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

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

REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): August 9, 2016 B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC 2016-00549 / Bulow Tract C. PROJECT LOCATION AND BACKGROUND INFORMATION: Corner of Hughes Road and Bulow Plantation Road State: South Carolina County/parish/borough: **Charleston** City: **Charleston** Center coordinates of site (lat/long in degree decimal format): Lat. 32.8212° N, Long. 80.1404° W. Universal Transverse Mercator: Name of nearest waterbody: Rantowles Creek Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Rantowles Creek Name of watershed or Hydrologic Unit Code (HUC): 03050202 Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form. D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date: **July 7, 2016** Field Determination. Date(s): April 13, 2016 **SECTION II: SUMMARY OF FINDINGS** A. RHA SECTION 10 DETERMINATION OF JURISDICTION. There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. B. CWA SECTION 404 DETERMINATION OF JURISDICTION. There Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required] 1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): 1 TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: **1147** linear feet: width (ft) and/or **0.41** acres.

Isolated (interstate or intrastate) waters, including isolated wetlands

Wetlands: 1.459 acres (Wetland A: 0.482 acre, Wetland B: 0.377 acre, Wetland C: 0.600 acre).

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual, Pick List, Pick List Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable): ³ [Including potentially jurisdictional features that upon assessment are NOT waters or wetlands]

SECTION I: BACKGROUND INFORMATION

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

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

³ Supporting documentation is presented in Section III.F.

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: There is a 0.337 acre upland dug pond on site that is used for agricultural purposes. For this reason, the pond is excluded under 33 CFR 328.3 b.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. **TNW**

Identify TNW: Rantowles Creek.

Summarize rationale supporting determination: Rantowles Creek at this location is subject to the ebb and flow of the tide.

Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": Wetland A is part of a larger wetland system that extends offsite and directly abuts Rantowles Creek, which at this point is a TNW. Wetlands B and C are hydrologically connected, and are adjacent, to Rantowles Creek via a second offsite wetland system.

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

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

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

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

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

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

*** Rantowles Creek is located outside the project review area.***

General Area Conditions:

Watershed size: 106,459 acres; 03050202-01

Drainage area: Approximately 25 acres. The drainage area was approximated for the tributary that was evaluated as part of

the

Significant Nexus Determinations performed for this JD. The area was drawn based on apparent flow pathways and drainage areas associated with the subject relevant reach using USGS quad mapping, aerial photography, and observations of connectivity and direction of flow made in the field. The intended value of the drainage area map is to document the full collection of wetlands adjacent to the relevant reach, and not to assert that the mapping represents more than approximation with respect to actual area.

Average annual rainfall: 48 inches Average annual snowfall: inches

(ii) Physical Characteristics:

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

(a)	Relationship with TNW: ☐ Tributary flows directly into TNW. ☐ Tributary flows through 1 tributary before entering TNW.
	Project waters are 1 (or less) river miles from TNW. Project waters are 1 (or less) river miles from RPW. Project waters are 1 (or less) aerial (straight) miles from TNW. Project waters are 1 (or less) aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain:
	Identify flow route to TNW ⁵ : Tributary stream order, if known:
(b)	General Tributary Characteristics (check all that apply): Tributary is: ☐ Natural ☐ Artificial (man-made). Explain:. ☐ Manipulated (man-altered). Explain:
	Tributary properties with respect to top of bank (estimate): Average width: 3-4 feet Average depth: 1-2 feet Average side slopes: 4:1 (or greater).
	Primary tributary substrate composition (check all that apply): Silts Sands Concrete Cobbles Gravel Muck Bedrock Vegetation. Type/% cover: Other. Explain:
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Presence of run/riffle/pool complexes. Explain: Tributary geometry: Relatively straight. Based on satellite imagery and survey plat. Tributary gradient (approximate average slope): %
(c)	Flow: Tributary provides for: Seasonal flow Estimate average number of flow events in review area/year: 20 (or greater) Describe flow regime: Other information on duration and volume:
	Surface flow is: Confined. Characteristics:
	Subsurface flow: Unknown . Explain findings:
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation the presence of wrack line sediment sorting vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition destruction of terrestrial vegetation the presence of wrack line sediment sorting sediment sorting scour multiple observed or predicted flow events abrupt change in plant community other (list): Discontinuous OHWM. ⁷ Explain:
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Oil or scum line along shore objects Mean High Water Mark indicated by: Survey to available datum;

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW. ⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. ⁷Ibid.

			fine shell or debris deposits (foreshore) physical markings/characteristics tidal gauges other (list):	☐ physical markings; ☐ vegetation lines/changes in vegetation types.
(iii)	Cha	Explain: Wa farmland. D	tary (e.g., water color is clear, discolore	ed, oily film; water quality; general watershed characteristics, etc.). od. The tributary carries drainage from the surrounding rural ed.
	a sur	Riparian cor rounding the Wetland frin Habitat for: Federally Fish/spay	sRPW is grassy, maintained fields an ge. Characteristics: Listed species. Explain findings: vn areas. Explain findings:	dth): The riparian corridor on either side of the sRPW is limited. d forested uplands
_	_	⊠ Aquatic/ otiles, amphil	ians, as well as various birds and ma	e tributary likely provides habitat for various aquatic organisms mmals.
2. Ch			tlands adjacent to non-TNW that flov	v directly or indirectly into TNW
(i)		Properties: Wetland Wetland Wetland	teristics: land Characteristics: size: acres type. Explain:. quality. Explain: nds cross or serve as state boundaries.	Explain: .
	(b)	Flow is: Pic Surface flow Characte Subsurface f	v Relationship with Non-TNW: k List. Explain:. is: Pick List ristics: low: Pick List. Explain findings: or other) test performed:	
		Wetland Adj Directly Not direct Disc Ecol Sepa	acency Determination with Non-TNW: abutting tly abutting rete wetland hydrologic connection. Expected connection. Explain: rated by berm/barrier. Explain: celationship) to TNW and are Pick List river miles from TNV	V.
(ii)		Flow is from Estimate app	roximate location of wetland as within cteristics:	
(iii	Ider	characteristic ntify specific p logical Chara	es; etc.). Explain:. ollutants, if known: cteristics. Wetland supports (check a	all that apply):
		Vegetation to Habitat for: ☐ Federally ☐ Fish/spay ☐ Other en	fer. Characteristics (type, average width pe/percent cover. Explain: Listed species. Explain findings: on areas. Explain findings: orironmentally-sensitive species. Explain findings: wildlife diversity. Explain findings:	

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

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



Summarize overall biological, chemical and physical functions being performed:.

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

Documentation for the Record only: Significant nexus findings for seasonal RPWs and/or wetlands abutting seasonal RPWs: The review area includes 336 linear feet of seasonal RPW A (sRPW A). The sRPW A is a headwater tributary with a relatively flat (<2% slope) drainage area and includes no adjacent wetlands. The review area is approximately 25 acres in area, the length of the reach is 336 linear feet, and the sources of hydrology are a combination of stormflow runoff and seasonally high groundwater input. sRPW A drains to jurisdictional perennial RPW A (pRPW A), which in turn flows directly to the tidal waters of Rantowles Creek, the nearest TNW. Headwater tributary systems provide a variety of functions that are important for the downstream waters and the watershed as a whole. These tributaries not only provide habitat for various aquatic and terrestrial organisms, including a variety of insects, amphibians, reptiles, mammals and birds, but are also a source of food, nutrients, and carbon for organisms located downstream. Headwater tributaries are especially important for the water quality of a watershed. Water runoff from adjacent uplands that may contain pollutants, sediments, excess nutrients, etc., that flows to the tributary has the opportunity to be filtered out/taken up by vegetation and sediments prior to flowing to downstream TNWs. In addition, excess water can be stored, thereby minimizing potential flooding of downstream areas and can also slowly release water downstream to maintain seasonal flow volumes. Runoff feeding

streamflow may also transport organisms, nutrients, and carbon through the tributary, which can then continue via flow to downstream TNWs. Small headwater tributaries such as sRPW A often have shallow water depths, low volume, and slow flow, which allow for more surface area of the water column to come into contact with channel substrate and any vegetation that may be present, allowing for sediments and pollutants to settle out of or be filtered from the water column before flowing to downstream TNWs. sRPW A drains a small area, but most of the drainage area consists of agriculture. The stormflow runoff is likely to include at least low concentrations of fertilizers and/or pesticides, either of which can contribute to eutrophication and lower dissolved oxygen concentrations as well as increased biological oxygen demands from elevated algal communities in downstream waters. On this basis, sRPW A has the ability to affect the integrity of downstream TNWs and thus has a significant nexus to the downstream TNW. Watershed 03050202-01 (formerly 03050201-050 less the Stono River) is located in Dorchester and Charleston Counties and consists primarily of Rantowles Creek and its tributaries. The watershed occupies 106,459 acres of the Lower Coastal Plain and Coastal Zone regions of South Carolina. Land use/land cover in the watershed includes: 48.4% forested land, 35.1% forested wetland, 9.1% agricultural land, 4.1% nonforested wetland, 1.7% urban land, 1.2% water, and 0.4% barren land. Fishburne Creek accepts drainage from Scotts Branch before flowing into Horse Savanna (Round Savanna), which flows into Rantowles Creek (Bear Swamp). Rantowles Creek also accepts drainage from the Wallace River (Caw Caw Swamp, Drayton Swamp, Caddin Bridge Swamp) before flowing into the Stono River. There are a total of 205.6 stream miles, 43.6 acres of lake waters, and 350.3 acres of estuarine areas in this watershed, all classified SFH. There are currently no water quality monitoring stations in this watershed. This watershed contains the Towns of Ravenel and Hollywood and a portion of the City of Charleston. The areas with a high potential for growth in the watershed include Stono Ferry in Hollywood; Rushland Plantation, Headquarters Plantation, and Fenwick Acres on Johns Island; and Bees Landing and Essex Farms in the City of Charleston. Water and sewer services are available to all these growth areas..

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

1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: ☐ TNWs: linear feet width (ft), Or, acres. ☐ Wetlands adjacent to TNWs: 0.482 acres.
2.	RPWs that flow directly or indirectly into TNWs. Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: The onsite pRPW A has a reach of 811 linear feet, is channelized and was flowing during the time of the April 2016 site visit. The pRPW functions as a conduit for runoff from roadside drainage during storm events leading directly into Rantowles Creek, a TNW.
	Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The sRPW A has a reach of 336 and sits higher in the landscape than the pRPW it feeds into. The sRPW A is lower than the surrounding landscape and moves water during storm events and seasonally high ground water events. During the April site visit sRPW A was saturated but did not have flow.
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: 1147 linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.

	5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
		Provide acreage estimates for jurisdictional wetlands in the review area: acres.
	6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
		Provide estimates for jurisdictional wetlands in the review area: acres.
	7.	Impoundments of jurisdictional waters. ⁹ As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below). Explain:
Е.	SUC	CLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
	Ide	ntify water body and summarize rationale supporting determination:
		vide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres.
F.	NO	N-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):
	fact	wide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR ors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional grant (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: 0.337 acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
		wide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such ading is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: acres.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook. ¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

SECTION IV: DATA SOURCES.
A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked
and requested, appropriately reference sources below):
Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Maps, photographs, drawings and plats
provided by Tyler Sgro of Sabine & Waters.
Data sheets prepared/submitted by or on behalf of the applicant/consultant.
Office concurs with data sheets/delineation report.
Office does not concur with data sheets/delineation report.
Data sheets prepared by the Corps: .
Corps navigable waters' study:
U.S. Geological Survey Hydrologic Atlas:
USGS NHD data.
USGS 8 and 12 digit HUC maps.
U.S. Geological Survey map(s). Cite scale & quad name: 1:24000 USGS Ravenel Quad Map provided by Tyler Sgro. USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Soils map provided by Tyler Sgro. National wetlands inventory map(s). Cite name: NWI Map provided by Tyler Sgro. State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Aerial image provided by Tyler Sgro.
☑ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Soils map provided by Tyler Sgro.
National wetlands inventory map(s). Cite name: NWI Map provided by Tyler Sgro .
State/Local wetland inventory map(s):
FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
or ☑ Other (Name & Date): Site photos provided by Tyler Sgro .
Previous determination(s). File no. and date of response letter:
Applicable/supporting case law: .
Applicable/supporting scientific literature:
Other information (please specify): Plat provided by Tyler Sgro prepared by SWA Surveying entitled, "A Wetland Survey
OG TMS #387-00-00-210, 182, And 341 Hughes Road And Bulow Plantation Owned By Bulow Land Company, LLC. Located
In St. Andrews Parish Charleston County, South Carolina," and dated March 28, 2016 last revised April 25, 2016.

acres. List type of aquatic resource:

Other non-wetland waters:

acres.

Wetlands:

B. ADDITIONAL COMMENTS TO SUPPORT JD: The project area is a 25.68 acre site that contains a 1.46 acres wetland and 1147 linear feet of seasonal and perennial RPWs that are jurisdictional due to their downstream connections to TNWs, as a result, they are subject to regulation under Section 404 of the Clean Water Act.