APPROVED JURISDICTIONAL DEIERMINATION 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 REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): May 3, 2016 DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC 2016-00644, Gardner-Lacy Road Tract C. PROJECT LO CATION AND BACKGROUND INFORMATION: State: South Carolina County/parish/borough: Horry City: Conway Township Center coordinates of site (lat/long in degree decimal format): Lat. 33.784° N, Long. -78.962° W. Universal Transverse Mercator: Name of nearest waterbody: South Prong Steritt Swamp Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Waccamaw River Name of watershed or Hydrologic Unit Code (HUC): Waccamaw River: HUC 03040206 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: April 15, 2016 Field Determination. Date(s): SECTION II: SUMMARY OF FINDINGS A. RHA SECTION 10 DETERMINATION OF JURISDICTION. There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: B. CWA SECTION 404 DEIERMINATION 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 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: linear feet: width (ft) and/or acres. Wetlands: c. Limits (boundaries) of jurisdiction based on: 1987 Delineation ManualPick List Pick List Elevation of established OHWM (if known): Non-regulated waters/wetlands (check if applicable):³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain:

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WEILANDS 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: Waccamaw River.

Summarize rationale supporting determination: The Waccamaw River is subject to ebb and flood of tide at this location.

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 WEILANDS (IF ANY):

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

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

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

If the waterbody ⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) General Area Conditions: Watershed size: Pick List; **Pick List** Drainage area: Average annual rainfall: inches Average annual snowfall: inches (ii) Physical Characteristics: (a) Relationship with TNW: ☐ Tributary flows directly into TNW. ☐ Tributary flows through **Pick List**tributaries before entering TNW. Project waters are **Pick List**river miles from TNW. Project waters are **Pick List**river miles from RPW. Project waters are **Pick List**aerial (straight) miles from TNW. Project waters are **Pick List**aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain: Identify flow route to TNW 5: Tributary stream order, if known:

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

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

(b)	General Tributary Character	istics (check all that appl	y):			
	Tributary is:					
		ricial (man-made). Explai	in:			
		ipulated (man-altered). I		in: .		
	Tributary properties with re	espect to top of bank (esti	imate):		
	2	feet				
	8 1	feet				
	Average side slopes: Pi	ck List				
	Primary tributary substrate c		at app	oly):		
	☐ Silts ☐ Cobbles	☐ Sands ☐ Gravel			☐ Concrete ☐ Muck	
	☐ Bedrock	☐ Vegetation. Type/%	/ 00M	0.00	LI MUCK	
	Other. Explain:	□ vegetation. Type/%	o COV	ei.		
	Gther. Explain.	•				
	Tributary condition/stability	[e.g., highly eroding, slo	ughin	g banksl.	Explain:	
	Presence of run/riffle/pool co			<i>-</i>	F	
	Tributary geometry: Pick L					
	Tributary gradient (approxir		%			
		0 1				
(c)	Flow:					
	Tributary provides for: Pick					
	Estimate average number of	flow events in review are	a/yea	r: <mark>Pick Li</mark>	ist	
	Describe flow regime:	•				
	Other information on duration	on and volume: .				
	Surface flow is: Pick List	Characteristics: .				
	Cubaumfaaa flaggu Diak Ligt	Evaloia findinos.				
	Subsurface flow: Pick List Dye (or other) test p		•			
	Dye (of other) test p	periorineu				
	Tributary has (check all that	apply):				
	☐ Bed and banks	-FF-37·				
	OHWM ⁶ (check all	indicators that apply):				
		ne impressed on the bank		the prese	ence of litter and debris	
	☐ changes in the c				on of terrestrial vegetation	
	☐ shelving			the prese	ence of wrack line	
	vegetation mat	ted down, bent, or absent		sediment	sorting	
		bed or washed away		scour		
	sediment deposi	ition			observed or predicted flow events	
	water staining			abrupt ch	nange in plant community	
	\Box other (list):	7				
	☐ Discontinuous OHV	VM. / Explain:	•			
	If factors other than the OH	WM were used to determi	ine lat	teral exten	nt of CWA jurisdiction (check all that apply):	
	High Tide Line inc				ater Mark indicated by:	
		along shore objects			available datum;	
		oris deposits (foreshore)		ohysical m		
		ngs/characteristics			n lines/changes in vegetation types.	
	☐ tidal gauges					
	\Box other (list):					
	emical Characteristics:	1 ' 1 " 1 '	,	CI		
Cha		color is clear, discolored	, oily	rilm; wate	er quality; general watershed characteristics, et	c.)
Idor	Explain: .tify specific pollutants, if known	own:				
ruer	itiny specific poliutants, il Kilo	/WII				

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.

		ological Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics: Habitat for: ☐ Federally Listed species. Explain findings: ☐ Fish/spawn areas. Explain findings: ☐ Other environmentally-sensitive species. Explain findings: ☐ Aquatic/wildlife diversity. Explain findings:
2.	Charac	cteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
		ysical Characteristics: General Wetland Characteristics: Properties: Wetland size: acres Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Explain:
	(b)	General Flow Relationship with Non-TNW: Flow is: Pick List Explain:
		Surface flow is: Pick List Characteristics: Subsurface flow: Pick List Explain findings: Dye (or other) test performed:
	(c)	Wetland Adjacency Determination with Non-TNW: ☐ Directly abutting ☐ Not directly abutting ☐ Discrete wetland hydrologic connection. Explain: ☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain:
	(d)	Proximity (Relationship) to TNW Project wetlands are Pick Listriver miles from TNW. Project waters are Pick Listaerial (straight) miles from TNW. Flow is from: Pick List Estimate approximate location of wetland as within the Pick Listfloodplain.
	Ch	nemical Characteristics: aracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: antify specific pollutants, if known:
		ological Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width): Vegetation type/percent cover. Explain: Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings:
3.	All	eteristics of all wetlands adjacent to the tributary (if any) wetland(s) being considered in the cumulative analysis: Pick List proximately () 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 notlimited 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 Guide book. 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:

 $Documentation\ for\ the\ Record\ only:\ Significant\ nexus\ findings\ for\ seasonal\ RPWs\ and/or\ wetlands\ abutting\ seasonal\ RPWs\ constraints\ only.$

D.	DETERMINATIONS	OFJURISDICTIONAL	FINDINGS. THE	E SUBJECTW <i>A</i>	ATERS/WEILANDS	ARE (CHECK A	۱LL
	THAT APPLY):						

1.	TNWs and Ad	jacent Wetlands.	Check all that appl	y and provide size estimates	s in review area:
	☐ TNWs:	linear feet	width (ft), Or,	acres.	
	☐ Wetlands ad	jacent 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: The offsite tributary is a named feature-South Prong SterittSwamp. The tributary is depicted on USGS Topographic maps as solid blue line feature which typically represents a tributary with perennial flow.
	Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
3.	Non-RPWs 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 are directly abutting the OHWM of the named tributary (South Prong Steritt Swamp. A review of serial photos, Horry County Soil Survey and USGS topographic maps reveal the onsite wetlands are contiguous to the offsite perennial RPW. Wetlands are located in the headwaters of the offsite tributary.
	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. 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:
DE	OLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WEILANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECKALL THAT APPLY): 10

E.

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.

	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:
	Identify water body and summarize rationale supporting determination:
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres.
F.	NON-JURISDICTIONAL WATERS, INCLUDING WEILANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):
	Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: . Wetlands: acres.
	Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: . Wetlands: acres.
A. S&l	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 and report submitted by ME/plat submitted, prepared by DDC Engineers, Inc., dated March 31, 2016, and entitled "Map of Parcels "A" & "B"/Conway Township, rry County, South Carolina". 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 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: 7.5-MIN Nixonville Quad: Quad depicts topographic relief draining to tributary and depicts a blue line feature as traversing project area. A site visit was not performed, however, the consultant
	was asked to field verify again that not tributary is located within project area. On April 22, 2016, S&MEvia email informed the Corps that no discernable tributary is located within the project boundary and provided additional photos. USDA Natural Resources Conservation Service Soil Survey. Citation: Horry County Soil Survey Sheet 70 depicts the soil type of the delineated wetlands as Johnston and lynn Haven. Both of these soil types are listed on the National Hydric Soil List. The remainder of the project area is depicted as Echaw, Rutlege, and Leon. Both Leon and Rutlege are listed on the National Hydric Soil List.

\bowtie	National wetlands inventory map(s). Cite name: HorryNWI depicts the project area as U24P (uplands) and delineated
wet	tlands as PFO 1Fh & PFO 4Bd (Wetlands).
	State/Local wetland inventory map(s): .
	FEMA/FIRM maps: .
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
\boxtimes	Photographs: Aerial (Name & Date): 2006 SCDNR & 2015 Google Earth.
	or Mother (Name & Date): Site photos provided by S&ME dated 3/316 & 4/22/16.
	Previous determination(s). File no. and date of response letter:
	Applicable/supporting case law:
	Applicable/supporting scientific literature:
	Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: The project area is a forested corridor located adjacent to Gardner Lacy County road. The project area is comprised of 20.28 acres of which 5.05 acres have been determined to be freshwater wetlands. A site visit was not performed.