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

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

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 2012-09-25

В

В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC 2012-00140-4M Hemingway Substation JD
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: South Carolina County/parish/borough: Williamsburg City: Hemingway Center coordinates of site (lat/long in degree decimal format): Lat. 33.747824° N, Long79.429528° W. Universal Transverse Mercator: NAD83 Name of nearest waterbody: Muddy Creek Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Great Pee Dee River Name of watershed or Hydrologic Unit Code (HUC): 3040201 Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date: Field Determination. Date(s): 2012-03-15
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce Explain:
B.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	re 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): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters ² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands
	 b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: sRPW#1 = 102.78 linear feet: 2.0 width (ft) and/or 0.005 acres. Wetlands: Wetland 1 = 0.1 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual, Established by OHWM., Pick List Elevation of established OHWM (if known):N/A.

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

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: A man-made linear feature was evaluated and determined to be excavated out of uplands until it enters into on-site wetlands. The portion outside of the wetlands had bed and banks but did not exhibit an OHWM. From the

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.

point where it intercepts the wetland line, the linear feature becomes a seasonal RPW and is described in sections $B,\,C,$ and D.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1.	TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i) General Area Conditions:

Watershed size: 259,235 acres;

Drainage area: 176.9 acres

Average annual rainfall: **49.8** inches Average annual snowfall: inche

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

Tributary flows through 4 tributaries before entering TNW.

Project waters are 10-15 river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 5-10 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: N/A.

Identify flow route to TNW⁵: sRPW#1 is an unnamed tributary of Muddy Creek (pRPW), which has been observed as a pRPW at its intersection with SC Highway 261, sRPW#1 flows to the west within an on-site wetland which continues off-site to the north. The wetlands intercept the OHWM of another unnamed tributary of Muddy Creek

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

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

intercepts the OHWM of Clark Creek, which is described as a TNW in the Great Pee Dee River Navigability Study of 1977. Clark Creek continues in a southeast direction until it intercepts the OHWM of the Great Pee Dee River (TNW). Tributary stream order, if known: 1st order. General Tributary Characteristics (check all that apply): Natural Tributary is: Artificial (man-made). Explain: Feature appears to be used as a property line throughout most of its length. The feature does not appear to be acting as a drainage or irrigation feature but lies within the wetland and provides a conveyance for water to move within the wetland. Manipulated (man-altered). Explain: **Tributary** properties with respect to top of bank (estimate): Average width: 2 feet Average depth: 1 feet Average side slopes: 2:1. Primary tributary substrate composition (check all that apply): ⊠ Silts Sands
 Concrete ☐ Cobbles Muck Gravel Bedrock ☐ Vegetation. Type/% cover: Other. Explain: Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Banks are stabilized by vegetation and some vegetation within the bottom channel. Presence of run/riffle/pool complexes. Explain: Absent, entire length of channel contained no flowing water and very little gradient. Tributary geometry: **Relatively straight.** Tributary gradient (approximate average slope): 1 % (c) Flow: Tributary provides for: Seasonal flow Estimate average number of flow events in review area/year: 11-20 Describe flow regime: Seasonal flow determined (groundwater flow and in response to storms under normal climatic conditions). Other information on duration and volume: No inundation but saturated in the upper 12". Surface flow is: **Confined.** Characteristics: Subsurface flow: Unknown. Explain findings: Dye (or other) test performed: Tributary has (check all that apply): Bed and banks OHWM⁶ (check all indicators that apply): clear, natural line impressed on the bank the presence of litter and debris changes in the character of soil destruction of terrestrial vegetation shelving the presence of wrack line vegetation matted down, bent, or absent sediment sorting leaf litter disturbed or washed away sediment deposition multiple observed or predicted flow events water staining \boxtimes abrupt change in plant community other (list): Discontinuous OHWM. Explain: If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Mean High Water Mark indicated by: oil or scum line along shore objects survey to available datum; physical markings; fine shell or debris deposits (foreshore)

which was observed as a pRPW at Berk Ginn Road. The unnamed tributary of Muddy Creek flows to the west until it intercepts the OHWM of Muddy Creek. Muddy Creek flows to the north, then northeast, then east and

vegetation lines/changes in vegetation types.

physical markings/characteristics

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.

Tibid.

tidal gauges
other (list):

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: No water was observed. There is currently very little development in the vicinity of the beginning of this tributary and most of the watershed is agricultural and silvicultural activities which have somewhat altered the hydrology.

Identify specific pollutants, if known: Unknown.

	(iv)		logical Characteristics. Channel supports (check all that apply):
e.	ن ماد د		Riparian corridor. Characteristics (type, average width): Periodically flooded area outside of the channel; important
10	r snac		nd buffering and supports clean water. Wetland fringe. Characteristics: The seasonal tributary is well connected to its floodplain wetlands.
			Habitat for:
			Federally Listed species. Explain findings: .
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
depen	dent s	pecies	Aquatic/wildlife diversity. Explain findings: Tributary supports breeding grounds and shelter for aquatic such as amphibians and insect larvae. Evidence of upland species frequenting the area included neotropical
songbi	rds.		
2.	Ch	aract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)	Phy	sical Characteristics:
		(a)	General Wetland Characteristics:
			Properties:
			Wetland size: 0.1 acres
			Wetland type. Explain: Palustrine .
			Wetland quality. Explain: Forested fully functional with portions recently timber harvested / clear cut.
			Project wetlands cross or serve as state boundaries. Explain: N/A.
		(b)	General Flow Relationship with Non-TNW:
		(0)	Flow is: Intermittent flow. Explain: Groundwater influenced and in response to storms in normal climactic
co	nditio	ons.	110 W 15. Interimited 10 W. Explain. Of our water influenced und in response to storing in normal connected
			Surface flow is: Overland sheetflow Characteristics: Wetlands are depressional and sheet flow slowly into the seasonal RPW.
			Subsurface flow: Unknown . Explain findings:
		(c)	Wetland Adjacency Determination with Non-TNW: ☐ Directly abutting
			Not directly abutting
			☐ Discrete wetland hydrologic connection. Explain:
			Ecological connection. Explain:
			Separated by berm/barrier. Explain: .
		(4)	Proximity (Relationship) to TNW
		(u)	Project wetlands are 10-15 river miles from TNW.
			Project waters are 5-10 aerial (straight) miles from TNW.
			Flow is from: Wetland to navigable waters.
			Estimate approximate location of wetland as within the 100 - 500-year floodplain.
	(ii)		emical Characteristics:
		Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
			characteristics; etc.). Explain: In Wetland 1, water was not observed above the surface at time of site visit, but soils
			were saturated within the upper 12 inches. Wetlands are surrounded by agricultural and silvicultural land and some single family residential platted lots, some of which have single family houses, and minor collector streets.
		Ider	tify specific pollutants, if known: Unknown.
		Idei	any specific politicants, it known. Chimown.
	(iii	i) Biol	logical Characteristics. Wetland supports (check all that apply):
			Riparian buffer. Characteristics (type, average width): Mixed pine and hardwoods.
			Vegetation type/percent cover. Explain: FAC and wetter hydrophytic vegetation present.
		\boxtimes	Habitat for:
			Federally Listed species. Explain findings:
			Fish/spawn areas. Explain findings:
			Other environmentally-sensitive species. Explain findings:
			Aquatic/wildlife diversity. Explain findings: Habitat provided for a variety of wildlife species by providing
aiversi	ity thr	ough	timber type changes and where an aquatic system adjoins an upland system.

3. Characteristics of all wetlands adjacent to the tributary (if any) All wetland(s) being considered in the cumulative analysis: 1 Approximately (+/- 30.5) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Wetland B, N Remaining offsite wetlands within reach of tributary appear to be both directly abutting and non-	30.4		
abutting			

Summarize overall biological, chemical and physical functions being performed: The similarly situated wetlands contribute vital biological, chemical, and physical functions to the downstream TNW. This wetland system enhances wildlife diversity, acts as catch basins filtering sediment and pollutants from surrounding urban and rural development and silvicultural practices, supports the downstream food web, and provides nutrient fixation, flood attenuation, and flow maintenance functions. See III.C.3. below for more details.

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 forested wetlands adjacent and directly abutting the seasonal RPW (unnamed tributary of Muddy Creek) include mixed hardwood/pine palustrine forested depressional wetlands. The wetlands which are similarly situated and adjacent to the seasonal RPW are collectively performing functions consistent with the following: Biological - A variety of biological functions

are being performed which include providing breeding grounds, shelter, foraging, nesting, and travel corridors for aquatic and wetland-dependent speciest. They enhance wildlife diversity through timber type changes and the transition between upland and aquatic systems. The wetlands are essential in providing collective primary productivity to downstream waters by supplying organic carbon, resulting in the nourishment of the downstream food web. Chemical - The wetlands and tributary within the review area are providing the important collective functions of removal of excess nutrients which are contributed by runoff from surrounding urban and rural and silvicultural areas, reducing nitrogen and phosphorus loading downstream, and effectively preventing oxygen depletion that can result from eutrophication. Physical - The wetlands and tributary in the review area are collectively filtering sediments and pollutants carried by stormwater runoff from roads, urban and rural development, and silviculture areas. They are providing flood attenuation and flow maintenance functions by retaining runoff and releasing it slowly, which results in the reduction of downstream peak flows (discharge and volumes) and lower continuous flow volumes. Wetlands such as the ones identified in this reach are actively storing stormwater runoff from adjacent development and silvicultural areas. Based on the collective functions described above and their importance to the biological, chemical, and physical integrity of the traditional navigable waters of the Great Pee Dee River, it has been determined that there is a significant nexus between the relevant reach of the tributary and adjacent wetlands to the downstream TNW.

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

1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: TNWs: linear feet width (ft), Or, acres. Wetlands adjacent to TNWs: acres.
2.	RPWs that flow directly or indirectly into TNWs. Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
	Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Flow of the onsite tributary sRPW#1 (unnamed tributary of Muddy Creek) was determined to have seasonal flow under normal climatic conditions. Stream geomorphic indicators of seasonal flow were a channel within bed and banks located entirely within wetlands and the presence of an OHWM. The onsite tributary was completely dry at the time of the site visit but was saturated within the upper 12". No flow was observed. Bottom channel was clear of vegetation and debris. Topographic maps do not depict this reach and it could not be identified on aerial photographs due to the presence of tree cover in all of the available aerial photographs.
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: 102.78 linear feet 2.0 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: Wetland 1 was evaluated and determined to be directly adjacent and abutting the seasonal RPW (sRPW#1) located on the north property line. The presence of hydrophytic vegetation, hydric soils, and hydrology indicators (saturation in the upper 12" and presence of oxidized rhizospheres on live root channels) directly adjacent to the seasonal RPW on the subject property confirmed that the on-site wetlands were directly abutting the seasonal RPW.

Provide acreage estimates for jurisdictional wetlands in the review area: Wetland 1 = 0.1 acres.

⁸See Footnote # 3.

	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. 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.	DE SUC	CHATED [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.
	□ □ □ ands	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): A man-made linear feature was evaluated and determined to be excavated out of until it enters into on-site wetlands. The portion outside of the wetlands had bed and banks but did not exhibit an OHWM. e point where it intercepts the wetland line, the linear feature becomes a seasonal RPW and is described in sections B, C, and
	fact	vide 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 gment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: . Wetlands: acres.

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.

	vide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such
	nding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, Width (ft). Lakes/ponds: acres.
	Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
SECTIO	ON IV: DATA SOURCES.
	PORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked requested, appropriately reference sources below):
	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Provided by Judd Goff of Redbay
	vironmental.
	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.
\bowtie	Data sheets prepared by the Corps: Data Sheet DP#1 and DP#2 prepared on March 15, 2012.
	Corps navigable waters' study:
	U.S. Geological Survey Hydrologic Atlas: .
	USGS NHD data.
	USGS 8 and 12 digit HUC maps.
\boxtimes	U.S. Geological Survey map(s). Cite scale & quad name: Henry .
\boxtimes	USDA Natural Resources Conservation Service Soil Survey. Citation: Sheet 21, Ogeechee.
\boxtimes	National wetlands inventory map(s). Cite name: U42P .
	State/Local wetland inventory map(s): Williamsburg County, U42P.
	FEMA/FIRM maps:
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
$\overline{\boxtimes}$	Photographs: Aerial (Name & Date): 1989 (1659-033), 1994 (7449-092), 1999 (11223:13), 2006.
_	or Other (Name & Date): Site Photography dated 2012-03-15 by USACE.
	Previous determination(s). File no. and date of response letter:
Ħ	Applicable/supporting case law: .
H	Applicable/supporting scientific literature:
H	Other information (please specify):
	Oniei miormanon (pieuse specify).

B. ADDITIONAL COMMENTS TO SUPPORT JD: Limits of the jurisdiction of wetlands were established by the 1987 Delineation Manual. The site visit was performed during a period of drought. The prevalence of hydrophytic vegetation, hydric soils, and hydrology indicators including oxidized rhizospheres on live root channels were documented as evidence of the presence of wetlands on the subject property. Wetland 1 was evaluated and determined to be directly adjacent and abutting the seasonal RPW (sRPW#1) located on the north property line. The presence of hydrophytic vegetation, hydric soils, and hydrology indicators (saturation in the upper 12" and presence of oxidized rhizospheres on live root channels) directly adjacent to the seasonal RPW on the subject property confirmed that the on-site wetlands were directly abutting the seasonal RPW. Flow of the onsite tributary sRPW#1 (unnamed tributary of Muddy Creek) was determined to have seasonal flow under normal climatic conditions. Stream geomorphic indicators of seasonal flow were a channel within bed and banks located entirely within wetlands and the presence of an OHWM. The onsite tributary was completely dry at the time of the site visit but was saturated within the upper 12". No flow was observed. Bottom channel was clear of vegetation and debris. Topographic maps do not depict this reach and it could not be identified on aerial photographs due to the presence of tree cover in all of the available aerial photographs, sRPW#1 is an unnamed tributary of Muddy Creek (pRPW), which has been observed as a pRPW at its intersection with SC Highway 261. sRPW#1 flows to the west within an on-site wetland which continues off-site to the north. The wetlands intercept the OHWM of another unnamed tributary of Muddy Creek which was observed as a pRPW at Berk Ginn Road. The unnamed tributary of Muddy Creek flows to the west until it intercepts the OHWM of Muddy Creek. Muddy Creek flows to the north, then northeast, then east and intercepts the OHWM of Clark Creek, which is described as a TNW in the Great Pee Dee River Navigability Study of 1977. Clark Creek continues in a southeast direction until it intercepts the OHWM of the Great Pee Dee River (TNW). A man-made linear feature was evaluated and determined to be excavated out of uplands until it enters into on-site wetlands. The portion outside of the wetlands had bed and banks but did not exhibit an OHWM. From the point where it intercepts the wetland line, the linear feature becomes a seasonal RPW and is described in sections B, C, and D.