WC-7 Up

SOIL Sampling Point: WC-7 Up

| | cription: (Describe to the | depth need | ed to document the indic | | rm the absendox Features | e of indicato | ors). | | | | |
|-------------------------|--|-------------|------------------------------------|---------------|--------------------------|-----------------------|--------------------------------|-----------------------------|----------------------------|-------------|----------|
| Depth (inches) | Matrix Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Pon | narks | |
| 0-8 | 10YR 3/2 | % 100 | Color (moist) | 70 | туре | LUC | | <70% mas | | IdIKS | |
| 8-18+ | 10YR 4/2 | 100 | , | | | | Loamy Sand Sand | <70% mas | | | |
| 0-10+ | 1011/4/2 | | | | | | Sanu | <u> </u> | - SKEU | | |
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| ¹ Type C = C | Concentration, D = depletion | n, RM = Red | uced Matrix, MS = Maske | d Sand Grains | S | | ² Location: PL = Po | ore Lining, N | 1 = Matrix | | |
| Hydric Soil | Indicators: | | | | | | Indicators for Pro | blematic H | ydric Soils ³ : | : | |
| Hist | tosol (A1) | | Polyvalue Below S | | - | | | k (A9) (LRR | | | |
| | tic Epipedon (A2) | | Thin Dark Surface | | - | | | k (A10) (LRF | - | | |
| | ck Histic (A3) | | Loamy Mucky Mi | | RO) | | = | | • | LRA 150A,B) | |
| | drogen Sulfide (A4) | | Loamy Gleyed Ma | | | | | • | Soils (F19) (| | |
| | atified Layers (A5) | | ☐ Depleted Matrix (| • | | | | | amy Soils (F | 20) | |
| | ganic Bodies (A6) (LRR P,T,U | | Redox Dark Surfa | | | | (MLRA 15 | - | (TEO) | | |
| | m Mucky Mineral (A7) (LRR ck Presence (A8) (LRR U) | P,1,U) | ☐ Depleted Dark Su | | | | | t Material (| - | ١ | |
| | m Muck (A9) (LRR P,T) | | Redox Depression Marl (F10) (LRR U | | | | | ow Dark Sui olain in Rem | rface (TF12) |) | |
| | pleted Below Dark Surface (| Δ11\ | Depleted Ochric (| - | 151) | | | Jiaiii iii Neiii | iai KS) | | |
| | ck Dark Surface (A12) | A11) | ☐ Iron-Manganese | | | | ³ Indicator | s of hydronl | hytic vegeta | ation and | |
| | ast Prairie Redox (A16) (MLI | RA 150A) | Umbric Surface (F | | - | | | | ust be prese | | |
| | dy Mucky Mineral (S1) (LRI | | Delta Ochric (F17 | | | | | turbed or pi | | | |
| | dy Gleyed Matrix (S4) | | Reduced Vertic (F | | | | | | | | |
| | dy Redox (S5) | | Piedmont Floodp | | - | ۸) | | | | | |
| | pped Matrix (S6) | | Anomalous Bright | t Loamy Soils | (F20) (MLRA : | 1 49A, 153C, 1 | 153D) | | | | |
| ☐ Dar | k Surface (S7) (LRR P,S,T,U) |) | | | | | | | | | |
| Restrictive | Layer (if observed): | | | | | | | | | | |
| Type: | | | | | | | | | | | |
| Depth (incl | nes) | | | | | | Hydric Soil Pres | ent? | Yes 🗌 | No | ✓ |
| <u> </u> | | | | | | | | | | | |
| Remarks: | | | | | | | | | | | |
| Hydric soil | criteria not met. | | | | | | | | | | |
| riyuric soii | criteria not met. | | | | | | | | | | |
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| Project/Site: | Johns Island - Queensboro 115kV Line City/County: Johns Island / Charleston | | | | | | | | Sampling Date: 3/5/2019 | | |
|---|---|--------------------|----------------|------------------|----------------------|-------------------|-----------------------|-----------------|--------------------------|-----------------|--|
| Applicant/Owner: | Santee Coo | Santee Cooper | | | | | State: SC | | Sampling Point: WC-7 Wet | | |
| Investigator(s): | Brendon Ke | elly / Brett | t Sexton | | Section, Tow | vnship, Range: | NA | | | | |
| Landform: (hillslope, ter | race, etc.) | Flat | | | Local Relief (| (concave, convex, | none): Non | e | | Slope (%): 0 | |
| Subregion (LRR or MLRA) | LRR T | | Li | at: 32.7 | 373968 | Long: | -80.089 | 4689 | Datum: | NA | |
| Soil Map Unit Name: | Yonges loar | my fine sa | and | | | | NWI | Classification: | PFO1/4A | | |
| Are climatic/hydrologic | conditions on | the site ty | pical for this | time of year? | Yes 🗸 | No 🗌 | (If no, explain in Re | emarks.) | | | |
| Are Vegetation | , Soil | , or Hydro | ology | significantly d | sturbed? | Are "Norm | al Circumstances" p | resent? Yes | ✓ No | | |
| Are Vegetation | , Soil \Box | , or Hydro | ology | naturally prol | blematic? | (If needed, | explain any answers | in Remarks.) | | | |
| SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. | | | | | | | | | | | |
| | | • | | | | | | | | | |
| Hydrophytic Vegetation | on Present? | | Yes 🗸 | No 🔲 | | Is the Sample | | | _ | | |
| Hydric Soil Present? | | | Yes 🗸 | No 🗌 | | within a wetla | and? | Yes 🗸 | No 🗌 | | |
| Wetland Hydrology Pr | esent? | | Yes 🗸 | No 🗌 | | | | | | | |
| Remarks: | | | | | | | | | | | |
| All three v | vetland crite | ria are mε | et, area is a | wetland | | | | | | | |
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| HYDROLOGY | | | | | | | | | | | |
| | | | | | | | | 1 1 1 1 | , | · | |
| Wetland Hydrology Ind | | | | | | | <u>Seco</u> | | | f two required) | |
| Primary Indicators (mini | | <u>s required;</u> | | | | | | Surface Soil | | | |
| Surface Water (A | - | | | Aquatic Fauna | | | | | = | ve Surface (B8) | |
| ☐ High Water Tabl | e (A2) | | | Marl Deposits | (B15) (LRR U) | | | Drainage Pat | tterns (B10) | | |
| ✓ Saturation (A3) | | | | Hydrogen Sulfi | ide Odor (C1) | | | Moss Trim Li | ines (B16) | | |
| ☐ Water Marks (B2 | L) | | | Oxidized Rhizo | ospheres on Liv | ing Roots (C3) | | Dry-Season \ | Water Table (C | (2) | |
| ☐ Sediment Depos | its (B2) | | | Presence of Re | educed Iron (C | 4) | | Crayfish Bur | rows (C8) | | |
| ☐ Drift Deposits (B | 3) | | | Recent Iron Re | eduction in Tille | ed Soils (C6) | | Saturation V | isible on Aerial | l Imagery (C9) | |
| ☐ Algal Mat or Cru | st (B4) | | | Thin Much Sur | rface (C7) | | √ | | Position (D2) | | |
| ☐ Iron Deposits (B | | | | Other (Explain | | | | Shallow Aqu | | | |
| ☐ Inundation Visible on Aerial Imagery (B7) | | | | | | | | FAC-Neutral | | | |
| Water-Stained L | | hagery (D) | , | | | | | | noss (D8) (LRR | T,U) | |
| Field Observations: | eaves (B5) | | | | | | | -1 0- | | 7-1 | |
| Surface Water Present? | Yes | ☐ No |) / | Depth (inches) | ١٠ | | Wetland Hydrolo | and a | | | |
| Water Table Present? | Yes | ☐ No | | Depth (inches) | | - | Present? | | Yes 🗸 | No 🗌 | |
| | | | | | | - | Present | | res 🖭 | NO 🗀 | |
| Saturation Present? | Yes | ✓ No |) Ц | Depth (inches) |): 4 inches | - | | | | | |
| (includes capillary fringe | | | | | | | | | | | |
| Describe Recorded Data | (stream gaug | ge, monitor | ring well, ae | rial photos, pre | evious inspecti | ions), if availab | ole: | | | | |
| | | | | | | | | | | | |
| | bottomland l | hardwood | habitat. | | | | | | | | |
| Hydrology (| criteria met. | | | | | | | | | | |
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| Stratum (Plot size: 30 ft.) Pinus total | Stratum (Plot size: 30 ft | TATION (Five Strata) - Use scie | | | | la disator | Sampling Point: WC-7 Wet Dominance Test Worksheet: |
|--|--|---|--------------|----------------|-----------------------|-------------------|---|
| Prince to technologic gramatifora | Private Standard 10 | Stratum (Plot size: 30 ft | 1 | Absolute | Dominant Species 2 | Indicator | |
| Magnolia grandiflora 10 | Magnolia grantifilora 10 | ` | 1 | | · | | • |
| Deverous nigra 10 | Species Across All Stratus Species Across All Stratus Species | | | | | | |
| Percent of Dominant Species That Are OBL, FACW, or FAC: 100% 100 | Percent of Dominant Species That Are OBL, FACW, or FAC: 100% 100 System 100 | | | | | | |
| That Are OBL, FACW, or FAC: 100% Solve of total cover | That Are OBL, FACW, or FAC: 100% Solid Stratum Plot size: 30 ft 20% of total cover: 8 Prevalence Index worksheet: 5 X 2 30 | Quercus nigra | | 10 | Y | FAC | |
| Solid Soli | Solid content Solid Soli | | | | | | l ' |
| S80% of total cover: 20 20% of total cover: 8 OBL species 5 | Solidadicaria Solidadicari | | | | | | That Are OBL, FACW, or FAC: 100% |
| SOM of total cover: 20 20% of total cover: 8 ORL species 5 x 1 = 5 | Solidation Sol | | | | | | |
| Prevalence index is 3 of total cover: 10 20% of total cover: 10 20% of total cover: 20 10 10 10 10 10 10 10 | Stratum (Plot size: 30 ft 15 Y FAC FAC species 15 X 2 30 10 10 10 10 10 10 10 | | | 40 | = Total Cove | r / | Prevalence Index worksheet: |
| Stratum Plot size: 30 ft Stratum Plot | Stratum Plot size: 30 ft 10 20% of total cover: 20 = Total Cover: 50% of total cover: 20 20% of total cover: 20 20% of total cover: | 50% of total cover: | 20 | J 20% | of total cover: | 8 | OBL species 5 x 1 = 5 |
| Stratum Problematic Hydrophytic Vegetation Face Fa | Stratum Problematic Hydrophytic Vegetation Prevented Solution Pr | ng Stratum (Plot size: 30 ft |) | - | • | | FACW species 15 x 2 = 30 |
| Description Some of total cover 22.5 20% of total cover 30% of total cover 20.5 20% of total cover 45 3.20 2.8 | Description Some of total cover 22.5 20% of total cover 9 | Carpinus caroliniana | | 15 | Υ | FAC | FAC species 95 x 3 = 285 |
| Description Some of total cover 22.5 20% of total cover 30% of total cover 20.5 20% of total cover 45 3.20 2.8 | Description Some of total cover 22.5 20% of total cover 9 | Magnolia grandiflora | | 15 | Υ | FAC | FACU species $0 \times 4 = 0$ |
| Some of total cover 22.5 20% of total cover 9 | Sow of total covers 22.5 20% of total cover 22.5 20% of total cover 9 | | | 10 | Υ | | |
| Prevalence Index = B/A = 2.8 A5 | Prevalence Index = B/A = 2.8 A5 | | | | | | |
| Some of total cover | Solid control cover Solid | | | | | | ', |
| Sobal minor Sobal minor | Solution | | | | | | Prevalence Index = B/A = 2.8 |
| Stratum (Plot size: 30 ft) | Stratum (Plot size: 30 ft) | | | 45 | = Total Cove | .r | Hydronhytic Vegetation Indicators: |
| Dominance Test is > 50% Dominance Test is > 50% Prevalence Index is < 3.0° Problematic Hydrophytic Vegetation (Explain) | Dominance Test is > 50% Dominance Test is > 50% Prevalence Index is < 3.0¹ Problematic Hydrophytic Vegetation (Explain) | 50% of total cover: | 22 r | | _ | | Thydrophytic vegetation materials. |
| Sobal minor Magnalia grandiflara 15 Y FACW Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic 20 = Total Cover 50% of total cover: 10 20% of total cover: 4 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 vines, regardless of size. Includes woody plants, except woody vines, seproximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Woody vine - All woody vines, regardless of height. Woody vine - All woody vines, regardless of height. Present? The - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Woody vines, regardless of size. Includes woody plants, excluding woody vines, approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Woody vine - All woody vines, regardless of height. Present? Fix: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | Sobal minor 15 | - | \ | | JI tutai cuvci. | | Dominance Test is > 50% |
| Magnolia grandiflora S Y FAC Problematic Hydrophytic Vegetation (Explain) | Magnolia grandiflora S Y FAC Problematic Hydrophytic Vegetation 1 (Explain) | · ——— | 1 | 15 | V | 54C\4/ | |
| 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic | 20 = Total Cover 50% of total cover: 10 20% of total cover: 4 Stratum (Plot size: 30 ft) Stratum (Plot size: 30 ft) Sapling - 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 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Woody vine - All woody vines, regardless of height. Hydrophytic Vegetation Yes ✓ No □ Present? So% of total cover: 5 20% of total cover: 2 ks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | | | | | | <u> </u> |
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| Vegetation Yes Vegetation Present? 10 = Total Cover 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | Vegetation Yes V No Present? 10 = Total Cover 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | Vitis rotundifolia | | 10 | Υ | FAC | |
| Vegetation Yes Vegetation Present? 10 = Total Cover 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | Vegetation Yes V No Present? 10 = Total Cover 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | | | | | | |
| Present? 10 = Total Cover 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | Present? 10 = Total Cover 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | | | | | | Hydrophytic |
| rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | | | | | | Vegetation Yes ✓ No ☐ |
| 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | | | | | | Present? |
| 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | 50% of total cover: 5 20% of total cover: 2 rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | | | 10 | = Total Cove | r | |
| rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | rks: (If observed, list morphological adaptations below) ERDC/CRREL 2016 Regional Wetland Plant List (Atlantic and Gulf Coastal Plain) used for indicator status. | 50% of total cover: | Ę | | _ | | |
| Hydrophytic vegetation criteria met. | 11, or opin, the 15, or opin, the 11, or opin, the 11, or opin, the 12, or | rks: (If observed, list morphological adapta ERDC/CRREL 2016 Regional Wetlar | ations below | w) | | <u> </u> | sed for indicator status. |

SOIL Sampling Point: WC-7 Wet

| | scription: (Describe to the de | epth nee | ded to document the indic | | | ence of indicate | ors). |
|-------------------------|--|-----------|---------------------------|----------------------|-------------------|------------------|--|
| Depth | Matrix | | | | ox Features | 2 | |
| (inches) 0-3 | Color (moist) 10YR 3/1 | % 100 | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks Loamy sand 100% masked |
| 3-10 | $\frac{100 \text{ K s/ 1}}{10 \text{ YR 4/1}}$ | 90 | | 10 | | | Sandy clay loam |
| 10-18+ | 10YR 5/2 | 90 | 10YR 4/4 | 10 | _ c | _ <u>M</u> | Sandy clay loam |
| | | | | | _ | | |
| | | | | | | | |
| | | | _ | | | | |
| | | | | | | | |
| ¹ Type C = 0 | Concentration, D = depletion, | , RM = Re | duced Matrix, MS = Masker | d Sand Grair | ns | | ² Location: PL = Pore Lining, M = Matrix |
| | l Indicators: | | , | | | | Indicators for Problematic Hydric Soils ³ : |
| _ | stosol (A1) | | Polyvalue Below S | Surface (S8) | (LRR S,T,U) | | 1 cm Muck (A9) (LRR O) |
| | stic Epipedon (A2) | | ☐ Thin Dark Surface | (S9) (LRR S | i,T,U) | | 2 cm Muck (A10) (LRR S) |
| ☐ Bla | nck Histic (A3) | | Loamy Mucky Mir | neral (F1) (L | _RR O) | | Reduced Vertic (F18) (outside MLRA 150A,B) |
| □ ну | drogen Sulfide (A4) | | Loamy Gleyed Ma | atrix (F2) | | | Piedmont Floodplain Soils (F19) (LRR P,S,T) |
| Str | atified Layers (A5) | | ✓ Depleted Matrix (| F3) | | | Anomalous Bright Loamy Soils (F20) |
| ☐ Or | ganic Bodies (A6) (LRR P,T,U) | | Redox Dark Surfac | ce (F6) | | | (MLRA 153B) |
| ☐ 5 c | m Mucky Mineral (A7) (LRR P | ,T,U) | Depleted Dark Sui | rface (F7) | | | Red Parent Material (TF2) |
| ☐ Mu | uck Presence (A8) (LRR U) | | Redox Depression | ıs (F8) | | | ☐ Very Shallow Dark Surface (TF12) |
| ☐ 1 c | m Muck (A9) (LRR P,T) | | Marl (F10) (LRR U | | | | Other (Explain in Remarks) |
| | pleted Below Dark Surface (A | .11) | Depleted Ochric (| | - | | 2 |
| | ick Dark Surface (A12) | • | ☐ Iron-Manganese N | | | 1 | ³ Indicators of hydrophytic vegetation and |
| | ast Prairie Redox (A16) (MLR/ | - | Umbric Surface (F | | | | wetland hydrology must be present, |
| | ndy Mucky Mineral (S1) (LRR | O,S) | Delta Ochric (F17) | | - | | unless disturbed or problematic. |
| | ndy Gleyed Matrix (S4) | | Reduced Vertic (F | | - | | |
| | ndy Redox (S5) | | Piedmont Floodpl | - | | - | 4500) |
| | ripped Matrix (S6) rk Surface (S7) (LRR P,S,T,U) | | Anomalous Bright | : LOarny Son | IS (FZU) (IVILA | A 149A, 133C, | 1530) |
| | e Layer (if observed): | | | | | | 1 |
| Type: | Layer (II observed). | | | | | | |
| Depth (inc | hes) | | | | | | Hydric Soil Present? Yes 🗸 No 🗌 |
| Remarks: | | | | | | | |
| Remarks: | | | | | | | |
| Hydric soil | criteria met. | | | | | | |
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| Project/Site: | | | l - Queens | boro 11! | 5kV Line | City/Count | ty: <u>Johns Island</u> | d / Charle | | | te: <u>3/5/2019</u> | |
|---------------------------------------|-----------|----------|--------------|------------|-------------|---|-------------------------|--------------|--------------------------------------|-----------------|---------------------|---|
| Applicant/Owner: | | e Coop | | | | | | State: | SC | Sampling Poir | nt: WD-7 Up | |
| Investigator(s): | Brend | on Kel | lly / Brett | Sexton | | Section, To | ownship, Range | : : | NA | | | |
| Landform: (hillslope, ter | | _ | Flat | | | | ef (concave, convex, | | None | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | | _ | Lat: | 32.73998056 | Long: | | -80.089591 | Datum: | NA | |
| Soil Map Unit Name: | | | loamy fine | | | | | | NWI Classification: | None | | |
| Are climatic/hydrologic | | | | | | - | √ o | • | xplain in Remarks.) | | | |
| Are Vegetation | , Soil | = | , or Hydrold | - | | icantly disturbed? | | | stances" present? Yes | N | | |
| Are Vegetation | , Soil | ш, | , or Hydrolo | ogy l | natur | ally problematic? | (If needed, | , explain ai | ny answers in Remarks.) | | | |
| CLINANA A DV OF FIL | ALDIAL/ | -c 4 | | : • | | | : | | | | | |
| SUMINIARY OF FIL | NDING | 35 - A | Attach si | te ma | o snow | ing sampling p | oint locati | ons, tra | insects, important fea | tures, etc. | | |
| | | | | _ | _ | | | | | | | |
| Hydrophytic Vegetation | on Prese | :nt? | | Yes 🛂 | _ | | Is the Sample | | | | | |
| Hydric Soil Present? | _ | | | Yes | _ | _ | within a wet | land? | Yes | No 🗸 | | |
| Wetland Hydrology Pr | | | | Yes _ | | | | | | | | |
| Remarks: All three w | vetland | indica | itors are n | iot prese | ent, area | is not a wetland. | | | | | | |
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| HYDROLOGY | | | | | | | | | | | | |
| Wetland Hydrology Ind | icators: | | | | | | | | Secondary Indicators (mir | nimum of two re | equired) | |
| Primary Indicators (mini | | | required: | check all | that ann | lv)· | | | Surface Soil Crack | | <u> </u> | |
| Surface Water (A | | OHC IS | required, t | | | c Fauna (B13) | | | ☐ Sparsely Vegetate | | ace (B8) | |
| ☐ High Water Tabl | - | | | | - | eposits (B15) (LRR U | 1) | | ☐ Drainage Patterns | | ice (Bo) | |
| Saturation (A3) | C (AZ) | | | | | gen Sulfide Odor (C1) | - | | Moss Trim Lines (I | , , | | |
| ☐ Water Marks (B: | 1) | | | | | ed Rhizospheres on L | | 21 | Dry-Season Water | • | | |
| Sediment Depos | - | | | | | nce of Reduced Iron (| | ') | Crayfish Burrows | | | |
| _ | | | | | | | | | Saturation Visible | | ····· (CO) | |
| ☐ Drift Deposits (B☐ Algal Mat or Cru | | | | | | t Iron Reduction in Ti | illed Solls (Co) | | | _ | 11 (C9) | |
| ☐ Iron Deposits (B | | | | | | 1uch Surface (C7) (Explain in Remarks) | | | ☐ Geomorphic Posit☐ Shallow Aquitard | | | |
| Inundation Visib | - | rial Im | 2000/(D7) | Ш | Other | (Explain in Kemarks) | | | FAC-Neutral Test | | | |
| Water-Stained L | | | agery (b/) | | | | | | Sphangum moss (| ` ' | | |
| Field Observations: | caves (D | 7) | | | | | | | | | | |
| Surface Water Present? | j | Yes | ☐ No | 4 | Denth | (inches): | | | | | | |
| Water Table Present? | | Yes | ☐ No | √ | | (inches): | — I | | | | | |
| Saturation Present? | | Yes | ☐ No | <u> </u> | | (inches): | _ | Wetland | d Hydrology Present? Yes | . □ No | | |
| (includes capillary fringe | | 163 | | ŭ | Deptii | (inches). | _ | wetiant | u nyurology Fresent: Tes | | √ | |
| Describe Recorded Data | | 2 621161 | o monitori | ing well i | acrial ph | atas praviaus inspa | stions) if availa | hlai | | | | |
| Describe Recorded Data | i (Stream | ı gauge | z, monitori | ng wen, a | ieriai prid | otos, previous irispec | .tions), ii availai | bie: | | | | |
| Remarks: | | | | | | | | | | | | |
| | av indic | ators n | rocont | | | | | | | | | |
| No hydrolo | gy maic | ators p | resent | | | | | | | | | |
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| Dominance Test Worksheet:Number of Dominant SpeciesThat Are OBL, FACW, or FAC:3 (ATotal Number of Dominant3 (BPercent of Dominant Species100% (AThat Are OBL, FACW, or FAC:100% (APrevalence Index worksheet:OBL species5 x1 = 5FACW species10 x2 = 20FAC species95 x3 = 285FACU species10 x4 = 40UPL species0 x5 = 0Column Totals:120 (A)Are year of Dominant SpeciesPrevalence Index = B/A = 2.9Hydrophytic Vegetation Indicators: |
|--|
| Total Number of Dominant Species Across All Strata: 3 (B Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A Prevalence Index worksheet: OBL species 5 x 1 = 5 FACW species 10 x 2 = 20 FAC species 95 x 3 = 285 FACU species 10 x 4 = 40 UPL species 0 x 5 = 0 Column Totals: 120 (A) 350 (B Prevalence Index = B/A = 2.9 |
| Species Across All Strata: 3 (B Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A Prevalence Index worksheet: OBL species 5 x1 = 5 FACW species 10 x2 = 20 FAC species 95 x3 = 285 FACU species 10 x4 = 40 UPL species 0 x5 = 0 Column Totals: 120 (A) 350 (B Prevalence Index = B/A = 2.9 |
| Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A Prevalence Index worksheet: OBL species 5 x 1 = 5 FACW species 10 x 2 = 20 FAC species 95 x 3 = 285 FACU species 10 x 4 = 40 UPL species 0 x 5 = 0 Column Totals: 120 (A) 350 (B Prevalence Index = B/A = 2.9 |
| That Are OBL, FACW, or FAC: 100% (A Prevalence Index worksheet: OBL species 5 x 1 = 5 FACW species 10 x 2 = 20 FAC species 95 x 3 = 285 FACU species 10 x 4 = 40 UPL species 0 x 5 = 0 Column Totals: 120 (A) 350 (B |
| Prevalence Index worksheet: OBL species 5 x 1 = 5 FACW species 10 x 2 = 20 FAC species 95 x 3 = 285 FACU species 10 x 4 = 40 UPL species 0 x 5 = 0 Column Totals: 120 (A) 350 (B |
| OBL species 5 x 1 = 5 FACW species 10 x 2 = 20 FAC species 95 x 3 = 285 FACU species 10 x 4 = 40 UPL species 0 x 5 = 0 Column Totals: 120 (A) 350 (B Prevalence Index = B/A = 2.9 |
| FACW species 10 $x 2 =$ 20 FAC species 95 $x 3 =$ 285 FACU species 10 $x 4 =$ 40 UPL species 0 $x 5 =$ 0 Column Totals: 120 (A) 350 (B Prevalence Index = B/A = 2.9 |
| FAC species $95 \qquad x \ 3 = 285$ FACU species $10 \qquad x \ 4 = 40$ UPL species $0 \qquad x \ 5 = 0$ Column Totals: $120 \qquad (A) \qquad 350 \qquad (B)$ Prevalence Index = B/A = 2.9 |
| FACU species $\frac{10}{\text{UPL species}} \times \frac{10}{0} \times 4 = \frac{40}{0}$ UPL species $\frac{0}{120} \times 5 = 0$ Column Totals: $\frac{120}{0} \times 4 = \frac{40}{0}$ Prevalence Index = B/A = 2.9 |
| UPL species $0 \times 5 = 0$ Column Totals: $120 \times 5 = 0$ Prevalence Index = B/A = 2.9 |
| Column Totals: 120 (A) 350 (B) Prevalence Index = B/A = 2.9 |
| Prevalence Index = B/A = 2.9 |
| · |
| Hydrophytic Vegetation Indicators: |
| 1 |
| |
| Dominance Test is > 50% |
| Prevalence Index is $\leq 3.0^{1}$ |
| Problematic Hydrophytic Vegetation ¹ (Explain) |
| ¹ Indicators of hydric soil and wetland hydrology must |
| be present, unless disturbed or problematic |
| |
| Definitions of Vegetation Strata: |
| |
| Tree - Woody plants, excluding woody vines, approximately 20 ft |
| (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). |
| breast height (DBH). |
| Sapling - Woody plants, excluding woody vines, approximately 20 |
| ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. |
| Shrub - Woody plants, excluding woody vines, approximately 3 to |
| 20 ft (1 to 6 m) in height. |
| Herb - All herbaceous (non-woody) plants, including herbaceous |
| vines, regardless of size. Includes woody plants, except woody |
| vines, less than approximately 3 ft (1 m) in height. |
| Woody vine - All woody vines, regardless of height. |
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| |
| Hydrophytic |
| Vegetation Yes ✓ No ☐ |
| _ |
| Vegetation Yes ✓ No ☐ |
| <u> </u> |

SOIL Sampling Point: WD-7 Up

| Profile Des Depth | scription: (Describe to the Matrix | depth need | ed to document the indic | | rm the absend dox Features | ce of indicat | ors). | | | | |
|-------------------------|---------------------------------------|--------------|--------------------------|-----------------------|-------------------------------|------------------|--------------------------------|--------------------------|------------------------|-------------|---|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Rema | arks | |
| 0-6 | 10YR 3/2 | 100 | color (moist) | ,0 | 1,700 | 200 | Loamy Sand | <70% masked | rterrit | urks | |
| 6-10 | 10YR 4/2 | 100 | | | | | Loamy Sand | <70% masked | | | |
| 10-18+ | 10YR 4/3 | 100 | | | | | Loamy Sand | | | | |
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| ¹ Type C = C | Concentration, D = depletio | on, RM = Red | uced Matrix, MS = Masked | d Sand Grain | S | | ² Location: PL = Pc | ore Lining, M = N | 1atrix | | |
| Hydric Soil | Indicators: | | | | | | Indicators for Pro | blematic Hydri | : Soils ³ : | | |
| ☐ His | tosol (A1) | | Polyvalue Below S | Surface (S8) (| LRR S,T,U) | | ☐ 1 cm Muc | k (A9) (LRR O) | | | |
| ☐ His | tic Epipedon (A2) | | ☐ Thin Dark Surface | (S9) (LRR S, | Γ,U) | | 2 cm Muc | k (A10) (LRR S) | | | |
| ☐ Bla | ck Histic (A3) | | Loamy Mucky Mir | neral (F1) (LF | RR O) | | Reduced \ | Vertic (F18) (out | side ML | .RA 150A,B) | |
| □ Нус | drogen Sulfide (A4) | | Loamy Gleyed Ma | trix (F2) | | | Piedmont | Floodplain Soils | (F19) (L | .RR P,S,T) | |
| Stra | atified Layers (A5) | | Depleted Matrix (| F3) | | | ☐ Anomalou | ıs Bright Loamy | Soils (F2 | .0) | |
| ☐ Org | ganic Bodies (A6) (LRR P,T, I | U) | Redox Dark Surface | ce (F6) | | | (MLRA 15 | 3B) | | | |
| ☐ 5 cı | m Mucky Mineral (A7) (LRF | R P,T,U) | Depleted Dark Su | rface (F7) | | | Red Paren | nt Material (TF2) | | | |
| ☐ Mu | ck Presence (A8) (LRR U) | | Redox Depression | s (F8) | | | ☐ Very Shall | ow Dark Surface | (TF12) ڊ | | |
| | m Muck (A9) (LRR P,T) | | Marl (F10) (LRR U | - | | | Other (Exp | plain in Remarks |) | | |
| ☐ Der | oleted Below Dark Surface | (A11) | Depleted Ochric (| | | | • | | | | |
| | ck Dark Surface (A12) | | ☐ Iron-Manganese I | | - | | | s of hydrophytic | _ | | |
| | ast Prairie Redox (A16) (ML | - | Umbric Surface (F | | | | | ydrology must b | | nt, | |
| | idy Mucky Mineral (S1) (LR | R O,S) | Delta Ochric (F17) | | | | unless dis | turbed or proble | ematic. | | |
| | idy Gleyed Matrix (S4) | | Reduced Vertic (F | | | | | | | | |
| | idy Redox (S5) | | Piedmont Floodpl | · · | | - | | | | | |
| | pped Matrix (S6) | | Anomalous Bright | Loamy Soils | (F20) (MLRA 1 | L49A, 153C, | 153D) | | | | |
| | k Surface (S7) (LRR P,S,T,U | J) | | | | | _ | | | | |
| | Layer (if observed): | | | | | | | | | | |
| Type: | , | | | | | | | | | | |
| Depth (incl | nes) | | | | | | Hydric Soil Pres | sent? Yes | | No | 1 |
| Remarks: | | | | | | | | | | | |
| Remarks. | | | | | | | | | | | |
| Hydric soil | criteria not met. | | | | | | | | | | |
| riyane son | criteria not met. | | | | | | | | | | |
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| Project/Site: Applicant/Owner: Investigator(s): Landform: (hillslope, ter Subregion (LRR or MLRA) Soil Map Unit Name: Are climatic/hydrologic Are Vegetation Are Vegetation SUMMARY OF FIL Hydrophytic Vegetatic Hydric Soil Present? Wetland Hydrology Pr Remarks: All three v | Santee Coop Brendon Kel errace, etc.) F LRR T Charleston I conditions on t , Soil , , Soil , , Soil , | Flat loamy fine sa the site typica , or Hydrology Attach site | Lat: and al for this tir y si y na e map sh e'es e'es | ime of year? significantly dinaturally prob howing sa | Section, Tow Local Relief (1998056 Yes V listurbed? olematic? | wnship, Range: (concave, convex, Long: No Are "Norm (If needed, | (If no, explair nal Circumstanc, explain any and ons, transeded Area | NA None 30.0895 NWI Cl in Rem ces" pre swers in | 591 lassification: narks.) esent? Yes n Remarks.) | Datum: None No | t: WD-7 Wet Slope (%): 0 NA |
|---|---|--|--|---|--|---|--|---|---|---|-------------------------------|
| HYDROLOGY | | | | | | | | | | | |
| Wetland Hydrology Ind Primary Indicators (min Surface Water (A High Water Tabl Saturation (A3) Water Marks (B: Sediment Depos Drift Deposits (B Algal Mat or Cru Iron Deposits (B Inundation Visib Water-Stained L | nimum of one is (A1) ble (A2) 31) ssits (B2) B3) ust (B4) 35) ble on Aerial Ima | | Aq Ma Hyy Ox Pre | quatic Fauna (larl Deposits (ydrogen Sulfic xidized Rhizos resence of Rec | (B15) (LRR U) de Odor (C1) spheres on Liveduced Iron (Caduction in Tille face (C7) | ving Roots (C3) |) | Second | dary Indicators Surface Soil Cr Sparsely Vege Drainage Patto Moss Trim Lin Dry-Season W Crayfish Burro Saturation Vis Geomorphic P Shallow Aquita FAC-Neutral T Sphangum mo | racks (B6) etated Concaverns (B10) les (B16) later Table (Concaver) sible on Aerial Position (D2) lard (D3) Fest (D5) | ve Surface (B8) |
| Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe | Yes Yes | No No No | ☑ De | epth (inches): epth (inches): epth (inches): | : | - - - | Wetland Hy Preser | _ | - | es 🗸 | No 🗌 |
| | a (stream gauge | | | l photos, prev | vious inspecti | ions), if availab | ole: | | | | |

| ree Stratum | | | ^ backuto | Daminant | la dicator | Dominance Test Markshoots |
|---------------------------------|--|--------------------------------------|---------------------|----------------------|---------------------|---|
| Fee Suatum | (Plot size: 30 ft) | · · | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: Number of Dominant Species |
| | (PIOL SIZE. 30 II. , | <i>'</i> – | % Cover | Species? | Status | • |
| | | - | | | | |
| | | - | | | | Total Number of Dominant Species Across All Strata: 5 (I |
| | | - | | | | Species Across All Strata: 5 (I |
| | | - | | | | Percent of Dominant Species That Are ORL FACW or FAC: |
| | | - | | | | That Are OBL, FACW, or FAC: |
| | | _ | | | | |
| | | - | | _ = Total Cover | | Prevalence Index worksheet: |
| | 50% of total cover: | | 20% (| of total cover: | | OBL species 5 x 1 = 5 |
| apling Stratum | (Plot size: 30 ft |) | | | | FACW species 10 x 2 = 20 |
| Quercus nigi | ra | - | 15 | Υ | FAC | FAC species 95 x 3 = 285 |
| | | _ | | | | FACU species 10 x 4 = 40 |
| | | <u>-</u> | | | | UPL species 0 x 5 = 0 |
| | | _ | | | | Column Totals: 120 (A) 350 (I |
| <u> </u> | | _ | - | | | |
| | | _ | | | | Prevalence Index = $B/A = 2.9$ |
| | | _ | 15 | = Total Cover | | Hydrophytic Vegetation Indicators: |
| | 50% of total cover: | 7 - | | of total cover: | 3 | nyulupilyuk vegetation makators. |
| Chiefum | - | 7.5 | ۷٠/٠٠ | of total cover | | Took in a Engl |
| nrub Stratum | (Plot size: 30 ft) |) | | | | Dominance Test is > 50% |
| Morella cerij | iera | _ | 25 | Υ | FAC | Prevalence Index is $\leq 3.0^{1}$ |
| Pinus taeda | | - | 10 | Υ | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | - | | | | |
| <u> </u> | | _ | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | _ | | | | be present, unless disturbed or problematic |
| | | - | | | | |
| | | _ | 35 | = Total Cover | | Definitions of Vegetation Strata: |
| | 50% of total cover: | 17.5 | | of total cover: | 7 | 50 |
| lerb Stratum | (Plot size: 30 ft | 1 | | - | | Tree - Woody plants, excluding woody vines, approximately |
| Andropogon | | , | 25 | Υ | FAC | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in |
| | | _ | | 1 | | diameter at breast height (DBH). |
| Eupatorium Dichantheliu | | _ | 10 | | FACW | |
| | ım scoparium | _ | 10 | | FACW | Sapling - Woody plants, excluding woody vines, |
| | halium stramineum | _ | 5 | | FAC | approximately 20 ft (6 m) or more in height and less than 3 |
| Carex lurida | | _ | 5 | | OBL | in. (7.6 cm) DBH. |
| | | - | | | | Shrub - Woody plants, excluding woody vines, |
| | | - | | | | approximately 3 to 20 ft (1 to 6 m) in height. |
| | | _ | | | | Herb - All herbaceous (non-woody) plants, including |
| | | - | | | | herbaceous vines, regardless of size. Includes woody |
| | | _ | | | | plants, except woody vines, less than approximately 3 ft (1 |
| | | _ | | | | m) in height. |
| | | _ | 55 | = Total Cover | . | Woody vine - All woody vines, regardless of height. |
| | | | | _ | | / *****/ ::::= : |
| | 50% of total cover: | - 27.5 | 20% (| or rotal cover: | 11 | |
| | 50% of total cover: _ (Plot size: 30 ft | 27.5 | 20% | of total cover: _ | 11 | |
| Voody Vine Stratum | (Plot size: 30 ft) | 27.5 | | - | | |
| Voody Vine Stratum | - | 27.5 | 20% c | Y | FAC | |
| Woody Vine Stratum | (Plot size: 30 ft) | 27.5 | | - | | |
| Woody Vine Stratum | (Plot size: 30 ft) | 27.5 | | - | | Hydrophytic |
| Woody Vine Stratum Gelsemium s | (Plot size: 30 ft) | 27.5 | | - | | Hydrophytic Vegetation Yes 🗸 No 🗌 |
| Woody Vine Stratum | (Plot size: 30 ft) | 27.5 | 15 | Y | FAC | Hydrophytic |
| Woody Vine Stratum | (Plot size: 30 ft) | 27.5) - - - - 7.5 | 15 15 | - | FAC | Hydrophytic Vegetation Yes 🗸 No 🗌 |

SOIL Sampling Point: WD-7 Wet

| | escription: (Describe to the c | lepth nee | ded to document the indic | | | ence of indicate | ors). |
|----------------|---------------------------------------|--------------|--------------------------------------|-------------------|-------------------|------------------|--|
| Depth | Matrix | | | | x Features | 2 | |
| (inches) | , , | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 0-6 | 10YR 3/2 | 100 | | | | | Loamy sand 100% masked |
| 6-10 10-18+ | 10YR 4/2 10YR 5/2 | 90 70 | | <u>10</u> 30 | - <u>C</u> | - <u>M</u> M | Loamy sand Loamy sand |
| 10-18+ | | | | | | _ IVI | LOAITY SATIU |
| | | | | | _ | | |
| | | | _ | | _ | | |
| | | | _ | | - | | |
| | | | | | | | |
| | Concentration, D = depletion | , RM = Re | duced Matrix, MS = Masked | d Sand Graii | ns | | ² Location: PL = Pore Lining, M = Matrix |
| | il Indicators: | | | . () | (, pp c =) | | Indicators for Problematic Hydric Soils ³ : |
| | stosol (A1) | | Polyvalue Below S | | - | | 1 cm Muck (A9) (LRR O) |
| | stic Epipedon (A2) ack Histic (A3) | | ☐ Thin Dark Surface☐ Loamy Mucky Mir | | | | 2 cm Muck (A10) (LRR S)Reduced Vertic (F18) (outside MLRA 150A,B) |
| _ | /drogen Sulfide (A4) | | Loamy Gleyed Ma | | .KK O) | | Reduced Vertic (F18) (outside MLRA 150A,B)Piedmont Floodplain Soils (F19) (LRR P,S,T) |
| | ratified Layers (A5) | | Depleted Matrix (| | | | Anomalous Bright Loamy Soils (F20) |
| | rganic Bodies (A6) (LRR P,T,U |) | Redox Dark Surface | - | | | (MLRA 153B) |
| | cm Mucky Mineral (A7) (LRR | | ☐ Depleted Dark Su | | | | Red Parent Material (TF2) |
| □м | uck Presence (A8) (LRR U) | - | Redox Depression | | | | ☐ Very Shallow Dark Surface (TF12) |
| | cm Muck (A9) (LRR P,T) | | Marl (F10) (LRR U |) | | | Other (Explain in Remarks) |
| ☐ De | epleted Below Dark Surface (A | A11) | Depleted Ochric (| F11) (MLRA | 151) | | |
| I — | nick Dark Surface (A12) | | Iron-Manganese I | - | | | ³ Indicators of hydrophytic vegetation and |
| | oast Prairie Redox (A16) (MLR | - | Umbric Surface (F | | | | wetland hydrology must be present, |
| | indy Mucky Mineral (S1) (LRR | (O,S) | Delta Ochric (F17) | - | - | | unless disturbed or problematic. |
| | indy Gleyed Matrix (S4) | | Reduced Vertic (F | | | 0.4) | |
| | indy Redox (S5) ripped Matrix (S6) | | ☐ Piedmont Floodpl☐ Anomalous Bright | • | | - | 1E2D) |
| | ark Surface (S7) (LRR P,S,T,U) | | Anomalous Bright | Loanly 3011 | 3 (1 20) (IVILIV | A 143A, 133C, | 1330) |
| | e Layer (if observed): | | | | | | |
| Туре: | , . (| | | | | | |
| Depth (in | ches) | | | | | | Hydric Soil Present? Yes 🗸 No 🗌 |
| Remarks: | | | | | | | |
| Kemarks. | | | | | | | |
| Hydric soi | l criteria met. | | | | | | |
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| Project/Site: | Johns | Island | l - Queensl | boro 11 | 15kV Line | <u> </u> | _City/Coun | ty: <u>Johr</u> | ns Island | d / Charle | eston | | | Sampling Dat | e: <u>3/5/2019</u> | |
|---|------------|--------------|--------------|----------|-------------|------------|---------------------|-----------------|------------|-------------|--------------|--------------|--------------|----------------------|--------------------|---|
| Applicant/Owner: | Sante | | | | | | _ | _ | | State: | SC | | | Sampling Poin | t: WE-5 Up | |
| Investigator(s): | Brend | on Kel | lly / Brett | Sexton | | | Section, To | ownship | o, Range: | : | NA | | | | | |
| Landform: (hillslope, te | rrace, etc | c.) <u>F</u> | Flat | | | | Local Relie | ef (concav | e, convex, | none): | Non | е | | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | | _ | Lat: | 32.74 | 765116 | | Long: | | -80.08917 | | | Datum: | NA | |
| Soil Map Unit Name: | | | fine sandy | | | | | | | | | Classificati | on: | None | | |
| Are climatic/hydrologic | | | | | | - | Yes | ✓o | | | explain in R | | | | _ | |
| Are Vegetation | , Soil | | , or Hydrolo | • . | | | isturbed? | | | | nstances" រុ | | Yes | N | | |
| Are Vegetation | , Soil | □ , | , or Hydrolo |)gy | ☐ natur | ally prob | lematic? | (If | needed, | , explain a | any answer | rs in Remar | ks.) | | | |
| SUMMARY OF FI | NDING | 3S - A | ttach si | te ma | ap shov | ing sa | mpling _l | point | locatio | ons, tra | ansects, | import | ant feat | ures, etc. | | |
| Hydrophytic Vegetati | ion Prese | nt? | | Yes [| ✓ No | | | Is the | e Sample | ed Area | | | | | | |
| Hydric Soil Present? | | | | Yes [| ☐ No | 1 | | | in a wetl | | | ١ | res 🗌 | No 🗹 | | |
| Wetland Hydrology P | resent? | | | Yes | ☐ No | 1 | | | | | | | | | | |
| Remarks: All three v | | | | | | | | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | | | | | | | |
| Wetland Hydrology Inc | | | | | | | | | | | Seco | ndary Indic | cators (min | imum of two re | <u>quired)</u> | |
| Primary Indicators (min | | one is | required; o | :heck al | | | | | | | | | Soil Cracks | | | |
| Surface Water (| | | | | - | c Fauna (| - | | | | | | _ | d Concave Surfa | ce (B8) | |
| ☐ High Water Tab | | | | | | | B15) (LRR L | | | | | _ | e Patterns | | | |
| Saturation (A3) | | | | | | | de Odor (C1 | • | | | | | im Lines (B | • | | |
| ☐ Water Marks (B | - | | | | | | spheres on I | _ | oots (C3) |) | | | son Water | | | |
| Sediment Depos | | | | | | | duced Iron | ` ' | | | | • | Burrows (| • | | |
| Drift Deposits (E | 33) | | | \sqcup | Recent | Iron Red | duction in T | illed Soi | ils (C6) | | Ш | Saturati | on Visible | on Aerial Image | ry (C9) | |
| Algal Mat or Cru | | | | | | luch Surf | | | | | | Geomor | phic Positi | on (D2) | | |
| ☐ Iron Deposits (B | 35) | | | | Other | (Explain i | in Remarks) |) | | | | | Aquitard (| - | | |
| Inundation Visib | | | agery (B7) | | | | | | | | | | utral Test (| • | | |
| Water-Stained L | Leaves (B | 9) | | | | | | | | | | Sphangu | ım moss ([| 08) (LRR T,U) | | |
| Field Observations: | _ | | | | | | | | | | | | | | | |
| Surface Water Present? | | Yes | ∐ No | <u> </u> | | (inches): | | _ | | | | | | | | |
| Water Table Present? | | Yes | ∐ No | ✓ | | (inches): | | | | | | | _ | | | |
| Saturation Present? | | Yes | ∐ No | 4 | Depth | (inches): | | | | Wetlan | d Hydrolog | gy Present | ? Yes | ∐ No | 7 | |
| (includes capillary fring Describe Recorded Data | • | 2 521151 | - manitari | na woll | agrial ph | atos pro | vious inspa | ctions\ | if availab | hlor | | | | | | |
| Remarks: | a (Stream | 1 gauge | e, monitorii | ig weii, | aeriai piid | nos, pre | vious irispe | ctions), | II avallat | oie. | | | | | | |
| No hydrolo | ogy indica | ators p | resent | | | | | | | | | | | | | |
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| | | | | Absolute | Dominant | Indicator | Dominance Test Worksheet: | |
|----------------|------------------------------|----------------|-----------|-------------|----------------------|--------------|--|----------------|
| Tree Stratum | • |) | _ | % Cover | Species? | Status | Number of Dominant Species | |
| | is taeda | | _ | 30 | Υ | FAC | That Are OBL, FACW, or FAC: 4 | (A) |
| 2. <u>Que</u> | rcus laurifolia | | _ | 15 | Υ | FACW | Total Number of Dominant | |
| 3. <i>Mag</i> | gnolia grandiflora | | _ | 10 | | FAC | Species Across All Strata: 5 | (B) |
| 4. <u>Liqu</u> | idambar styraciflua | | _ | 10 | | FAC | Percent of Dominant Species | |
| 5. Que | rcus nigra | | _ | 10 | | FAC | That Are OBL, FACW, or FAC: 80% | (A/B) |
| 6. | | | | | | | | |
| | | | _ | 75 | = Total Cover | | Prevalence Index worksheet: | |
| | 50% of total of | cover: 3 | - 37.5 | 20% (| f total cover: | 15 | OBL species $0 \times 1 = 0$ | |
| Sapling Strat | | 1 | | 20/00 | _ | | FACW species 30 x 2 = 60 | |
| | gnolia grandiflora | | | 15 | Υ - | FAC | FAC species $75 \times 3 = 225$ | |
| | gnona grananjiora | | _ | | 1 | FAC | | |
| 2 | | | - | | | | FACU species $5 \times 4 = 20$ | |
| 3. | | | _ | | | | UPL species 0 x 5 = 0 | ,_ |
| 4. | | | _ | | | | Column Totals: <u>110</u> (A) <u>305</u> | (B) |
| 5. | | | _ | | | | Prevalence Index = B/A = 2.8 | |
| 6. | | | _ | | | | | |
| | | | _ | 15 | = Total Cover | | Hydrophytic Vegetation Indicators: | |
| | 50% of total of | cover: | 7.5 | 20% (| of total cover: | 3 | | |
| Shrub Stratu | m (Plot size: 30 ft |) | | | - | | ✓ Dominance Test is > 50% | |
| 1. Sabo | al minor | - | | 5 | Υ | FACW | Prevalence Index is ≤ 3.0 ¹ | |
| 2. | | | - | | | | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 3. | | | - | | | | | |
| | | | - | | | | ¹ Indicators of hydric soil and wetland hydrology must | |
| 4. | | | _ | | | | | |
| 5. | | | _ | | | | be present, unless disturbed or problematic | |
| 6. | | | _ | | | | | |
| | | | _ | 5 | _ = Total Cover | | Definitions of Vegetation Strata: | |
| | 50% of total of | cover: | 2.5 | 20% c | of total cover: _ | 1 | | |
| Herb Stratum | n (Plot size: 30 ft |) | | | _ | | Tree - Woody plants, excluding woody vines, approximately 20 f | t |
| 1. Dich | anthelium scoparium | | | 10 | _ | FACW | (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter a | t |
| 2. | · | | _ | | | | breast height (DBH). | |
| 3. | | | _ | | | | | |
| 4. | | | _ | | | | Sapling - Woody plants, excluding woody vines, approximately 2 | 0 |
| 5. <u>—</u> | | | - | | | | ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| | | | - | | | | Shrub - Woody plants, excluding woody vines, approximately 3 t | |
| 6. | | | - | | | | | O |
| 7. | | | _ | | | | 20 ft (1 to 6 m) in height. | |
| 8. | | | _ | | | | Herb - All herbaceous (non-woody) plants, including herbaceous | |
| 9. | | | _ | | | | vines, regardless of size. Includes woody plants, except woody | |
| 10. | | | _ | | | | vines, less than approximately 3 ft (1 m) in height. | |
| 11. | | | | | | | | |
| | | - | | 10 | = Total Cover | | Woody vine - All woody vines, regardless of height. | |
| | 50% of total of | cover: | 5 | 20% c | - of total cover: | 2 | | |
| Woody Vine | Stratum (Plot size: 30 ft |) | | | - | | | |
| · · | cera japonica | | | 5 | Υ - | FACU | | |
| 2. <u>2011</u> | japomoa | | - | | • | | | |
| | | | _ | | | | Hydrophytic | |
| 3. | | | - | | | | Hydrophytic | |
| 4. | | | _ | | | | Vegetation Yes ✓ No ☐ | |
| 5 | | | _ | | | | Present? | |
| | | | _ | 5 | _ = Total Cover | | | |
| | 50% of total of | cover: | 2.5 | 20% (| of total cover: | 1 | | |
| Remarks: (If o | bserved, list morphological | adaptations be | elow) | | | | | |
| ERD | C/CRREL 2016 Regional \ | Netland Plant | t List | (Atlantic a | nd Gulf Coast | al Plain) us | ed for indicator status. | |
| | rophytic vegetation criteria | | | | | , | | |
| 1194 | p, repetation criteria | | | | | | | |
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Sampling Point: WE-5 Up

SOIL Sampling Point: WE-5 Up

| Profile Des Depth | scription: (Describe to the o | depth need | ed to document the indica | | i <mark>rm the absend</mark> dox Features | ce of indicato | ors). | | | | |
|-------------------------|--|-------------|--|-----------------------|--|------------------|--------------------------------|----------------------------|----------------------|--------|----------|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remar | rkc | |
| 0-12 | 10YR 2/2 | 100 | Color (Illoist) | 70 | туре | LUC | Loamy Sand | <70% masked | Kelliai | i KS | |
| 12-18+ | 10YR 2/1 | 100 | | | | | Loamy Sand | <70% masked | | | |
| 12-10+ | 1011/2/1 | | | | | | Loanly Sand | 17070 IIIa3Keu | | | |
| | | | | | | | | - | | | |
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| ¹ Type C = C | Concentration, D = depletion | n, RM = Red | uced Matrix, MS = Masked | d Sand Grains | S | | ² Location: PL = Po | ore Lining, M = M | atrix | | |
| Hydric Soil | Indicators: | | | | | | Indicators for Pro | blematic Hydric | Soils ³ : | | |
| ☐ Hist | tosol (A1) | | Polyvalue Below S | urface (S8) (| LRR S,T,U) | | ☐ 1 cm Muc | k (A9) (LRR O) | | | |
| ☐ Hist | tic Epipedon (A2) | | ☐ Thin Dark Surface | (S9) (LRR S, 7 | T,U) | | | k (A10) (LRR S) | | | |
| | ck Histic (A3) | | Loamy Mucky Mir | | RR O) | | = | Vertic (F18) (out s | | | |
| | drogen Sulfide (A4) | | Loamy Gleyed Ma | , , | | | | Floodplain Soils | | | |
| | atified Layers (A5) | | Depleted Matrix (| - | | | | us Bright Loamy S | oils (F20) | .) | |
| | ganic Bodies (A6) (LRR P,T,U | - | Redox Dark Surfac | ` ' | | | (MLRA 15 | - | | | |
| | m Mucky Mineral (A7) (LRR | P,T,U) | Depleted Dark Sur | | | | | nt Material (TF2) | | | |
| | ck Presence (A8) (LRR U) | | Redox Depression | | | | | ow Dark Surface | | | |
| | m Muck (A9) (LRR P,T) | A11\ | Marl (F10) (LRR U | - | 151) | | ☐ Otner (Exp | plain in Remarks | 1 | | |
| | oleted Below Dark Surface (ck Dark Surface (A12) | AII) | ☐ Depleted Ochric (I☐ Iron-Manganese N | | | | ³ Indicator | s of hydrophytic | vogotatic | on and | |
| | ast Prairie Redox (A16) (MLF | RΔ 150Δ) | Umbric Surface (F | | - | | | ydrology must b | _ | | |
| | idy Mucky Mineral (S1) (LRF | - | Delta Ochric (F17) | | | | | turbed or proble | | ι, | |
| | idy Gleyed Matrix (S4) | (0,0, | Reduced Vertic (F. | | | | unics dis | turbed or proble | matic. | | |
| _ | idy Redox (S5) | | ☐ Piedmont Floodpl | | | ۸) | | | | | |
| | pped Matrix (S6) | | ☐ Anomalous Bright | | | - | 153D) | | | | |
| | k Surface (S7) (LRR P,S,T,U) | | _ | , | ` | , , | · | | | | |
| Restrictive | Layer (if observed): | | | | | | | | | | |
| Type: | | | | | | | | | | | |
| Depth (incl | nes) | | | | | | Hydric Soil Pres | sent? Yes | | No | √ |
| | | | | | | | | | | | |
| Remarks: | | | | | | | | | | | |
| | | | | | | | | | | | |
| Hyaric soil | criteria not met. | | | | | | | | | | |
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| Project/Site: | Johns Island | d - Queensk | ooro 115kV I | Line | City/County: | : Johns Island | / Charleston | | Sampling Date | e: 3/5/2019 |
|---|---|------------------------------|----------------|------------------|----------------|---------------------|----------------------|--------------------|-----------------------|-----------------|
| Applicant/Owner: | Santee Coo | per | | | • | S | State: SC | | Sampling Poin | nt: WE-5 Wet |
| Investigator(s): | Brendon Ke | lly / Brett S | sexton | | Section, Tow | vnship, Range: | NA | | | |
| Landform: (hillslope, ter | race, etc.) | Flat | | | - | (concave, convex, r | | | | Slope (%): 0 |
| Subregion (LRR or MLRA) | LRR T | | Lat: | 32.747 | 765116 | Long: | -80.0891752 | | Datum: | NA |
| Soil Map Unit Name: | Wadmalaw | | | | | | | /I Classification: | None | |
| Are climatic/hydrologic | | | | | Yes 🗸 | No 📙 | (If no, explain in I | • | □ N- | |
| Are Vegetation | , Soil 🗌 | , or Hydrolo , or Hydrolo | | ignificantly dis | | | al Circumstances" | • | s ✓ No | Ш |
| Are Vegetation | , Soil 📙 | , or myurolo | gy 🗀 по | aturally probl | emauci | (II IIeeueu, | explain any answe | rs in Kemarks. | | |
| SUMMARY OF FII | NDINGS - / | ∆ttach sit | to man st | าดเพing รล | mnling no | nint locatio | ne transects | important | features (| atc |
| | 1011103 7 | - Tetacii Sii | e map sn | ownig sai | принь ре | Jiiit locatio | ins, transcets | , important | reatures, e | |
| Hydrophytic Vegetation | on Present? | | Yes 🗸 | No 🗌 | | Is the Sample | d Area | | | |
| Hydric Soil Present? | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | No 🗆 | | within a wetla | | Yes 🗸 | No 🗌 | |
| Wetland Hydrology Pr | resent? | | | No 🗌 | | | | _ | _ | |
| Remarks: | | | | | | | | | | |
| All three in | ndicators are | present, a | rea is a wetl | and | | | | | | |
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| - | | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | |
| Wetland Hydrology Ind | icators: | | , | • | | | <u>Sec</u> | ondary Indicato | rs (minimum o | f two required) |
| Primary Indicators (mini | imum of one is | s required; c | heck all that | apply): | | | | Surface Soil | Cracks (B6) | |
| Surface Water (A | - | | | լuatic Fauna (ն | • | | | _ | _ | ve Surface (B8) |
| ☑ High Water Tabl | e (A2) | | ☐ Ma | arl Deposits (E | B15) (LRR U) | | | Drainage Pa | atterns (B10) | |
| Saturation (A3) | | | | drogen Sulfid | | | Ĺ | Moss Trim I | | |
| Water Marks (B2 | • | | | · · | - | ing Roots (C3) | Ĺ | _ | Water Table (C | C2) |
| Sediment Depos | | | | esence of Red | • | • | L | Crayfish Bu | ` , | |
| Drift Deposits (B | • | | | cent Iron Red | | ed Soils (C6) | L | _ | Visible on Aeria | |
| Algal Mat or Cru | | | | in Much Surfa | | | | | c Position (D2) | |
| ☐ Iron Deposits (B | • | | ☐ Otl | her (Explain ir | n Remarks) | | Ĺ | Shallow Aqu | | |
| Inundation Visib | | nagery (B7) | | | | | Ŀ | | | |
| ✓ Water-Stained L | eaves (B9) | | | | | | L | Spnangum i | moss (D8) (LRR | (1,0) |
| Field Observations: | Vas | □ No | D. | or the stands | C -f- 20 | | | | | |
| Surface Water Present? | | ✓ No | | epth (inches): | | - [| Wetland Hydro | ~. | 🗔 | \square |
| Water Table Present? | Yes | ✓ No | | epth (inches): | | - [| Present? | | Yes 🗸 | No 🗌 |
| Saturation Present? (includes capillary fringe | Yes | ✓ No | ∐ De | epth (inches): | Surface | - [| | | | |
| | - | - monitorir | a wall aoria | Inhatos prov | daus inspecti | iana) if availah | l _a , | | | |
| Describe Recorded Data | i (Stream gaug | e, monitorii | g Well, aeriai | pnotos, prev | /lous inspecti | IONS), II avallab | ile: | | | |
| Remarks: | | | | | | | | | | |
| | criteria met. | | | | | | | | | |
| Tryurology | Jitteria illet. | | | | | | | | | |
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| | | | | A booksto | Dominant | Indicator | Dominance Test Worksheet: |
|-------------|--|---|------|------------------|-----------------------|---------------|---|
| Stratum | (Plot size: 30 ft | | | Absolute % Cover | Dominant Species 2 | Indicator | |
| | · — · | | _ | % Cover | Species? | Status | Number of Dominant Species |
| | olia grandiflora | | _ | 40 | Y | FAC | That Are OBL, FACW, or FAC: 12 |
| | s americana | | _ | 20 | Y | FAC | Total Number of Dominant |
| Querc | us shumardii | | _ | 20 | Υ | FAC | Species Across All Strata: 12 |
| Querc | us michauxii | | | 10 | | FACW | Percent of Dominant Species |
| Celtis | laevigata | | | 5 | | FACW | That Are OBL, FACW, or FAC: 100% |
| - | | | _ | | | | |
| | | | _ | 95 | = Total Cover | | Prevalence Index worksheet: |
| | 500/ - f + - + - | | 47.5 | | _ | 10 | |
| | 50% of total cover: | | 47.5 | 20% 0 | of total cover: _ | 19 | OBL species 35 x 1 = 35 |
| ing Stratun | | 1 | | | | | FACW species 40 x 2 = 80 |
| | omitoria | | _ | 20 | Y | FAC | FAC species 170 x 3 = 510 |
| Magn | olia grandiflora | | _ | 10 | Υ | FAC | FACU species 0 x 4 = 0 |
| | | | _ | | | | UPL species 0 x 5 = 0 |
| | | | | | | | Column Totals: 245 (A) 625 |
| | | | | | | | |
| | | | | | | | Prevalence Index = $B/A = 2.6$ |
| | | | _ | 30 | = Total Cover | | Hydrophytic Vegetation Indicators: |
| | 500/ - f + - + - | | 45 | | _ | c | Hydrophytic vegetation indicators. |
| | 50% of total cover: | | 15 | 20% c | of total cover: _ | 6 | _ |
| ub Stratum | (Plot size: 30 ft) | ! | | | | | ✓ Dominance Test is > 50% |
| Ilex vo | omitoria | | _ | 15 | Υ | FAC | Prevalence Index is $\leq 3.0^{1}$ |
| Morel | la cerifera | | | 15 | Υ | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| Sabal | minor | | | 10 | Υ | FACW | |
| | | | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | _ | | | | be present, unless disturbed or problematic |
| | | | _ | | | | be present, unless disturbed or problematic |
| | | | _ | | | | |
| | | | _ | 40 | _ = Total Cover | | Definitions of Vegetation Strata: |
| | 50% of total cover: | | 20 | 20% c | of total cover: | 8 | |
| b Stratum | (Plot size: 30 ft | | | | _ | | Tree - Woody plants, excluding woody vines, approximately |
| Athvri | um asplenioides | | | 30 | Υ | FAC | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in |
| | wardia areolata | | | 20 | Υ | OBL | diameter at breast height (DBH). |
| Carex | | | _ | 15 | <u> </u> | OBL | Sapling - Woody plants, excluding woody vines, |
| Curex | Tarrad | | _ | | | OBL | approximately 20 ft (6 m) or more in height and less than 3 |
| | | | _ | | | | in. (7.6 cm) DBH. |
| | | | _ | | | | • |
| | | | _ | | | | Shrub - Woody plants, excluding woody vines, |
| | | | _ | | | | approximately 3 to 20 ft (1 to 6 m) in height. |
| | | | | | | | Herb - All herbaceous (non-woody) plants, including |
| | | | | | | | herbaceous vines, regardless of size. Includes woody |
| | | | _ | | | | plants, except woody vines, less than approximately 3 ft (1 |
| | | | | | | | m) in height. |
| | | | _ | | = Total Cover | | Woody vine - All woody vines, regardless of height. |
| | 500/ 5: | | | 65 | _ | 40 | woody vine - All woody vines, regardless of height. |
| | 50% of total cover: | | 32.5 | 20% c | of total cover: _ | 13 | |
| ody Vine St | ratum (Plot size: <u>30 ft</u>) | ļ | | | | | |
| Smilax | k laurifolia | | _ | 15 | Υ | FACW | |
| | | | | | | | |
| | | | | | | | Hydrophytic |
| - | | | _ | | | | Vegetation Yes ✓ No |
| - | | | _ | | | | Present? |
| | | | _ | | | | Present: |
| | _ | | _ | 15 | = Total Cover | | |
| | 50% of total cover: | | 7.5 | 20% c | of total cover: | 3 | |
| ERDC | erved, list morphological adapta /CRREL 2016 Regional Wetlan phytic vegetation criteria met. | | - | (Atlantic a | nd Gulf Coast | al Plain) use | ed for indicator status. |

SOIL Sampling Point: WE-5 Wet

| Profile | Description: (Describe to the | depth need | ed to document the indi | | | e of indicato | rs). |
|----------|--------------------------------------|-------------|-------------------------|---------------------------------------|------------------------|------------------|--|
| Dept | h Matrix | | | Redox | x Features | | |
| (inche | es) Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 8-0 | 10YR 2/1 | 100 | | | | | Loamy sand 100% masked |
| 8-18+ | 10YR 3/1 | 100 | | | | | Loamy sand 100% masked |
| | | | | | | | |
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| | | | , ——— | | · | | |
| | | | , | | | | |
| ¹Tvpe C | = Concentration, D = depletion | n. RM = Red | uced Matrix. MS = Maske | ad Sand Grain | ıs | | ² Location: PL = Pore Lining, M = Matrix |
| | Soil Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ : |
| _ | Histosol (A1) | | ☐ Polyvalue Below | Surface (S8) | (LRR S.T.U) | | 1 cm Muck (A9) (LRR O) |
| _ | Histic Epipedon (A2) | | ☐ Thin Dark Surface | | | | 2 cm Muck (A10) (LRR S) |
| | Black Histic (A3) | | Loamy Mucky Mi | | | | Reduced Vertic (F18) (outside MLRA 150A,B) |
| | Hydrogen Sulfide (A4) | | Loamy Gleyed M | | | | Piedmont Floodplain Soils (F19) (LRR P,S,T) |
| | Stratified Layers (A5) | | Depleted Matrix | | | | Anomalous Bright Loamy Soils (F20) |
| | Organic Bodies (A6) (LRR P,T,L | J) | Redox Dark Surfa | - | | | (MLRA 153B) |
| | 5 cm Mucky Mineral (A7) (LRR | | ☐ Depleted Dark Su | | | | Red Parent Material (TF2) |
| | Muck Presence (A8) (LRR U) | , . , . , | Redox Depressio | | | | ☐ Very Shallow Dark Surface (TF12) |
| | 1 cm Muck (A9) (LRR P,T) | | ☐ Marl (F10) (LRR L | | | | Other (Explain in Remarks) |
| | Depleted Below Dark Surface (| (A11) | ☐ Depleted Ochric | | 151) | | |
| _ | Thick Dark Surface (A12) | , | ☐ Iron-Manganese | | - | | ³ Indicators of hydrophytic vegetation and |
| | Coast Prairie Redox (A16) (ML | .RA 150A) | Umbric Surface (| · · · · · · · · · · · · · · · · · · · | | | wetland hydrology must be present, |
| | Sandy Mucky Mineral (S1) (LRI | = | Delta Ochric (F17 | | | | unless disturbed or problematic. |
| | Sandy Gleyed Matrix (S4) | | Reduced Vertic (| | - | | |
| | Sandy Redox (S5) | | ☐ Piedmont Floodp | olain Soils (F1 | 9) (MLRA 149A) |) | |
| _ | Stripped Matrix (S6) | | Anomalous Brigh | nt Loamy Soils | s (F20) (MLRA 1 | 49A, 153C, 1 | .53D) |
| 1 | Dark Surface (S7) (LRR P,S,T,U |) | | | | | |
| Restrict | ive Layer (if observed): | | | | | | |
| Туре: | | | | | | | |
| Depth (| inches) | | | | | | Hydric Soil Present? Yes 🗸 No 🗌 |
| Remark | | | | | | | |
| | J. | | | | | | |
| Hydric s | soil criteria met. | | | | | | |
| ' | | | | | | | |
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| Project/Site: | | | d - Quee | nsboro | 115k\ | V Line | City/C | County: <u>Joh</u> | hns Island | / Charle | | | | | te: <u>3/5/2019</u> | |
|----------------------------|-----------|---------------|-----------------|-----------------|----------|---------|-------------------------|--------------------|-----------------|-----------|---------------|------------------|----------|---------------|---------------------|---|
| Applicant/Owner: | | e Coop | • | | | | | | | State: | SC | | S | Sampling Poir | nt: WG-3 Up | |
| Investigator(s): | Brend | lon Ke | lly / Bre | tt Sexto | on | | Section | on, Townsh | hip, Range: | | NA | | | | | |
| Landform: (hillslope, ter | race, et | .c.) <u>[</u> | Flat | | | | | | cave, convex, r | none): | None | 2 | | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | | | La | : | 32.7488038 | 6 | Long: | - | -80.08922 | | | Datum: | NA | |
| Soil Map Unit Name: | | | ny fine s | | | | | | | | | Classification: | | None | | |
| Are climatic/hydrologic of | conditio | ns on t | the site t | typical fo | | | | | | | explain in Re | · · | | | | |
| | , Soil | | , or Hydr | | | • | icantly disturbe | | Are "Norm: | al Circum | nstances" p | resent? Yes | | N | | |
| Are Vegetation | , Soil | Ш, | , or Hydr | ology | Ш | natura | ally problemation | c; (| If needed, | explain a | any answers | s in Remarks.) | | | | |
| SUMMARY OF FIR | NDING | 3S - <i>F</i> | \ttach | | | show | ing sampli | ng poin | t locatic | ons, tra | ansects, | important : | featuı | res, etc. | | |
| Hydrophytic Vegetatio | n Prese | ent? | | Yes | ✓ | No | \sqcup | | the Sample | | | _ | _ | _ | | |
| Hydric Soil Present? | | | | Yes | _ | No | <u> </u> | wit | thin a wetla | and? | | Yes | | No 🗸 | | |
| Wetland Hydrology Pro | esent? | | | Yes | | No | 1 | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | 1 1 1 1 | , | . . | | |
| Wetland Hydrology Indi | | | | | | | | | | | Secon | ndary Indicators | | | <u>:quired)</u> | |
| Primary Indicators (mini | | f one is | <u>required</u> | <u>d; check</u> | _ | | | | | | | Surface Soil C | - | - | | |
| Surface Water (A | | | |] | | - | c Fauna (B13) | | | | | Sparsely Vege | | | ice (B8) | |
| ☐ High Water Table | e (A2) | | | L | | | eposits (B15) (L | - | | | | Drainage Patt | , | • | | |
| Saturation (A3) | | | | L | | | gen Sulfide Odo | | | | Ц | Moss Trim Lir | - | | | |
| ☐ Water Marks (B1 | L) | | | L | | | ed Rhizospheres | _ | Roots (C3) |) | | Dry-Season W | Vater Ta | ble (C2) | | |
| Sediment Deposi | its (B2) | | | [| F | ?resen | ce of Reduced I | Iron (C4) | | | | Crayfish Burro | ows (C8) |) | | |
| Drift Deposits (B | 3) | | | [| F | Recent | Iron Reduction | າ in Tilled S | oils (C6) | | | Saturation Vis | sible on | Aerial Image | ry (C9) | |
| ☐ Algal Mat or Crus | st (B4) | | | [| ı | Γhin M | luch Surface (C7 | 7) | | | | Geomorphic I | Position | (D2) | | |
| ☐ Iron Deposits (B5 | 5) | | | [| (| Other (| (Explain in Rema | arks) | | | | Shallow Aquit | tard (D3 | 3) | | |
| ☐ Inundation Visibl | - | erial Im | agery (B | 7) | | · | • | , | | | | FAC-Neutral 1 | - | • | | |
| ── ☐ Water-Stained Le | | | 0 / (| , | | | | | | | | Sphangum m | • | • | | |
| Field Observations: | · | | | | | | | | | | | | | | | |
| Surface Water Present? | | Yes | □ No | 0 4 | 7 r | Depth | (inches): | | | | | | | | | |
| Water Table Present? | | Yes | □ N | _ | _ | | (inches): | | | | | | | | | |
| Saturation Present? | | Yes | No | _ | | | (inches): | | | Wetlan | d Hydrolog | v Present? | Yes | ☐ No | 7 | |
| (includes capillary fringe | | | | _ | - | | (| | | | , | ,, | | | | |
| Describe Recorded Data | | n gaug | e. monit | oring we | ell. aer | ial phc | otos, previous ir | nspections | a), if availab | ole: | | | | | | |
| | (00.00 | 66 | c, | J 6 11 C | ,,, | .a. pc | , p. e 11 e ue 11 | | ,, | | | | | | | ļ |
| Remarks: No hydrolog | gy indica | ators p | present | | | | | | | | | | | | | |

| Tree Stratum | (Plot size: 30 ft) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test Worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: | 5(<i>A</i> |
|--------------------|--|---------------------|------------------------------------|---------------------|---|-----------------------|
| | (Plot size: 30 ft) | % Cover | Species? | Status | · | 5(<i>F</i> |
| | | | | | That Are OBL, FACW, or FAC: | 5(# |
| | | | | | | |
| | | | | | Total Number of Dominant | |
| | | | | | Species Across All Strata: | 5(E |
| | | | | | Percent of Dominant Species | |
| | | | | | That Are OBL, FACW, or FAC: | <u>100%</u> (A |
| | | | Tatal Cause | | Prevalence Index worksheet: | |
| | 50% of total cover: | 20% (| _ = Total Cover of total cover: | | OBL species 0 | x 1 = 0 |
| Sapling Stratum | (Plot size: 30 ft | | in total cover | | FACW species 5 | $x = \frac{1}{10}$ |
| Quercus nigr | | 20 | Υ - | FAC | FAC species 70 | x 3 = 210 |
| Liquidambar | | 15 | Y | FAC | FACU species 0 | x 4 = 0 |
| Magnolia gra | | 5 | | FAC | UPL species 0 | x 5 = 0 |
| | | | | | Column Totals: 75 (A) | |
| | | | | | ·· | |
| | | | | | Prevalence Index = B/A = | 2.9 |
| | | 40 | = Total Cover | | Hydrophytic Vegetation Indicators: | |
| | 50% of total cover: | <u>20</u> 20% c | of total cover: _ | 8 | | |
| Shrub Stratum | (Plot size: 30 ft) | | _ | | Dominance Test is > 50% | |
| Morella cerif | | 10 | Y | FAC | Prevalence Index is $\leq 3.0^1$ | 1, |
| Vaccinium co | rymbosum | 5 | Υ | FACW | Problematic Hydrophytic Vegetatio | n (Explain) |
| | | | | | ¹ Indicators of hydric soil and wetland hydro | ology must |
| | | | | | be present, unless disturbed or problemati | = - |
| - | | | | | be present, unless disturbed of problemati | |
| | | 15 | = Total Cover | | Definitions of Vegetation Strata: | |
| | 50% of total cover: | | of total cover: | 3 | zemmens er vegetation etratar | |
| Herb Stratum | (Plot size: 30 ft | 7.5 | | | Tree - Woody plants, excluding woody vines, a | annrovimately 20 ft |
| Tierb Stratam | (11013120. 3011) | | _ | $\overline{}$ | (6 m) or more in height and 3 in. (7.6 cm) or la | |
| | | · | | $\overline{}$ | breast height (DBH). | iger in didirector de |
| | | | | | - ' ' ' | |
| | | | | | Sapling - Woody plants, excluding woody vines | |
| | | | | | ft (6 m) or more in height and less than 3 in. (7 | 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, incl | luding herbaceous |
| | | | | | vines, regardless of size. Includes woody plants | - |
|). | | | | | vines, less than approximately 3 ft (1 m) in hei | |
| l | | | T-t-l C | | Woody vine - All woody vines, regardless of he | oight |
| | 50% of total cover: | 20% (| = Total Cover of total cover: | | woody wife - All woody villes, regardless of he | Eigiit. |
| Woody Vine Stratum | | | n total cover. | | | |
| Gelsemium s | | 20 | Υ - | FAC | | |
| | | | | | | |
| | | _ | | | Hydrophytic | |
| | | | | | Vegetation Yes 🗸 | No 🗌 |
| | | | | | Present? | |
| | | 20 | _ = Total Cover | | | |
| | 50% of total cover: | 10 20% c | of total cover: | 4 | | |
| ERDC/CRRE | list morphological adaptations be L 2016 Regional Wetland Plant vegetation criteria met. | • | nd Gulf Coast | tal Plain) use | ed for indicator status. | |

SOIL Sampling Point: WG-3 Up

| | Description: (Describe to the | depth need | ed to document the indica | | | ce of indicat | ors). | | | |
|----------|--------------------------------|--------------|---------------------------|--------------|------------------------|------------------|--------------------------------|-----------------------|----------------------------|----------|
| Deptl | | | | | dox Features | 2 | | | | |
| (inche | | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-8 | 10YR 2/2 | 100 | | | | | Loamy Sand | <70% masked | | |
| 8-18+ | 10YR 3/1 | 100 | | | | | Loamy Sand | <70% masked | | |
| - | | | | | | | | | | |
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| | | | - | | | | | | | |
| 1 | | | | | | | 2 | | _ | |
| | = Concentration, D = depletion | on, RM = Red | uced Matrix, MS = Masked | l Sand Grain | IS | | ² Location: PL = Pc | | | |
| | oil Indicators: | | | | | | Indicators for Pro | | c Soils ³ : | |
| | Histosol (A1) | | ☐ Polyvalue Below S | | | | | k (A9) (LRR O) | | |
| | Histic Epipedon (A2) | | ☐ Thin Dark Surface | | | | | k (A10) (LRR S) | | |
| | Black Histic (A3) | | Loamy Mucky Mir | | RR O) | | | | tside MLRA 150A,B) |) |
| | Hydrogen Sulfide (A4) | | Loamy Gleyed Ma | | | | | | s (F19) (LRR P,S,T) | |
| | stratified Layers (A5) | 1 | ☐ Depleted Matrix (I | - | | | | us Bright Loamy | Soils (F20) | |
| | Organic Bodies (A6) (LRR P,T, | | Redox Dark Surfac | | | | (MLRA 15 | - | | |
| | 5 cm Mucky Mineral (A7) (LRI | к Р,Т,U) | ☐ Depleted Dark Sur | | | | | nt Material (TF2) | | |
| | Muck Presence (A8) (LRR U) | | Redox Depression | - | | | | low Dark Surface | | |
| | cm Muck (A9) (LRR P,T) | | Marl (F10) (LRR U) | | > | | ☐ Other (Ex | plain in Remarks | ;) | |
| | Depleted Below Dark Surface | (A11) | Depleted Ochric (I | | | | 3, ,, , | 61 1 1 | | |
| I — | Thick Dark Surface (A12) | | ☐ Iron-Manganese N | | | | | | vegetation and | |
| | Coast Prairie Redox (A16) (MI | | Umbric Surface (F | | | | | ydrology must l | | |
| _ | Sandy Mucky Mineral (S1) (LR | RR O,S) | Delta Ochric (F17) | - | - | | unless dis | turbed or probl | ematic. | |
| | Sandy Gleyed Matrix (S4) | | Reduced Vertic (F | | - | • > | | | | |
| | Sandy Redox (S5) | | Piedmont Floodpl | | | | 4500) | | | |
| | Stripped Matrix (S6) | ı\ | Anomalous Bright | Loamy Soils | 6 (F20) (IVILKA | 149A, 153C, | 153D) | | | |
| | Dark Surface (S7) (LRR P,S,T,L | וי | | | | | | | | |
| | ve Layer (if observed): | | | | | | | | | |
| Type: | nahas) | | | | | | Hydric Soil Pres | vent? Ves | □ No | 4 |
| Depth (i | nches) | | | | | | Hydric Soil Pres | sent? Yes | ∐ No | |
| Remarks | • | | | | | | | | | |
| itemark. |) . | | | | | | | | | |
| Hydric s | oil criteria not met. | | | | | | | | | |
| riyanes | on effectia flot flict. | | | | | | | | | |
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| Project/Site: Applicant/Owner: Investigator(s): Landform: (hillslope, ter Subregion (LRR or MLRA Soil Map Unit Name: Are climatic/hydrologic Are Vegetation Are Vegetation SUMMARY OF FII Hydrophytic Vegetatic Hydric Soil Present? Wetland Hydrology Pr Remarks: | A) LRR T Kiawah loamy fire conditions on the sire conditions on the | Brett Sexton Line sand Site typical for this Hydrology Hydrology Ach site map Yes Yes Yes Yes Yes | Lat: 32.7488 is time of year? significantly dinaturally prob showing sa No | Section, Tow Local Relief (Yes Visturbed? | vnship, Range: (concave, convex, Long: No Are "Norm (If needed, | : none): -80.0892259 (If no, explain nal Circumstance, explain any ans | in Remar es" presei swers in R cts, imp | ssification: rks.) ent? Yes Remarks.) | Datum: None No | t: WG-3 Wet Slope (%): 0 NA |
|--|--|--|---|---|---|---|--|--|--|-------------------------------|
| HYDROLOGY | indicators are prese | eiit, aiea is a w | енани | | | | | | | |
| Wetland Hydrology Ind Primary Indicators (mini Surface Water (A High Water Tabl Saturation (A3) Water Marks (B2 Sediment Deposits (B2 Algal Mat or Cru Iron Deposits (B2 Inundation Visib Water-Stained L | nimum of one is requ (A1) ble (A2) sits (B2) B3) ust (B4) B5) ble on Aerial Imagery | | hat apply): Aquatic Fauna (Marl Deposits (Hydrogen Sulfic Oxidized Rhizos Presence of Rec Recent Iron Rec Thin Much Surf Other (Explain i | (B15) (LRR U) ide Odor (C1) espheres on Live educed Iron (Cae eduction in Tille face (C7) | 4) | | St St St St St St St St | urface Soil Cr parsely Vege rainage Patte Joss Trim Lin- ry-Season W rayfish Burro aturation Vis eomorphic P hallow Aquita AC-Neutral T | cracks (B6) etated Concaveterns (B10) nes (B16) Vater Table (Concaveterns) sible on Aerial Position (D2) tard (D3) | l Imagery (C9) |
| Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe | Yes Yes ✓ | No | Depth (inches): Depth (inches): Depth (inches): | : Surface | - | Wetland Hy Presen | | Ye | es 🗸 | No 🗌 |
| Remarks: Hydrology | a (stream gauge, mo | nitoring well, ae | rial photos, pre | vious inspection | ons), if availab | ole: | | | | |

| | | | | Absolute | Dominant | Indicator | Dominance Test Worksheet: | | |
|-------------|----------------------------|--------------------------|------------|-----------------|-----------------|----------------|--|-----------|-------|
| Tree Str | | (Plot size: 30 ft |) | % Cover | Species? | Status | Number of Dominant Species | | |
| 1. | Pinus taeda | | | 70 | Υ | FAC | That Are OBL, FACW, or FAC: | 5 | (A) |
| 2. | Quercus nigra | | | 15 | | FAC | Total Number of Dominant | | |
| 3. | <u>Liquidambar s</u> | tyraciflua | | 5 | | FAC | Species Across All Strata: | 5 | _(B) |
| 4. | | | | | | | Percent of Dominant Species | | |
| 5. | | | | | | | That Are OBL, FACW, or FAC: | 100% | (A/B) |
| 6. | | | | | | | | | |
| | | | | 90 | _ = Total Cover | | Prevalence Index worksheet: | | |
| _ | | 50% of total cover: | 4 | 15 20% | of total cover: | 18 | · ——— | 0 | _ |
| Sapling : | | (Plot size: 30 ft |) | | | | FACW species 30 x 2 = | 60 | _ |
| 1. | Quercus nigra | | | 40 | Υ | FAC | FAC species 155 x 3 = | 465 | _ |
| 2. | Magnolia gra | ndiflora | | 5 | | FAC | FACU species 3 x 4 = | 12 | - |
| 3. | - | | | | | | UPL species 0 x 5 = | 0 | - |
| 4. | - | | | | | | Column Totals: 188 (A) | 537 | _(B) |
| 5. | | | | | | | Prevalence Index = B/A = 2.9 | | |
| 6. | | | | | | | | | |
| | | | 22 | 45 | _ = Total Cover | | Hydrophytic Vegetation Indicators: | | |
| | | 50% of total cover: | 22. | <u>5</u> 20% / | of total cover: | 9 | | | |
| Shrub St | | (Plot size: 30 ft |) | 4- | ., | | Dominance Test is > 50% | | |
| 1. | Vaccinium cor | - | | 15 | Υ | FACW | Prevalence Index is $\leq 3.0^1$ | | |
| 2. | Magnolia grai | | | 5 | | FAC | Problematic Hydrophytic Vegetation ¹ (I | Explain) | |
| 3. | Morella cerife | | | 5 | | FAC | 1 | | |
| 4. | Quercus virgir | niana | | 3 | | FACU | ¹ Indicators of hydric soil and wetland hydrology | must | |
| 5. | | _ | | | | | be present, unless disturbed or problematic | | |
| 6. | | | | | | | | | |
| | | | | 28 | _ = Total Cover | | Definitions of Vegetation Strata: | | |
| | | 50% of total cover: | 1 | <u>14</u> 20% (| of total cover: | 5.6 | | | |
| Herb Str | | (Plot size: 30 ft |) | - <u>-</u> | | | Tree - Woody plants, excluding woody vines, appro | • | |
| 1. | Chasmanthiur | n laxum | | 15 | Υ | FACW | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or la | arger in | |
| 2. | - | | | | | | diameter at breast height (DBH). | | |
| 3. | | | | | | | Sapling - Woody plants, excluding woody vines, | 11 | |
| 4. | | | | | | | approximately 20 ft (6 m) or more in height and les in. (7.6 cm) DBH. | s than 3 | |
| 5. | | | | | | | | | |
| 6. 7 | | | | | | | Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | | |
| 7. | | | | | | | | | |
| 8. | | | | | | | Herb - All herbaceous (non-woody) plants, including | _ | |
| 9. | | | | | | | herbaceous vines, regardless of size. Includes wood plants, except woody vines, less than approximatel | - | |
| 10. | - | | | | | | m) in height. | у 5 п (т | |
| 11. | | _ | | 15 | = Total Cover | | Woody vine - All woody vines, regardless of height. | | |
| | | 50% of total cover: | 7 | 15 | of total cover: | | woody vine - All woody vines, regardless of height. | • | |
| Maadu. | Vin a Ctratum | • | | <u>.5</u> 20% (| or total cover. | | | | |
| - | Vine Stratum Gelsemium se | (Plot size: 30 ft |) | 10 | Υ | FAC | | | |
| 1. | Geiseinium se | riipervirens | | | | FAC | | | |
| 2. | | | | | | | 11-yduoudo ata | | |
| 3. 4 | | | | | | | Hydrophytic Vegetation Yes ✓ No | - | |
| 4. 5. | | _ | | | | | Vegetation Yes ✓ No Present? | , | |
| 5. | | | | 10 | = Total Cover | | Flescht: | | |
| | | 50% of total cover: | | | of total cover: | | | | |
| Domarke | /if abcorred li | ist morphological adapta | | | JI lulai cover. | | | | |
| NEIIIai ko. | - | | | - | and Gulf Coas | rtal Diain) us | sed for indicator status. | | |
| | | regetation criteria met. | IU Fianc = | 15t (Atlantice | Illu Gun Cous | lairiani, us | ed for maicator status. | | |
| | Hyuropriyac v | egetation triteria met. | | | | | | | |
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Sampling Point: WG-3 Wet

SOIL Sampling Point: WG-3 Wet

| Profile Des | scription: (Describe to the d | epth nee | ded to document the indica | ator or conf | firm the abse | ence of indicate | ors). |
|-------------------------|---|-----------|---|----------------------|-------------------|------------------|--|
| Depth | Matrix | | | Redo | x Features | 2 | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 0-9 | 10YR 2/1 | 100 | | | | | Loamy sand 100% masked |
| 9-14 | 10YR 4/2 | 97 | 10YR 5/8 | 3 | _ <u>C</u> | _ <u>M</u> | Loamy sand |
| 10-18+ | _ 10YR 5/2 | <u>95</u> | _ 10YR 5/8 | 5 | _ <u>C</u> | _ <u>M</u> | Loamy sand |
| | | | _ | | _ | | |
| | | | _ | | - | | |
| | | | _ | | | | |
| | | | _ | | | | |
| ¹ Type C = 0 | Concentration, D = depletion, | , RM = Re | duced Matrix, MS = Masked | l Sand Grair | ns | | ² Location: PL = Pore Lining, M = Matrix |
| | Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ : |
| | tosol (A1) | | ☐ Polyvalue Below S | | - | | 1 cm Muck (A9) (LRR O) |
| | tic Epipedon (A2) | | ☐ Thin Dark Surface | | | | 2 cm Muck (A10) (LRR S) |
| | ck Histic (A3) | | Loamy Mucky Mir | | .RR O) | | Reduced Vertic (F18) (outside MLRA 150A,B) |
| | drogen Sulfide (A4) | | ☐ Loamy Gleyed Ma ☐ Depleted Matrix (| | | | ☐ Piedmont Floodplain Soils (F19) (LRR P,S,T) ☐ Anomalous Bright Loamy Soils (F20) |
| | atified Layers (A5) ganic Bodies (A6) (LRR P,T,U) | | ☐ Depleted Matrix (I☐ Redox Dark Surfac | - | | | Anomalous Bright Loamy Soils (F20) (MLRA 153B) |
| | m Mucky Mineral (A7) (LRR F | | Depleted Dark Sur | | | | Red Parent Material (TF2) |
| | ick Presence (A8) (LRR U) | ,.,., | Redox Depression | | | | ☐ Very Shallow Dark Surface (TF12) |
| | m Muck (A9) (LRR P,T) | | ☐ Marl (F10) (LRR U | | | | Other (Explain in Remarks) |
| ☐ De | pleted Below Dark Surface (A | (11) | Depleted Ochric (I | -11) (MLRA | 151) | | |
| ☐ Thi | ck Dark Surface (A12) | | ☐ Iron-Manganese N | ∕lasses (F12 | 2) (LRR O,P,T) | | ³ Indicators of hydrophytic vegetation and |
| ☐ Coa | ast Prairie Redox (A16) (MLR | A 150A) | ☐ Umbric Surface (F | 13) (LRR P, 1 | T,U) | | wetland hydrology must be present, |
| | ndy Mucky Mineral (S1) (LRR | O,S) | Delta Ochric (F17) | - | - | | unless disturbed or problematic. |
| | ndy Gleyed Matrix (S4) | | Reduced Vertic (F | , · | • | | |
| | ndy Redox (S5) | | Piedmont Floodpl | - | | - | 4500) |
| | ipped Matrix (S6) rk Surface (S7) (LRR P,S,T,U) | | Anomalous Bright | Loamy Soil | S (F20) (IVILR | A 149A, 153C, | 153D) |
| | Layer (if observed): | | | | | | |
| Type: | Layer (ii observea). | | | | | | |
| Depth (inc | hes) | | | | | | Hydric Soil Present? Yes 🗸 No 🗌 |
| | | | | | | | |
| Remarks: | | | | | | | |
| Hudric coil | critaria mat | | | | | | |
| nyuric soii | criteria met. | | | | | | |
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| Project/Site: | | | l - Queens | boro 11 | 5kV Line | : City/Cour | nty: <u>Johns Islanc</u> | d / Chari | | Sampling Dat | | |
|----------------------------|-----------|----------------|-------------|------------|------------|-----------------------|--------------------------|-----------|---------------------------|----------------------|-----------------|---|
| Applicant/Owner: | Sante | | | | | | | State: | SC | Sampling Poir | nt: WH-2 Up | |
| Investigator(s): | Brende | on Kel | lly / Brett | Sexton | | Section, T | Township, Range | : | NA | | | |
| Landform: (hillslope, ter | | c.) <u>F</u> | Flat | | | | ef (concave, convex, | | None | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | | _ | Lat: | 32.75487438 | Long: | | -80.08854914 | Datum: | NA | |
| Soil Map Unit Name: | Water | | | | | | | | NWI Classification: | None | | |
| Are climatic/hydrologic | | | | | | - | √ 0 | | explain in Remarks.) | | | |
| | , Soil | = | , or Hydrol | | | icantly disturbed? | | | mstances" present? Yes | r | | |
| Are Vegetation | , Soil | □ , | , or Hydrol | ogy l | natur | ally problematic? | (If needed, | , explain | any answers in Remarks.) | | | |
| | | | | •• | | | | | | | | |
| SUMMARY OF FIR | NDING | 3 S - A | ittach s | ite ma | p snow | ing sampling | point location | ons, tr | ransects, important feat | iures, etc. | | |
| | | | | _ | _ | | | | | | | |
| Hydrophytic Vegetatio | n Prese | nt? | | Yes 🛂 | _ | | Is the Sample | | | | | |
| Hydric Soil Present? | | | | Yes | _ | | within a wetl | land? | Yes 🗌 | No 🗸 | | |
| Wetland Hydrology Pr | | | | Yes | | | | | | | | |
| Remarks: All three w | vetland | indica | itors are r | not prese | ent, area | is not a wetland. | | | | | • | , |
| LIVERGLOCY | | | | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | | | |
| Wetland Hydrology Ind | | | | | | | | | Secondary Indicators (mir | | <u>:quired)</u> | |
| Primary Indicators (mini | | one is | required; | check all | | | | | ☐ Surface Soil Crack | | | |
| ☐ Surface Water (A | | | | | - | ic Fauna (B13) | | | ☐ Sparsely Vegetate | | ice (B8) | |
| ☐ High Water Table | e (A2) | | | | | eposits (B15) (LRR | - | | ☐ Drainage Patterns | , , | | |
| ☐ Saturation (A3) | | | | | | gen Sulfide Odor (C: | • | | ☐ Moss Trim Lines (I | - | | |
| ☐ Water Marks (B1 | - | | | | | ed Rhizospheres on | | 5) | ☐ Dry-Season Water | | | |
| Sediment Depos | its (B2) | | | | Presen | nce of Reduced Iron | (C4) | | Crayfish Burrows | | | |
| Drift Deposits (B | 3) | | | | Recent | t Iron Reduction in 1 | Filled Soils (C6) | | Saturation Visible | on Aerial Image | ry (C9) | |
| Algal Mat or Crus | | | | | | 1uch Surface (C7) | | | ☐ Geomorphic Posit | ion (D2) | | |
| ☐ Iron Deposits (B | 5) | | | | Other | (Explain in Remarks | ,) | | Shallow Aquitard | D3) | | |
| Inundation Visib | le on Ae | rial Ima | agery (B7) | | | | | | FAC-Neutral Test (| | | |
| Water-Stained Le | eaves (B | ,9) | | | | | | 1 | Sphangum moss (| 08) (LRR T,U) | | |
| Field Observations: | | | | | | | | | | | | |
| Surface Water Present? | , | Yes | ∐ No | <u></u> | | (inches): | | | | | | |
| Water Table Present? | | Yes | ∐ No | ✓ | | (inches): | | | | | | |
| Saturation Present? | | Yes | ∐ No | ✓ | Depth | (inches): | | Wetlar | nd Hydrology Present? Yes | ∐ No | 1 | |
| (includes capillary fringe | | | | | | | | | | | | |
| Describe Recorded Data | (stream | າ gauge | e, monitori | ng well, a | aerial pho | otos, previous inspe | ections), if availab | ble: | | | | |
| | | | | | | | | | | | | |
| Remarks: | | _ 4 | | | | | | | | | | |
| No hydrolog | gy indica | ators pi | resent | | | | | | | | | |
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| ree Stratum (Plot size: 30 ft) | | | olants. | | | | |
|---|------|----------|-------------------|-----------|---|-------------|---------|
| ree Stratum (Plot size: 30 ft) | | Absolute | Dominant | Indicator | Dominance Test Worksheet: | | |
| | _ | % Cover | Species? | Status | Number of Dominant Species | | |
| Pinus taeda | _ | 70 | Y | FAC | That Are OBL, FACW, or FAC: | 4 | _(A) |
| Quercus nigra | _ | 25 | | FAC | Total Number of Dominant | | |
| · | _ | | | | Species Across All Strata: | 4 | _(B |
| | _ | | | | Percent of Dominant Species | | |
| | _ | | | | That Are OBL, FACW, or FAC: | 100% | _(A |
| | _ | | | - | Donald and the state of | | |
| F00/ - f + - + - | 47.5 | 95 | = Total Cover | 10 | Prevalence Index worksheet: | 0 | |
| 50% of total cover: | 47.5 | 20% (| of total cover: _ | 19 | OBL species 0 x1 = | 0 | - |
| oling Stratum (Plot size: 30 ft) Quercus nigra | | 40 | Υ - | FAC | FACW species $\frac{45}{185}$ x 2 = $\frac{1}{2}$ | 90 555 | - |
| Quercus Highu | - | 40 | - 1 | FAC | FACU species 0 x 4 = | 0 | - |
| | _ | | | | UPL species 0 x 5 = | 0 | - |
| | _ | | | | Column Totals: 230 (A) | 645 | - (E |
| | _ | | | | · ` ' | | - ` |
| | _ | | | | Prevalence Index = $B/A = 2.8$ | | |
| | _ | 40 | = Total Cover | | Hydrophytic Vegetation Indicators: | | |
| 50% of total cover: | 20 | 20% (| of total cover: | 8 | | | |
| rub Stratum (Plot size: 30 ft) | | | _ | | ✓ Dominance Test is > 50% | | |
| Morella cerifera | _ | 35 | Υ | FAC | Prevalence Index is $\leq 3.0^{1}$ | | |
| Ilex glabra | _ | 35 | Υ | FACW | Problematic Hydrophytic Vegetation ¹ (Explai | n) | |
| Magnolia grandiflora | _ | 15 | | FAC | | | |
| Vaccinium corymbosum | _ | 10 | | FACW | ¹ Indicators of hydric soil and wetland hydrology must | t | |
| | _ | | | | be present, unless disturbed or problematic | | |
| | _ | | | | | | |
| | _ | 95 | = Total Cover | | Definitions of Vegetation Strata: | | |
| 50% of total cover: | 47.5 | 20% (| of total cover: | 19 | | | |
| rb Stratum (Plot size: <u>30 ft</u>) | | | _ | | Tree - Woody plants, excluding woody vines, approxima | = | |
| | _ | | | | (6 m) or more in height and 3 in. (7.6 cm) or larger in dia breast height (DBH). | ameter at | |
| | _ | | | | breast height (bbri). | | |
| | _ | | | | Sapling - Woody plants, excluding woody vines, approxi | | |
| | _ | | | | ft (6 m) or more in height and less than 3 in. (7.6 cm) DB | BH. | |
| | _ | | | | Shrub - Woody plants, excluding woody vines, approxim | nately 3 to | |
| | _ | | | | 20 ft (1 to 6 m) in height. | , | |
| | _ | | | | | | |
| | _ | | | | Herb - All herbaceous (non-woody) plants, including her | | |
| | _ | | | | vines, regardless of size. Includes woody plants, except vines, less than approximately 3 ft (1 m) in height. | woody | |
| | _ | | | | tines, less than approximately 5 to (2 m) in height. | | |
| | _ | | _ = Total Cover | | Woody vine - All woody vines, regardless of height. | | |
| | | 20% (| of total cover: _ | | | | |
| 50% of total cover: | | | | | | | |
| | | | _ | | | | |
| | | | | | | | |
| | | | _ | | Hadaankadi. | | |
| | | | | | Hydrophytic | No. □ | |
| 50% of total cover: oody Vine Stratum (Plot size: <u>30 ft</u>) | | | | | Vegetation Yes 🗸 | No 🗆 | |
| | | | = Total Cover | | | No 🗆 | |

SOIL Sampling Point: WH-2 Up

| Profile D | escription: (Describe to the | depth need | ed to document the indica | ator or conf | irm the absen | ce of indicat | ors). | | | |
|-------------|---|--------------|---------------------------|--------------|-------------------|------------------|--------------------------------|-----------------------|------------------------------|----------|
| Depth | Matrix | | | Re | dox Features | | | | | |
| (inches |) Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Remarks | |
| 0-10 | 10YR 3/2 | 100 | | | | | loamy sand | <70% coated | l | |
| 10-18 | 10YR 3/1 | 100 | | | | | loamy sand | no redox | | |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| 1 | | | | | | | 2 | | | |
| | Concentration, D = depletion | on, RM = Red | uced Matrix, MS = Masked | Sand Grain | IS | | ² Location: PL = Pc | | | |
| _ | oil Indicators: | | | | | | Indicators for Pro | | | |
| _ | istosol (A1) | | ☐ Polyvalue Below S | | | | | k (A9) (LRR O) | | |
| | istic Epipedon (A2) | | Thin Dark Surface | | | | | ck (A10) (LRR S | - | |
| _ | lack Histic (A3) | | Loamy Mucky Mir | | RR O) | | | | utside MLRA 150A,E | - |
| | ydrogen Sulfide (A4) | | Loamy Gleyed Ma | , , | | | | | ils (F19) (LRR P,S,T) | |
| | tratified Layers (A5) | | ☐ Depleted Matrix (I | • | | | | us Bright Loam | y Soils (F20) | |
| | rganic Bodies (A6) (LRR P,T,I | | Redox Dark Surfac | | | | (MLRA 15 | | | |
| | cm Mucky Mineral (A7) (LRF | R P,T,U) | ☐ Depleted Dark Sur | | | | | nt Material (TF | • | |
| | 1uck Presence (A8) (LRR U) | | Redox Depression | - | | | | low Dark Surfa | | |
| | cm Muck (A9) (LRR P,T) | | Marl (F10) (LRR U) | | | | ☐ Other (Ex | plain in Remar | ks) | |
| | epleted Below Dark Surface | (A11) | Depleted Ochric (I | | | | 3 | | | |
| | hick Dark Surface (A12) | D4 4504\ | ☐ Iron-Manganese N | | | | | | tic vegetation and | |
| | oast Prairie Redox (A16) (ML | | Umbric Surface (F | | | | | ydrology must | | |
| _ | andy Mucky Mineral (S1) (LR | (R O,S) | Delta Ochric (F17) | - | - | | unless dis | turbed or prob | ilematic. | |
| | andy Gleyed Matrix (S4) | | Reduced Vertic (F | | - | ^ | | | | |
| | andy Redox (S5) | | Piedmont Floodpl | | | | 4F3D\ | | | |
| | tripped Matrix (S6) ark Surface (S7) (LRR P,S,T,U | 1) | Anomalous Bright | Loamy Soils | (FZU) (IVILKA | 149A, 153C, | 1530) | | | |
| | re Layer (if observed): | ′1 | | | | | T | | | |
| Type: | e Layer (ii observed). | | | | | | | | | |
| Depth (in | iches) | | | | | | Hydric Soil Pres | sent? Yes | s No | 4 |
| Deptii (iii | iciicaj | | | | | | Tryunc 3011 res | ociic. ic. | , | |
| Remarks | <u>.</u> | | | | | | <u> </u> | | | |
| nemana | • | | | | | | | | | |
| Hydric so | il criteria not met. | | | | | | | | | |
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| Project/Site: | Johns Island - Queensboro 115kV Line City/County: Johns Isl | land / Charleston Sampling Date: 3/5/20 | 19 |
|---------------------------------|---|--|--------------|
| Applicant/Owner: | Santee Cooper | State: SC Sampling Point: WH-2 \ | Wet |
| Investigator(s): | Brendon Kelly / Brett Sexton Section, Township, Rai | | |
| Landform: (hillslope, ter | | | %): <u>0</u> |
| Subregion (LRR or MLRA | | ng: <u>-80.0885491</u> Datum: <u>NA</u> | |
| Soil Map Unit Name: | Water | NWI Classification: None | |
| Are Vegetation | conditions on the site typical for this time of year? Yes 🕡 No L , Soil 🔲 , or Hydrology 🔲 significantly disturbed? Are "N | ☐ (If no, explain in Remarks.) Jormal Circumstances" present? Yes ✓ No | |
| Are Vegetation Are Vegetation | | ded, explain any answers in Remarks.) | |
| Are regetation. | , som, or mydrology materially productions , | act, explain any unswers in nemarks, | |
| SUMMARY OF FI | NDINGS - Attach site map showing sampling point loca | ations, transects, important features, etc. | |
| | | · · · · · · · · · · · · · · · · · · · | |
| Hydrophytic Vegetatio | n Present? Yes 🗹 No 🗌 Is the Sar | mpled Area | |
| Hydric Soil Present? | Yes 🔽 No 🗌 within a w | wetland? Yes ✓ No ☐ | |
| Wetland Hydrology Pr | esent? Yes 🗹 No 🗌 | | |
| Remarks: | | | |
| All three ir | idicators are present, area is a wetland | | |
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| | | | |
| HYDROLOGY | | | |
| | | | راء ما/ |
| Wetland Hydrology Ind | | Secondary Indicators (minimum of two requ | <u>irea)</u> |
| Surface Water (A | mum of one is required; check all that apply): Aquatic Fauna (B13) | ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface | /DO\ |
| ☐ High Water Table | <u> </u> | Drainage Patterns (B10) | (00) |
| ✓ Saturation (A3) | Hydrogen Sulfide Odor (C1) | Moss Trim Lines (B16) | |
| Water Marks (B1 | _ , , , | | |
| Sediment Depos | | Crayfish Burrows (C8) | |
| Drift Deposits (B | <u> </u> | | (C9) |
| Algal Mat or Cru | <u> </u> | Geomorphic Position (D2) | (, |
| ☐ Iron Deposits (B | _ | Shallow Aquitard (D3) | |
| Inundation Visib | le on Aerial Imagery (B7) | FAC-Neutral Test (D5) | |
| ☐ Water-Stained Lo | eaves (B9) | Sphangum moss (D8) (LRR T,U) | |
| Field Observations: | | | |
| Surface Water Present? | Yes No Depth (inches): | Wetland Hydrology | i |
| Water Table Present? | Yes No Depth (inches): | Present? Yes ✓ No □ | |
| Saturation Present? | Yes V No Depth (inches): 4 inches | | |
| (includes capillary fringe | | | |
| Describe Recorded Data | (stream gauge, monitoring well, aerial photos, previous inspections), if available | allable: | |
| Remarks: | | | |
| Hydrology (| riteria met | | |
| Hydrology (| nteria met. | | |
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| VEGETATION (Fiv | re Strata) - Use scie | ntific | names of | plants. | | Sampling Point: WH-2 Wet |
|--|--|--------|----------|-------------------|-----------|---|
| | | | Absolute | | Indicator | Dominance Test Worksheet: |
| Tree Stratum | (Plot size: 30 ft) | Į. | % Cover | • | Status | Number of Dominant Species |
| 1. Pinus taeda | _ | | 70 | Υ | FAC | That Are OBL, FACW, or FAC: 5 (A) |
| 2. Quercus nigi | ra | | 25 | Υ | FAC | Total Number of Dominant |
| 3. | | | | | | Species Across All Strata: 5 (B) |
| 4. | | | | | | Percent of Dominant Species |
| 5. | | | | | | That Are OBL, FACW, or FAC: 100% (A/B |
| 6. | | | | | | December 1 december 1 |
| | F00/ - f + - + - | , | 95 | = Total Cove | | Prevalence Index worksheet: |
| Couling Chuntum | 50% of total cover: | 4 | 47.5 20% | 6 of total cover: | 19 | · — — — — — — — — — — — — — — — — — — — |
| Sapling Stratum | (Plot size: <u>30 ft</u>) | | 40 | Υ | FAC | FACW species 0 x 2 = 0 FAC species 185 x 3 = 555 |
| Quercus nigi Quercus nigi | <u>ru</u> | | 40 | T | FAC | FACU species 0 x 4 = 0 |
| 3. | | | | | | UPL species $0 \times 5 = 0$ |
| 4. | | | | | | Column Totals: 185 (A) 555 (B) |
| 5. | | | | | | Column Totals. 185 (A) 333 (B) |
| 6. | | | | | | Prevalence Index = B/A = 3.0 |
| | | | 40 | = Total Cove | r | Hydrophytic Vegetation Indicators: |
| | 50% of total cover: | | | of total cover: | | .,,, |
| Shrub Stratum | (Plot size: 30 ft | | | | | ✓ Dominance Test is > 50% |
| 1. Morella cerij | | | 35 | Υ | FAC | ✓ Prevalence Index is ≤ 3.0 ¹ |
| 2. Magnolia gr | | | 15 | Υ | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 3. | | | | | | |
| 4. | | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| 5. | | | | | | be present, unless disturbed or problematic |
| 6. | | | | | | |
| | | | 50 | = Total Cove | r | Definitions of Vegetation Strata: |
| | 50% of total cover: | | 25 20% | of total cover: | 10 | |
| Herb Stratum | (Plot size: 30 ft | | | | | Tree - Woody plants, excluding woody vines, approximately |
| 1. | | | | | | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in |
| 2. | | | | | | diameter at breast height (DBH). |
| 3. | | | | | | Sapling - Woody plants, excluding woody vines, |
| 4. | | | | | | approximately 20 ft (6 m) or more in height and less than 3 |
| 5. | | | | | | in. (7.6 cm) DBH. |
| 6. | | | | | | Shrub - Woody plants, excluding woody vines, |
| 7. | | | | | | approximately 3 to 20 ft (1 to 6 m) in height. |
| 8. | | | | | | Herb - All herbaceous (non-woody) plants, including |
| 9. | | | | | | herbaceous vines, regardless of size. Includes woody |
| 10. | | | | | | plants, except woody vines, less than approximately 3 ft (1 |
| 11. | | | | | | m) in height. |
| | | | | = Total Cove | | Woody vine - All woody vines, regardless of height. |
| | 50% of total cover: | | | of total cover: | | |
| Woody Vine Stratum | (Plot size: <u>30 ft</u>) | 1 | | | | |
| 1. | | | | | | |
| 2. | | | | | | Under the sta |
| 3. | | | | | | Hydrophytic |
| 4. | | | | | | Vegetation Yes ✓ No ☐ Present? |
| 5. | | | | = Total Cove | _ | Present: |
| | 50% of total cover: | | 20% | = Total cover: | | |
| ERDC/CRRE | , list morphological adapta EL 2016 Regional Wetlan c vegetation criteria met. | | elow) | | | sed for indicator status. |
| | | | | | | |
| | | | | | | |

SOIL Sampling Point: WH-2 Wet

| | cription: (Describe to the | depth need | ed to document the indi | cator or conf | irm the absenc | e of indicato | ors). |
|---------------|-------------------------------------|-------------|-------------------------|----------------------|------------------------|------------------|--|
| Depth | Matrix | | | Redox | x Features | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 0-6 | 10YR 3/2 | 100 | | | | | Loamy sand >70% coated |
| 6-18+ | 10YR 3/1 | 100 | | | | | Loamy sand coated |
| | | | | | | | |
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| 1 | | | | | | | 2 |
| | oncentration, D = depletion | n, RM = Red | uced Matrix, MS = Maske | ed Sand Grain | IS | | ² Location: PL = Pore Lining, M = Matrix |
| Hydric Soil I | | | | - 6 () | . | | Indicators for Problematic Hydric Soils ³ : |
| | osol (A1) | | ☐ Polyvalue Below | , , | | | 1 cm Muck (A9) (LRR O) |
| | ic Epipedon (A2) | | Thin Dark Surface | | | | 2 cm Muck (A10) (LRR S) |
| | k Histic (A3) | | Loamy Mucky M | | RR O) | | Reduced Vertic (F18) (outside MLRA 150A,B) |
| | rogen Sulfide (A4) | | Loamy Gleyed M | | | | Piedmont Floodplain Soils (F19) (LRR P,S,T) |
| | tified Layers (A5) | | ☐ Depleted Matrix | | | | ☐ Anomalous Bright Loamy Soils (F20) |
| | anic Bodies (A6) (LRR P,T,U | | Redox Dark Surfa | ice (F6) | | | (MLRA 153B) |
| | n Mucky Mineral (A7) (LRR | P,T,U) | ☐ Depleted Dark Su | ırface (F7) | | | Red Parent Material (TF2) |
| | k Presence (A8) (LRR U) | | Redox Depressio | | | | Very Shallow Dark Surface (TF12) |
| ☐ 1 cm | n Muck (A9) (LRR P,T) | | Marl (F10) (LRR U | J) | | | Other (Explain in Remarks) |
| ☐ Dep | leted Below Dark Surface (| A11) | Depleted Ochric | | - | | _ |
| | k Dark Surface (A12) | | Iron-Manganese | Masses (F12) |) (LRR O,P,T) | | ³ Indicators of hydrophytic vegetation and |
| ☐ Coas | st Prairie Redox (A16) (ML I | RA 150A) | Umbric Surface (| F13) (LRR P,T | ,u) | | wetland hydrology must be present, |
| Sand | dy Mucky Mineral (S1) (LR I | R O,S) | Delta Ochric (F17 | ') (MLRA 151 | .) | | unless disturbed or problematic. |
| Sand | dy Gleyed Matrix (S4) | | Reduced Vertic (| F18) (MLRA 1 | 150A, 150B) | | |
| Sand | dy Redox (S5) | | ☐ Piedmont Floodp | lain Soils (F1 | 9) (MLRA 149A) |) | |
| ☐ Strip | ped Matrix (S6) | | Anomalous Bright | t Loamy Soils | s (F20) (MLRA 1 | 49A, 153C, 1 | 153D) |
| ✓ Dark | Surface (S7) (LRR P,S,T,U |) | | | | | |
| Restrictive L | ayer (if observed): | | | | | | |
| Туре: | | | | | | | |
| Depth (inch | es) | | | | | | Hydric Soil Present? Yes 🗸 No 🗌 |
| | | | | | | | |
| Remarks: | | | | | | | |
| Hydric soil c | ritoria mot | | | | | | |
| riyuric son c | interia met. | | | | | | |
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| Project/Site: | Jo <u>hns</u> | Island | - Queer | nsboro 1 | 15kV Line | _ City/0 | County: Joh | ıns Is <u>la</u> nd | / Charle | eston | | Sampling Dat | e: 3/5/2 <mark>01</mark> 9 | |
|----------------------------|---------------|--------------|-----------|------------|-------------|-------------------------|---------------|---------------------|-----------|---------------|------------------|-------------------------|----------------------------|---|
| Applicant/Owner: | Sante | e Coop | er | | | | | | State: | SC | | Sampling Poir | | |
| Investigator(s): | Brend | on Kel | ly / Bret | tt Sexton | | Section | on, Townshi | ip, Range: | | NA | _ | | • | |
| Landform: (hillslope, ter | race, et | c.) <u>F</u> | lat | | | Local | Relief (conca | ave, convex, r | none): | None | | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | | <u> </u> | Lat: | 32.7569159 | 14 | Long: | _ | -80.086841 | 125 | Datum: | NA | |
| Soil Map Unit Name: | Wand | o loam | າy fine s | and, 0 to | 6 percen | t slopes | | | | NWI C | Classification: | None | | |
| Are climatic/hydrologic | conditio | ns on t | he site t | ypical for | this time o | of year? Yes | 1 |] ٥ | ∏If no, e | explain in Re | emarks.) | | | |
| Are Vegetation | , Soil | | or Hydro | ology | signifi | cantly disturbe | ed? A | re "Norm: | al Circum | nstances" pı | resent? Yes | | | |
| Are Vegetation | , Soil | \Box , | or Hydro | ology | natura | ally problemation | c? (If | f needed, | explain a | any answers | in Remarks.) | | | |
| SUMMARY OF FIR | NDING | GS - A | ttach | site ma | ap show | ing sampli | ing point | locatio | ons, tra | ansects, | important fe | atures, etc. | | |
| Hydrophytic Vegetatio | on Drese | nt? | | Yes [| ✓ No | | lc ti | he Sample | d Area | | | | | |
| Hydric Soil Present? | Jiiiiese | 110: | | _ | □ No | ✓ | | hin a wetla | | | Yes 🗌 | No 🗸 | | |
| Wetland Hydrology Pr | resent? | | | _ | □ No | ☑ | VVICI | Till a Weele | | | 163 | 140 | | |
| Remarks: All three w | vetland | indica | tors are | not pres | ent, area | is not a wetla | and. | | | | | | | |
| HYDROLOGY | | | | | | | | | | • | | | . 17 | |
| Wetland Hydrology Indi | | | | | II 4b -4 I | | | | | Secon | | ninimum of two re | equired) | |
| Primary Indicators (mini | | one is | required | ; check al | | | | | | | Surface Soil Cra | | (DO) | |
| Surface Water (A | | | | | = | c Fauna (B13) | | | | | | ted Concave Surfa | ice (B8) | |
| High Water Table | e (A2) | | | | | eposits (B15) (L | | | | | Drainage Patter | | | |
| ☐ Saturation (A3) | | | | | | gen Sulfide Odo | | | | | Moss Trim Lines | , , | | |
| ☐ Water Marks (B1 | • | | | | | d Rhizospheres | _ | Roots (C3) | | | Dry-Season Wat | | | |
| Sediment Deposi | | | | | | ce of Reduced I | , , | | | | Crayfish Burrow | ` ' | | |
| ☐ Drift Deposits (B | | | | | | Iron Reduction | | oils (C6) | | | | le on Aerial Image | ry (C9) | |
| Algal Mat or Crus | | | | Ш | | uch Surface (C7 | - | | | | Geomorphic Po | sition (D2) | | |
| ☐ Iron Deposits (B5 | 5) | | | | Other (| Explain in Rem | iarks) | | | | Shallow Aquitar | d (D3) | | |
| Inundation Visible | | | agery (B7 | <i>'</i>) | | | | | | | FAC-Neutral Tes | • • | | |
| Water-Stained Le | eaves (B | i9) | | | | | | | | | Sphangum moss | s (D8) (LRR T,U) | | |
| Field Observations: | | | _ | | | | | | | | | | | |
| Surface Water Present? | | Yes | ∐ No | | | (inches): | | | | | | | | |
| Water Table Present? | | Yes | ∐ No | | | (inches): | | | | | | | | |
| Saturation Present? | | Yes | ∐ No | o 🗸 | Depth (| (inches): | | | Wetlan | d Hydrolog | y Present? Y | es 🗌 No | √ | |
| (includes capillary fringe | | | | | | | | | | | | | | |
| Describe Recorded Data | ı (stream | າ gauge | , monito | ring well, | aerial pho | tos, previous ir | nspections), | , if availab | ile: | | | | | |
| Remarks: No hydrolog | gy indica | ators pi | resent | | | | | | | | | | | |

| | Dominant Species? Y Y = Total Cover f total cover: = Total Cover f total cover: | Indicator Status FACU FAC FAC | Dominance Test Worksheet:Number of Dominant SpeciesThat Are OBL, FACW, or FAC:3Total Number of Dominant4Species Across All Strata:4Percent of Dominant Species75%That Are OBL, FACW, or FAC:75%Prevalence Index worksheet:OBL species0x 1 =0FACW species0x 2 =0FAC species80x 3 =240FACU species60x 4 =240UPL species0x 5 =0Column Totals:140(A)480Prevalence Index = B/A =3.4Hydrophytic Vegetation Indicators: | (A (B) (A) |
|------------------------------|---|---|---|--|
| 95 47.5 20% o | Y Y = Total Cover f total cover: = Total Cover f total cover: | FACU FAC FAC | That Are OBL, FACW, or FAC: 3 Total Number of Dominant Species Across All Strata: 4 Percent of Dominant Species That Are OBL, FACW, or FAC: 75% Prevalence Index worksheet: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 80 x 3 = 240 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column Totals: 140 (A) 480 Prevalence Index = B/A = 3.4 | (B |
| 25 10 95 47.5 20% o | Y = Total Cover f total cover: = Total Cover f total cover: | FAC FAC | Total Number of Dominant Species Across All Strata: 4 Percent of Dominant Species That Are OBL, FACW, or FAC: 75% Prevalence Index worksheet: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 80 x 3 = 240 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column Totals: 140 (A) 480 Prevalence Index = B/A = 3.4 | (B |
| 95 47.5 20% o | = Total Cover: f total cover: = Total Cover f total cover: | FAC | Species Across All Strata: 4 Percent of Dominant Species 75% That Are OBL, FACW, or FAC: 75% Prevalence Index worksheet: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 80 x 3 = 240 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column Totals: 140 (A) 480 | (A |
| 95 47.5 20% o | = Total Cover: f total cover: | | Percent of Dominant Species That Are OBL, FACW, or FAC: 75% Prevalence Index worksheet: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 80 x 3 = 240 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column Totals: 140 (A) 480 | (A |
| 20% o | = Total Cover: f total cover: | 19 | That Are OBL, FACW, or FAC: 75% Prevalence Index worksheet: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 80 x 3 = 240 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column Totals: 140 (A) 480 | |
| 20% o | = Total Cover: f total cover: | 19 | Prevalence Index worksheet: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 80 x 3 = 240 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column Totals: 140 (A) 480 | |
| 20% o | = Total Cover: f total cover: | 19 | OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 80 x 3 = 240 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column Totals: 140 (A) 480 | (B |
| 20% o | = Total Cover: f total cover: | 19 | OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 80 x 3 = 240 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column Totals: 140 (A) 480 | |
| 20% 0 | = Total Cover of total cover: | 19 | FACW species 0 $x 2 = 0$ FAC species 80 $x 3 = 240$ FACU species 60 $x 4 = 240$ UPL species 0 $x 5 = 0$ Column Totals: 140 (A) 480 Prevalence Index = B/A = 3.4 | |
| | of total cover: | | FAC species 80 $x 3 = 240$ FACU species 60 $x 4 = 240$ UPL species 0 $x 5 = 0$ Column Totals: 140 (A) 480 Prevalence Index = B/A = 3.4 | (E |
| | of total cover: | | FACU species $ \begin{array}{cccc} 60 & \text{x 4} = & 240 \\ \text{UPL species} & 0 & \text{x 5} = & 0 \\ \text{Column Totals:} & 140 & \text{(A)} & 480 \\ \hline & & & & & & & & & & & & & & & & & &$ | (E |
| | of total cover: | | UPL species $0 \times 5 = 0$ Column Totals: $140 \times 6 = 140$ Prevalence Index = B/A = 3.4 | (E |
| | of total cover: | | Column Totals: 140 (A) 480 Prevalence Index = B/A = 3.4 | <u> </u> |
| | of total cover: | | Prevalence Index = B/A = 3.4 | ' |
| | of total cover: | | | |
| | of total cover: | | Hydrophytic Vegetation Indicators: | |
| | of total cover: | | nydrophytic vegetation indicators. | |
| | _ | | | |
| 40 | Υ | | ✓ Dominance Test is > 50% | |
| 40 | ī | FAC | Prevalence Index is $\leq 3.0^{\circ}$ | |
| | | FAC | Problematic Hydrophytic Vegetation (Explain) | |
| | | | Problematic Hydrophytic Vegetation (Explain) | |
| | | | ¹ Indicators of hydric soil and wetland hydrology must | |
| | | | be present, unless disturbed or problematic | |
| | | | be present, unless disturbed of problematic | |
| 40 | = Total Cover | - | Definitions of Vegetation Strata: | |
| | f total cover: | o | Definitions of Vegetation Strata. | |
| <u>20</u> 20% o | in total cover. | ٥ | Tree Woody plants evaluding woody vines approximately 201 | L |
| 5 | | ΕΛC | | |
| | ı | FAC | | • |
| | | | | |
| | | | | 0 |
| | | | ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| | | | Shrub - Woody plants, excluding woody vines, approximately 3 f | 0 |
| | | | 20 ft (1 to 6 m) in height. | |
| | | | | |
| | | | , ,,, | |
| | | | - | |
| _ | | | vines, less than approximately 3 ft (1 m) in neight. | |
| 5 | = Total Cover | | Woody vine - All woody vines, regardless of height. | |
| 2.5 20% o | f total cover: | 1 | | |
| | _ | | | |
| | _ | | | |
| | | | | |
| | | | Hydrophytic | |
| | | | Vegetation Yes ✓ No □ | |
| | | | Present? | |
| | = Total Cover | | | |
| 20% c | of total cover: | | | |
| 2 | 5 20% colow) | 5 Y 5 = Total Cover 20% of total cover: = Total Cover 20% of total cover: | 5 Y FAC 5 = Total Cover 2.5 20% of total cover: 1 = Total Cover 20% of total cover: | Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Hydrophytic Vegetation Present? Total Cover 20% of total cover: |

SOIL Sampling Point: WI-13 Up

| | scription: (Describe to the | depth need | ed to document the indic | | irm the absendox Features | ce of indicat | ors). | , <u>-</u> | | | | | | | |
|-------------------------|--|--------------|--------------------------------------|---------------------------------------|---------------------------|---|---|--|----------|--|--|--|--|--|--|
| Depth (inches) | Color (moist) | % | Color (moist) | ке % | Type ¹ | Loc ² | Texture | Remarks | | | | | | | |
| 0-10 | 10YR 3/2 | 100 | Color (moist) | 70 | Турс | LOC | loamy sand | < 70% coated | | | | | | | |
| 10-14 | 10YR 4/2 | 100 | . ——— | | | | loamy sand | no redox | | | | | | | |
| 14-18+ | 10YR 4/3 | 100 | | | | | loamy sand | | | | | | | | |
| | | | - | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | _ | | | | | | | | | | | | | | |
| | | | . ———— | | | | | | | | | | | | |
| ¹ Type C = 0 | Concentration, D = depletio | on, RM = Red | uced Matrix, MS = Maske | d Sand Grain | ıs | | ² Location: PL = Po | ore Lining, M = Matrix | | | | | | | |
| Hydric Soi | Indicators: | | | | | | Indicators for Pro | oblematic Hydric Soils ³ : | | | | | | | |
| ☐ His | tosol (A1) | | ☐ Polyvalue Below S | Surface (S8) | (LRR S,T,U) | | 1 cm Muc | k (A9) (LRR O) | | | | | | | |
| ☐ His | tic Epipedon (A2) | | ☐ Thin Dark Surface | (S9) (LRR S, | T,U) | | 2 cm Muc | k (A10) (LRR S) | | | | | | | |
| | ck Histic (A3) | | Loamy Mucky Mi | | RR O) | | | Vertic (F18) (outside MLRA 150A,B) | | | | | | | |
| | drogen Sulfide (A4) | | Loamy Gleyed Ma | | | | Piedmont Floodplain Soils (F19) (LRR P,S,T) | | | | | | | | |
| | atified Layers (A5) | | Depleted Matrix (| • | | | Anomalous Bright Loamy Soils (F20) | | | | | | | | |
| | ganic Bodies (A6) (LRR P,T,I | • | Redox Dark Surfa | | | | (MLRA 15 | • | | | | | | | |
| | m Mucky Mineral (A7) (LRF Ick Presence (A8) (LRR U) | ₹ P, I, U) | ☐ Depleted Dark Su☐ Redox Depression | | | | | nt Material (TF2) low Dark Surface (TF12) | | | | | | | |
| | m Muck (A9) (LRR P,T) | | ☐ Marl (F10) (LRR U | | | | | plain in Remarks) | | | | | | | |
| | pleted Below Dark Surface | (A11) | Depleted Ochric (| 151) | | □ Other (Ex | pidir ii Kemarka, | | | | | | | | |
| | ck Dark Surface (A12) | , | ☐ Iron-Manganese | - | | ³ Indicators of hydrophytic vegetation and | | | | | | | | | |
| | ast Prairie Redox (A16) (ML | RA 150A) | ☐ Umbric Surface (F | 13) (LRR P,T | ,U) | | wetland h | ydrology must be present, | | | | | | | |
| ☐ Sar | ndy Mucky Mineral (S1) (LR | RR O,S) | Delta Ochric (F17 |) (MLRA 151 |) | | unless dis | turbed or problematic. | | | | | | | |
| ☐ Sar | ndy Gleyed Matrix (S4) | | Reduced Vertic (F | | - | | | | | | | | | | |
| | ndy Redox (S5) | | Piedmont Floodp | · · · · · · · · · · · · · · · · · · · | | - | | | | | | | | | |
| | ipped Matrix (S6) | 1) | Anomalous Bright | t Loamy Soils | s (F20) (MLRA | 149A, 153C, | 153D) | | | | | | | | |
| | rk Surface (S7) (LRR P,S,T,U |)) | | | | | Ī | | | | | | | | |
| Type: | Layer (if observed): | | | | | | | | | | | | | | |
| Depth (inc | hes) | | | | | | Hydric Soil Pres | sent? Yes 🗌 No | y | | | | | | |
| . ` | , | | | | | | | _ | | | | | | | |
| Remarks: | | | | | | | - | | | | | | | | |
| Hvdric soil | criteria not met. | | | | | | | | | | | | | | |
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| Project/Site: | Johns Island - Queensboro 115kV L | Line City/County: Johns Island | d / Charleston | Sampling Date: <u>3/5/2019</u> |
|--|---|--|--|--|
| Applicant/Owner: | Santee Cooper | | State: SC | Sampling Point: WI-13 Wet |
| Investigator(s): | Brendon Kelly / Brett Sexton | Section, Township, Range | | |
| Landform: (hillslope, ter | | Local Relief (concave, convex, | | Slope (%): 0 |
| Subregion (LRR or MLRA | <u> </u> | | -80.0868413 | Datum: NA |
| Soil Map Unit Name: | Wando loamy fine sand, 0 to 6 per | | NWI Classifica | |
| · <u>-</u> | conditions on the site typical for this tin , Soil | <u> </u> | (If no, explain in Remarks.) mal Circumstances" present? | |
| Are Vegetation Are Vegetation | | • | , explain any answers in Rema | |
| Are vegetation | , 3011, or regarding, | aturally problematic: (ii needed, | , explain any answers in heme | 31 85.7 |
| SUMMARY OF FIL | NDINGS - Attach site map sh | nowing sampling point location | ons, transects, impor | tant features. etc. |
| | - I | 0 to 10 to 1 | | Tanta 10000 |
| Hydrophytic Vegetatic | n Present? Yes | No 🗌 Is the Sample | ed Area | |
| Hydric Soil Present? | | No within a wet | | ✓ No □ |
| Wetland Hydrology Pr | esent? Yes 🗸 | No 🗌 | | |
| Remarks: | | | | |
| All three in | idicators are present, area is a wetla | and | | |
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| 111/2201001 | | | | |
| HYDROLOGY | | | | |
| Wetland Hydrology Ind | | | | dicators (minimum of two required) |
| | mum of one is required; check all that a | | _ | ce Soil Cracks (B6) |
| Surface Water (A | <u> </u> | ruatic Fauna (B13) | | ely Vegetated Concave Surface (B8) |
| High Water Table | _ | arl Deposits (B15) (LRR U) | | age Patterns (B10) |
| Saturation (A3) | · | drogen Sulfide Odor (C1) didized Rhizospheres on Living Roots (C3 | | Trim Lines (B16) eason Water Table (C2) |
| ☐ Water Marks (B1☐ Sediment Depos | _ | esence of Reduced Iron (C4) | | eason water rable (C2) ish Burrows (C8) |
| ☐ Drift Deposits (B | | esence of Reduced from (C4) ecent Iron Reduction in Tilled Soils (C6) | | ation Visible on Aerial Imagery (C9) |
| Algal Mat or Cru | _ | in Much Surface (C7) | | norphic Position (D2) |
| Iron Deposits (B | <u> </u> | her (Explain in Remarks) | | ow Aquitard (D3) |
| · | le on Aerial Imagery (B7) | Ter (Explain in Nemarko) | <u>=</u> | Neutral Test (D5) |
| ☐ Water-Stained Lo | | | | ngum moss (D8) (LRR T,U) |
| Field Observations: | · , | | | |
| Surface Water Present? | Yes 🗌 No 🗸 De _l | epth (inches): | Wetland Hydrology | |
| Water Table Present? | Yes 🗌 No 🗸 Dep | epth (inches): | Present? | Yes 🗸 No 🗌 |
| Saturation Present? | Yes 🗌 No 🗸 Dep | epth (inches): | | |
| (includes capillary fringe |) | | | |
| Describe Recorded Data | (stream gauge, monitoring well, aerial | l photos, previous inspections), if availal | ble: | |
| | | | | |
| Remarks: | | | | |
| Hydrology (| riteria met. | | | |
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| ve Strata) - Use scie | | - | Tarres. | | Sampling Point: WI-13 Wet |
|----------------------------|---|---|----------------------|---|--|
| | | Absolute | Dominant | Indicator | Dominance Test Worksheet: |
| (Plot size: 30 ft |) | % Cover | Species? | Status | Number of Dominant Species |
| | | | | | That Are OBL, FACW, or FAC: 1 (A) |
| | | | | | Total Number of Dominant |
| | | | | | Species Across All Strata: 1 (B) |
| | | | | | Percent of Dominant Species |
| | | | | | That Are OBL, FACW, or FAC: 100% (A/ |
| | | | | | |
| | | | _ | | Prevalence Index worksheet: |
| - | | 2 0% c | of total cover: | | OBL species 0 x 1 = 0 |
| (Plot size: 30 ft |) | | | | FACW species 0 x 2 = 0 |
| | | | | | FAC species 70 x 3 = 210 |
| | | | | | FACU species 0 x 4 = 0 |
| | | | | | UPL species $0 \times 5 = 0$ Column Totals: $70 \times 6 \times 5 = 0$ |
| | | | | | Column Totals: 70 (A) 210 (B) |
| | | | | | Prevalence Index = $B/A = 3.0$ |
| | | | = Total Cover | | Hydrophytic Vegetation Indicators: |
| 50% of total cover: | | 20% (| _ | | ,, |
| - |) | • | - | | ✓ Dominance Test is > 50% |
| | | 70 | Υ | FAC | ✓ Prevalence Index is ≤ 3.0 ¹ |
| <u>-</u> | | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | | |
| | | | | | ¹ Indicators of hydric soil and wetland hydrology must |
| | | | | | be present, unless disturbed or problematic |
| | | | | | |
| | | 70 | = Total Cover | • | Definitions of Vegetation Strata: |
| 50% of total cover: | 35 | 20% c | of total cover: | 14 | |
| (Plot size: 30 ft |) | | | _ | Tree - Woody plants, excluding woody vines, approximately |
| | | | | | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in |
| | | | | | diameter at breast height (DBH). |
| | | | | | Sapling - Woody plants, excluding woody vines, |
| | | | | | approximately 20 ft (6 m) or more in height and less than 3 |
| | | | | | in. (7.6 cm) DBH. |
| | | | | | Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. |
| | | | | | Herb - All herbaceous (non-woody) plants, including |
| | | | | | herbaceous vines, regardless of size. Includes woody |
| | | | | | plants, except woody vines, less than approximately 3 ft (1 |
| | | | | | m) in height. |
| | | | = Total Cover | r | Woody vine - All woody vines, regardless of height. |
| 50% of total cover: | | 20% (| of total cover: | | |
| n (Plot size: 30 ft) |) | • | - | | |
| | | | | | |
| | | | | | |
| | | | | | Hydrophytic |
| | | | | | Vegetation Yes 🗸 No 🗌 |
| | | | | | Present? |
| | | | _ | | |
| | | | of total cover: | | |
| | | - | | | |
| - | nd Plant Lis | t (Atlantic a | nd Gulf Coast | tal Plain) us | ed for indicator status. |
| c vegetation criteria met. | | | | | |
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| | 50% of total cover: (Plot size: 30 ft 50% of total cover: d, list morphological adapta | (Plot size: 30 ft) 50% of total cover: (Plot size: 30 ft) 50% of total cover: (Plot size: 30 ft) rifera 50% of total cover: 35 (Plot size: 30 ft) (Plot size: 30 ft) | (Plot size: 30 ft) | Absolute Dominant % Cover Species? Absolute Species? Dominant % Cover Species? | Absolute Dominant Indicator % Cover Species? Status |

SOIL Sampling Point: WI-13 Wet

| Profile D | escription: (Describe to the | depth need | ed to document the indi | | irm the absenc | e of indicato | ors). | , - | |
|-------------------|--|-------------|-------------------------------------|----------------------|------------------------|------------------|----------------------------------|--|---|
| (inches | | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-6 | 10YR 3/2 | 100 | Color (moise) | 70 | .,,,, | 200 | loamy sand >70% co | | |
| 6-18+ | 10YR 3/1 | 100 | | | | | loamy sand 100% co | | _ |
| | | | | | | | · | | _ |
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| | | | | | | | | | |
| ¹Type C = | = Concentration, D = depletion | n, RM = Red | uced Matrix, MS = Maske | ed Sand Grain | S | | ² Location: PL = Pore | Lining, M = Matrix | |
| Hydric Se | oil Indicators: | | | | | | Indicators for Probl | ematic Hydric Soils ³ : | |
| □н | listosol (A1) | | ☐ Polyvalue Below | Surface (S8) | (LRR S,T,U) | | 1 cm Muck (| A9) (LRR O) | |
| Ш | listic Epipedon (A2) | | Thin Dark Surface | | | | 2 cm Muck (| | |
| | lack Histic (A3) | | Loamy Mucky M | | RR O) | | _ | rtic (F18) (outside MLRA 150A,B |) |
| | lydrogen Sulfide (A4) | | Loamy Gleyed M | | | | | oodplain Soils (F19) (LRR P,S,T) | |
| | tratified Layers (A5) | | ☐ Depleted Matrix | | | | | Bright Loamy Soils (F20) | |
| | Organic Bodies (A6) (LRR P,T,L cm Mucky Mineral (A7) (LRR | - | Redox Dark Surfa | | | | (MLRA 153B | Naterial (TF2) | |
| | fluck Presence (A8) (LRR U) | P,1,0) | ☐ Depleted Dark Su☐ Redox Depressio | | | | | v Dark Surface (TF12) | |
| | cm Muck (A9) (LRR P,T) | | Marl (F10) (LRR L | | | | | iin in Remarks) | |
| | Depleted Below Dark Surface (| A11) | ☐ Depleted Ochric | | 151) | | | | |
| | hick Dark Surface (A12) | , | ☐ Iron-Manganese | | - | | ³ Indicators o | of hydrophytic vegetation and | |
| | oast Prairie Redox (A16) (ML | RA 150A) | ☐ Umbric Surface (| F13) (LRR P,T | ,U) | | wetland hyd | rology must be present, | |
| □ s | andy Mucky Mineral (S1) (LR I | R O,S) | Delta Ochric (F17 | 7) (MLRA 151 |) | | unless distur | rbed or problematic. | |
| S | andy Gleyed Matrix (S4) | | Reduced Vertic (| , , | • | | | | |
| | andy Redox (S5) | | Piedmont Floodp | • | | - | | | |
| | tripped Matrix (S6) | , | Anomalous Brigh | t Loamy Soils | s (F20) (MLRA 1 | 49A, 153C, 1 | 153D) | | |
| | park Surface (S7) (LRR P,S,T,U |) | | | | | | | |
| Type: | ve Layer (if observed): | | | | | | | | |
| Depth (ir | nches) | | | | | | Hydric Soil Presen | nt? Yes 🗸 No 🗌 |] |
| | | | | | | | | | |
| Remarks | : | | | | | | _ | | |
| l la calada a a a | ett auta auta usa a | | | | | | | | |
| Hydric so | oil criteria met. | | | | | | | | |
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| Project/Site: | Johns | <u>Island</u> | - Queer | nsboro 11 | L5kV Line | City/Coun | ity: Johns Island | d / Charl | leston | Sampling Date | e: <u>3/</u> 5/2019 | |
|---|-----------|---------------|------------|--------------|-----------------|---------------------------------|----------------------|-------------|--|-----------------------------------|---------------------|---|
| Applicant/Owner: | Sante | e Coop | oer | | | | | State: | SC | Sampling Poin | t: WJ-2 Up | |
| Investigator(s): | Brend | on Kel | lly / Bret | tt Sexton | | Section, T | ownship, Range | : | NA | | | |
| Landform: (hillslope, ter | race, et | c.) <u></u> | Flat | | | Local Relie | ef (concave, convex, | , none): | None | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | | | Lat: | 32.75825841 | Long: | | -80.08564654 | Datum: | NA | |
| Soil Map Unit Name: | Wand | o loan | ny fine s | and, 0 to | 6 percen | t slopes | | | NWI Classification: | None | | |
| Are climatic/hydrologic of | conditio | ns on t | the site t | ypical for t | this time o | of year? Yes | ✓o | ∏If no, ∈ | explain in Remarks.) | | | |
| Are Vegetation | , Soil | | , or Hydro | ology | ✓ signification | cantly disturbed? | Are "Norm | nal Circun | mstances" present? Yes | 1 | | |
| Are Vegetation | , Soil | \Box , | , or Hydro | ology | natura | ally problematic? | (If needed, | , explain a | any answers in Remarks.) | | | |
| SUMMARY OF FIN | NDINC | 3S - <i>F</i> | Attach | site ma | p show | ing sampling | point location | ons, tra | ansects, important feat | ures, etc. | | |
| Hydrophytic Vegetatio | n Prese | nt? | | Yes [| ✓ No | | Is the Sample | ed Area | | | | |
| Hydric Soil Present? | | | | _ | □ No | <u></u> | within a wet | | Yes | No 🗸 | | |
| Wetland Hydrology Pro | esent? | | | - | □ No | | | | .63 🗀 | | | |
| Remarks: All three w | etianu | inuica | itors are | not pres | ent, area | is not a wetland. | | | | | | |
| HYDROLOGY Wetland Hydrology Indi | icators: | | | | | | | | Secondary Indicators (min | imum of two re | auired) | |
| Primary Indicators (mini | | | requirec | t chack al | l that annl | v). | | | Surface Soil Cracks | | <u>quireu)</u> | |
| Surface Water (A | | OHE IS | required | | | y). c Fauna (B13) | | | Sparsely Vegetate | | co (RS) | |
| High Water Table | - | | | | = | eposits (B15) (LRR (| ı) | | ☐ Drainage Patterns | | ce (bo) | |
| Saturation (A3) | : (AZ) | | | | | gen Sulfide Odor (C1 | | | Moss Trim Lines (E | | | |
| Water Marks (B1 | 11 | | | | | ed Rhizospheres on | • | 1 | ☐ Dry-Season Water | • | | |
| Sediment Deposi | • | | | | | ce of Reduced Iron | , | ') | Crayfish Burrows (| | | |
| | | | | | | | • • | | _ ′ | • | n. (CO) | |
| ☐ Drift Deposits (B3☐ Algal Mat or Crus | | | | | | Iron Reduction in T | illed Solls (Cb) | | Saturation Visible | _ | ry (C9) | |
| | | | | | | uch Surface (C7) | ١ | | Geomorphic Positi | | | |
| ☐ Iron Deposits (B5☐ Inundation Visibl | - | rial Im | 2222/D. | 7) | Other (| Explain in Remarks) |) | | ☐ Shallow Aquitard (☐ FAC-Neutral Test (| • | | |
| Water-Stained Le | | | agery (B | ′) | | | | | Sphangum moss (I | • | | |
| Field Observations: | taves (D | 9) | | | | | | | | 70) (- 1111 1) 0) | | |
| Surface Water Present? | | Yes | ☐ No | o 🗸 | Denth | (inches): | | | | | | |
| Water Table Present? | | Yes | ☐ No | _ | | (inches): | | | | | | |
| Saturation Present? | | Yes | ☐ No | _ | | (inches): | | Wetlan | nd Hydrology Present? Yes | ☐ No | 7 | |
| (includes capillary fringe | | 163 | | , . | Берин | ,inches) | | vvetiai | ilu Hydrology Fresent: Tes | | <u> </u> | |
| Describe Recorded Data | | n gauge | e, monito | oring well, | aerial pho | tos, previous inspe | ctions), if availal | ble: | | | | |
| Remarks: | | | | | | | | | | | | |
| No hydrolog | gy indica | ators p | resent | | | | | | | | | |
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| ee Stratum (Plot size: 30 ft) Quercus nigra Acer rubrum Liquidambar styraciflua Quercus michauxii | | solute | | | | |
|--|------|----------|------------------|------------|---|-----|
| Quercus nigra Acer rubrum Liquidambar styraciflua | % | Jointe | Dominant | Indicator | Dominance Test Worksheet: | |
| Acer rubrum Liquidambar styraciflua | | Cover | Species? | Status | Number of Dominant Species | |
| Liquidambar styraciflua | | 25 | Y | FAC | That Are OBL, FACW, or FAC: 8 | (A) |
| | | 15 | Y | FAC | Total Number of Dominant | |
| Quercus michauxii | | 15 | Υ | FAC | Species Across All Strata: 10 | (B) |
| | | 10 | | FACW | Percent of Dominant Species | |
| | | | | | That Are OBL, FACW, or FAC: 80% | (A/ |
| | | | | | | |
| | | | = Total Cover | | Prevalence Index worksheet: | |
| 50% of total cover: | 32.5 | 20% o | f total cover: _ | 13 | OBL species 0 x 1 = 0 | |
| oling Stratum (Plot size: 30 ft) | | | _ | | FACW species 35 x 2 = 70 | |
| Quercus nigra | | 15 | Υ | FAC | FAC species 145 x 3 = 435 | |
| Quercus laurifolia | | 5 | | FACW | FACU species 50 x 4 = 200 | |
| Magnolia grandiflora | | 5 | | FAC | UPL species 0 x 5 = 0 | |
| | | | | | Column Totals: 230 (A) 705 | (B) |
| | | | | | Prevalence Index = B/A = 3.1 | |
| | | | | | Trevalence mack - 5/A - 5.1 | |
| | | | = Total Cover | | Hydrophytic Vegetation Indicators: | |
| 50% of total cover: | 12.5 | 20% o | f total cover: _ | 5 | | |
| ub Stratum (Plot size: <u>30 ft</u>) | | | _ | | ✓ Dominance Test is > 50% | |
| Ligustrum sinense | | 15 | Υ | FAC | Prevalence Index is $\leq 3.0^{1}$ | |
| Morella cerifera | | 15 | Υ | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| Magnolia virginiana | | 10 | | FACW | | |
| Quercus nigra | | 10 | | FAC | ¹ Indicators of hydric soil and wetland hydrology must | |
| | | | | | be present, unless disturbed or problematic | |
| | | | | | | |
| | | 50 | = Total Cover | <u> </u> | Definitions of Vegetation Strata: | |
| 50% of total cover: | 25 | 20% c | f total cover: | 10 | _ | |
| rb Stratum (Plot size: 30 ft) | | | _ | | Tree - Woody plants, excluding woody vines, approximately 20 fl | |
| Galium aparine | | 30 | Υ - | FACU | (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at | |
| Mitchella repens | | 10 | | FACU | breast height (DBH). | |
| Hexastylis arifolia | | 10 | | FAC | G , , | |
| Dichanthelium scoparium | | 10 | | FACW | Sapling - Woody plants, excluding woody vines, approximately 2 | 0 |
| Энгининский эсоринин | | | | TACV | ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| | | | | | Shrub - Woody plants, excluding woody vines, approximately 3 t | 0 |
| | | | | | 20 ft (1 to 6 m) in height. | U |
| | | | | | 20 ft (1 to 0 ff) if height. | |
| | | | | | Herb - All herbaceous (non-woody) plants, including herbaceous | |
| | | | | | vines, regardless of size. Includes woody plants, except woody | |
| | | | | | vines, less than approximately 3 ft (1 m) in height. | |
| | | | | | | |
| | | | = Total Cover | | Woody vine - All woody vines, regardless of height. | |
| | | 20% o | f total cover: | | | |
| 50% of total cover: | 30 | | _ | 12 | | |
| | 30 | | _ | 12 | | |
| | 30 | 10 | Y | FAC | | |
| ody Vine Stratum (Plot size: 30 ft) | | 10 10 | - | | | |
| ody Vine Stratum (Plot size: 30 ft) Smilax bona-nox | _ | | Y | FAC | Hydrophytic | |
| ody Vine Stratum (Plot size: 30 ft) Smilax bona-nox Bignonia capreolata | _ | 10 | Y Y | FAC FAC | Hydrophytic Vegetation Yes 🗸 No 🗌 | |
| ody Vine Stratum (Plot size: 30 ft) Smilax bona-nox Bignonia capreolata | _ | 10 | Y Y | FAC FAC | | |
| oody Vine Stratum (Plot size: 30 ft) Smilax bona-nox Bignonia capreolata | _ | 10 10 | Y Y | FAC FAC | Vegetation Yes ✓ No □ | |

SOIL Sampling Point: WJ-2 Up

| Profile Des | scription: (Describe to the | depth need | led to document the indic | ator or confi | irm the absen | ce of indicat | ors). | | | | | | | |
|-------------------------|------------------------------------|----------------|----------------------------|---------------------|--------------------|---|---|--|------------|--|--|--|--|--|
| Depth | Matrix | | | Red | dox Features | | | | | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | | | | | | |
| 0-6 | 10YR 3/1 | 100 | | | | | sand | <70% coated | | | | | | |
| 6-12 | 10YR 2/1 | 100 | | | | | sand | <70% coated | | | | | | |
| 12-18+ | 10YR 4/1 | 100 | _ | | | | sand | <70% coated | | | | | | |
| | | | _ | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| | | | - | | | | | | | | | | | |
| ¹ Type C = C | Concentration, D = depletion | n RM - Red | luced Matrix MS – Masker | l Sand Grain | c | | ² Location: PL - P | ore Lining, M = Matrix | | | | | | |
| | | on, Kivi – Keo | iuceu Matrix, Mis – Masket | Janu Grain | 3 | | | - | | | | | | |
| _ | Indicators: tosol (A1) | | ☐ Polyvalue Below S | Surface (SQ) (| I DD C T I I \ | | | oblematic Hydric Soils ³ : ck (A9) (LRR O) | | | | | | |
| | tic Epipedon (A2) | | ☐ Thin Dark Surface | | | | | ck (A3) (LRR S) | | | | | | |
| | ck Histic (A3) | | Loamy Mucky Mir | | | | | | RΔ 150Δ B) | | | | | |
| | drogen Sulfide (A4) | | Loamy Gleyed Ma | | O _j | Reduced Vertic (F18) (outside MLRA 150A,B) Piedmont Floodplain Soils (F19) (LRR P,S,T) | | | | | | | | |
| | atified Layers (A5) | | Depleted Matrix (| | | | us Bright Loamy Soils (F20 | | | | | | | |
| | ganic Bodies (A6) (LRR P,T,I | U) | Redox Dark Surface | - | | | (MLRA 1 | | -, | | | | | |
| | m Mucky Mineral (A7) (LRF | - | ☐ Depleted Dark Sui | | | | nt Material (TF2) | | | | | | | |
| | ck Presence (A8) (LRR U) | | Redox Depression | | | | llow Dark Surface (TF12) | | | | | | | |
| ☐ 1 cr | m Muck (A9) (LRR P,T) | | Marl (F10) (LRR U |) | | | Other (Ex | plain in Remarks) | | | | | | |
| ☐ Dep | oleted Below Dark Surface | (A11) | Depleted Ochric (| F11) (MLRA | 151) | | | | | | | | | |
| ☐ Thi | ck Dark Surface (A12) | | ☐ Iron-Manganese N | Masses (F12) | (LRR O,P,T) | | ³ Indicators of hydrophytic vegetation and | | | | | | | |
| ☐ Coa | ast Prairie Redox (A16) (ML | LRA 150A) | ☐ Umbric Surface (F | 13) (LRR P,T | ,U) | | wetland | nydrology must be preser | nt, | | | | | |
| San | ndy Mucky Mineral (S1) (LR | RR O,S) | Delta Ochric (F17) | (MLRA 151) |) | | unless di | sturbed or problematic. | | | | | | |
| | ndy Gleyed Matrix (S4) | | Reduced Vertic (F | | • | | | | | | | | | |
| | ndy Redox (S5) | | Piedmont Floodpl | · · | | - | | | | | | | | |
| | pped Matrix (S6) | | Anomalous Bright | Loamy Soils | (F20) (MLRA | 149A, 153C, | 153D) | | | | | | | |
| | rk Surface (S7) (LRR P,S,T,U | J) | | | | | 1 | | | | | | | |
| | Layer (if observed): | | | | | | | | | | | | | |
| Type: Depth (incl | hasl | | | | | | Hydric Soil Pre | sent? Yes 🗌 | No 🗸 | | | | | |
| Deptii (iiici | iles) | | | | | | Hydric 3011 Pre | sent: res | No 🗸 | | | | | |
| Remarks: | | | | | | | | | | | | | | |
| Kemarks. | | | | | | | | | | | | | | |
| Hydric soil | criteria not met. | | | | | | | | | | | | | |
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| Project/Site: | Johns | Island | - Queer | nsboro 11 | 5kV Line | _City/County | : Johns Island | d / Charlesto | n | | Sampling Dat | e: <u>3/5/2019</u> | |
|--|----------|--------------|-------------|----------------|----------------------------------|----------------|-------------------|-----------------|------------|----------------------------------|--------------------|--------------------|---|
| Applicant/Owner: | | e Coop | | | | | | State: | SC | | Sampling Poin | t: WJ-2 Wet | |
| Investigator(s): | Brend | on Kel | ly / Bret | tt Sexton | | Section, Tov | vnship, Range | : : | NA | | | | |
| Landform: (hillslope, ter | race, et | c.) <u>F</u> | Flat | | | Local Relief (| (concave, convex, | · · | None | | | Slope (%): | 0 |
| Subregion (LRR or MLRA | | | | | Lat: 32.75826 | | Long: | -80.085647 | 1 | | Datum: | NA | |
| Soil Map Unit Name: | Wand | o loam | າy fine s | and, 0 to | 6 percent slopes | ; | | | _ | ssification: | None | | |
| Are climatic/hydrologic | conditio | ns on t | the site ty | ypical for t | his time of year? | Yes | √ 0 | ☐If no, expla | | • | | | |
| | , Soil | | , or Hydro | | significantly d | | | nal Circumstai | • | | 1 | | |
| Are Vegetation | , Soil | □ , | or Hydro | ology | naturally prob | lematic? | (If needed | , explain any a | answers ir | n Remarks.) | | | |
| SUMMARY OF FIR | NDING | GS - A | ttach | site ma | p showing sa | mpling po | oint locati | ons, trans | sects, in | nportant fe | atures, etc. | | |
| Hydrophytic Vegetatic | on Prese | ent? | | Yes 🗔 | Z No □ | | Is the Sample | ed Area | | | | | |
| Hydric Soil Present? | | | | Yes 🗔 | ∕ No □ | | within a wet | | | Yes 🗸 | No 🗌 | | |
| , Wetland Hydrology Pr | esent? | | | Yes 🗔 | | | | | | | | | |
| Remarks: All three w | vecturia | | tors are | present | | | | | | | | | |
| HYDROLOGY | | | | | | | | | 6 1 | | | . 1) | |
| Wetland Hydrology Ind | | | roguirod | الد مامماد ماا | that applyly | | | | | | ninimum of two re | <u>quired)</u> | |
| Primary Indicators (mini | | one is | required | ; check all | | (D12) | | | _ | Surface Soil Crac | | co (DO) | |
| Surface Water (A | - | | | | Aquatic Fauna Marl Deposits (| | | | | | ted Concave Surfa | ce (B8) | |
| High Water Table | e (AZ) | | | | Hydrogen Sulfic | | | | _ | Drainage Patteri | | | |
| Saturation (A3) | 1 \ | | | | Oxidized Rhizos | , , | ing Doots (C2 | .1 | _ | Moss Trim Lines | | | |
| ☐ Water Marks (B1 | - | | | | | • | • |)) | _ | Dry-Season Wat | | | |
| ☐ Sediment Depos | | | | | Presence of Re | • | • | | _ | Crayfish Burrow | , , | (CO) | |
| Drift Deposits (B | • | | | | Recent Iron Rec | | ed Solls (Cb) | | _ | | le on Aerial Image | ry (C9) | |
| Algal Mat or Crus | | | | | Thin Much Surf | | | | | Geomorphic Pos | | | |
| Iron Deposits (B | • | ! 1 1 | /D- | -\ | Other (Explain | n Remarks) | | | _ | Shallow Aquitar | | | |
| Inundation VisibWater-Stained Let | | | agery (B7 | ") | | | | | | FAC-Neutral Tes Sphangum moss | | | |
| Field Observations: | eaves (c | ,9) | | | | | | | Ш, | opnangam moss | (DO) (ERR 1,0) | | |
| Surface Water Present? | | Yes | ☐ No |) | Depth (inches): | | | | | | | | |
| Water Table Present? | | Yes | ☐ No | _ | Depth (inches): | | _ | | | | | | |
| Saturation Present? | | Yes | ☐ No | _ | Depth (inches): | | _ | Wetland Hy | vdrology I | Drocont? V | es 🗸 No | | |
| (includes capillary fringe | | 163 | | , 🔾 | Depth (inches) | | _ | wetianu ny | yarology i | Present: 10 | es 🛂 NO | | |
| Describe Recorded Data | | ก ฮลเเฮย | - monito | ring well | aerial nhotos, nre | vious inspecti | ions) if availa | hle· | | | | | |
| Remarks: 25 ft from c | • | 1 gauge | ., momeo | Tillig Well, | acriai priocos, pre | - Indus mapeet | ions), ii avanai | orc. | | | | | |
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VEGETATION (Five Strata) - Use scientific names of plants.

| | | Absolute | Dominant | Indicator | Dominance Test Worksheet: | |
|---|----------------|----------|-----------------|---------------|--|--------|
| Tree Stratum (Plot size: 30 ft |) | % Cover | Species? | Status | Number of Dominant Species | |
| 1. Quercus nigra | _ | 25 | Υ | FAC | That Are OBL, FACW, or FAC: 8 | (A) |
| 2. Acer rubrum | _ | 15 | Υ | FAC | Total Number of Dominant | |
| 3. <u>Liquidambar styraciflua</u> | _ | 15 | Υ | FAC | Species Across All Strata: 10 | _(B) |
| 4. Quercus michauxii | | 10 | | FACW | Percent of Dominant Species | |
| 5. | | | | | That Are OBL, FACW, or FAC: 80% | _(A/B) |
| 6. | _ | | | | | |
| | | 65 | = Total Cover | r | Prevalence Index worksheet: | |
| 50% of total cove | r: 32.5 | 20% (| of total cover: | 13 | OBL species 0 x 1 = 0 | _ |
| Sapling Stratum (Plot size: <u>30 ft</u> |) | | | | FACW species 35 x 2 = 70 | - |
| 1. Quercus nigra | | 15 | Υ | FAC | FAC species 145 x 3 = 435 | _ |
| 2. Quercus laurifolia | | 5 | | FACW | FACU species 50 x 4 = 200 | _ |
| 3. Magnolia grandiflora | _ | 5 | | FAC | UPL species 0 x 5 = 0 | _ |
| 4. | | | | | Column Totals: <u>230</u> (A) <u>705</u> | (B) |
| 5. | | | | | Prevalence Index = B/A = 3.1 | |
| 6. | | | | | Prevalence index – b/A – 3.1 | |
| | | 25 | = Total Cover | r | Hydrophytic Vegetation Indicators: | |
| 50% of total cove | r: 12.5 | 20% (| of total cover: | 5 | | |
| Shrub Stratum (Plot size: 30 ft |) | _ | • | | ✓ Dominance Test is > 50% | |
| 1. Ligustrum sinense | | 15 | Υ | FAC | Prevalence Index is $\leq 3.0^1$ | |
| 2. Morella cerifera | | 15 | Υ | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| 3. Magnolia virginiana | _ | 10 | | FACW | _ , , , , , , , , , , , , , , , , , , , | |
| 4. Quercus nigra | _ | 10 | | FAC | ¹ Indicators of hydric soil and wetland hydrology must | |
| 5. | _ | | | .,,, | be present, unless disturbed or problematic | |
| 6. | _ | | | | se present, amess distance of presentation | |
| | | 50 | = Total Cover | <u> </u> | Definitions of Vegetation Strata: | |
| 50% of total cove | r: 25 | | of total cover: | 10 | benintions of vegetation strata. | |
| | 1 | | or total cover. | 10 | Trac Wasdunlants avaluding wasdunings approximately 20 ft | |
| • | ' | 20 | | FACIL | Tree - Woody plants, excluding woody vines, approximately 20 ft | |
| 1. Galium aparine | | 30 | Υ | FACU | (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at | |
| 2. Mitchella repens | _ | 10 | | FACU | breast height (DBH). | |
| 3. Hexastylis arifolia | _ | 10 | | FAC | Sapling - Woody plants, excluding woody vines, approximately 20 | |
| 4. Dichanthelium scoparium | _ | 10 | | FACW | ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| 5. | _ | | | | | |
| 6. | _ | | | | Shrub - Woody plants, excluding woody vines, approximately 3 to | |
| 7. | | | | | 20 ft (1 to 6 m) in height. | |
| 8. | _ | | | | Herb - All herbaceous (non-woody) plants, including herbaceous | |
| 9. | _ | | | | vines, regardless of size. Includes woody plants, except woody | |
| 10. | _ | | | | vines, less than approximately 3 ft (1 m) in height. | |
| 11. | _ | | | | | |
| | | 60 | _ = Total Cover | r | Woody vine - All woody vines, regardless of height. | |
| 50% of total cove | r:30 | 20% (| of total cover: | 12 | | |
| Woody Vine Stratum (Plot size: 30 ft |) | | | | | |
| 1. Smilax bona-nox | _ | 10 | Υ | FAC | | |
| 2. Bignonia capreolata | | 10 | Υ | FAC | | |
| 3. Lonicera japonica | | 10 | Υ | FACU | Hydrophytic | |
| 4. | <u> </u> | | | | Vegetation Yes ✓ No □ | |
| 5. | | - | | | Present? | |
| | _ | 30 | = Total Cover | r | | |
| 50% of total cove | r: 15 | | of total cover: | 6 | | |
| Remarks: (If observed, list morphological ada ERDC/CRREL 2016 Regional Wet Hydrophytic vegetation criteria me | land Plant Lis | • | nd Gulf Coas | tal Plain) us | ed for indicator status. | |
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Sampling Point: WJ-2 Wet

SOIL Sampling Point: WJ-2 Wet

| | scription: (Describe to the | depth need | ed to document the indic | | | ce of indicat | ors). | | | | |
|--------------|--|-------------|--------------------------|-----------------------|-------------------|------------------|--------------------------------|-------------------|----------------|------------------|---|
| Depth | Matrix | | | | dox Features | . 2 | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | | emarks | |
| 0-9 | 10YR 2/1 | 100 | | | | | loamy sand | <70% c | | | |
| 9-18+ | 10YR 2/1 | 100 | | | | | loamy sand | saturat | <u>ed</u> | | |
| - | | | . ——— | | | | | | | | |
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| ¹Type C = C | Concentration, D = depletio | n, RM = Red | uced Matrix, MS = Masked | d Sand Grain | ıs | | ² Location: PL = Po | ore Lining | , M = Matrix | (| |
| Hydric Soil | Indicators: | | | | | | Indicators for Pro | blematic | Hydric Soils | s ³ : | |
| | tosol (A1) | | Polyvalue Below S | Surface (S8) | (LRR S,T,U) | | 1 cm Muc | | = | | |
| ☐ His | tic Epipedon (A2) | | ☐ Thin Dark Surface | (S9) (LRR S, | T,U) | | 2 cm Muc | k (A10) (I | LRR S) | | |
| ☐ Bla | ck Histic (A3) | | Loamy Mucky Mir | neral (F1) (LF | RR O) | | Reduced ' | Vertic (F1 | 8) (outside l | MLRA 150A,B |) |
| □ Нус | drogen Sulfide (A4) | | Loamy Gleyed Ma | trix (F2) | | | Piedmont | Floodpla | in Soils (F19) |) (LRR P,S,T) | |
| Str | atified Layers (A5) | | ☐ Depleted Matrix (| F3) | | | ☐ Anomalo | us Bright I | Loamy Soils (| (F20) | |
| ☐ Org | ganic Bodies (A6) (LRR P,T, L | J) | Redox Dark Surface | ce (F6) | | | (MLRA 15 | 3B) | | | |
| ☐ 5 c | m Mucky Mineral (A7) (LRR | P,T,U) | Depleted Dark Sur | rface (F7) | | | Red Parer | nt Materia | al (TF2) | | |
| | ck Presence (A8) (LRR U) | | Redox Depression | | | | | | Surface (TF1 | .2) | |
| | m Muck (A9) (LRR P,T) | | Marl (F10) (LRR U | | | | Other (Ex | plain in R | emarks) | | |
| | oleted Below Dark Surface | (A11) | Depleted Ochric (| | - | | 3 | | | | |
| | ck Dark Surface (A12) | _ | ☐ Iron-Manganese N | - | | | | - | ophytic vege | | |
| | ast Prairie Redox (A16) (ML | | Umbric Surface (F | | | | | | must be pre | | |
| | ndy Mucky Mineral (S1) (LR | R O,S) | Delta Ochric (F17) | | | | unless dis | turbed or | r problemation | C. | |
| _ | ndy Gleyed Matrix (S4) | | Reduced Vertic (F | , . | • | ^ | | | | | |
| | ndy Redox (S5) | | Piedmont Floodpl | - | | - | 1E3D) | | | | |
| | ipped Matrix (S6) rk Surface (S7) (LRR P,S,T,U | ١ | Anomalous Bright | Loamy Sons | S (FZU) (IVILKA | 149A, 153C, | 1530) | | | | |
| | | , | | | | | 1 | | | | |
| Type: | Layer (if observed): | | | | | | | | | | |
| Depth (incl | hes) | | | | | | Hydric Soil Pres | sent? | Yes 🗸 | No | |
| Deptii (iiio | | | | | | | 11,411,656,1116 | | .00 | 1 | ш |
| Remarks: | | | | | | | | | | | |
| | | | | | | | | | | | |
| Hydric soil | criteria not met. | | | | | | | | | | |
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WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

| Project/Site: | Johns Island | d - Qu <u>eensk</u> | oro 115kV | Line | City/County: | : Johns Island | l / Charleston | | Sampling Dat | e: <u>3/14/2019</u> |
|----------------------------|-----------------|---------------------|-----------------|------------------|---------------------|----------------------------------|--------------------|--------------------|-----------------------|---------------------|
| Applicant/Owner: | Santee Coo | per | | | _ | - | State: So | C | Sampling Poir | nt: WN-12 Up |
| Investigator(s): | Brendon Ke | lly / Brett S | exton | | Section, Tow | nship, Range: | : <u>N</u> | A | | |
| Landform: (hillslope, ter | race, etc.) | Flat | | | Local Relief (| concave, convex, | none): | one | | Slope (%): 0 |
| Subregion (LRR or MLRA) | LRR T | | Lat: | 32.75 | <u>-</u> 5246707 | Long: | -80.0 | 6218714 | Datum: | NA |
| Soil Map Unit Name: | Santee loan | n | | , | | - <u>-</u> | N | WI Classification: | PFO1A | |
| Are climatic/hydrologic | conditions on | the site typi | cal for this ti | ime of year? | Yes 🗸 | No 🗌 | (If no, explain ir | n Remarks.) | | |
| Are Vegetation | , Soil | , or Hydrolog | gy 🗌 s | significantly d | disturbed? | Are "Norm | nal Circumstances | " present? Ye | s 🗸 No | |
| Are Vegetation | , Soil | , or Hydrolog | gy 🗌 n | naturally prob | blematic? | (If needed, | explain any answ | vers in Remarks.) | | |
| | | | | | | | | | | |
| SUMMARY OF FI | NDINGS - / | Attach sit | e map sl | howing sa | ampling po | oint location | ons, transect | s, important | features, | etc. |
| | | | | | | | | | | |
| Hydrophytic Vegetation | on Present? | | Yes \square | No 🗸 | | Is the Sample | ed Area | | | |
| Hydric Soil Present? | | | Yes \square | No 🗸 | | within a wetl | and? | Yes 🗌 | No 🗹 | |
| Wetland Hydrology Pr | esent? | | Yes | No 🗸 | | | | | | |
| Remarks: | | | | | | | | | | |
| All three in | ndicators are | not presen | t, area is n | ot a wetlan | d | | | | | |
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| HYDROLOGY | | | | | | | | | | |
| Wetland Hydrology Ind | icators: | | | | | | <u>S</u> | econdary Indicato | ors (minimum o | f two required) |
| Primary Indicators (mini | mum of one is | s required; c | heck all that | apply): | | | | ☐ Surface Soi | l Cracks (B6) | |
| ☐ Surface Water (A | \1) | | ☐ Ac | quatic Fauna | (B13) | | | ☐ Sparsely Ve | getated Conca | ve Surface (B8) |
| ☐ High Water Tabl | e (A2) | | □ м | arl Deposits | (B15) (LRR U) | | | ☐ Drainage Pa | atterns (B10) | |
| ☐ Saturation (A3) | | | ☐ Hy | ydrogen Sulfi | ide Odor (C1) | | | ☐ Moss Trim | Lines (B16) | |
| ☐ Water Marks (B: | L) | | ☐ O | xidized Rhizo | spheres on Liv | ing Roots (C3) |) | ☐ Dry-Season | Water Table (0 | C2) |
| ☐ Sediment Depos | its (B2) | | ☐ Pr | esence of Re | educed Iron (C4 | 4) | | ☐ Crayfish Bu | rrows (C8) | |
| ☐ Drift Deposits (B | | | ☐ R€ | ecent Iron Re | eduction in Tille | ed Soils (C6) | | Saturation | Visible on Aeria | al Imagery (C9) |
| ☐ Algal Mat or Cru | - | | | nin Much Sur | | ` , | | | c Position (D2) | |
| ☐ Iron Deposits (B | | | | ther (Explain | | | | ☐ Shallow Aq | , , | |
| Inundation Visib | • | nagery (R7) | | iner (Explain | remarks, | | | FAC-Neutra | , , | |
| ☐ Water-Stained L | | idgely (D7) | | | | | | | moss (D8) (LRR | t T,U) |
| Field Observations: | | | | | | | | | | • |
| Surface Water Present? | Yes | ☐ No | ✓ De | epth (inches) |): | | Wetland Hyd | rology | | |
| Water Table Present? | Yes | ☐ No | | epth (inches) | | - | Present | . | Yes 🗌 | No 🗸 |
| Saturation Present? | Yes | ☐ No | | epth (inches) | | - | | | . 65 🗀 | |
| (includes capillary fringe | | | | eptii (iiioiies) | · · | _ | | | | |
| Describe Recorded Data | | e. monitorir | g well, aeria | al photos, pre | evious inspecti | ons). if availab | ole: | | | |
| | (20. 20 20.02 | c,c | 8 110, 00.10 | po.coo, p. c | , | 51.5 ₁ , 1. a valla a | | | | |
| Remarks: | | | | | | | | | | |
| | criteria not me | et. | | | | | | | | |
| Try ar orogy | arteria not me | | | | | | | | | |
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VEGETATION (Five Strata) - Use scientific names of plants.

| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ive Strata) - Use sci | | -1 1.4- | | | 5 |
|---|--|-----|---------------------|----------------------|---------------------|--|
| ee Stratum | (Plot size: 30 ft | ١ | Absolute % Cover | | Indicator Status | Dominance Test Worksheet: Number of Dominant Species |
| ee stratum | (FIUL 312C. 30 IL | .) | % COVE | Species? | Status | That Are OBL, FACW, or FAC: |
| | | | | | | Total Number of Dominant |
| - | | - | | | | |
| | | • | | | | · ——· |
| | | | | | | Percent of Dominant Species |
| | | - | | | | That Are OBL, FACW, or FAC: 50% (A |
| | | - | | = : 10 | | - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| | | | - | _= Total Cover | | Prevalence Index worksheet: |
| | 50% of total cover: | | 20% o | of total cover: | | OBL species 0 x 1 = 0 |
| pling Stratum | (Plot size: 30 ft | _) | | | | FACW species 0 x 2 = 0 |
| | | _ | | | | FAC species 20 x 3 = 60 |
| | | _ | | | | FACU species 30 x 4 = 120 |
| | | - | | | | UPL species 0 x 5 = 0 |
| | | = | | | | Column Totals: 50 (A) 180 (E |
| | | _ | | | | Prevalence Index = B/A = 3.6 |
| | | _ | | | | |
| | | | | = Total Cover | | Hydrophytic Vegetation Indicators: |
| | 50% of total cover: | | 20% c | of total cover: | | |
| rub Stratum | (Plot size: 30 ft |) | 1 | _ | | ☐ Dominance Test is > 50% |
| | · | T. | | | Ì | Prevalence Index is ≤ 3.0 ¹ |
| | | | | - | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| | | | | | | |
| | | · · | | | | 1 Indicators of hydric soil and wetland hydrology must |
| | | | | | | be present, unless disturbed or problematic |
| | | • | | | | be present, amos astalless of presentation |
| | | • | | = Total Cover | | Definitions of Vegetation Strata: |
| | 50% of total cover: | | | of total cover: | Ì | Definitions of vegetation strata. |
| erb Stratum | | 1 | 20/00 | T total cover. | $\overline{}$ | = W Last - webster werd with an approximately |
| | (Plot size: 30 ft | _) | 20 | v | rac . | Tree - Woody plants, excluding woody vines, approximately |
| Lolium per | | - | 20 | Y | FAC | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). |
| | m capillifolium , | - | 15 | Υ | FACU | |
| | ım procumbens | • | | | FACU | Sapling - Woody plants, excluding woody vines, |
| Stellaria m | <u>ledia</u> | - | 5 | | FACU | approximately 20 ft (6 m) or more in height and less than 3 |
| | | - | | | | in. (7.6 cm) DBH. |
| | | - | | | | Shrub - Woody plants, excluding woody vines, |
| | | - | | | | approximately 3 to 20 ft (1 to 6 m) in height. |
| | | - | | | | Herb - All herbaceous (non-woody) plants, including |
| | | - | | | | herbaceous vines, regardless of size. Includes woody |
| | | - | | | | plants, except woody vines, less than approximately 3 ft (1 |
| | | = | | | | m) in height. |
| | | | | = Total Cover | | Woody vine - All woody vines, regardless of height. |
| | 50% of total cover: | 25 | 20% c | of total cover: | 10 | |
| oody Vine Stratur | m (Plot size: 30 ft | _) | | | _ | |
| | | _ | | | | |
| | | | | | | |
| | | • | | | | Hydrophytic |
| | | • | | | | Vegetation Yes \square No \checkmark |
| | | • | | | | Present? |
| | | • | | = Total Cover | | |
| | 50% of total cover: | • | 20% (| – of total cover: | | |
| * | d, list morphological adapt REL 2016 Regional Wetla | | - | nd Gulf Coast | :al Plain) use | ed for indicator status. |

SOIL Sampling Point: WN-12 Up

| | cription: (Describe to the | depth need | ed to document the indi | cator or conf | irm the absenc | e of indicato | ors). | | |
|-------------|------------------------------------|-------------|-------------------------|----------------------|------------------------|------------------|----------------------------------|------------------------------------|-------------|
| Depth | Matrix | | | Redox | k Features | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-2 | 10YR 3/2 | 100 | | | | | loamy sand not coa | ted | |
| 2-18+ | 10YR 3/1 | 100 | | | | | loamy sand fill dirt | | |
| | _ | | | | | | | | |
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| 1 | | | | | | | 2 | | |
| | oncentration, D = depletio | n, RM = Red | uced Matrix, MS = Maske | ed Sand Grain | S | | ² Location: PL = Pore | | |
| Hydric Soil | | | | - 6 () | | | | ematic Hydric Soils ³ : | |
| | cosol (A1) | | ☐ Polyvalue Below | | - | | 1 cm Muck (| | |
| | cic Epipedon (A2) | | Thin Dark Surface | | | | | A10) (LRR S) | |
| | ck Histic (A3) | | Loamy Mucky M | | RR O) | | | rtic (F18) (outside MI | |
| | Irogen Sulfide (A4) | | Loamy Gleyed M | | | | | oodplain Soils (F19) (I | |
| | atified Layers (A5) | | ☐ Depleted Matrix | | | | | Bright Loamy Soils (F2 | <u>'</u> O) |
| | anic Bodies (A6) (LRR P,T,L | | Redox Dark Surfa | | | | (MLRA 153E | • | |
| | n Mucky Mineral (A7) (LRR | R P,T,U) | ☐ Depleted Dark Su | urface (F7) | | | Red Parent I | Material (TF2) | |
| | ck Presence (A8) (LRR U) | | Redox Depressio | | | | | v Dark Surface (TF12) | |
| ☐ 1 cr | m Muck (A9) (LRR P,T) | | Marl (F10) (LRR U | J) | | | Other (Expla | in in Remarks) | |
| ☐ Dep | oleted Below Dark Surface (| (A11) | Depleted Ochric | | - | | | | |
| | ck Dark Surface (A12) | | Iron-Manganese | Masses (F12) | (LRR O,P,T) | | ³ Indicators of | of hydrophytic vegeta | tion and |
| ☐ Coa | st Prairie Redox (A16) (ML | RA 150A) | Umbric Surface (| F13) (LRR P,T | ,U) | | wetland hyd | Irology must be prese | nt, |
| San | dy Mucky Mineral (S1) (LR | R O,S) | Delta Ochric (F17 | 7) (MLRA 151 |) | | unless distu | rbed or problematic. | |
| San | dy Gleyed Matrix (S4) | | Reduced Vertic (| F18) (MLRA 1 | .50A, 150B) | | | | |
| ☐ San | dy Redox (S5) | | Piedmont Floodp | olain Soils (F19 | 9) (MLRA 149A) |) | | | |
| ☐ Stri | pped Matrix (S6) | | Anomalous Bright | it Loamy Soils | (F20) (MLRA 1 | 49A, 153C, 1 | L53D) | | |
| ☐ Dar | k Surface (S7) (LRR P,S,T,U |) | | | | | | | |
| Restrictive | Layer (if observed): | | | | | | | | |
| Туре: | | | | | | | | _ | _ |
| Depth (inch | nes) | | | | | | Hydric Soil Preser | nt? Yes 🗌 | No 🗸 |
| Remarks: | | | | | | | | | |
| Kemarks. | | | | | | | | | |
| Hydric soil | criteria not met. | | | | | | | | |
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WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

| Project/Site: | Johns Island | d - Que <u>ensb</u> | oro <u>115kV</u> | [/] Line C | City/County: J | Johns Island , | / Charleston | _ | Sampling Date | e: 3/ <u>5/2</u> 019 | |
|----------------------------|---------------|---------------------|------------------|---------------------|--------------------|--------------------|-----------------------------|-----------------|-----------------------|-----------------------|-----------|
| Applicant/Owner: | Santee Coo | per | | | | | tate: SC | | Sampling Poin | | |
| Investigator(s): | Brendon Ke | elly / Brett S | exton | S | Section, Town | nship, Range: | NA | | | | |
| Landform: (hillslope, ter | race, etc.) | Flat | | L | ocal Relief (cc | oncave, convex, no | one): None | 9 | | Slope (%): | 0 |
| Subregion (LRR or MLRA) | LRR T | | Lat | : 32.7549 | 9448 | Long: | -80.068 | 9031 | Datum: | NA | |
| Soil Map Unit Name: | Stono fine s | sandy loam | | | | | NWI | Classification: | None | | |
| Are climatic/hydrologic | conditions on | the site typic | cal for this t | ime of year? | Yes 🗸 | No 🗌 | (If no, explain in Re | marks.) | | | |
| Are Vegetation | , Soil | , or Hydrolog | gy 🗌 s | significantly distu | urbed? | Are "Norma | nl Circumstances" pr | resent? Yes | ✓ No | | |
| Are Vegetation | , Soil | , or Hydrolog | gy 🗌 r | naturally probler | matic? | (If needed, e | explain any answers | in Remarks.) | | | |
| | | | | | | | | | | | |
| SUMMARY OF FI | NDINGS - A | Attach sit | e map s | howing sam | npling poi | int location | ns, transects, i | important | features, e | etc. | |
| | | | | | | | · · | • | | | |
| Hydrophytic Vegetation | on Present? | | Yes 🗸 | No 🗌 | 1 | s the Sampled | d Area | | | | |
| Hydric Soil Present? | | | Yes 🗸 | No 🗌 | | within a wetla | | Yes 🗸 | No 🗌 | | |
| , Wetland Hydrology Pr | esent? | | Yes 🗸 | No 🗌 | | | | | | | |
| Remarks: | | | | | | | | | | | • |
| | ndicators are | present, ar | ea is a we | tland | | | | | | | |
| 7111 6111 66 11 | idicators are | present, ar | ca is a wet | liaria | | | | | | | |
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| LIVEROLOCY | | | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | | |
| Wetland Hydrology Ind | | | | | | | Secor | ndary Indicator | | f two required | <u>1)</u> |
| Primary Indicators (min | | s required; cl | | | | | | Surface Soil | | | |
| Surface Water (A | - | | | quatic Fauna (B1 | - | | | · · · · · · | getated Concav | ve Surface (B8 | .) |
| ☐ High Water Tabl | e (A2) | | M | 1arl Deposits (B1 | 15) (LRR U) | | | Drainage Pat | tterns (B10) | | |
| ✓ Saturation (A3) | | | ☐ H [,] | ydrogen Sulfide | Odor (C1) | | | Moss Trim Li | ines (B16) | | |
| ☐ Water Marks (B: | L) | | □ o | xidized Rhizosph | heres on Livir | ng Roots (C3) | | Dry-Season \ | Water Table (C | (2) | |
| ☐ Sediment Depos | its (B2) | | □ P ₁ | resence of Redu | ced Iron (C4) |) | | Crayfish Bur | rows (C8) | | |
| ☐ Drift Deposits (B | | | ☐ Re | ecent Iron Reduc | ction in Tillec | d Soils (C6) | | Saturation V | isible on Aeria | l Imagery (C9) | j |
| ☐ Algal Mat or Cru | • | | | hin Much Surfac | | ` , | 1 | | Position (D2) | <i>5</i> , <i>,</i> , | |
| ☐ Iron Deposits (B. | | | | ther (Explain in I | | | | Shallow Aqu | , , | | |
| Inundation Visib | • | nagery (R7) | | ther (Explain iii) | Remarks | | <u> </u> | FAC-Neutral | , , | | |
| Water-Stained L | | lagery (D7) | | | | | | | noss (D8) (LRR | T.U) | |
| Field Observations: | zaves (BS) | | | | | | | | (/ (| -,-, | |
| Surface Water Present? | Yes | ☐ No | ✓ D | epth (inches): | | | Watland Hudrala | | | | |
| Water Table Present? | Yes | ☐ No | | epth (inches): | | | Wetland Hydrolo Present? | | Yes 🗸 | No 🗌 | |
| | | _ | | | | | Present | | res 💟 | NO L | |
| Saturation Present? | Yes | ✓ No | ∐ D | epth (inches): | 1 | | | | | | |
| (includes capillary fringe | | | | | | \ .c | | | | | |
| Describe Recorded Data | (stream gaug | e, monitorin | g well, aeria | al photos, previo | ous inspection | ns), if available | e: | | | | |
| | | | | | | | | | | | |
| Remarks: | | | | | | | | | | | |
| Hydrology | criteria met. | | | | | | | | | | |
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VEGETATION (Five Strata) - Use scientific names of plants.

| EGETATION (Five Strata) - Use scie | entific na | mes of p | lants. | | Sampling Point: WM-Wet | |
|---|------------|----------|------------------------------------|---------------|--|------|
| | | Absolute | Dominant | Indicator | Dominance Test Worksheet: | |
| Tree Stratum (Plot size: 30 ft) |) _ | % Cover | Species? | Status | Number of Dominant Species | |
| L. Pinus taeda | _ | 10 | Υ | FAC | That Are OBL, FACW, or FAC:6(A | 4) |
| 2. Quercus virginiana | _ | 10 | Υ | FACU | Total Number of Dominant | |
| 3. Quercus laurifolia | <u>-</u> | 4 | | FACW | Species Across All Strata: 7 (E | 3) |
| l | _ | | | | Percent of Dominant Species | |
| 5. | _ | | | | That Are OBL, FACW, or FAC: 86% (A | 4/B) |
| 5. | _ | | | | | |
| | - | 24 | = Total Cover | | Prevalence Index worksheet: | |
| 50% of total cover: | 12 | 20% (| of total cover: | 4.8 | OBL species 30 x 1 = 30 | |
| Sapling Stratum (Plot size: 30 ft) |) | | - | | FACW species 15 x 2 = 30 | |
| . Quercus laurifolia | | 5 | Υ | FACW | FAC species 33 x 3 = 99 | |
| 2. Pinus taeda | = | 5 | Υ | FAC | FACU species 10 x 4 = 40 | |
| 3. | - | | | | UPL species 0 x 5 = 0 | |
| | - | | | | Column Totals: 88 (A) 199 (E | 3) |
| · | = | | | | | -, |
| | - | | | | Prevalence Index = B/A = 2.3 | |
| · | - | 10 | = Total Cover | | Lludranhutic Vagatation Indicators | |
| 50% of total cover: | | | _ = rotal cover of total cover: | 2 | Hydrophytic Vegetation Indicators: | |
| - | 5 | 20% (| or total cover: | | Dominance Test is a 500/ | |
| Shrub Stratum (Plot size: 30 ft) |) | 4.5 | | | Dominance Test is > 50% | |
| . Pinus taeda | - | 10 | Υ | FAC | Prevalence Index is ≤ 3.0 ¹ | |
| . Sabal minor | _ | 3 | | FACW | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| . Ilex glabra | - | 3 | | FACW | | |
| . Quercus nigra | _ | 3 | | FAC | ¹ Indicators of hydric soil and wetland hydrology must | |
| | <u>-</u> | | | | be present, unless disturbed or problematic | |
| | | | | | | |
| | _ | 19 | = Total Cover | | Definitions of Vegetation Strata: | |
| 50% of total cover: | 9.5 | 20% (| of total cover: | 3.8 | | |
| Herb Stratum (Plot size: 30 ft |) | | - | | Tree - Woody plants, excluding woody vines, approximately | |
| Juncus roemerianus | | 15 | Υ | OBL | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in | |
| Spartina alterniflora | - | 15 | Υ | OBL | diameter at breast height (DBH). | |
| Rubus argutus | - | 5 | | FAC | Sapling - Woody plants, excluding woody vines, | |
| | - | | | - | approximately 20 ft (6 m) or more in height and less than 3 | |
| | - | | | | in. (7.6 cm) DBH. | |
| | - | | | | Shrub - Woody plants, excluding woody vines, | |
| | - | | | | approximately 3 to 20 ft (1 to 6 m) in height. | |
| · | - | | | | | |
| | - | | | | Herb - All herbaceous (non-woody) plants, including | |
| | - | | | | herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 | |
| 0. | - | | | | m) in height. | |
| 1. | - | | | | · · · · · · · · · · · · · · · · · · · | |
| | - | 35 | = Total Cover | | Woody vine - All woody vines, regardless of height. | |
| 50% of total cover: _ | 17.5 | 20% (| of total cover: | 7 | | |
| Woody Vine Stratum (Plot size: 30 ft) |) | | | | | |
| | _ | | | | | |
| | _ | | | | | |
| | _ | | | | Hydrophytic | |
| | - | | | | Vegetation Yes ✓ No ☐ | |
| | - | | | | Present? | |
| | = | | = Total Cover | | | |
| 50% of total cover: | - | 20% (| - of total cover: | | | |
| Remarks: (If observed, list morphological adapta ERDC/CRREL 2016 Regional Wetlan Hydrophytic vegetation criteria met. | - | | nd Gulf Coas | tal Plain) us | ed for indicator status. | |
| | | | | | | |

SOIL Sampling Point: WM-Wet

| | scription: (Describe to the | depth need | ed to document the indi | | | e of indicato | rs). |
|-------------------------|---------------------------------------|-------------|-------------------------|---------------------|------------------------|------------------|--|
| Depth | Matrix | | | Redox | (Features | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture Remarks |
| 0-3 | 10YR 2/1 | 100 | | | | | loamy sand >70% masked |
| 3-18 | 10YR 3/1 | 100 | | | | | loamy sand |
| | | | | | | | |
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| | | | | | | | |
| ¹ Tvpe C = C | Concentration, D = depletion | n. RM = Red | uced Matrix. MS = Maske | d Sand Grain عد | S | | ² Location: PL = Pore Lining, M = Matrix |
| | Indicators: | | | | | | Indicators for Problematic Hydric Soils ³ : |
| | tosol (A1) | | ☐ Polyvalue Below | Surface (S8) (| (LRR S.T.U) | | 1 cm Muck (A9) (LRR O) |
| | tic Epipedon (A2) | | ☐ Thin Dark Surface | | | | 2 cm Muck (A10) (LRR S) |
| | ck Histic (A3) | | Loamy Mucky Mi | | - | | Reduced Vertic (F18) (outside MLRA 150A,B) |
| | drogen Sulfide (A4) | | Loamy Gleyed M | | | | ☐ Piedmont Floodplain Soils (F19) (LRR P,S,T) |
| | atified Layers (A5) | | ☐ Depleted Matrix | | | | ☐ Anomalous Bright Loamy Soils (F20) |
| | ganic Bodies (A6) (LRR P,T,U | J) | Redox Dark Surfa | | | | (MLRA 153B) |
| | m Mucky Mineral (A7) (LRR | | ☐ Depleted Dark Su | | | | Red Parent Material (TF2) |
| | ick Presence (A8) (LRR U) | , , . | Redox Depression | | | | ☐ Very Shallow Dark Surface (TF12) |
| | m Muck (A9) (LRR P,T) | | ☐ Marl (F10) (LRR L | | | | Other (Explain in Remarks) |
| | pleted Below Dark Surface (| (A11) | Depleted Ochric | | 151) | | , . |
| | ck Dark Surface (A12) | | ☐ Iron-Manganese | | - | | ³ Indicators of hydrophytic vegetation and |
| | ast Prairie Redox (A16) (MLI | RA 150A) | ☐ Umbric Surface (| | - | | wetland hydrology must be present, |
| | ndy Mucky Mineral (S1) (LRI | | Delta Ochric (F17 | | | | unless disturbed or problematic. |
| San | ndy Gleyed Matrix (S4) | | Reduced Vertic (I | F18) (MLRA 1 | .50A, 150B) | | |
| | ndy Redox (S5) | | Piedmont Floodp | olain Soils (F19 | 9) (MLRA 149A) |) | |
| | ipped Matrix (S6) | | Anomalous Brigh | t Loamy Soils | (F20) (MLRA 1 | 49A, 153C, 1 | .53D) |
| ✓ Dar | rk Surface (S7) (LRR P,S,T,U) |) | | | | | |
| Restrictive | Layer (if observed): | | | | | | |
| Туре: | | | | | | | 1 |
| Depth (incl | hes) | | | | | | Hydric Soil Present? Yes 🗸 No 🗌 |
| Remarks: | | | | | | | |
| T.C.III.G.I | | | | | | | |
| Hydric soil | criteria met. | | | | | | |
| ' | | | | | | | |
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WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

| Project/Site: | | | l - Quee | nsborc |) 115 | kV Line City/Coun | nty: <u>Johns Islanc</u> | 네 / Charlesto | | | te: <u>3/14/2019</u> | |
|----------------------------|-----------|--------------|------------|-----------|-------------------|------------------------------|--------------------------|-----------------|---|-----------------|----------------------|----|
| Applicant/Owner: | Sante | | | | | | | State: | SC | Sampling Poir | nt: WN-12 W | et |
| Investigator(s): | Brend | on Kel | lly / Bre | tt Sext | on | Section, Te | ownship, Range: | : | NA | | | |
| Landform: (hillslope, teri | race, etc | c.) <u>F</u> | Flat | | | Local Relie | ef (concave, convex, | , none): | None | | Slope (%): | 0 |
| Subregion (LRR or MLRA |) LRR T | | | | L | Lat: 32.75247 | Long: | -80.062187 | ' | Datum: | NA | |
| Soil Map Unit Name: | Sante | e loam | <u>1</u> | | | | | | NWI Classification: | PFO1A | | |
| Are climatic/hydrologic of | conditio | ns on t | the site t | typical f | for thi | is time of year? Yes | ✓o | ☐If no, expla | ain in Remarks.) | | | |
| | , Soil | □ , | , or Hydr | rology | | significantly disturbed? | Are "Norm | nal Circumsta | nces" present? Yes | ΝV | | |
| Are Vegetation | , Soil | \Box , | , or Hydr | rology | | naturally problematic? | (If needed, | , explain any a | answers in Remarks.) | | | |
| SUMMARY OF FIN | | | Attach | | map | _ | point location | | sects, important feat | tures, etc. | | |
| Hydric Soil Present? | | | | Yes | √ | No \square | within a wetl | land? | Yes 🗸 | No 🗌 | | |
| Wetland Hydrology Pre | esent? | | | Yes | · 🗸 | No 🗌 | | | | | | |
| | | | | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | | | |
| Wetland Hydrology Indi | icators: | | | | | | | | Secondary Indicators (mir | nimum of two re | <u>equired)</u> | |
| Primary Indicators (mini | mum of | one is | require | d; chec | k all th | hat apply): | | | Surface Soil Cracks | s (B6) | | |
| ☐ Surface Water (A | ۸1) | | | | | Aquatic Fauna (B13) | | | ✓ Sparsely Vegetate | d Concave Surfa | ace (B8) | |
| ☐ High Water Table | e (A2) | | | | | Marl Deposits (B15) (LRR L | U) | | ☐ Drainage Patterns | (B10) | | |
| Saturation (A3) | | | | | | Hydrogen Sulfide Odor (C1 | 1) | | ☐ Moss Trim Lines (E | 316) | | |
| ☐ Water Marks (B1 | L) | | | | | Oxidized Rhizospheres on | Living Roots (C3 | .) | ☐ Dry-Season Water | Table (C2) | | |
| Sediment Deposi | - | | | | $\overline{\Box}$ | Presence of Reduced Iron | - : | • | Crayfish Burrows (| | | |
| ☐ Drift Deposits (B3 | | | | | | Recent Iron Reduction in T | | | ☐ Saturation Visible | | rv (C9) | |
| Algal Mat or Crus | | | | | _ | Thin Much Surface (C7) | ilied 30li3 (CO) | | Geomorphic Positi | | 19 (63) | |
| | | | | | | | \ | | <u> </u> | | | |
| ☐ Iron Deposits (B5 | - | | /5 | 1 | Ш | Other (Explain in Remarks) |) | | Shallow Aquitard (| | | |
| Inundation Visibl | | | agery (B | i/) | | | | | ✓ FAC-Neutral Test (☐ Sphangum moss (I | ` ' | | |
| Water-Stained Le | eaves (B | ,9) | | | | | | | | Do) (LKK 1,U) | | |
| Field Observations: | | V | | . Г | 7 | Donath (in all as). | | | | | | |
| Surface Water Present? | | Yes | ∐ N | _ | <u> </u> | Depth (inches): | <u> </u> | I | | | | |
| Water Table Present? | | Yes | | | <u> </u> | Depth (inches): | | | | | | |
| Saturation Present? | | Yes | ∐ N | 0 L | √ | Depth (inches): | | Wetland Hy | ydrology Present? Yes | √ No | | |
| (includes capillary fringe | | | | | | | | | | | | |
| Describe Recorded Data | (stream | 1 gauge | e, monit | oring w | ell, ae | erial photos, previous inspe | ctions), if availab | ble: | | | | |
| Remarks: | | | | | | | | | | | | |

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

| ETATION (Five Strata) - Use scient | tille lia | сс с. р | | | Sampling Point: WN-12 W | £. |
|--|-----------|----------|----------------------------------|--------------------|--|----------|
| | | Absolute | Dominant | Indicator | Dominance Test Worksheet: | |
| ee Stratum (Plot size: 30 ft) | _ | % Cover | Species? | Status | Number of Dominant Species | |
| Quercus nigra | _ | 25 | Υ | FAC | That Are OBL, FACW, or FAC: 10 | (A) |
| Fraxinus pennsylvanica | _ | 15 | Υ | FACW | Total Number of Dominant | |
| Acer rubrum | _ | 15 | Υ | FAC | Species Across All Strata: 10 | (B) |
| Quercus shumardii | | 10 | | FAC | Percent of Dominant Species | _ |
| | _ | | | | That Are OBL, FACW, or FAC: 100% | (A/ |
| | _ | | | | | _ |
| | _ | 65 | = Total Cover | • | Prevalence Index worksheet: | |
| 50% of total cover: | 32.5 | 20% (| of total cover: | 13 | OBL species 10 x 1 = 10 | |
| oling Stratum (Plot size: 30 ft) | | | • | | FACW species 40 x 2 = 80 | - |
| Magnolia grandiflora | | 10 | Υ | FAC | FAC species 140 x 3 = 420 | - |
| Quercus shumardii | - | 10 | Υ | FAC | FACU species 0 x 4 = 0 | - |
| Liquidambar styraciflua | - | 5 | | FAC | UPL species 0 x 5 = 0 | - |
| Cornus amomum | - | 5 | | FACW | Column Totals: 190 (A) 510 | – (B) |
| eomas amemam | = | | | 17.011 | | _(5) |
| | - | | | | Prevalence Index = B/A = 2.7 | |
| | - | 30 | = Total Cover | | Hydrophytic Vegetation Indicators: | |
| E00/ of total cover: | 15 | | _ | 6 | nyurophytic vegetation indicators. | |
| 50% of total cover: | 15 | 20% (| of total cover: | ь | Dominance Test is a 50% | |
| ub Stratum (Plot size: <u>30 ft</u>) | | | | | Dominance Test is > 50% | |
| Ilex vomitoria | _ | 30 | Υ | FAC | Prevalence Index is $\leq 3.0^{1}$ | |
| Baccharis halimifolia | _ | 10 | Υ | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) | |
| Quercus nigra | _ | 5 | | FAC | | |
| | _ | | | | ¹ Indicators of hydric soil and wetland hydrology must | |
| | | | | | be present, unless disturbed or problematic | |
| | _ | | | | | |
| | _ | 45 | = Total Cover | | Definitions of Vegetation Strata: | |
| 50% of total cover: | 22.5 | 20% (| of total cover: | 9 | - | |
| erb Stratum (Plot size: 30 ft) | | | • | | Tree - Woody plants, excluding woody vines, approximately 20 ft | |
| Chasmanthium laxum | | 15 | Υ . | FACW | (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at | |
| Woodwardia areolata | _ | 10 | <u>.</u> У | OBL | breast height (DBH). | |
| Viola sp. | _ | 5 | <u> </u> | FAC | 5.6356.16.8.16 (2.517). | |
| Dichanthelium scoparium | - | 5 | | FACW | Sapling - Woody plants, excluding woody vines, approximately 20 | |
| ыспантненит эсоранит | - | <u> </u> | | FACVV | ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. | |
| | _ | | | | | |
| | _ | | | | Shrub - Woody plants, excluding woody vines, approximately 3 to | |
| | _ | | | | 20 ft (1 to 6 m) in height. | |
| | _ | | | | Herb - All herbaceous (non-woody) plants, including herbaceous | |
| | _ | | | | vines, regardless of size. Includes woody plants, except woody | |
| | _ | | | | vines, less than approximately 3 ft (1 m) in height. | |
| | _ | | | | | |
| | | 35 | = Total Cover | - | Woody vine - All woody vines, regardless of height. | |
| 50% of total cover: | 17.5 | 20% (| of total cover: | 7 | | |
| ody Vine Stratum (Plot size: 30 ft) | | | • | | | |
| Vitis rotundifolia | | 15 | Υ | FAC | | |
| | _ | | | | | |
| | _ | | | | Hydrophytic | |
| | - | | | | Vegetation Yes ✓ No □ | |
| | - | | | | Present? | |
| | - | 4.5 | Tat-10 | | rresent: | |
| | | 15 | _ = Total Cover | | | |
| 50% of total cover: | 7.5 | 20% (| of total cover: | 3 | | |
| 50% of total cover: narks: (If observed, list morphological adaptation | | | of total cover: and Gulf Coas | 3 tal Plain) us | ed for indicator status. | _ |

SOIL Sampling Point: WN-12 Wet

| Profile Des | cription: (Describe to the o | depth nee | ded to document the indi | | firm the absence | ce of indicat | ors). | | <u> </u> | | |
|----------------------|---|------------|-----------------------------------|------------------------|------------------------------|------------------|-------------------------------|--------------------|----------------|---------------|--|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Re | marks | |
| 0-4 | 10YR 2/2 | 100 | Color (moist) | 70 | 1,700 | 200 | loam | redox | iic | marks | |
| 4-12 | 10YR 2/2 | 95 | 10YR 4/4 | 5 | · | | loam | redox | | | |
| 12-18 | 10YR 2/1 | 95 | | 5 | | | loam | redox | | | |
| 18-24+ | 10YR 3/1 | 95 | 10YR 4/4 | 5 | | | loam | redox | | | |
| | | | | | | | | | | | |
| | | | _ | | | | | | | | |
| | | | _ | | · | | | | | | |
| ¹Type C = C | oncentration, D = depletion | n, RM = Re | duced Matrix, MS = Maske | ed Sand Grair | าร | | ² Location: PL = P | ore Lining | , M = Matrix | | |
| Hydric Soil | Indicators: | | | | | | Indicators for Pr | oblematio | C Hydric Soils | 3. | |
| | cosol (A1) | | Polyvalue Below | Surface (S8) | (LRR S,T,U) | | ☐ 1 cm Mu | ck (A9) (Li | RR O) | | |
| ☐ Hist | cic Epipedon (A2) | | ☐ Thin Dark Surface | e (S9) (LRR S , | ,T,U) | | 2 cm Mu | ck (A10) (| LRR S) | | |
| ☐ Blac | ck Histic (A3) | | Loamy Mucky Mi | ineral (F1) (L | RR O) | | Reduced | Vertic (F1 | .8) (outside N | /ILRA 150A,B) | |
| | Irogen Sulfide (A4) | | Loamy Gleyed M | atrix (F2) | | | _ | - | in Soils (F19) | - | |
| | atified Layers (A5) | | Depleted Matrix | - | | | | • | Loamy Soils (| F20) | |
| | anic Bodies (A6) (LRR P,T,U | | Redox Dark Surfa | | | | (MLRA 1 | - | | | |
| | m Mucky Mineral (A7) (LRR | P,T,U) | Depleted Dark Su | | | | | nt Materi | | • • | |
| | ck Presence (A8) (LRR U) m Muck (A9) (LRR P,T) | | Redox Depressio Marl (F10) (LRR L | | | | | | Surface (TF12 | 2) | |
| | oleted Below Dark Surface (| Δ11) | Depleted Ochric | | 151) | | ☐ Other (Ex | xplain in R | emarks) | | |
| | ck Dark Surface (A12) | A11) | ☐ Iron-Manganese | | - | | ³ Indicato | rs of hvdr | ophytic veget | tation and | |
| I | st Prairie Redox (A16) (MLF | RA 150A) | ☐ Umbric Surface (| - | | | | · · | must be pres | | |
| San | dy Mucky Mineral (S1) (LRR | R O,S) | Delta Ochric (F17 | 7) (MLRA 15 1 | L) | | | | r problematio | | |
| San | dy Gleyed Matrix (S4) | | Reduced Vertic (| F18) (MLRA : | 150A, 150B) | | | | | | |
| San | dy Redox (S5) | | ☐ Piedmont Floodp | lain Soils (F1 | 9) (MLRA 149 <i>A</i> | N) | | | | | |
| | pped Matrix (S6) | | Anomalous Brigh | t Loamy Soil | s (F20) (MLRA : | 149A, 153C, | 153D) | | | | |
| | k Surface (S7) (LRR P,S,T,U) | | | | | | _ | | | | |
| | Layer (if observed): | | | | | | | | | | |
| Type: Depth (inch | 205) | | | | | | Hydric Soil Pre | sont? | Yes 🗸 | No | |
| Depth (inch | 163) | | | | | | Hydric 30ii Pre | :Sent: | res 💟 | NO | |
| Remarks: | | | | | | | | | | | |
| Hydric soil (| criteria met. | | | | | | | | | | |
| riyane son (| criteria met. | | | | | | | | | | |
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WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

| Project/Site: | Johns Island | d - Queens | sboro 1151 | kV Line | City/County: J | Johns Island , | / Charleston | <u>_</u> | Sampling Date | e: <u>3/14/2019</u> |
|----------------------------|------------------|--------------|---------------|-------------------|----------------------|-------------------|------------------------|----------------|-----------------------|---------------------|
| Applicant/Owner: | Santee Coo | per | | | | | ate: SC | | Sampling Poin | t: WN-Wet |
| Investigator(s): | Brendon Ke | elly / Brett | Sexton | | Section, Town | nship, Range: | NA | | | |
| Landform: (hillslope, ter | race, etc.) | Flat | | | Local Relief (co | oncave, convex, n | one): None | | | Slope (%): 0 |
| Subregion (LRR or MLRA) | LRR T | | _ L | at: 32.75 | 523474 | Long: | -80.0601 | 8168 | Datum: | NA |
| Soil Map Unit Name: | Wadmalaw | | • | | | | | lassification: | PFO1A | |
| Are climatic/hydrologic | conditions on | the site typ | pical for thi | | | No 🗌 | (If no, explain in Rer | * | | _ |
| Are Vegetation | , Soil | , or Hydrol | |] significantly d | | | l Circumstances" pre | | ✓ No | |
| Are Vegetation | , Soil \square | , or Hydrol | ogy L | naturally prob | olematic? | (If needed, e | explain any answers i | n Remarks.) | | |
| SUMMARY OF FI | NDINGS - A | Attach s | ite map | showing sa | ampling poi | int locatio | ns, transects, i | mportant | features, e | etc. |
| Hydrophytic Vegetation | on Procent? | | Yes 🗸 | No 🗆 | ı | Is the Sampled | ΙΛτορ | | | |
| Hydric Soil Present? | ni Present: | | Yes 🗹 | No 🗆 | | within a wetla | | Yes 🗸 | No 🗌 | |
| Wetland Hydrology Pi | acant? | | Yes 🛂 | No 🗌 | ` | within a wetia | iiu: | res 🖭 | NO 🗀 | |
| Remarks: | esenti | | res 🔍 | NO L | | | | | | |
| | | | | | | | | | | |
| HYDROLOGY | | | | | | | | | | |
| Wetland Hydrology Ind | icators: | | | | | | <u>Secon</u> | dary Indicator | s (minimum of | f two required) |
| Primary Indicators (min | mum of one is | s required; | check all th | nat apply): | | | | Surface Soil (| Cracks (B6) | |
| Surface Water (A | - | | | Aquatic Fauna | | | ✓ | | | ve Surface (B8) |
| High Water Tabl | e (A2) | | | Marl Deposits | (B15) (LRR U) | | | Drainage Pat | tterns (B10) | |
| Saturation (A3) | | | | Hydrogen Sulfi | | | | Moss Trim Li | | |
| Water Marks (B | L) | | ✓ | Oxidized Rhizo | spheres on Livir | ng Roots (C3) | | Dry-Season \ | Water Table (C | (2) |
| ☐ Sediment Depos | its (B2) | | | Presence of Re | educed Iron (C4) |) | | Crayfish Buri | rows (C8) | |
| ☐ Drift Deposits (B | 3) | | | Recent Iron Re | duction in Tilled | d Soils (C6) | | Saturation V | isible on Aeria | l Imagery (C9) |
| Algal Mat or Cru | st (B4) | | | Thin Much Sur | face (C7) | | | Geomorphic | Position (D2) | |
| ☐ Iron Deposits (B | 5) | | | Other (Explain | in Remarks) | | | Shallow Aqu | itard (D3) | |
| Inundation Visib | le on Aerial Im | nagery (B7) | Į | | | | | FAC-Neutral | | |
| ✓ Water-Stained L | eaves (B9) | | | | | | | Sphangum m | noss (D8) (LRR | T,U) |
| Field Observations: | | | | | | | | | | |
| Surface Water Present? | | ∐ No | | Depth (inches) | | | Wetland Hydrolog | | | |
| Water Table Present? | Yes | ☑ No | _ | Depth (inches) | | | Present? | ` | Yes 🗸 | No 🗌 |
| Saturation Present? | Yes | ✓ No | Ш | Depth (inches) | :1 | | | | | |
| (includes capillary fringe | | ro monitor | ing woll as | rial photos pro | vious inspostio | ns) if availabl | 0. | | | |
| Describe Recorded Data | (stream gaug | e, monitor | ing weii, ae | riai photos, pre | evious inspectio | ns), ii avaliabi | e: | | | |
| Remarks: | | | | | | | | | | |
| 1.1 | criteria met. | | | | | | | | | |
| Hydrology | | | | | | | | | | |
| Hyarology | | | | | | | | | | |
| нуагоюду | | | | | | | | | | |
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| нуагоюду | | | | | | | | | | |
| Hydrology | | | | | | | | | | |
| Hydrology | | | | | | | | | | |

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

| VEGETATION (Five Strata) - Use scie | ntific na | mes of p | lants. | | Sampling Point: WN-Wet |
|---|---------------|----------|------------------------|---------------|---|
| | | Absolute | Dominant | Indicator | Dominance Test Worksheet: |
| Tree Stratum (Plot size: 30 ft) | | % Cover | Species? | Status | Number of Dominant Species |
| 1. Acer rubrum | | 70 | Υ | FAC | That Are OBL, FACW, or FAC: 8 (A) |
| 2. Fraxinus pennsylvanica | | 15 | | FACW | Total Number of Dominant |
| 3. Quercus laurifolia | | 5 | | FACW | Species Across All Strata: 9 (B) |
| 4. Magnolia grandiflora | | 3 | | FAC | Percent of Dominant Species |
| 5. | | | | | That Are OBL, FACW, or FAC: 89% (A/B) |
| 6. | | | | | |
| | | 93 | = Total Cover | | Prevalence Index worksheet: |
| 50% of total cover: | 46.5 | 20% (| of total cover: _ | 18.6 | |
| Sapling Stratum (Plot size: 30 ft) | | | | | FACW species 102 x 2 = 204 |
| 1. Quercus laurifolia | | 15 | Υ | FACW | FAC species 121 x 3 = 363 |
| 2. Cornus amomum | • | 15 | Υ | FACW | FACU species 5 x 4 = 20 |
| 3. Acer rubrum | | 10 | Υ | FAC | UPL species 0 x 5 = 0 |
| 4. <u>Liquidambar styraciflua</u> | | 3 | | FAC | Column Totals: <u>245</u> (A) <u>604</u> (B) |
| 5. | | | | | Prevalence Index = B/A = 2.5 |
| 6. | • | | | | · |
| | • | 43 | _ = Total Cover | • | Hydrophytic Vegetation Indicators: |
| 50% of total cover: | 21.5 | 20% (| of total cover: _ | 8.6 | |
| Shrub Stratum (Plot size: 30 ft) | | | | • | ✓ Dominance Test is > 50% |
| 1. Sabal minor | | 50 | Υ | FACW | |
| 2. Morella cerifera | | 3 | | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) |
| 3. Ilex vomitoria | | 2 | | FAC | |
| 4. Persea borbonia | | 2 | | FACW | ¹ Indicators of hydric soil and wetland hydrology must |
| 5. | | | | | be present, unless disturbed or problematic |
| 6. | | | | | |
| | | 57 | = Total Cover | | Definitions of Vegetation Strata: |
| 50% of total cover: _ | 28.5 | 20% (| _ of total cover: _ | 11.4 | |
| Herb Stratum (Plot size: 30 ft) | | | | | Tree - Woody plants, excluding woody vines, approximately |
| 1. Carex sp. | | 20 | Υ | FAC | 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in |
| 2. Juncus effusus | - | 10 | Υ | OBL | diameter at breast height (DBH). |
| 3. Saururus cernuus | - | 5 | | OBL | Sapling - Woody plants, excluding woody vines, |
| 4. Cyperus | | 5 | | FAC | approximately 20 ft (6 m) or more in height and less than 3 |
| 5. Packera glabella | - | 2 | | OBL | in. (7.6 cm) DBH. |
| 6. | _ | | | | Shrub - Woody plants, excluding woody vines, |
| 7. | - | - | | | approximately 3 to 20 ft (1 to 6 m) in height. |
| 8. | - | | | | Herb - All herbaceous (non-woody) plants, including |
| 9. | _ | | | | herbaceous vines, regardless of size. Includes woody |
| 10. | - | | | | plants, except woody vines, less than approximately 3 ft (1 |
| 11. | - | - | | | m) in height. |
| | - | 42 | = Total Cover | , | Woody vine - All woody vines, regardless of height. |
| 50% of total cover: | 21 | 20% (| of total cover: | | |
| Woody Vine Stratum (Plot size: 30 ft) | | | - | | |
| 1. Toxicodendron radicans | | 5 | Υ | FAC | |
| 2. Lonicera japonica | - | 5 | Υ | FACU | |
| 3. | - | | | | Hydrophytic |
| 4. | - | | | | Vegetation Yes ✓ No □ |
| 5. | - | | | | Present? |
| | = | 10 | = Total Cover | | |
| 50% of total cover: | - 5 | | of total cover: | 2 | |
| Remarks: (If observed, list morphological adaptated ERDC/CRREL 2016 Regional Wetland Hydrophytic vegetation criteria met. | - | - | nd Gulf Coast | tal Plain) us | sed for indicator status. |
| | | | | | |

SOIL Sampling Point: WN-Wet

| Profile Des | cription: (Describe to the de | pth nee | eded to document the ind | icator or conf | irm the absenc | e of indicato | ors). | | | |
|-------------------------|-------------------------------------|---------|--------------------------|-----------------------|------------------------|------------------|------------------------------------|-------------------------------------|--|--|
| Depth | Matrix | | | Redox | x Features | | | | | |
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | | |
| 0-2 | 10YR 4/1 | 100 | | | · | | loam | | | |
| 2-10 | _ 10YR 4/1 | 90 | 10YR 4/6 | 10 | | | sandy clay | | | |
| 10-18+ | _ GLEY 3/N | 75 | 7.5YR 4/6 | 25 | | | sandy clay | | | |
| | | | | | | | | | | |
| | | | _ | | · - | | | | | |
| | | | _ | | · | | | | | |
| | | | | | | | | | | |
| ¹ Tyne C = C | oncentration, D = depletion, | RM = Re | educed Matrix MS = Mask | ed Sand Grain | ns | | ² Location: PL = Pore | e Lining, M = Matrix | | |
| Hydric Soil | | THE THE | duced WidthX, Wis Widski | ca Sana Grain | 15 | | | lematic Hydric Soils ³ : | | |
| | cosol (A1) | | ☐ Polyvalue Below | Surface (S8) | (LRR S.T.U) | | | (A9) (LRR O) | | |
| | ic Epipedon (A2) | | ☐ Thin Dark Surfac | , , | | | | (A10) (LRR S) | | |
| | ck Histic (A3) | | Loamy Mucky M | | | | | ertic (F18) (outside MLRA 150A,B) | | |
| | lrogen Sulfide (A4) | | ✓ Loamy Gleyed M | | -, | | <u> </u> | loodplain Soils (F19) (LRR P,S,T) | | |
| | atified Layers (A5) | | ✓ Depleted Matrix | | | | | Bright Loamy Soils (F20) | | |
| | anic Bodies (A6) (LRR P,T,U) | | Redox Dark Surf | • • | | | (MLRA 153) | = | | |
| | m Mucky Mineral (A7) (LRR P, | ,T,U) | ☐ Depleted Dark S | | | | | Material (TF2) | | |
| ☐ Mu | ck Presence (A8) (LRR U) | | Redox Depression | | | | ☐ Very Shallow Dark Surface (TF12) | | | |
| | m Muck (A9) (LRR P,T) | | Marl (F10) (LRR | | | | | ain in Remarks) | | |
| ☐ Dep | oleted Below Dark Surface (A1 | 11) | Depleted Ochric | (F11) (MLRA | 151) | | | | | |
| ☐ Thio | ck Dark Surface (A12) | | ☐ Iron-Manganese | Masses (F12) |) (LRR O,P,T) | | ³ Indicators | of hydrophytic vegetation and | | |
| ☐ Coa | st Prairie Redox (A16) (MLRA | 150A) | ☐ Umbric Surface | (F13) (LRR P,T | r,U) | | wetland hyd | drology must be present, | | |
| San | dy Mucky Mineral (S1) (LRR (| O,S) | Delta Ochric (F1 | 7) (MLRA 151 | .) | | unless distu | rbed or problematic. | | |
| ☐ San | dy Gleyed Matrix (S4) | | Reduced Vertic (| F18) (MLRA 1 | 150A, 150B) | | | | | |
| San | dy Redox (S5) | | Piedmont Flood | • | | - | | | | |
| | pped Matrix (S6) | | Anomalous Bright | nt Loamy Soils | s (F20) (MLRA 1 | .49A, 153C, 1 | .53D) | | | |
| Dar | k Surface (S7) (LRR P,S,T,U) | | | | | | | | | |
| | Layer (if observed): | | | | | | | | | |
| Type: | | | | | | | | | | |
| Depth (inch | nes) | | | | | | Hydric Soil Prese | nt? Yes 🗸 No 🗌 | | |
| Domonico | | | | | | | | | | |
| Remarks: | | | | | | | | | | |
| Hydric soil | criteria met. | | | | | | | | | |
| riyaric son v | criteria met. | | | | | | | | | |
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Figure 1. Site Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area (71.66 AC)

Existing Santee Cooper ROW

Existing Dominion ROW

---- Road Centerline

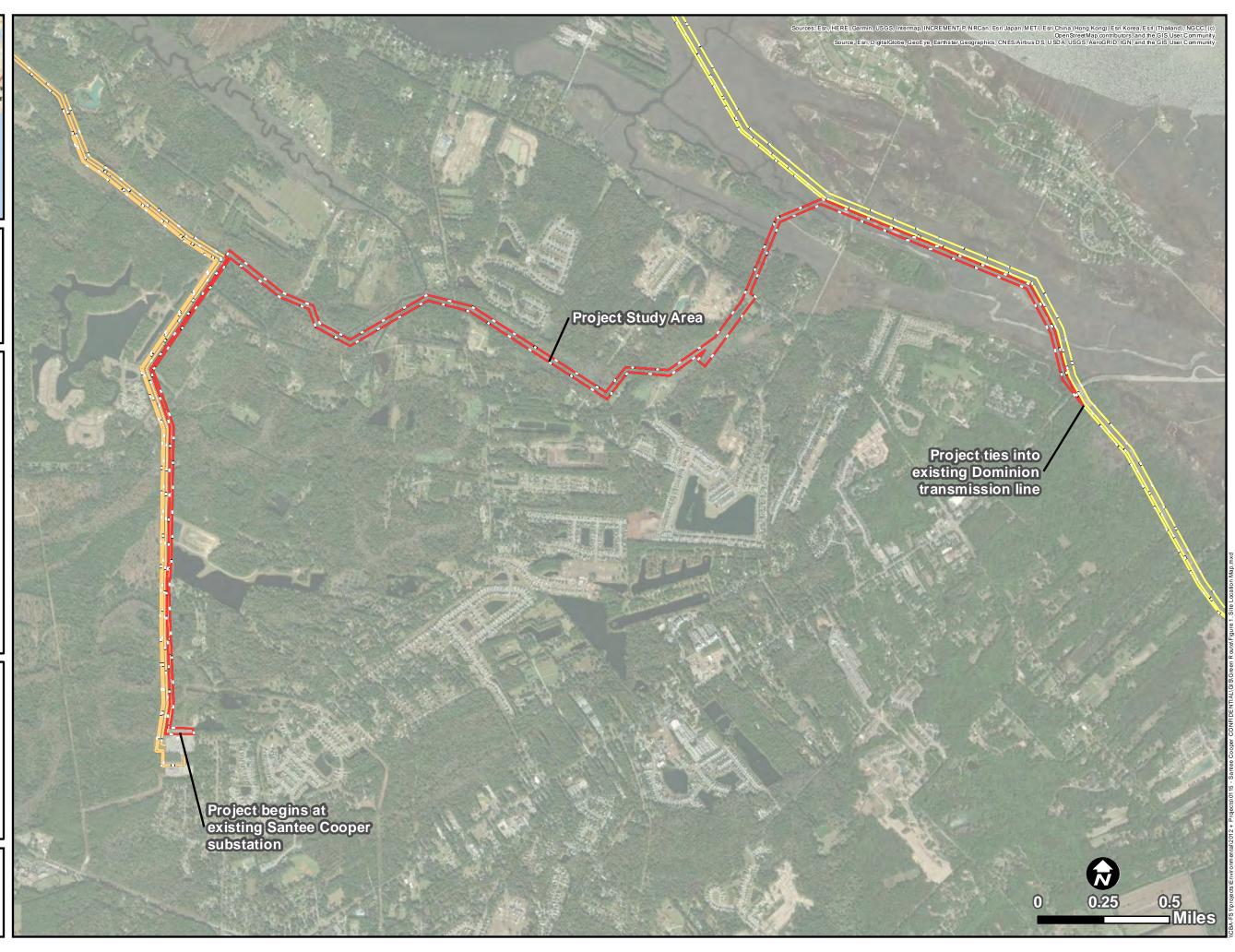


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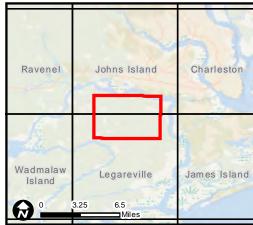


Figure 2. USGS Topographic Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area (71.66 AC) USGS 24k Topo Map Boundaries



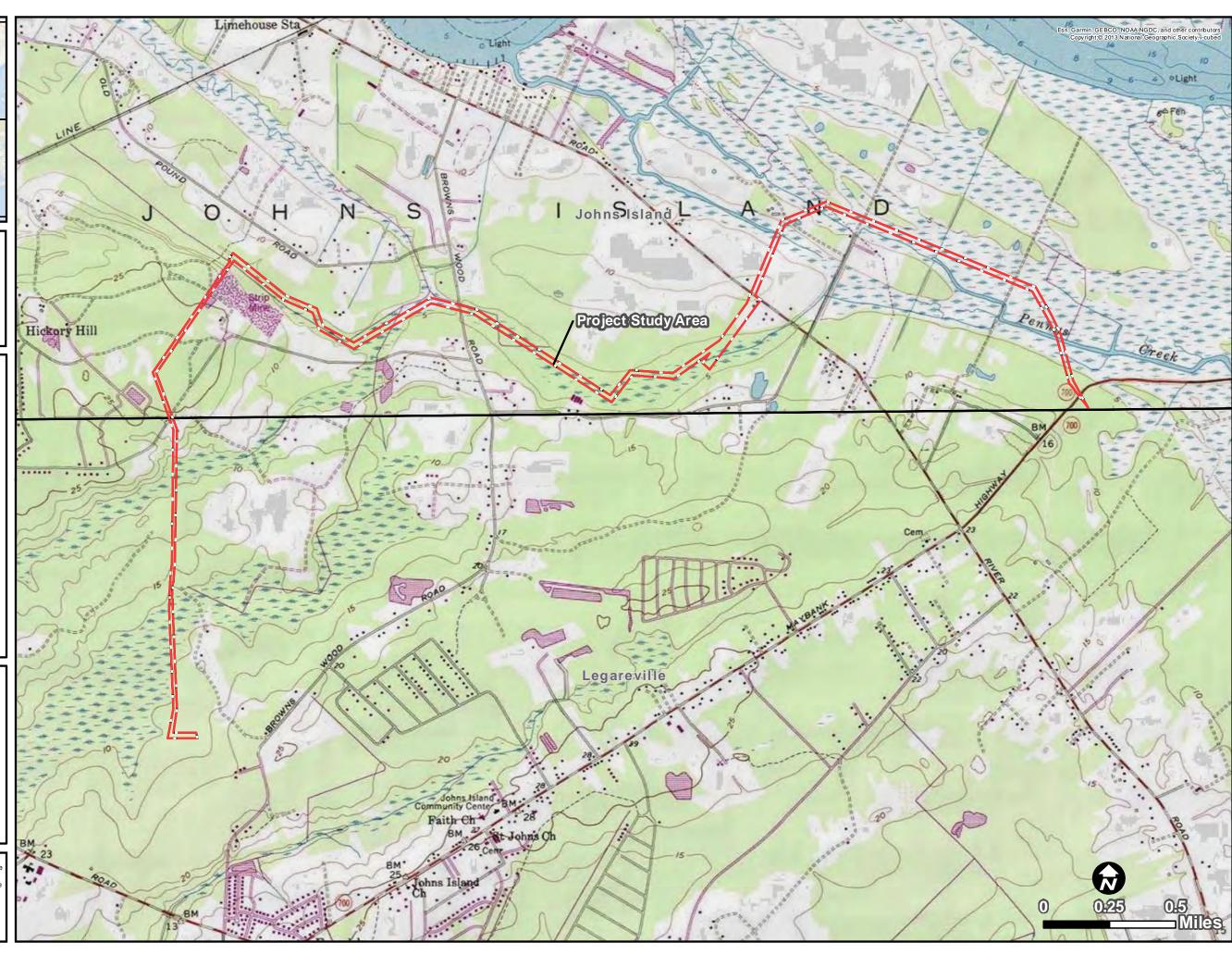
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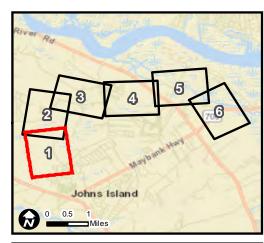


Figure 3.1 Soil Map of the Project Area

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area (71.66 AC)

Existing Santee Cooper ROW

Existing Dominion ROW

Soil Hydric Rating

Nonhydric

Predominantly Nonhydric

Predominantly Hydric

Hydric



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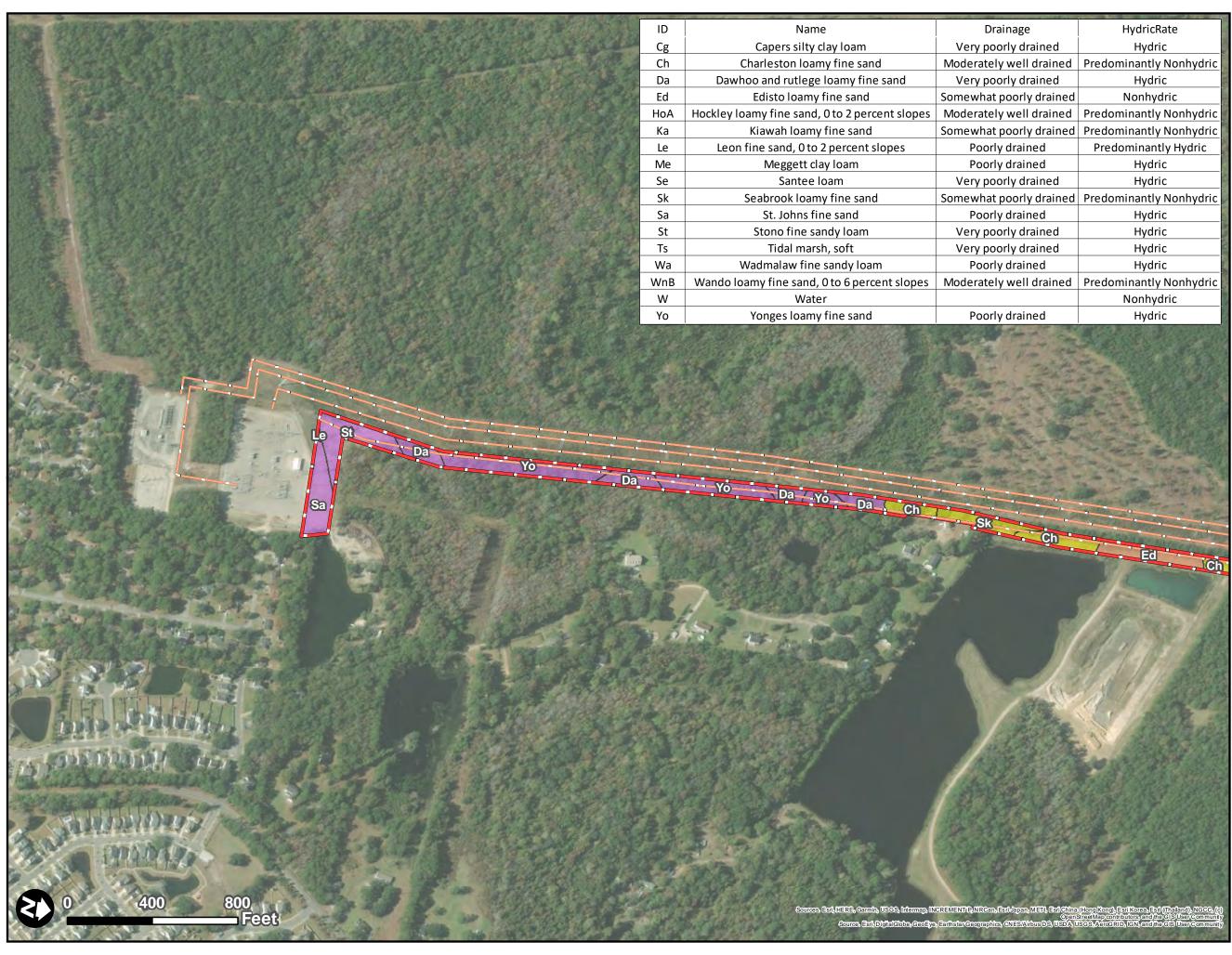




Figure 3.2 Soil Map of the Project Area

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area (71.66 AC)

Existing Santee Cooper ROW

Existing Dominion ROW

Soil Hydric Rating

Nonhydric

Predominantly Nonhydric

Predominantly Hydric

Hydric



Job No. 6250160115

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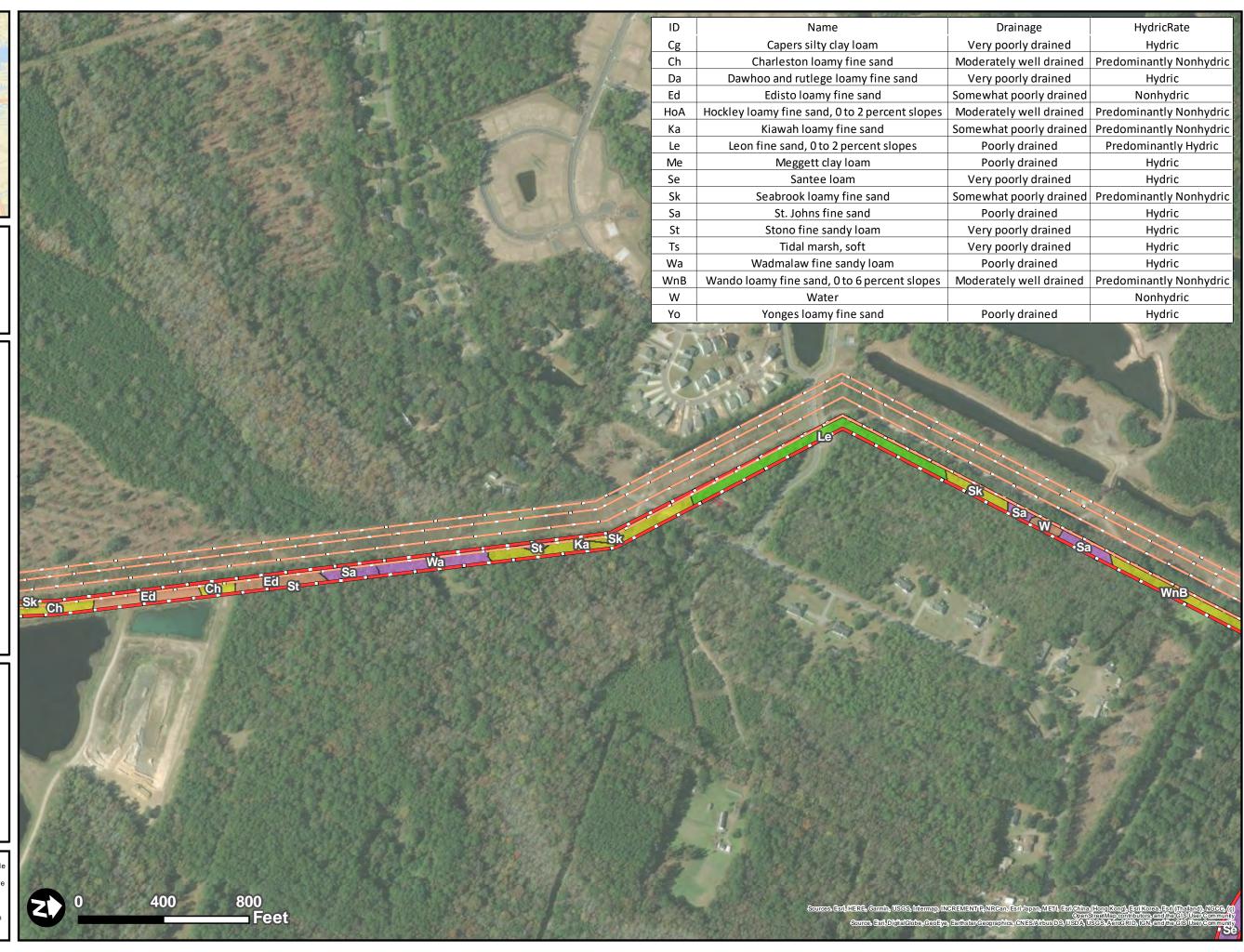




Figure 3.3 Soil Map of the **Project Area**

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area (71.66 AC)

Existing Santee Cooper ROW

Existing Dominion ROW

Soil Hydric Rating

Nonhydric

Predominantly Nonhydric

Predominantly Hydric

Hydric

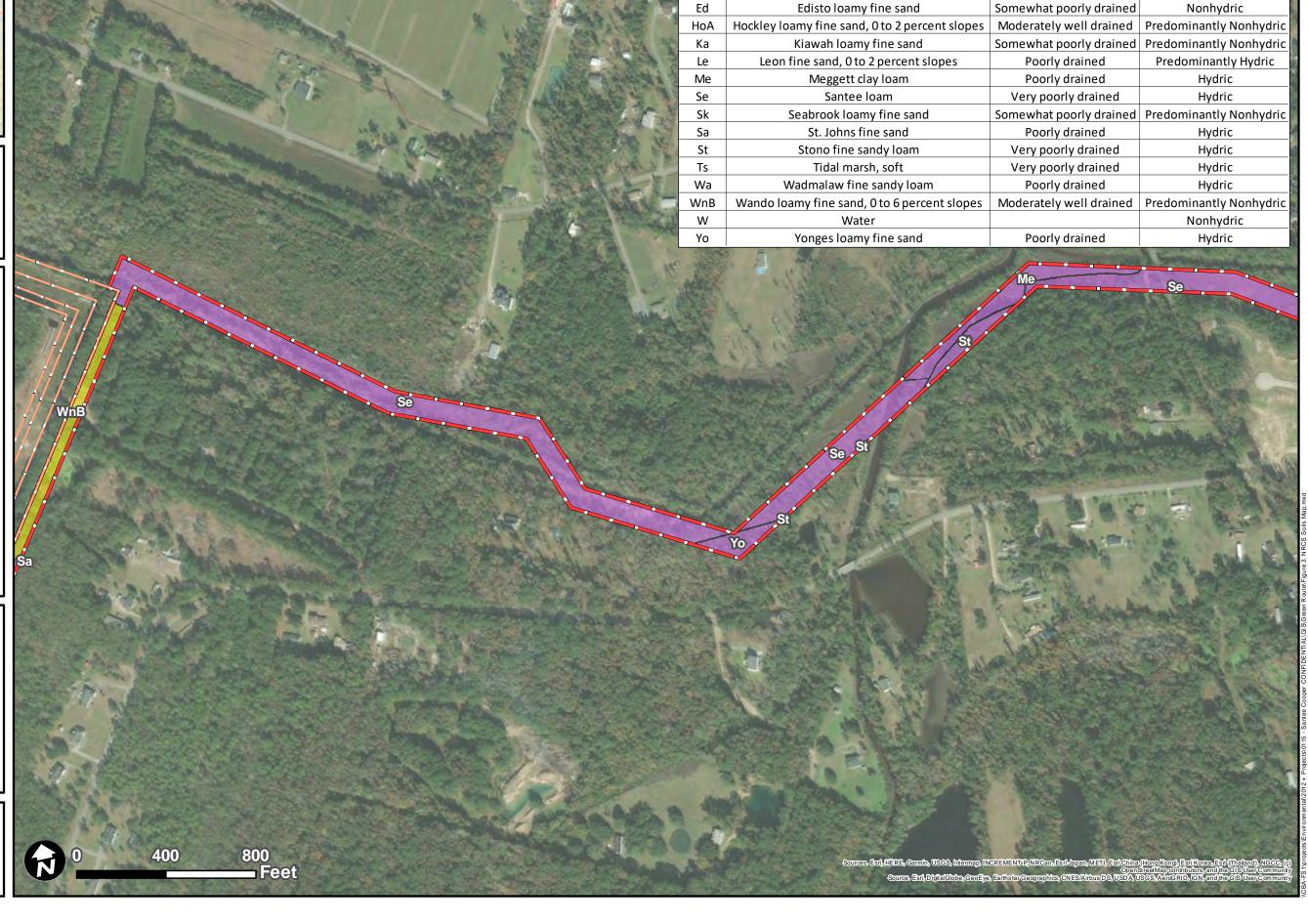


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ID

Cg

Ch

Da

Name

Capers silty clay loam

Charleston loamy fine sand

Dawhoo and rutlege loamy fine sand

Drainage

Very poorly drained

Very poorly drained

HydricRate

Hydric

Hydric

Moderately well drained | Predominantly Nonhydric

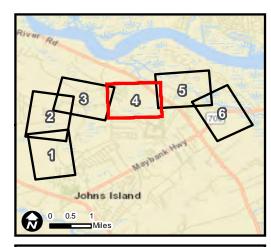


Figure 3.4 Soil Map of the Project Area

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area (71.66 AC)

Existing Santee Cooper ROW

Existing Dominion ROW

Soil Hydric Rating

Nonhydric

Predominantly Nonhydric

Predominantly Hydric

Hydric

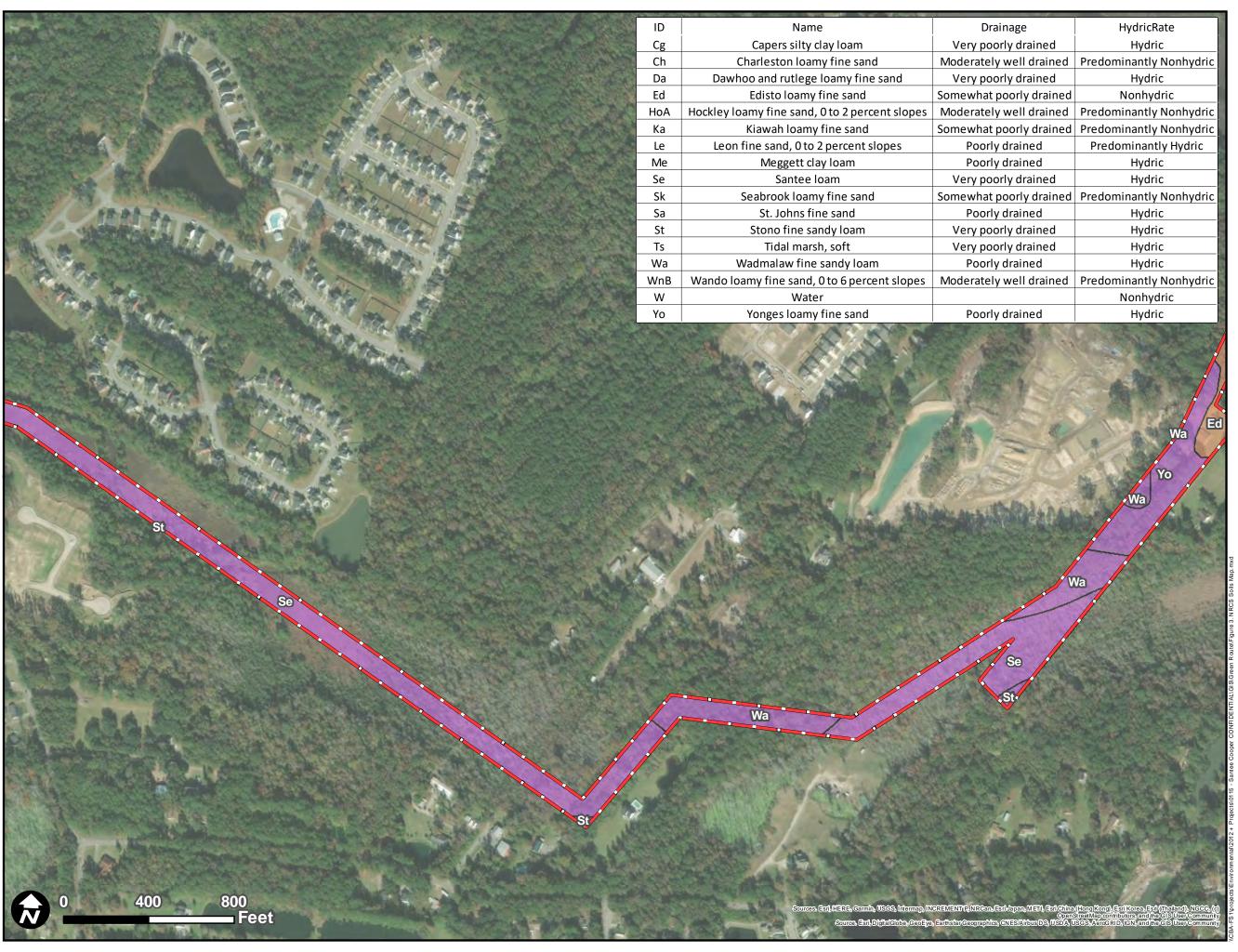


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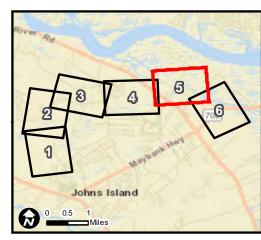


Figure 3.5 Soil Map of the **Project Area**

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area (71.66 AC)

Existing Santee Cooper ROW

Existing Dominion ROW

Soil Hydric Rating

Nonhydric

Predominantly Nonhydric

Predominantly Hydric

Hydric



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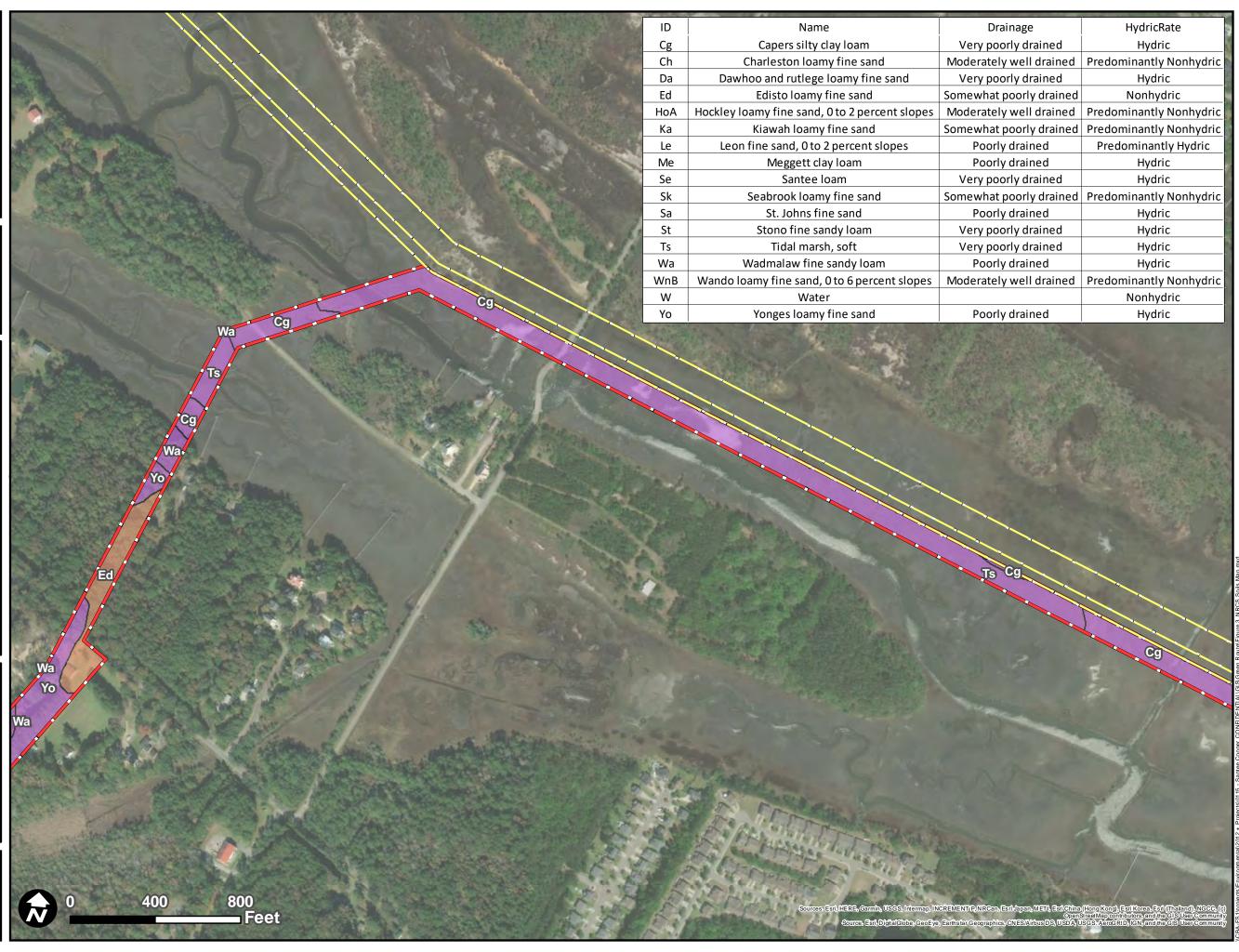




Figure 3.6 Soil Map of the Project Area

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area (71.66 AC)

Existing Santee Cooper ROW

Existing Dominion ROW

Soil Hydric Rating

Nonhydric

Predominantly Nonhydric

Predominantly Hydric

Hydric



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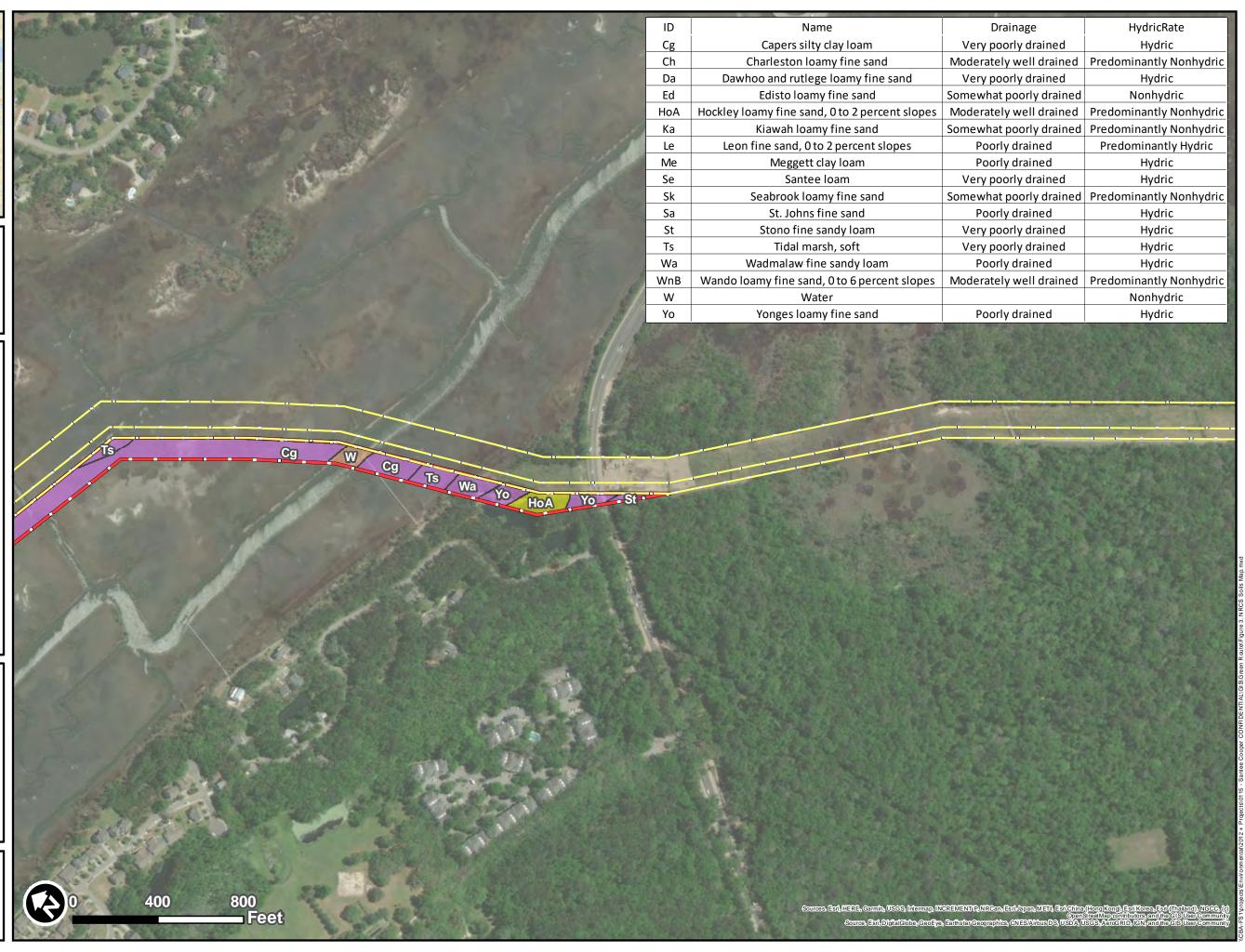




Figure 4.1 National Wetland Inventory Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Existing Santee Cooper ROW

Existing Dominion ROW

National Wetland Inventory

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond; Lake; Riverine

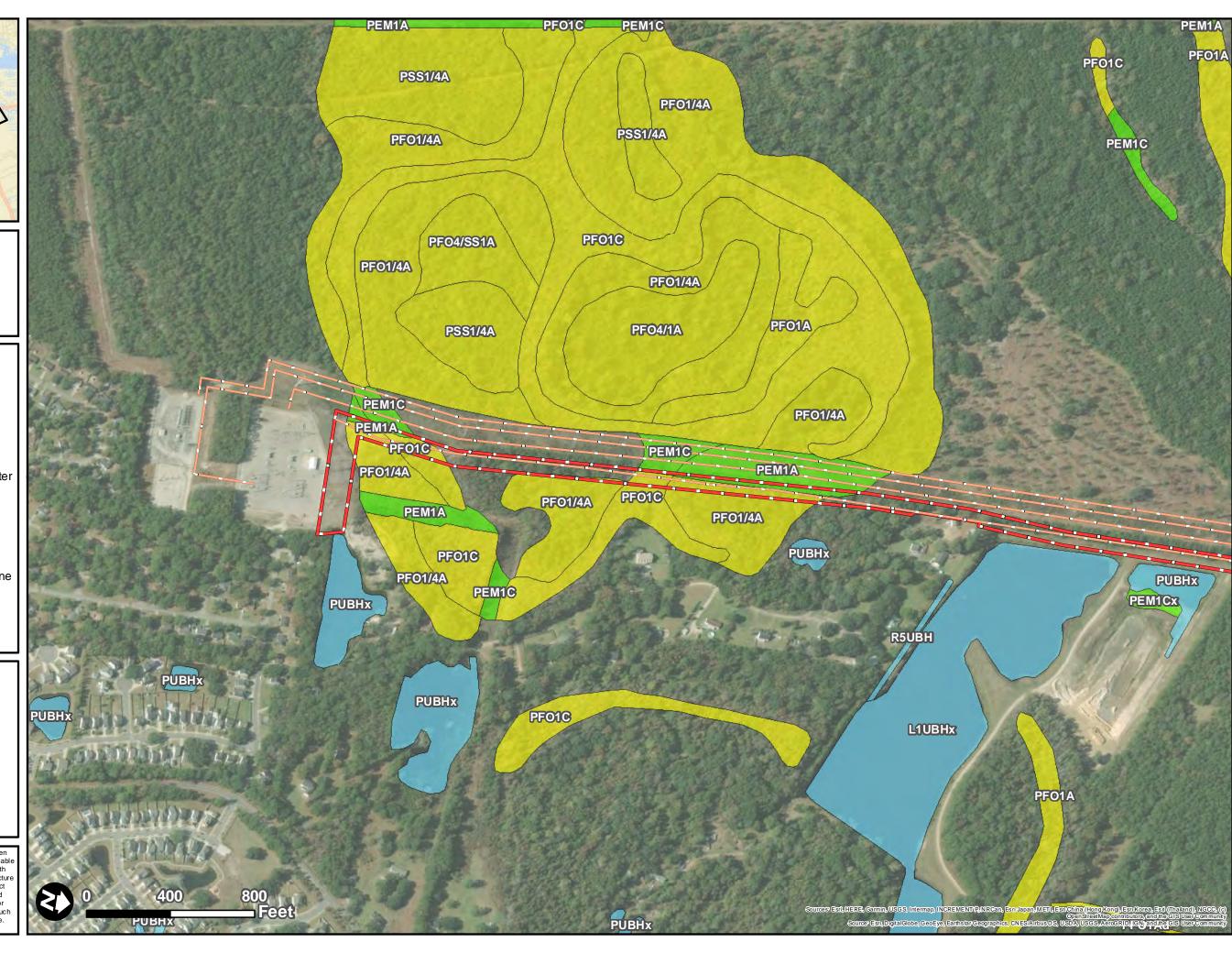


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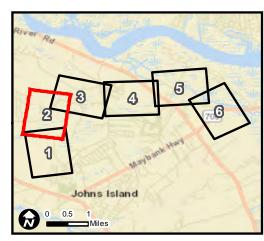


Figure 4.2 National Wetland **Inventory Map**

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Existing Santee Cooper ROW

Existing Dominion ROW

National Wetland Inventory

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub

Wetland

Freshwater Pond; Lake; Riverine



Job No. 6250160115

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Reviewed By: AWC

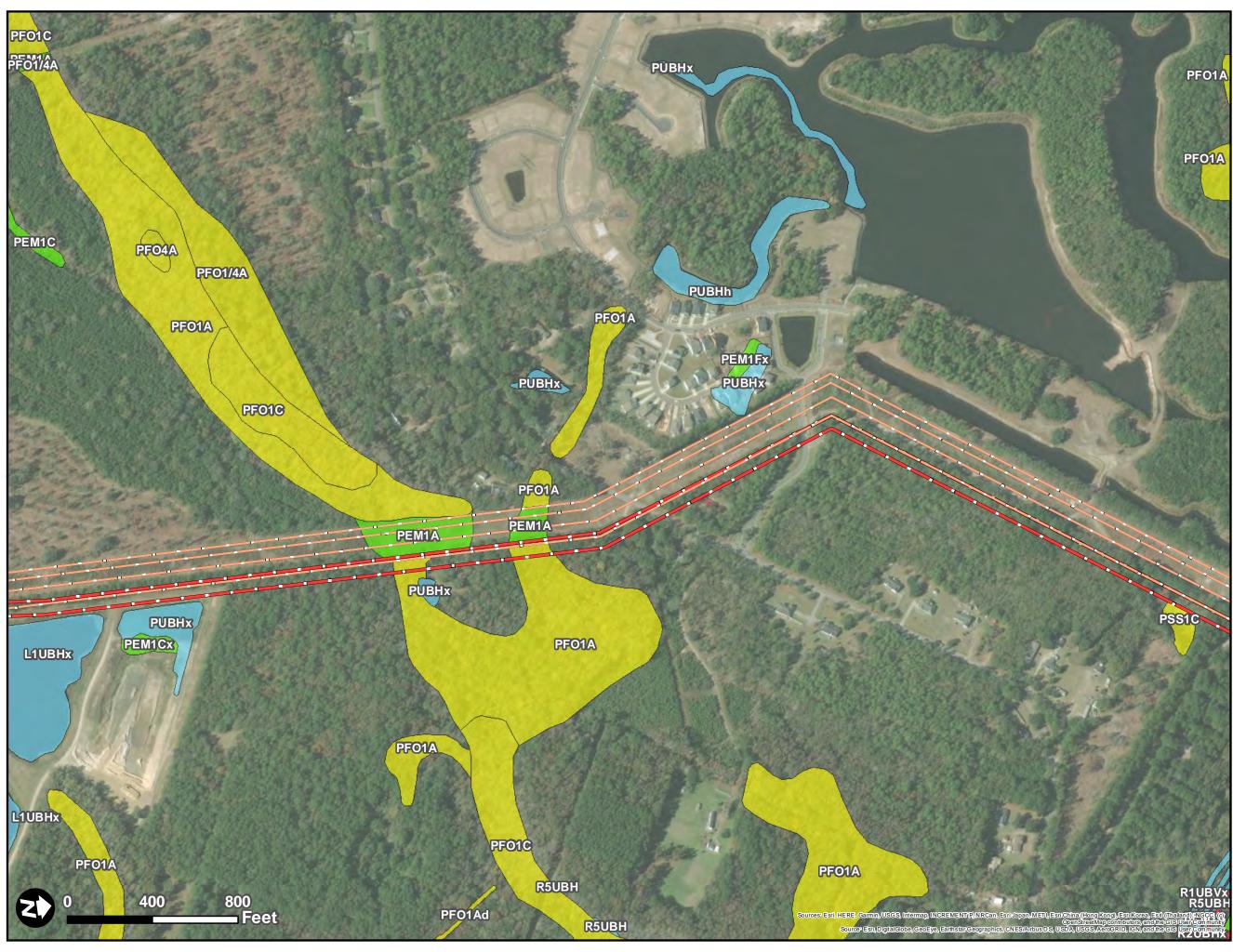




Figure 4.3 National Wetland **Inventory Map**

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Existing Santee Cooper ROW

Existing Dominion ROW

National Wetland Inventory

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub

Wetland

Freshwater Pond; Lake; Riverine



Job No. 6250160115

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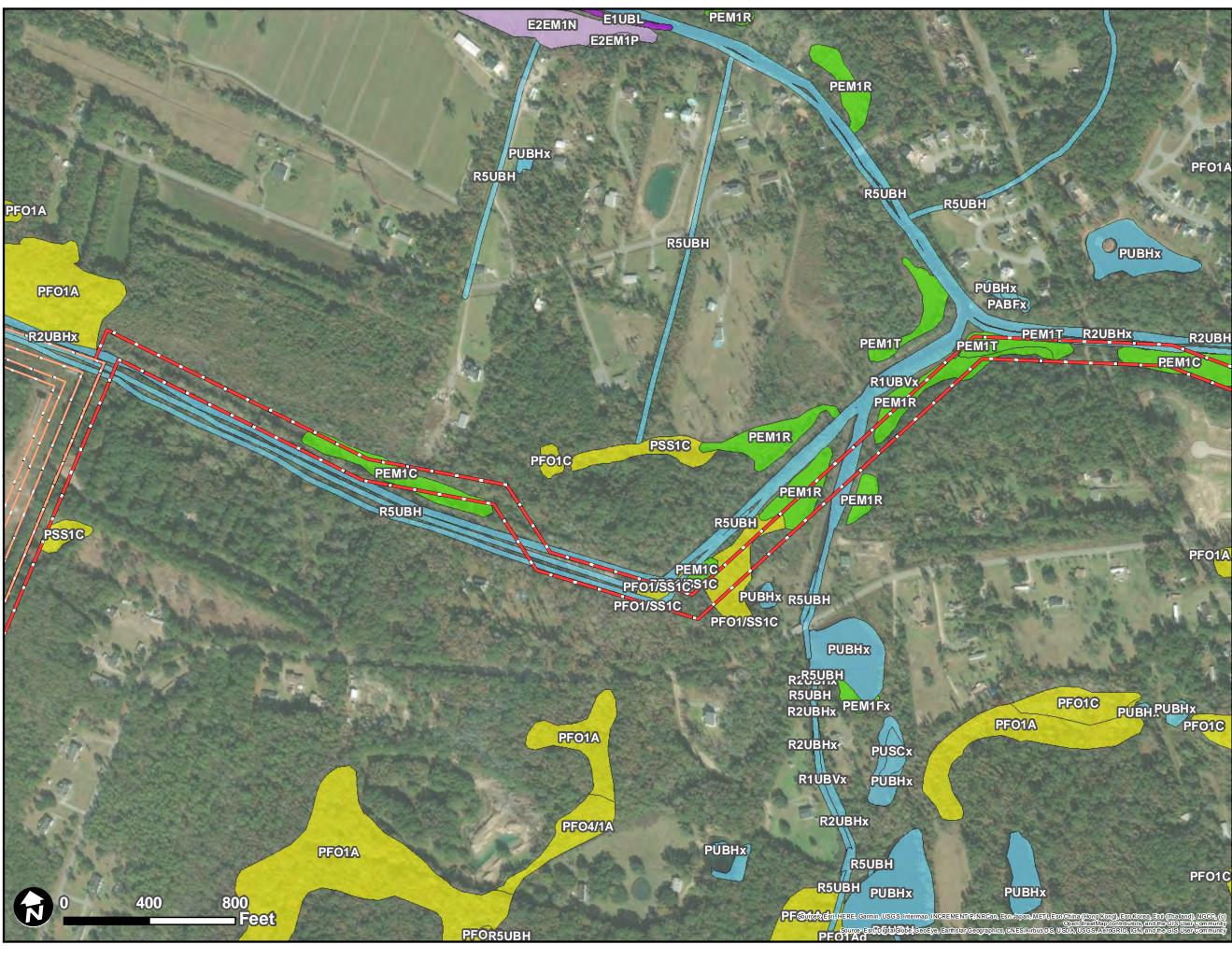




Figure 4.4 National Wetland Inventory Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Existing Santee Cooper ROW

Existing Dominion ROW

National Wetland Inventory

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond; Lake; Riverine



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Date: 1/10/2020

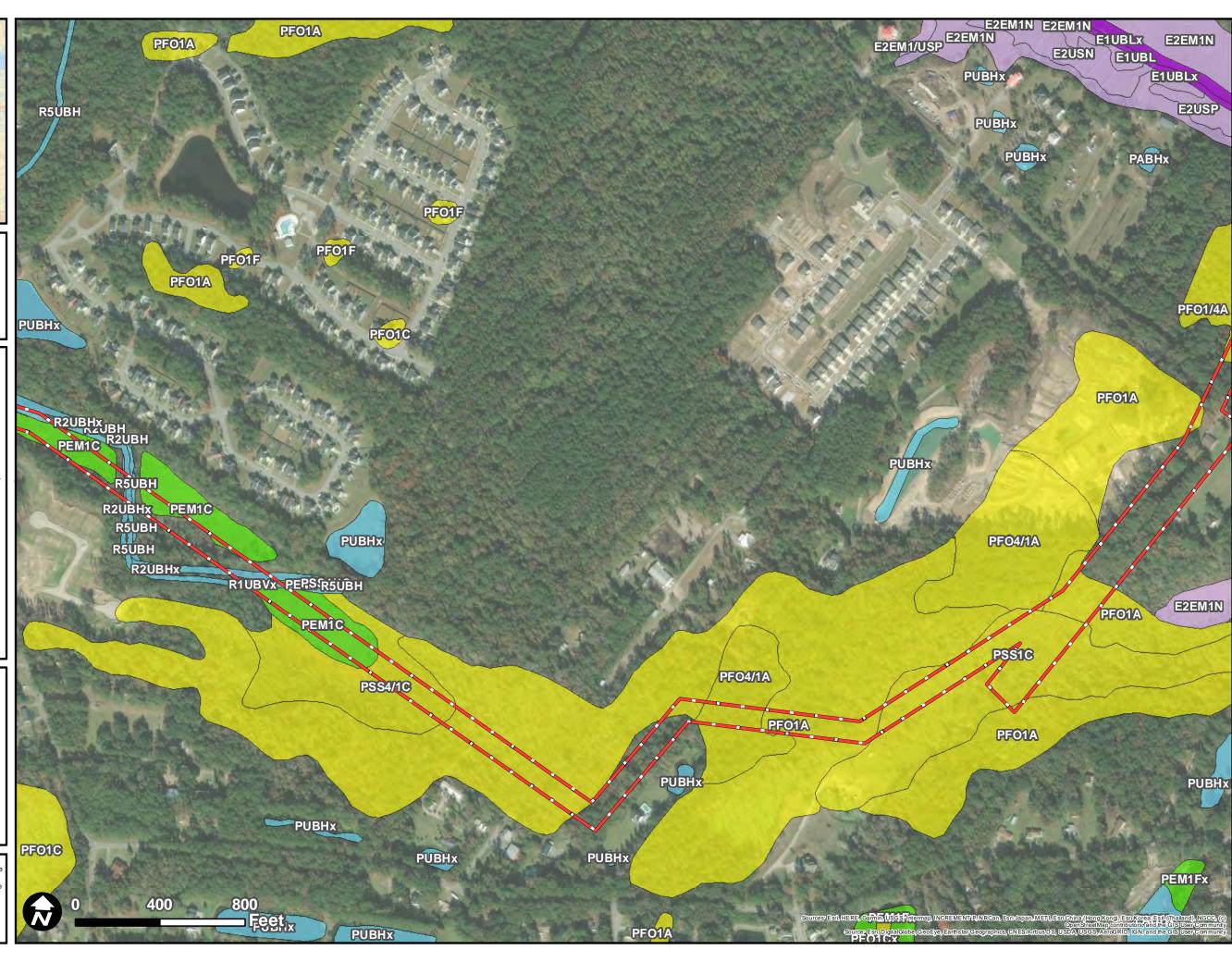




Figure 4.5 National Wetland Inventory Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Existing Santee Cooper ROW

Existing Dominion ROW

National Wetland Inventory

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub

Wetland

Freshwater Pond; Lake; Riverine



Job No. 6250160115

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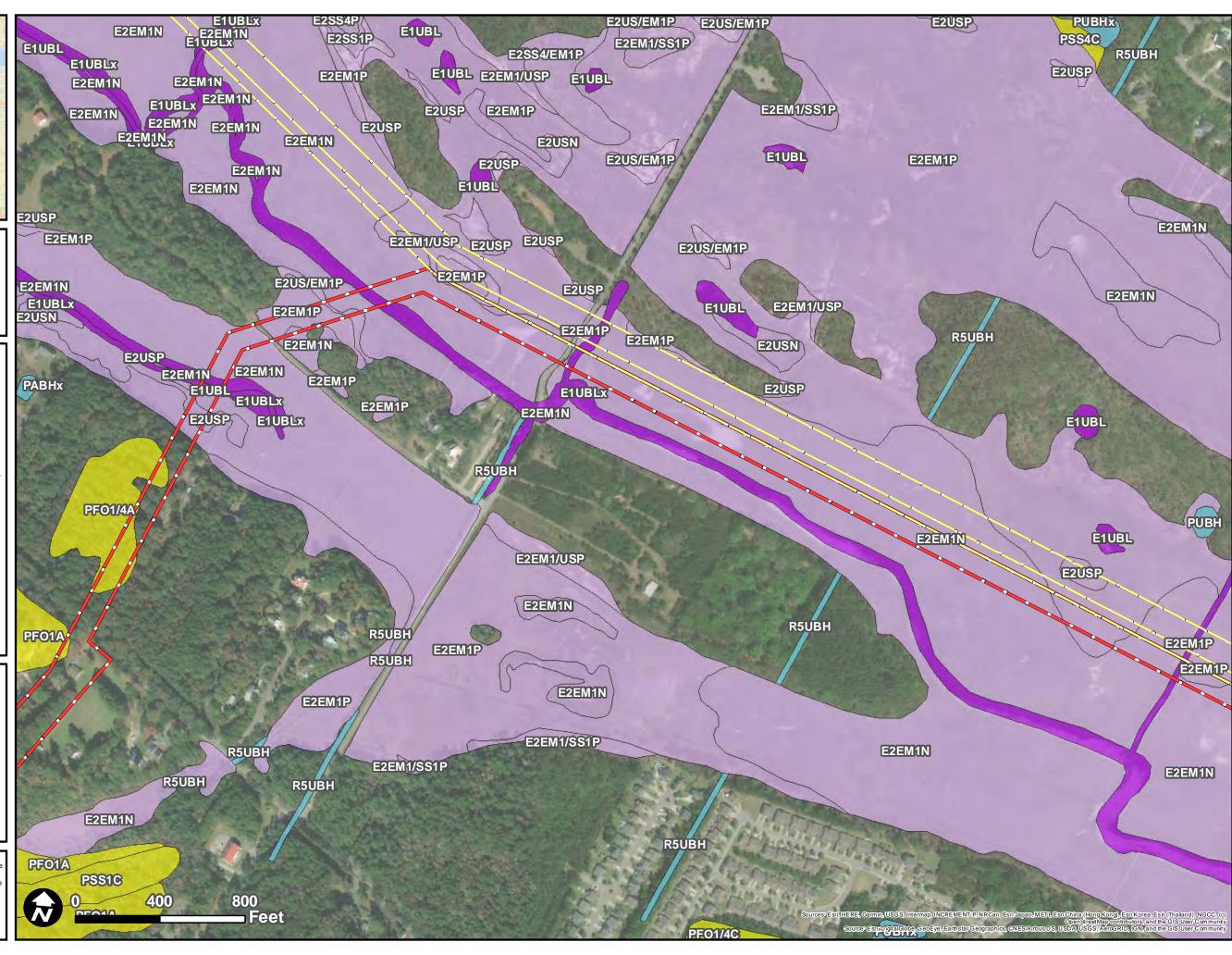




Figure 4.6 National Wetland **Inventory Map**

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Existing Santee Cooper ROW

Existing Dominion ROW

National Wetland Inventory

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

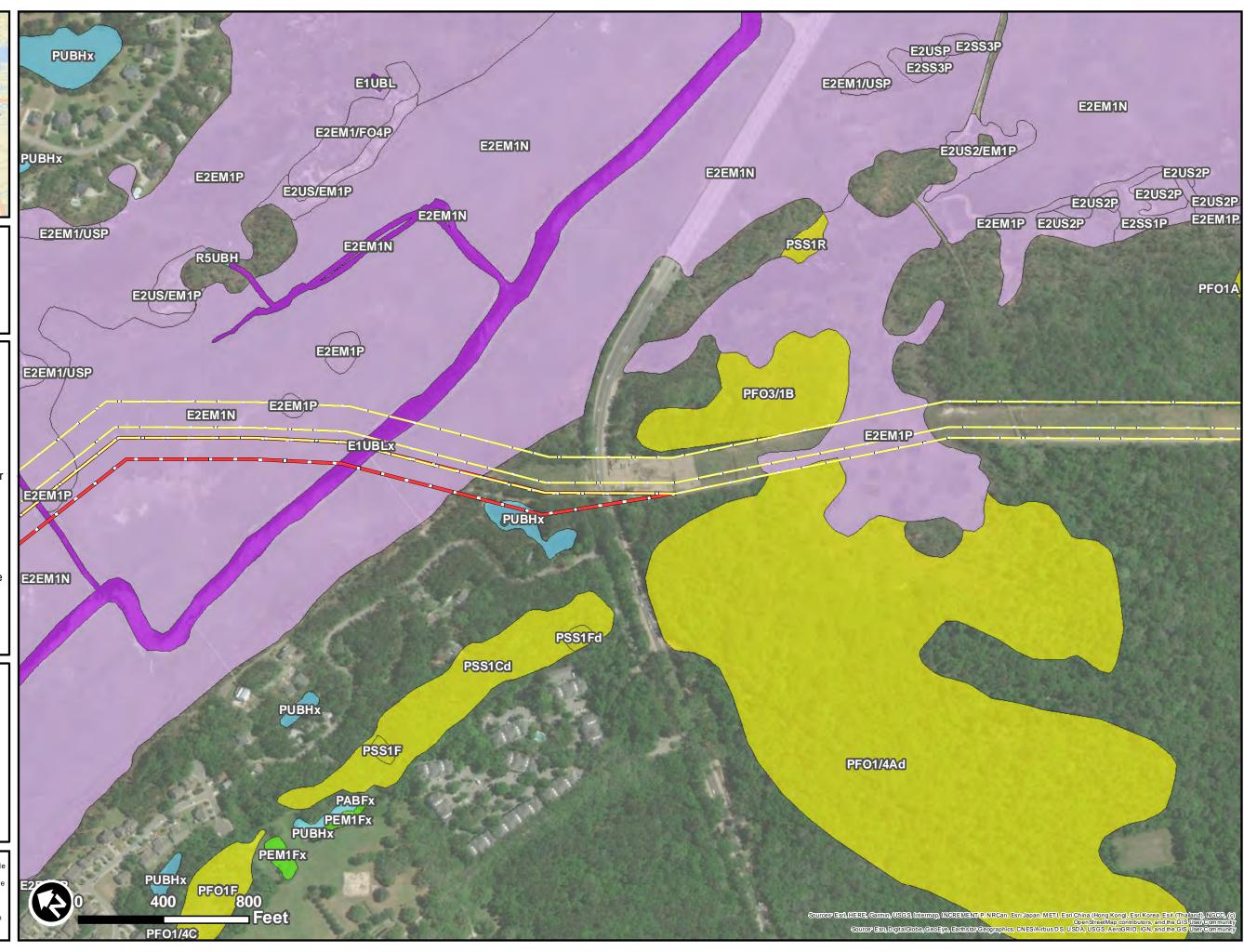
Freshwater Forested/Shrub Wetland

Freshwater Pond; Lake; Riverine



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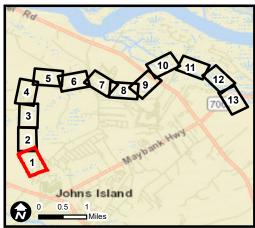


Figure 5.1 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)

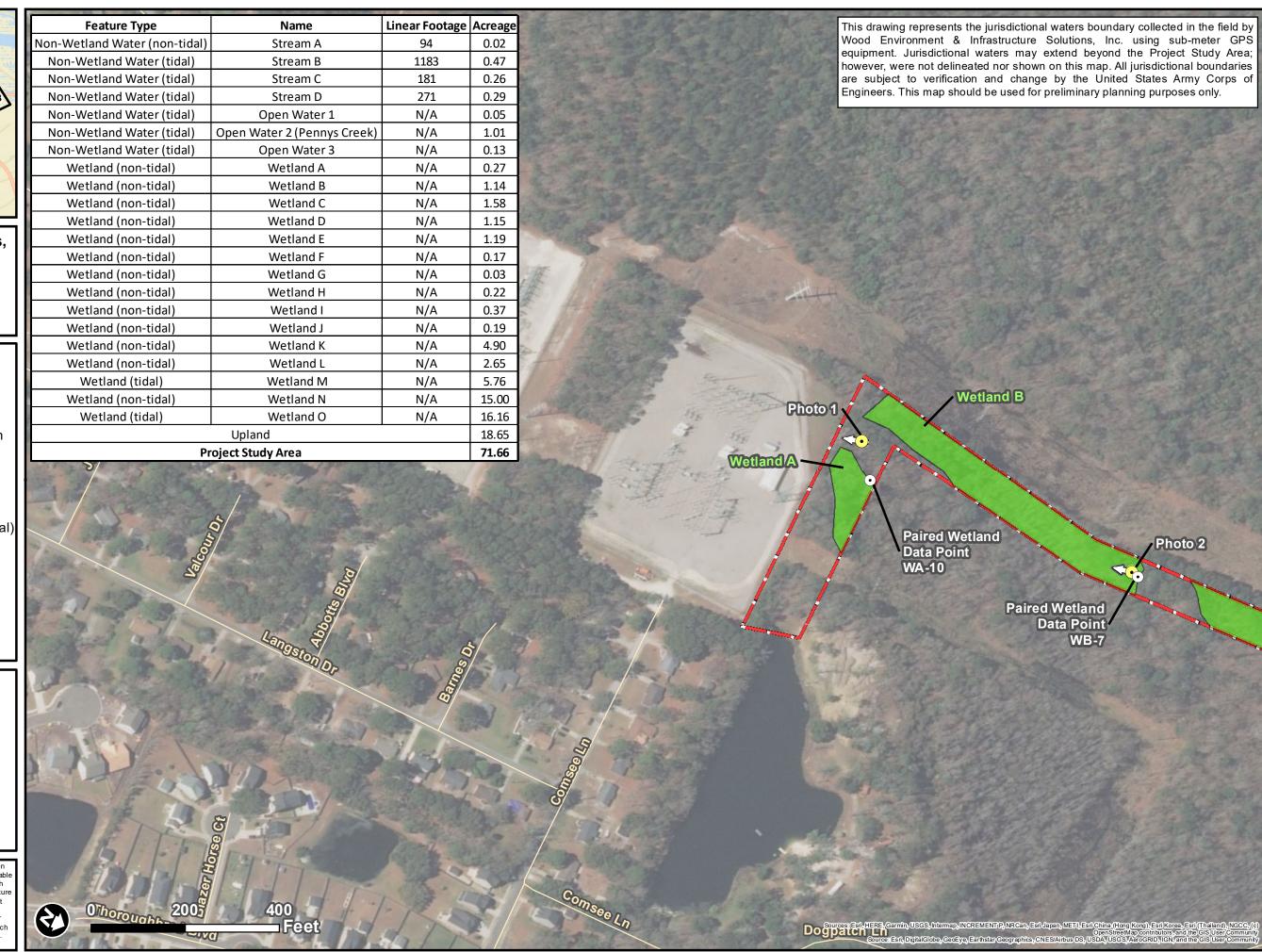


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Date: 1/14/2020



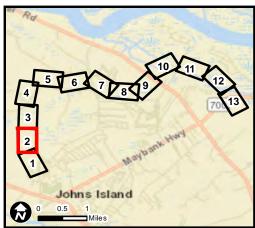


Figure 5.2 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)

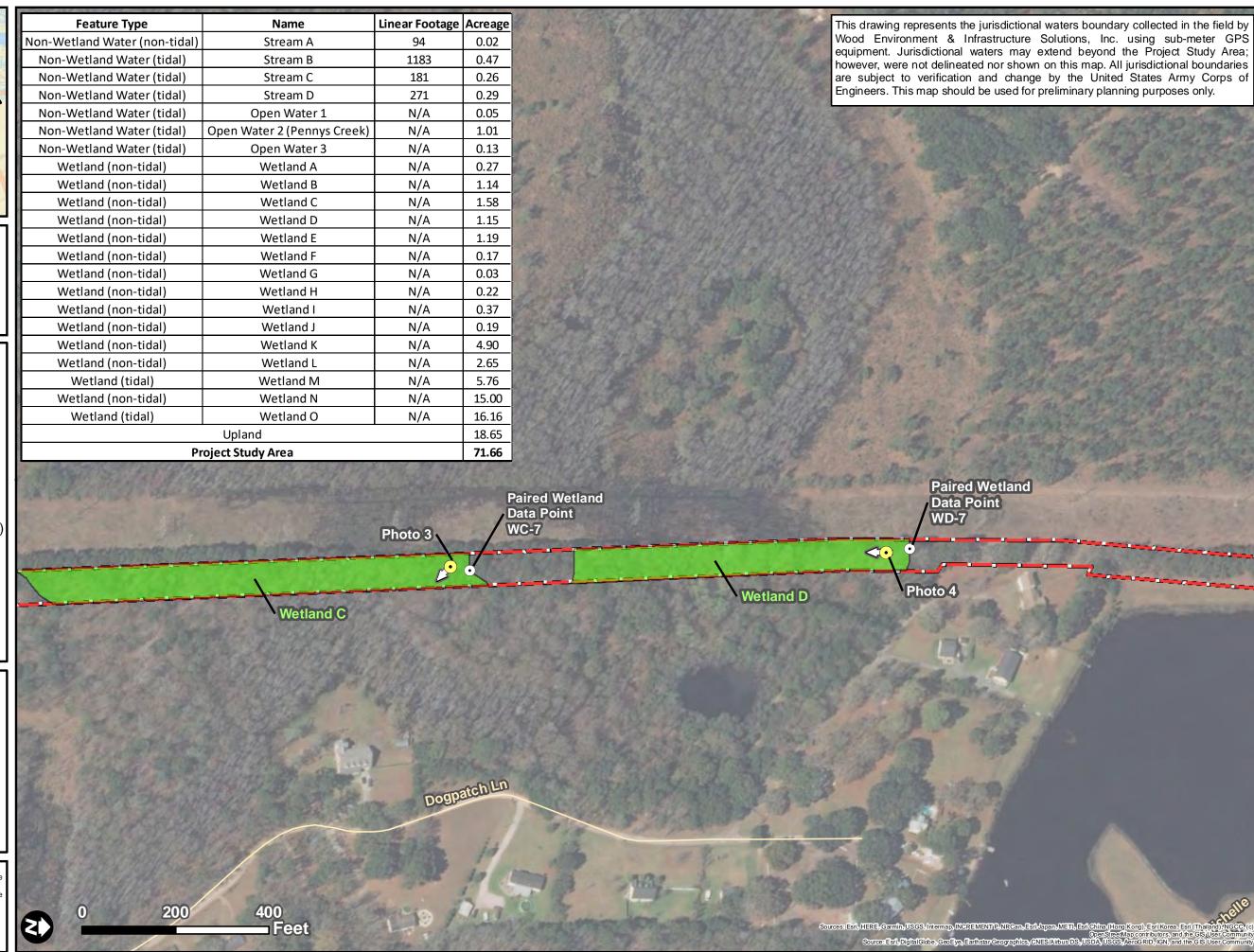


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Reviewed By: AWC



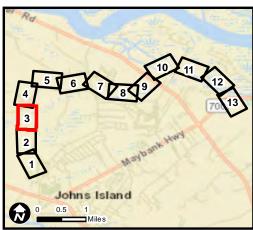


Figure 5.3 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)



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Drawn By: BWS

Reviewed By: AWC

Date: 1/10/2020

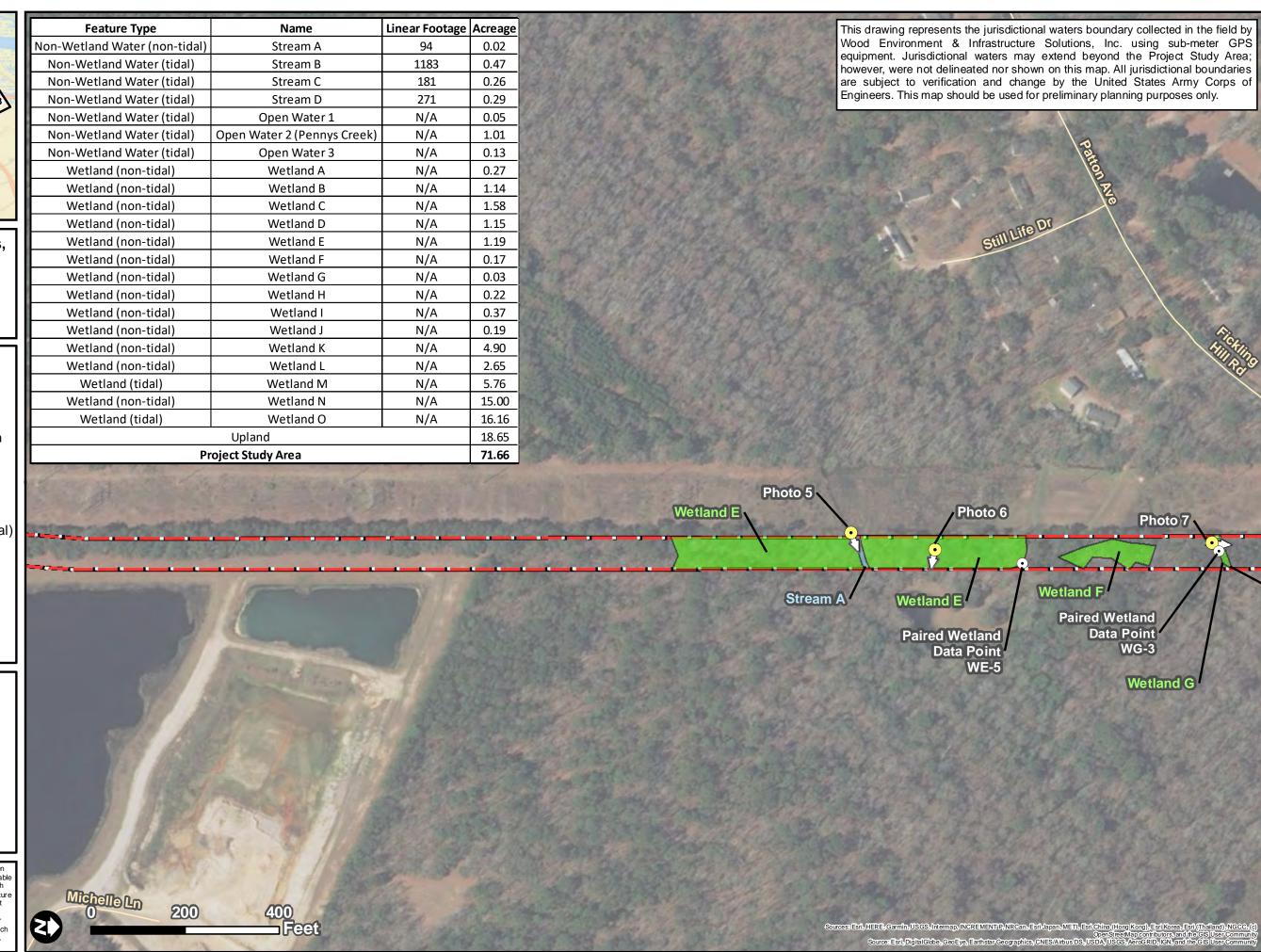




Figure 5.4 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)

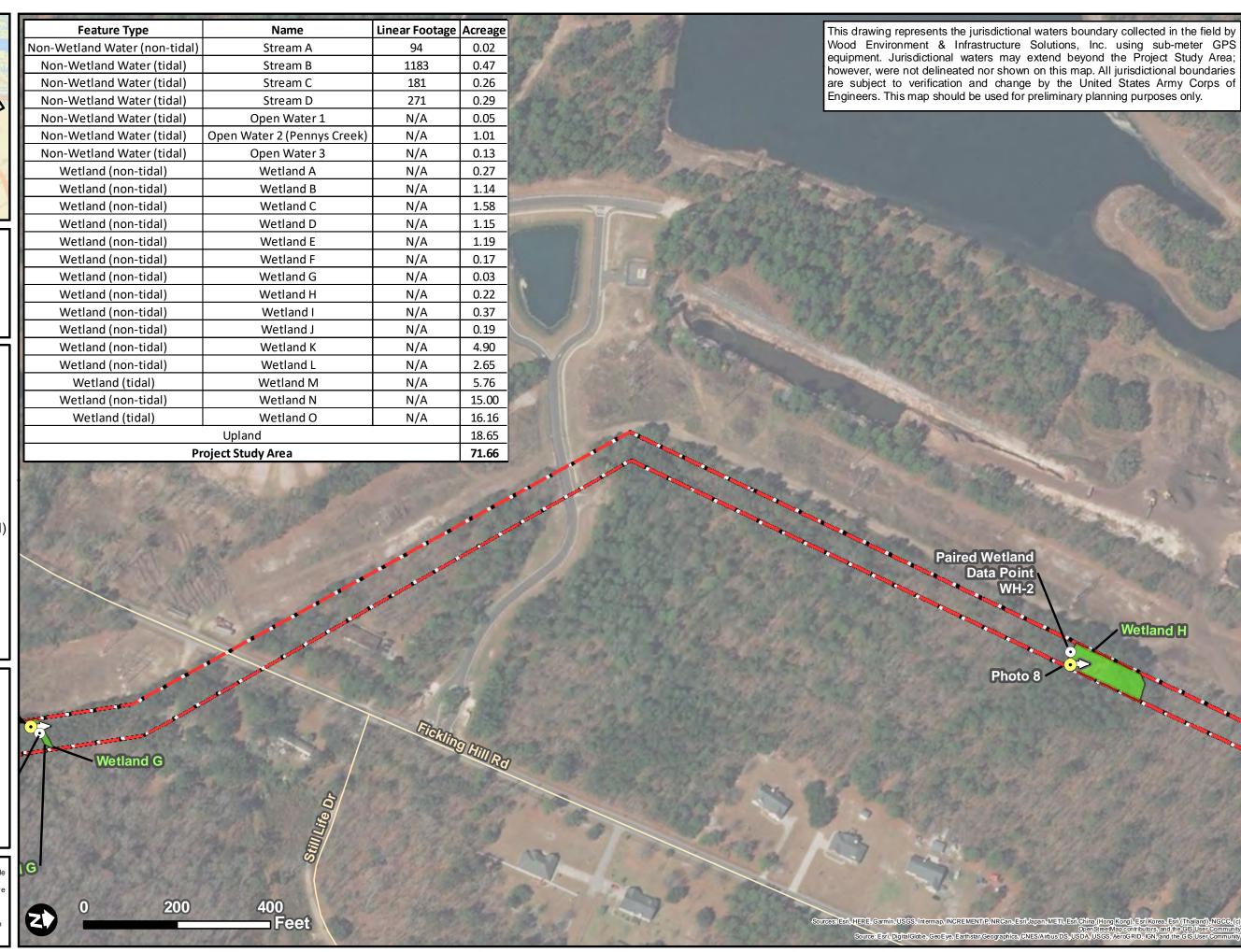


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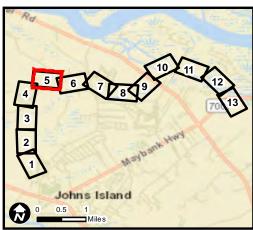


Figure 5.5 Aquatic Resources, **Data Point, and Photo Location Map**

Johns Island - Queensboro 115kV **Transmission Project** Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

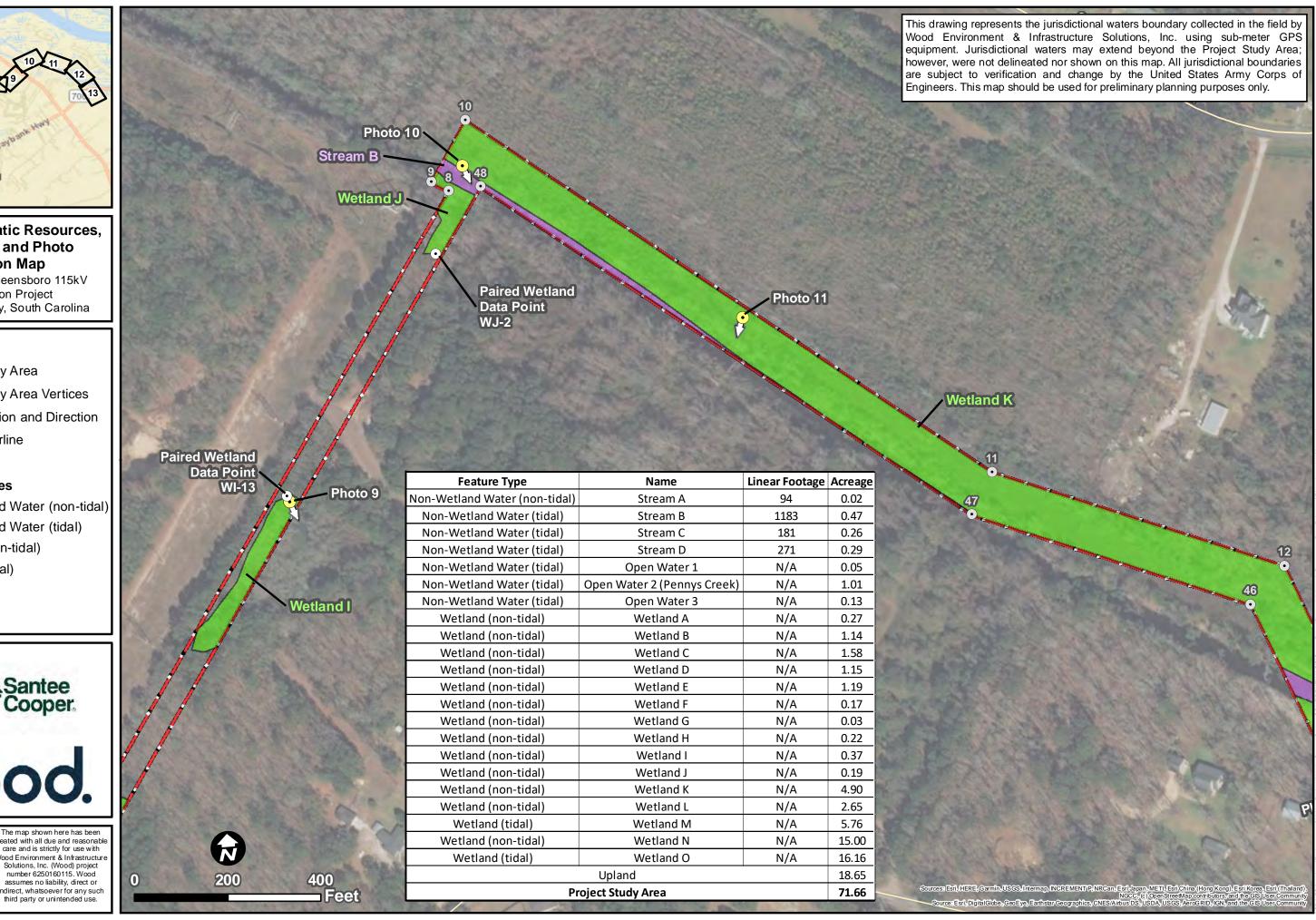
Wetland (tidal)



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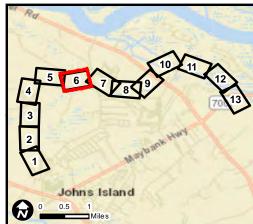


Figure 5.6 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

. . _

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)



Job No. 6250160115

Drawn By: E

Reviewed By: AWC

Date: 1/10/2020

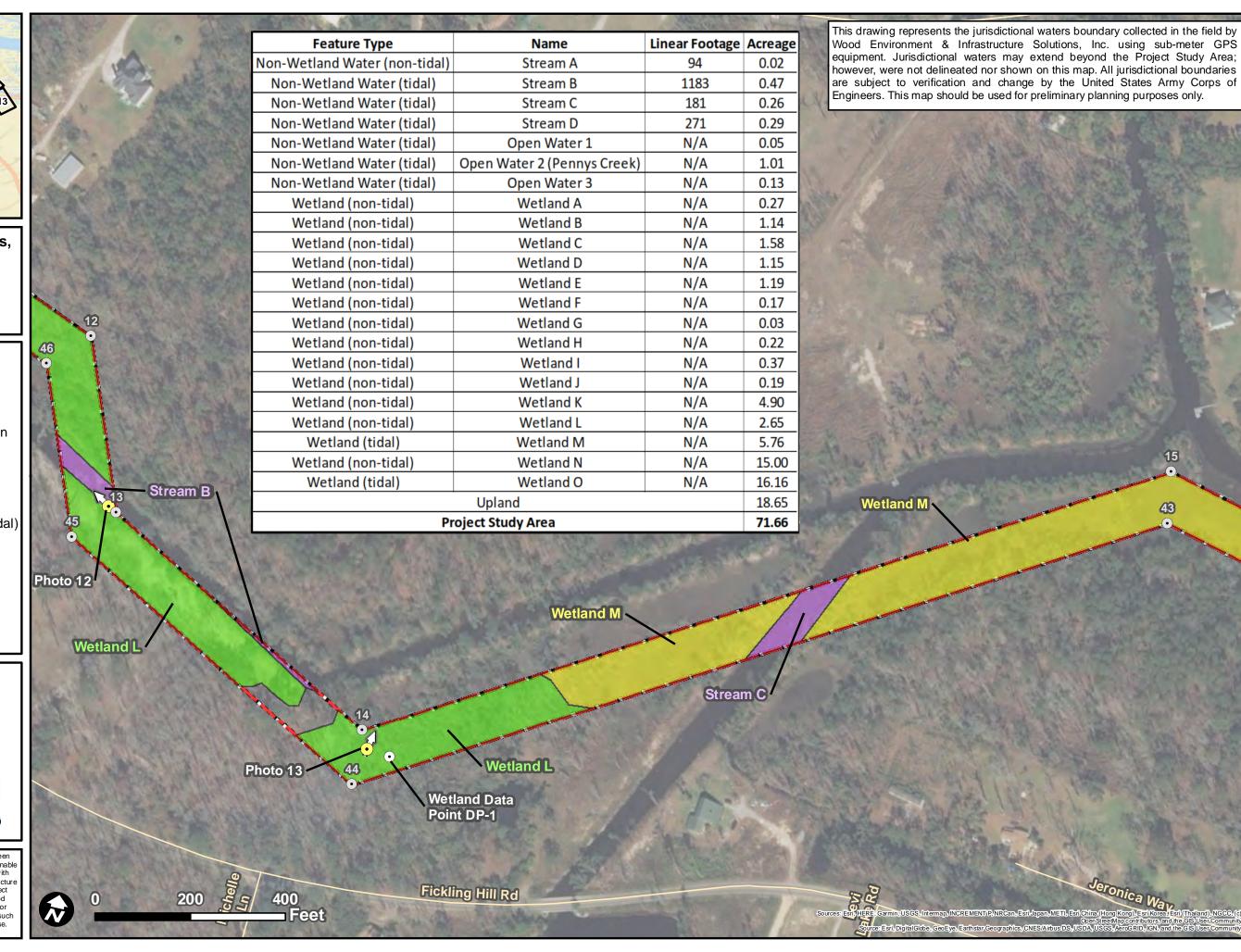




Figure 5.7 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)

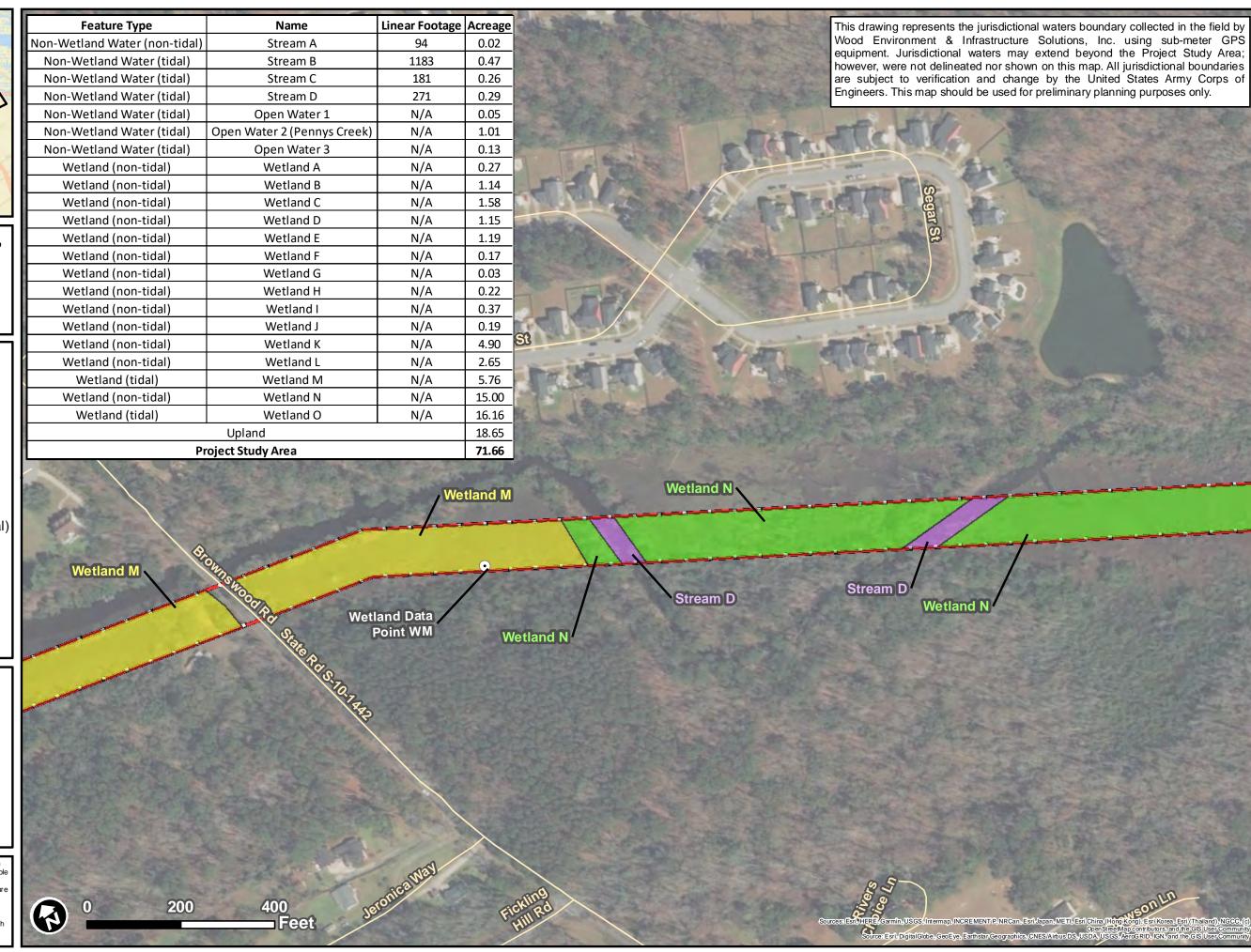


Job No. 6250160115

1/10/2020

Drawn By: B

Reviewed By: AWC



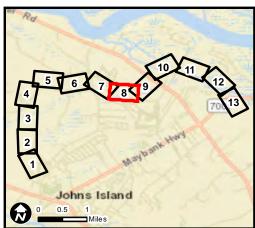


Figure 5.8 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)

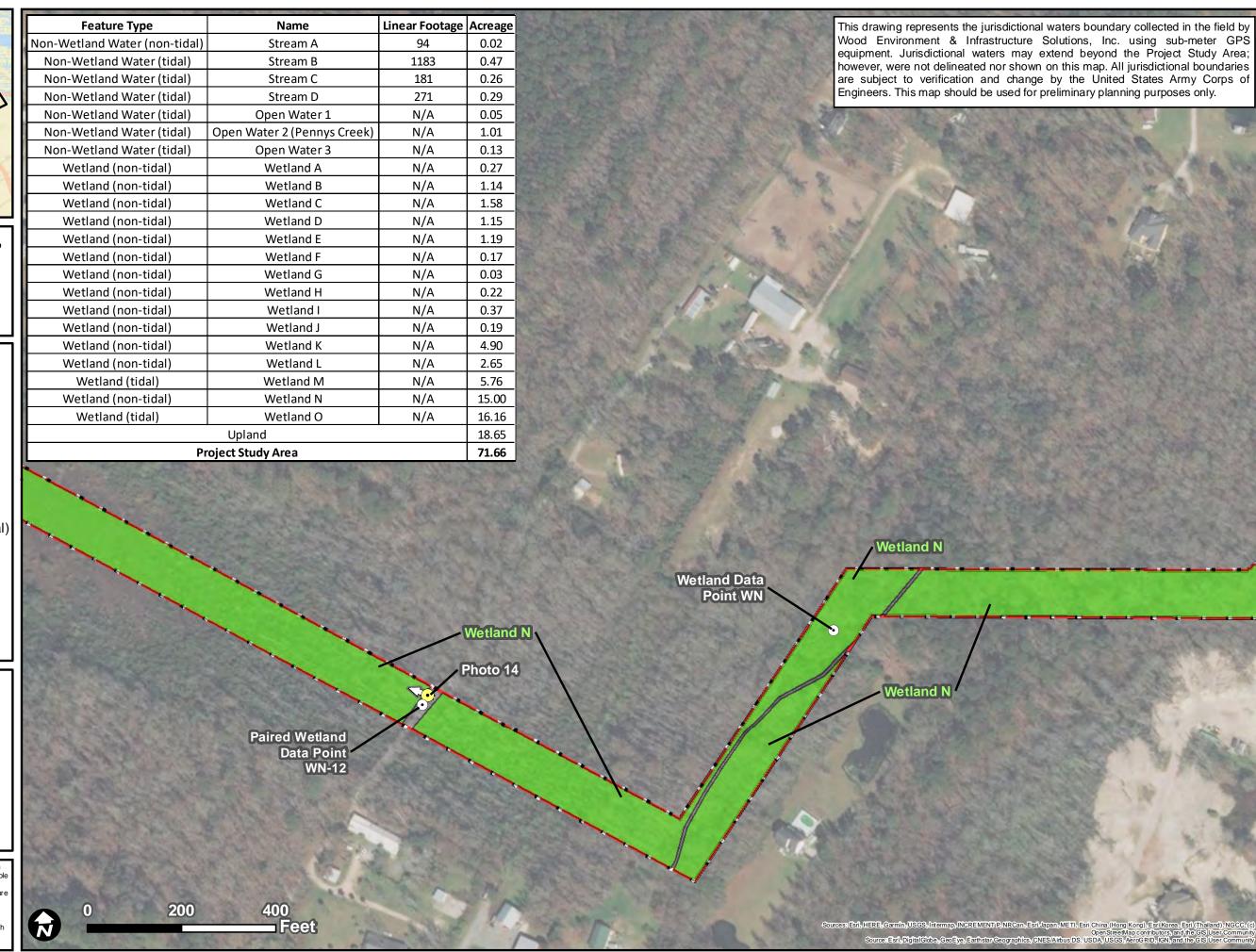


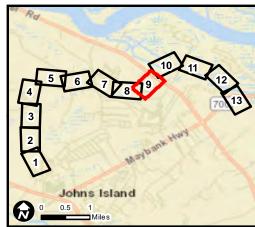
Job No. 6250160115

Drawn By: B

Reviewed By: AWC

1/10/2020





Name

Figure 5.9 Aquatic Resources, **Data Point, and Photo Location Map**

Johns Island - Queensboro 115kV **Transmission Project** Charleston County, South Carolina

Legend

Project Study Area

• Project Study Area Vertices

Photo Location and Direction Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)



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Job No. 6250160115

Drawn By:

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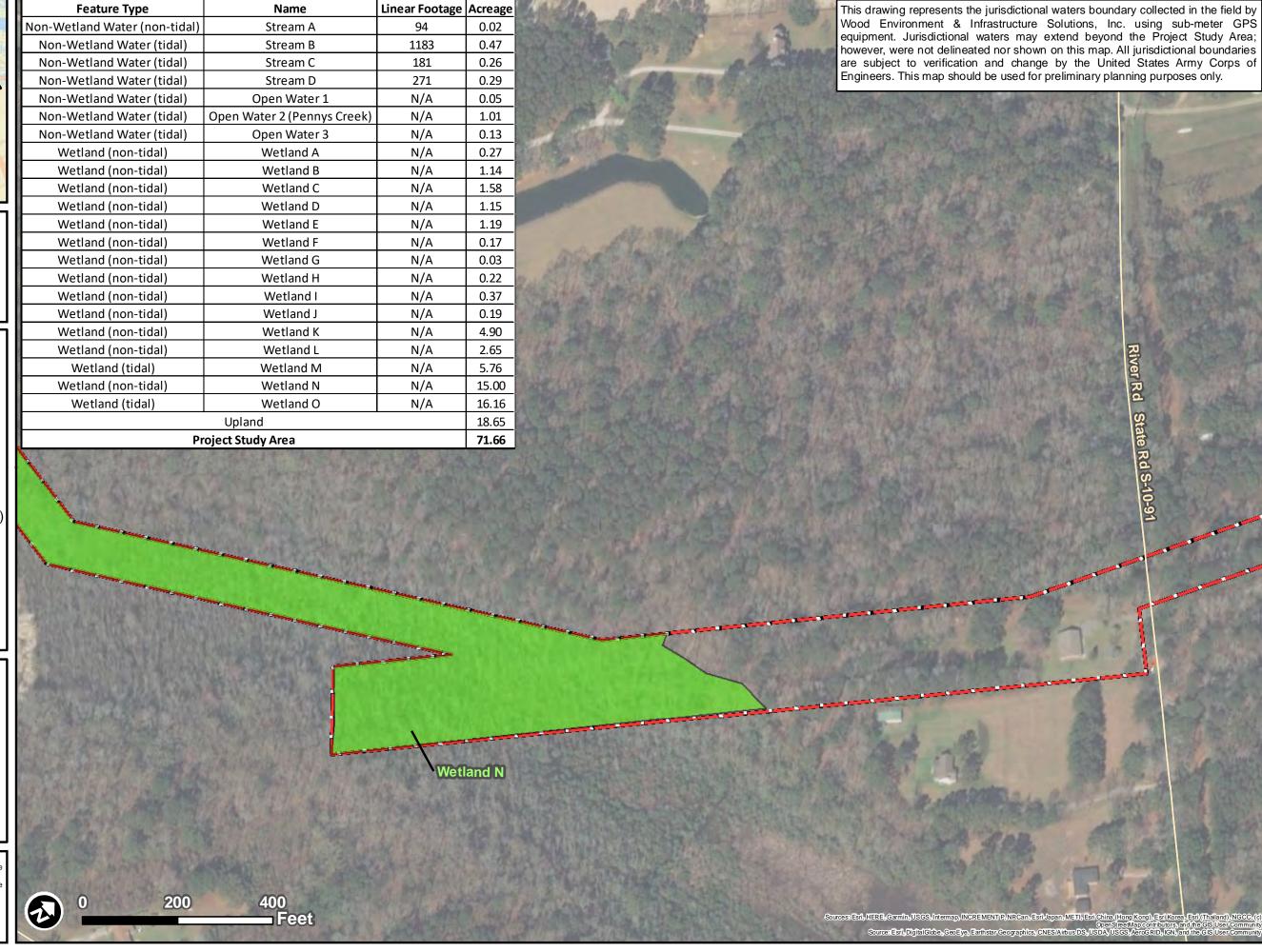




Figure 5.10 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)



Job No. 6250160115

Drawn By: BV

Reviewed By: AWC

ate: 1/10/2020

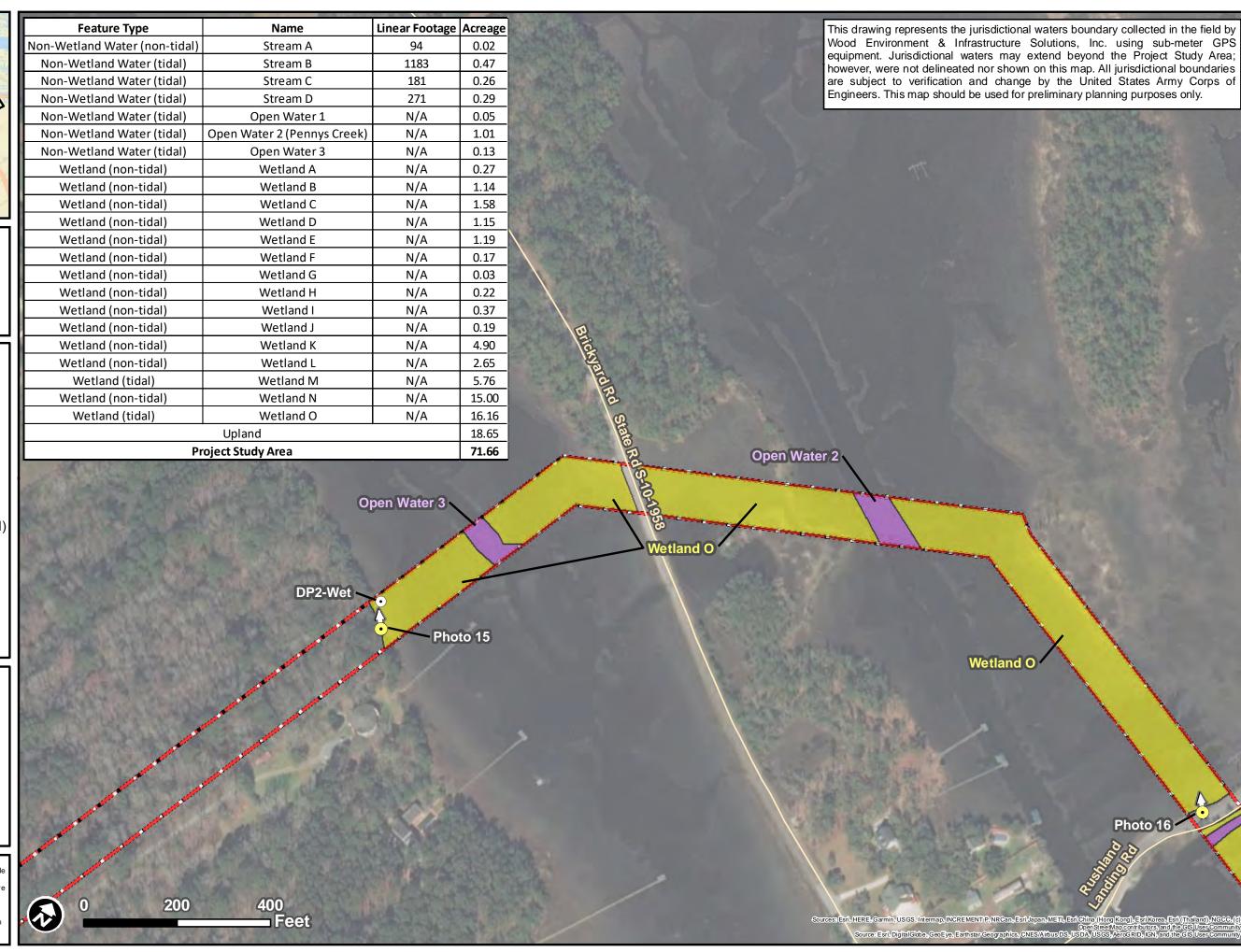




Figure 5.11 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)



Job No. 6250160115

Drawn By: B

Reviewed By: AWC

ate: 1/10/2020

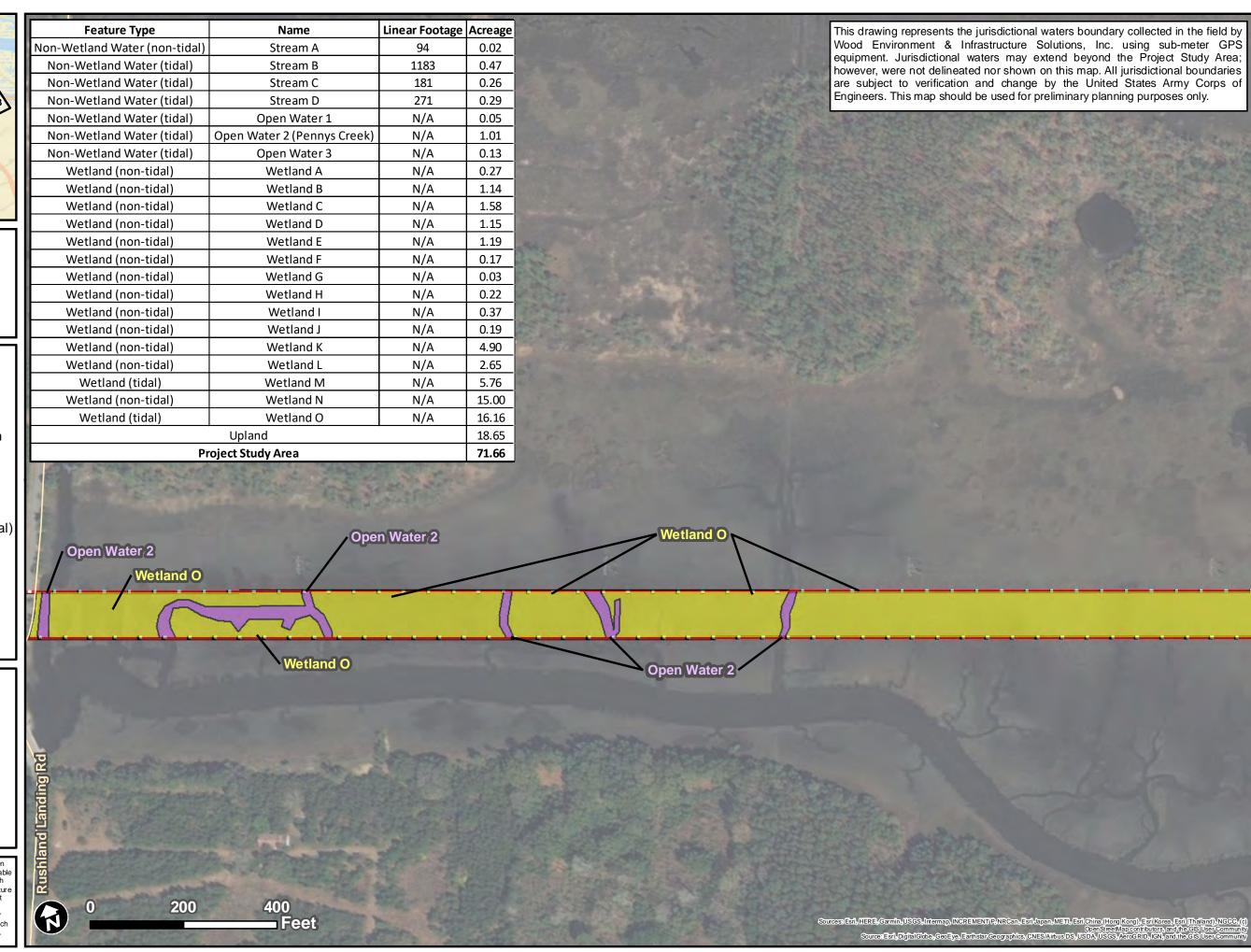




Figure 5.12 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)

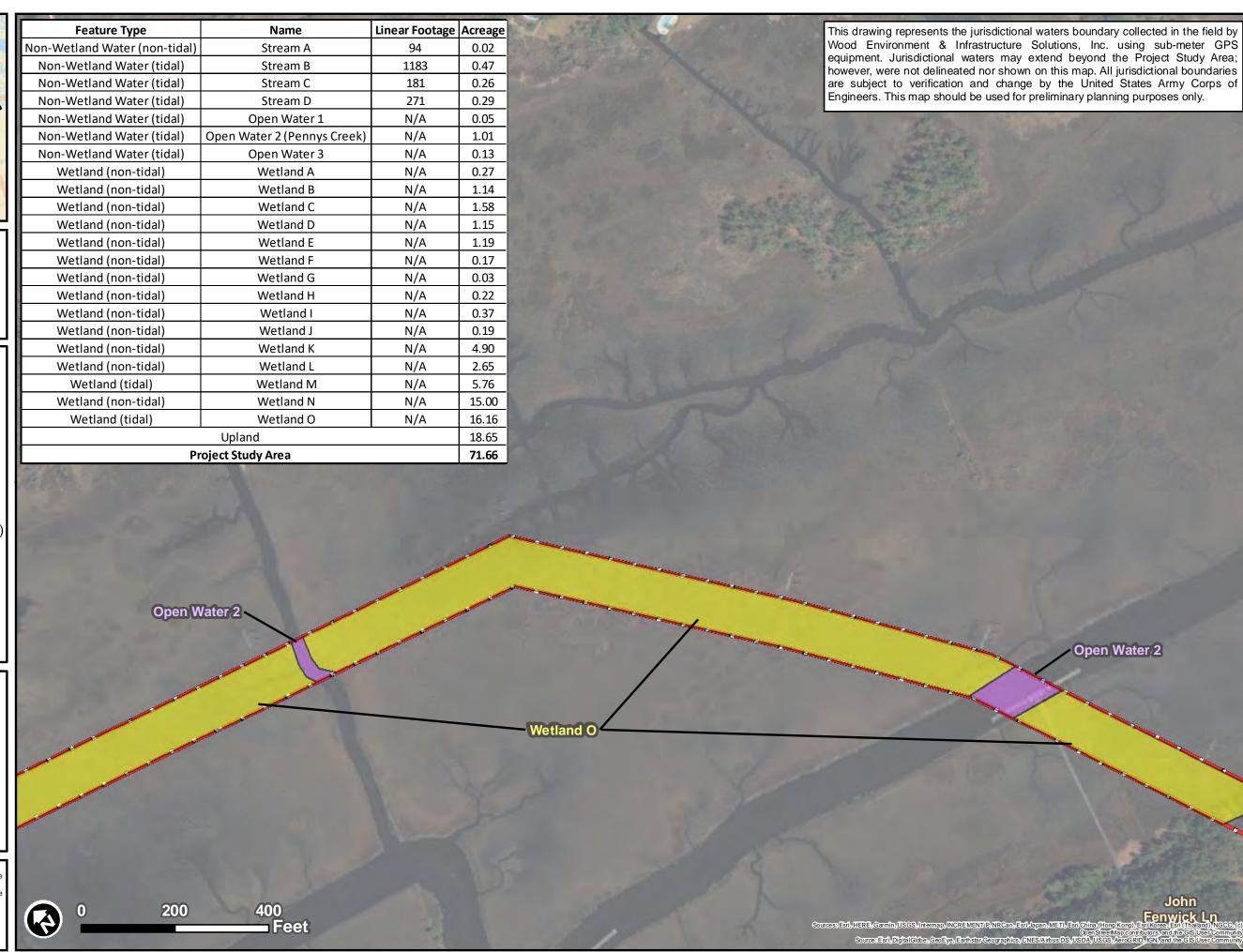


Job No. 6250160115

Drawn By: E

Reviewed By: AWC

Date: 1/10/2020



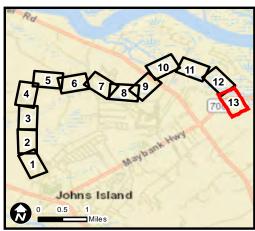


Figure 5.13 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Legend

Project Study Area

Project Study Area Vertices

Photo Location and Direction

Road Centerline

Data Point

Aquatic Resources

Non-Wetland Water (non-tidal)

Non-Wetland Water (tidal)

Wetland (non-tidal)

Wetland (tidal)



Job No. 6250160115

Drawn By:

Reviewed By: AWC

ate: 1/10/2020

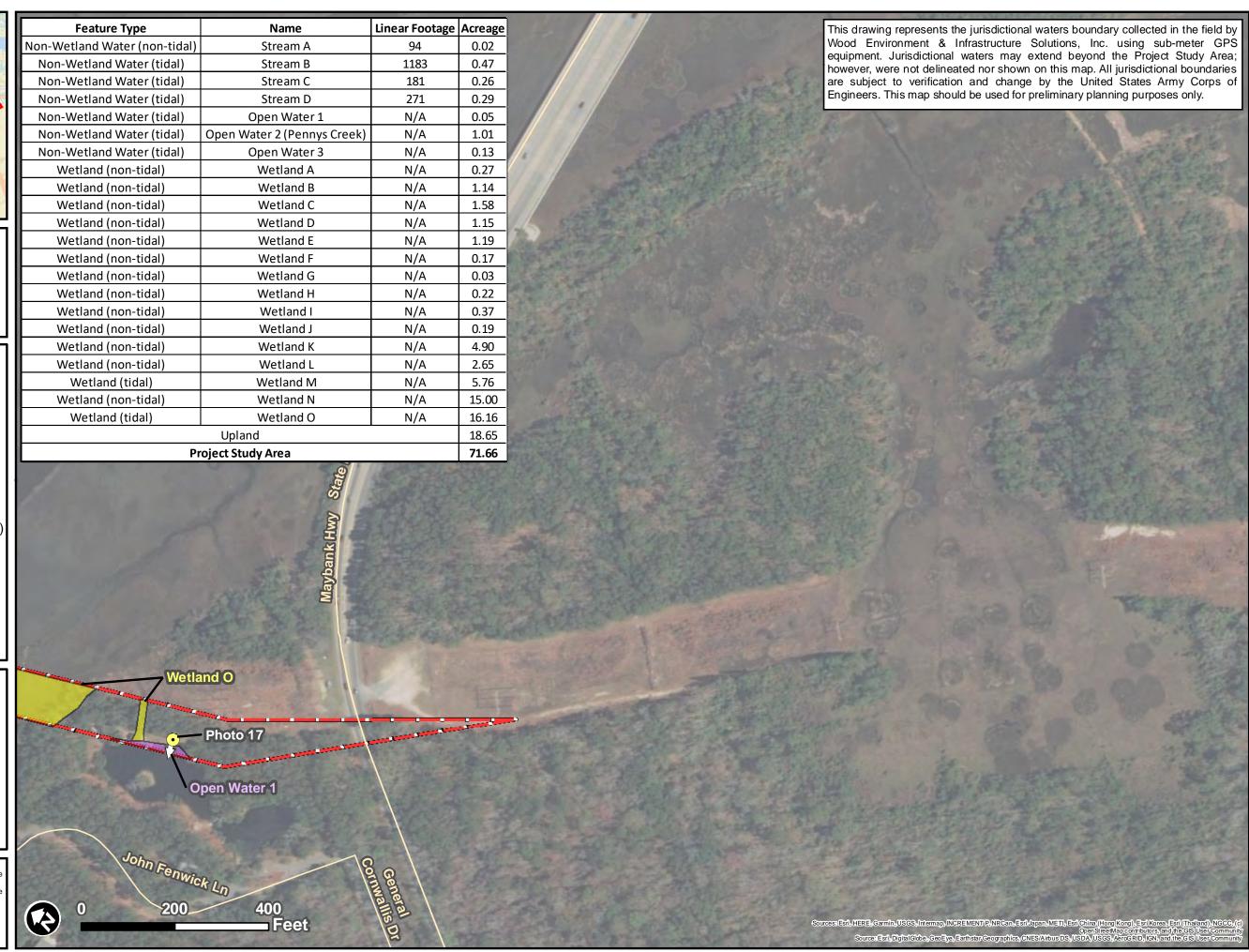


Figure 5.14 Aquatic Resources, Data Point, and Photo Location Map

Johns Island - Queensboro 115kV Transmission Project Charleston County, South Carolina

Santee Cooper.

Job No. 6250160115

Drawn By: BWS

Reviewed By: AWC

Date: 1/10/2020

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. (Wood) project number 6250160115. Wood assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

Project Study Area Vertices Table

| ID | Latitude | Longitude |
|----|-------------|--------------|----|-------------|--------------|----|-------------|--------------|----|-------------|--------------|
| 1 | 32.73250236 | -80.08983503 | 16 | 32.75583162 | -80.06964858 | 31 | 32.76126728 | -80.04685105 | 46 | 32.7557521 | -80.08021717 |
| 2 | 32.73413715 | -80.08947922 | 17 | 32.75106152 | -80.06096855 | 32 | 32.76033721 | -80.04953674 | 47 | 32.75643102 | -80.08209473 |
| 3 | 32.73955255 | -80.08967051 | 18 | 32.75244173 | -80.05967332 | 33 | 32.75643073 | -80.05153921 | 48 | 32.75862733 | -80.08529107 |
| 4 | 32.74088736 | -80.08964389 | 19 | 32.75223459 | -80.05691446 | 34 | 32.75620852 | -80.05118029 | 49 | 32.7525151 | -80.09039978 |
| 5 | 32.74218551 | -80.08950033 | 20 | 32.75402002 | -80.05387375 | 35 | 32.7524206 | -80.05454185 | 50 | 32.74940209 | -80.08909173 |
| 6 | 32.74937102 | -80.08932392 | 21 | 32.75601687 | -80.05210583 | 36 | 32.75277176 | -80.05498161 | 51 | 32.74213738 | -80.08928705 |
| 7 | 32.75253833 | -80.09059939 | 22 | 32.76054912 | -80.04978262 | 37 | 32.75332125 | -80.05449378 | 52 | 32.74102321 | -80.08940387 |
| 8 | 32.75861807 | -80.08551785 | 23 | 32.76158426 | -80.04679353 | 38 | 32.75298052 | -80.05507408 | 53 | 32.74104863 | -80.08946272 |
| 9 | 32.75868018 | -80.08563403 | 24 | 32.75676042 | -80.0333301 | 39 | 32.75195198 | -80.05682573 | 54 | 32.74017167 | -80.08948629 |
| 10 | 32.75902525 | -80.08535459 | 25 | 32.75418425 | -80.03173668 | 40 | 32.75215483 | -80.05952742 | 55 | 32.74013844 | -80.08943873 |
| 11 | 32.75666857 | -80.08192486 | 26 | 32.75160949 | -80.03094892 | 41 | 32.75069468 | -80.06089767 | 56 | 32.73962583 | -80.0894525 |
| 12 | 32.75595818 | -80.07996027 | 27 | 32.75012456 | -80.02999524 | 42 | 32.7555776 | -80.06978298 | 57 | 32.73411574 | -80.08923463 |
| 13 | 32.75499333 | -80.07954036 | 28 | 32.7514967 | -80.03125022 | 43 | 32.75620002 | -80.07250552 | 58 | 32.73282779 | -80.08948409 |
| 14 | 32.75406094 | -80.07758661 | 29 | 32.75408841 | -80.03204341 | 44 | 32.75374232 | -80.07758045 | 59 | 32.7328009 | -80.08800063 |
| 15 | 32.75649503 | -80.07255041 | 30 | 32.75654445 | -80.03356142 | 45 | 32.75480367 | -80.0798044 | 60 | 32.73247192 | -80.08790532 |