## 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

A.	REPORT COMPLETION DATE	FOR APPRO VED	JURISDICTIONAL DE	ETERMINATION (JD):	<b>January 6, 2017</b>
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B.	DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 2; SAC #2010-00785 Amberfield Tract
C.	PRO JECT LO CATION AND BACKGRO UND INFORMATION: State: South Carolina County/parish/borough: Horry City: Center coordinates of site (lat/long in degree decimal format): Lat. 33.708497° N, Long79.001001° W.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):  Office (Desk) Determination. Date:  Field Determination. Date(s): August 2, 2016
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	wre 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:
В. (	CWA SECTION 404 DEIERMINATION OF JURISDICTION.
The	ere 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 <sup>2</sup> (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: 1,200 linear feet: 10 width (ft) and/or acres. Wetlands: Wetlands 5, 6, 7,8,&9 totaling 16.96 acres.

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

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

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: Documented on Basis form 2 of 2 of this determination.

<sup>&</sup>lt;sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>&</sup>lt;sup>2</sup> 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).

<sup>&</sup>lt;sup>3</sup> 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: AIWW.

Summarize rationale supporting determination: The AIWW is subject to ebb and flood of the tide.

### 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 <sup>4</sup> 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;
Drainage area: Pick List
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 <sup>5</sup>:

Tributary stream order, if known:

<sup>&</sup>lt;sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

<sup>&</sup>lt;sup>5</sup> 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 Chara	acteristics (check all that apple	y):			
		Natural				
		Artificial (man-made). Explai	in:			
		Manipulated (man-altered). I		in: .		
		ith respect to top of bank (esti	imate	):		
	Average width:	feet				
	Average depth:	feet				
	Average side slope	es: Pick List				
		ate composition (check all tha	at app	oly):		
	☐ Silts ☐ Cobbles	☐ Sands ☐ Gravel			☐ Concrete ☐ Muck	
	☐ Bedrock	☐ Graver☐ Vegetation. Type/%	/ 00X		□ Muck	
	Other. Explain		o COV	<b>21.</b>		
	- Other Explain					
	Tributary condition/stal	bility [e.g., highly eroding, slot	ughin	banksl.	Explain:	
		ool complexes. Explain:		5 ************		
	Tributary geometry: Pi					
		roximate average slope):	%			
	, , , , , , , , , , , , , , , , , , , ,	5 1 7				
(c)	Flow:					
	Tributary provides for:					
		er of flow events in review are	a/yea	r: Pick Li	ist	
	Describe flow regin					
	Other information on d	uration and volume: .				
	Surface flow is: Pick L	ist Characteristics: .				
	Cubountage flows Diely	List Explain findings				
	Subsurface flow: <b>Pick</b> I Dye (or other)		•			
	□ Dye (of other)	test performed.				
	Tributary has (check all	that apply):				
	☐ Bed and banks	u.F.F-2/).				
	OHWM <sup>6</sup> (chec	k all indicators that apply):				
		al line impressed on the bank		the presen	nce of litter and debris	
		the character of soil			on of terrestrial vegetation	
	☐ shelving			the presen	nce of wrack line	
	☐ vegetation	matted down, bent, or absent		sediment	sorting	
		isturbed or washed away		scour		
	sediment de				observed or predicted flow events	
	water stain			abrupt ch	ange in plant community	
	other (list)					
	☐ Discontinuous	OHWM. <sup>7</sup> Explain:				
	If factors other than the	OHWM were used to determi	ine lat	eralevten	at of CWA jurisdiction (check all that apply):	
	High Tide Lin				ater Mark indicated by:	
		line along shore objects			available datum;	
		r debris deposits (foreshore)		hysical m		
		arkings/characteristics			l lines/changes in vegetation types.	
	☐ tidal gauges					
	other (list)	:				
	emical Characteristics:			C'1	10	
Cha		water color is clear, discolored	, oily	11lm; wate	er quality; general watershed characteristics, etc	.)
Idor	Explain: itify specific pollutants, i	fknown:				
ruer	itiny specific polititalits, i	I KIIU WII				

<sup>&</sup>lt;sup>6</sup>A 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.

<sup>7</sup>Ibid.

	] ]	Biological 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.	Char	racteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i) l	Physical Characteristics:  (a) 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 List floodplain.
	` (	Chemical Characteristics: Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: dentify specific pollutants, if known:
	] ]	Biological 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.	1	racteristics of all wetlands adjacent to the tributary (if any)  All wetland(s) being considered in the cumulative analysis: Pick List  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 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.	<b>DEIERMINATIONS</b>	OF JURISDICTIONAL FINDING	S. THE SUBJECT W	ATERS/WEILANDS	ARE (CHECK ALL
	THAT APPLY):				

1.	TNWs and Adja	acent Wetlands.	Check all that apply	y and provide size estimates in review area:
	TNWs:	linear feet	width (ft), Or,	acres.
	☐ Wetlands adja	acent 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: Flow of onsite tributary was determined to be at least 90% of the year under normal climatic

flow as well as hydrologic indicators observed within the channel of leaves being continuously washed downstream and water flowing after 48 hours from a rainfall event. In addition, other hydrologic indicators observed within the relevant reach of the stream were an even distribution of substrates (longitudinally) in the stream channel, evidence of groundwater discharge (Iron Ixodizing Bacteria) and flowing algae. In addition to site inspection other resources were reviewed which included Topographic maps, aerial photos, Horry County Soil Survey, and 1975 Horry County Drainage Study. Topographic maps depict a solid blue line which represents perennial flow, aerial photos depict signatures of drainage features. Horry County Soil Survey depicts a symbol which represents a stream with intermittent flow, and the 1975 Horry County Drainage Study depicts a main channel (M-10) 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: 1,200 linear feet 10 width (ft). Other non-wetland waters: Identify type(s) of waters: Non-RPWs<sup>8</sup> 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: We tlands 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 were determined to be directly abutting the RPW; the RPW flows through wetlands. In addition, wetland W-5 is located within the headwaters of the onsite 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:16.96 acres. 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. 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.<sup>9</sup> 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:

conditions. Stream geomorphic indicators of perennial flow were channel within bed and banks had a firm sandy bottom clear of vegetation and debris, sediment bars located adjacent to the channel which is evidence of perennial

<sup>8</sup>See Footnote # 3.

 $<sup>^{\</sup>rm 9}$  To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

E	ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WEILANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECKALL 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:
	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 <u>sole</u> 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.
SEC	CTION IV: DATA SOURCES.
<b>A.</b>	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: Report by S&ME/Plat prepared by Thomas & Hutton, dated November 11, 2016, and entitled "WETLAND SURVEY/ AMBERFIELD/ TRACT/ SOCASTEE TOWNSHIP/ HORRY COUNTY, SOUTH CAROLINA/ prepared for:/ COLLINS LAND & DEVELOPMENT, INC.".  Data sheets prepared/submitted by or on behalf of the applicant/consultant.
how	☐ Office concurs with data sheets/delineation report. The exact location where the data points were collected was not visited; we ver, in general the data forms represent the typical soils, vegetation, and indicators of hydrology throughout the tract.  ☐ 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: Bucksville: Depicts a solid blue for PRPW#1, wetland symbol for the delineated wetlands documented on this basis form.

 $<sup>^{10}</sup>$  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  $\it Memorandum~Regarding~CWA~Act~Jurisdiction~Following~Rapanos.$ 

$\boxtimes$	USDA Natural Resources Conservation Service Soil Survey. Citation: Page 82, Depicts both hydric and non-hydric soils for
the	project area.
$\boxtimes$	National wetlands inventory map(s). Cite name: HorryNWI; depicts U42P (planted pines uplands) & PFO4B (Forested
wet	lands).
	State/Local wetland inventory map(s): .
	FEMA/FIRM maps: .
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
$\boxtimes$	FEMA/FIRM maps:  100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): 2006 DNR.
	or 🛛 Other (Name & Date): Consultant site photos taken June 20, 2016.
$\boxtimes$	Previous determination(s). File no. and date of response letter: 2004-0475, letter dated 4/22/04 & 80-2003-1568, letter dated
10/1	17/03 and SAC 2010-00785, letter dated August 6, 2010
	Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify): 1975 Horry County Drainage Study.

### B. ADDITIONAL COMMENTS TO SUPPORT JD:

Tributary was determined to be an RPW with perennial flow. The site visit was performed under normal climatic conditions. Water was observed flowing within the onsite tributary at the time of site visit. Hydrologic indicators observed onsite were; a well defined channel clear of terrestrial vegetation and debris, even distribution of substrates (longitudinally), deposition bars, litter and debris on the banks of tributary. Limits of jurisdiction for tributary was established by a well defined OHWM. Limits of jurisdiction of wetlands were established by the 1987 Delineation Manual. Wetlands were determined to be directly abutting the RPW.

Non-Juris dictional features, including linear features, are documented on Basis Form 2 of 2 of this determination.

# 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

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): January	A.	REPORT COMPLETION DATE	FOR APPROVED	<b>JURISDICTIONAL</b>	DEIERMINATION	(JD): January	6,20	017
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В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form2 of 2; SAC 2010-00785, Amberfield Tract
c.	PROJECT LO CATION AND BACKGRO UND INFO RMATION: State: South Carolina County/parish/borough: Horry City: Socastee Township Center coordinates of site (lat/long in degree decimal format): Lat. 33.708497° N, Long79.001001° W. Universal Transverse Mercator: Name of nearest waterbody: Atlantic Intrawastal Waterway (AIWW)
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: AIWW  Name of watershed or Hydrologic Unit Code (HUC): 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:  ☐ Field Determination. Date(s): August 2, 2016
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DEIERMINATION OF JURISDICTION.
	ere Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the lew 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:
В.	CWA SECTION 404 DEIERMINATION OF JURISDICTION.
Γhe	ere Are no "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 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: Wetlands W-1, W-2, W-3, W-4, totaling 33.49 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation ManualPick List Elevation of established OHWM (if known):

# 2. Non-regulated waters/wetlands (check if applicable): <sup>3</sup>

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: The project area contains the following non-jurisdictional features: Upland excavated ditches, Potential wetland areas (forested areas that do not meet the criteria set forth in the 1987 Wetland Delineation Manual and the

<sup>&</sup>lt;sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>&</sup>lt;sup>2</sup> 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).

<sup>&</sup>lt;sup>3</sup> Supporting documentation is presented in Section III.F.

2009 Coastal Plain Supplement), and man-made non-jurisdictional lakes (7). Potential wetlands within the review area consisted of hydrophytic vegetation, and hydric soils, however lacked hydrology, site was inspected August 2, 2016 under normal climatic conditions. Upland excavated ditches did dsiplay an OHWM, however lacked indicators to support a relative permenant flow of water. In addition, the site contains Seven (7) Non-jurisdictional lakes totaling 89.44 acres that were determined to be excavated from uplands and not impounded waters of the United States..

# 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.

### **TNW**

Identify TNW: AIWW.

Summarize rationale supporting determination: The AIWW is subject to ebb and flood of the tide..

### Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": Wetlands 1-4 were determined to be adjacent to the offsite TNW by conveyance through a series of onsite non-jurisdictional ditches and ditches located offsite that directly outfall into the AIWW..

### 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 we tlands 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.

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

### **General Area Conditions:** Watershed size: Pick List; Drainage area: **Pick List** Average annual rainfall: inches Average annual snowfall: inches

### (ii) Phy (a)

vsical Characteristics:
Relationship with TNW:
☐ Tributary flows directly into TNW.
Tributary flows through <b>Pick List</b> tributaries before entering TNW.
Project waters are <b>Pick List</b> river miles from TNW.

<sup>&</sup>lt;sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

	Project waters are Pick Listriver miles from RPW.  Project waters are Pick Listaerial (straight) miles from TNW.  Project waters are Pick Listaerial (straight) miles from RPW.  Project waters cross or serve as state boundaries. Explain:
	Identify flow route to TNW <sup>5</sup> :  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: feet  Average depth: feet  Average side slopes: Pick List
	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: Pick List  Tributary gradient (approximate average slope): %
(c)	Flow: Tributary provides for: Pick List Estimate average number of flow events in review area/year: Pick List Describe flow regime: Other information on duration and volume:
	Surface flow is: Pick List Characteristics: .
	Subsurface flow: Pick List Explain findings:  Dye (or other) test performed:
	Tributary has (check all that apply):  Bed and banks  OHWM <sup>6</sup> (check all indicators that apply):  clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation shelving the presence of wack line sediment sorting sediment sorting sediment deposition matted down, bent, or absent leaf litter disturbed or washed away sediment deposition 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:

<sup>&</sup>lt;sup>5</sup> 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. <sup>6</sup>A 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. <sup>7</sup>Ibid.

	(iii)	Cha	Chemical Characteristics: Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).  Explain: Identify specific pollutants, if known:				
	(iv)		logical 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.	Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW						
	(i)		Seneral Wetland 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: <b>Pick List</b> Explain findings:  Dye (or other) test performed:				
		(c)	Wetland Adjacency Determination with Non-TNW:  ☐ 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.				
	(ii)	Cha	emical Characteristics: aracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: attify specific pollutants, if known:				
	(iii		Dological 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.	Cha	All	teristics 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.	<b>DETERMINATIONS</b>	<b>OFJURISDICTIONAL</b>	FINDINGS. THE	E SUBJECTW <i>A</i>	ATERS/WEILANDS	ARE (CHECK A	۱LL
	THAT APPLY):						

1.	<b>TNWs and Adjacent Wetlands.</b> Check all that apply and provide size estimates in review area:
	TNWs: linear feet width (ft), Or, acres.
	Wetlands adjacent to TNWs: Wetlands W-1, W-2, W-3, W-4, totaling 33.49 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:
	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 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:
SU	OLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WEILANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY ICH 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:

E.

 <sup>8</sup>See Footnote#3.
 To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 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.

	entify water body and summarize rationale supporting determination:	
	ovide 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.	ON-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 "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): Upland Excavated Lakes and ditches.	
	ovide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR stors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professing ment (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.	
	ovide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where inding 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.	such
SEC	ON IV: DATA SOURCES.	
A. S	PPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked	cked
how	I requested, appropriately reference sources below):  Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Report and maps by S&ME/Plat prepared to omas & Hutton, dated November 11, 2016, and entitled "WETLAND SURVEY/ AMBERFIELD/ TRACT/ SOCASTEE TOWNSHIP/ HOR DUNTY, SOUTH CAROLINA/prepared for:/ COLLINS LAND & DEVELOPMENT, INC.".  Data sheets prepared/submitted by or on behalf of the applicant/consultant.  Office concurs with data sheets/delineation report. The exact location where the data points were collected was not visit in general the data forms represent the typical soils, vegetation, and indicators of hydrology throughout the tract.	RŔY
	☐ 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: Bucksville Quad: depicts wetlands symbol for the delineated we	e tland
	eas documented on this basis form.  USDA Natural Resources Conservation Service Soil Survey. Citation: Page 82: Depicts both hydric and non-hydric soils.  National wetlands inventory map(s). Cite name: HorryNWI; depicts U42P (planted pines uplands) & PFO4B (Forested tlands).	
	State/Local wetland inventory map(s):  FEMA/FIRM maps:  100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)  Photographs:   Aerial (Name & Date): 2006 DNR.	
	or \(\sum{C}\) Other (Name & Date): Photos submitted by S&ME taken June 20, 2016.  Previous determination(s). File no. and date of response letter: 2004-0475, letter dated 4/22/04 & 80-2003-1568, letter dated \(\frac{17/03}{2010-00785}\), letter dated August 6, 2010.  Applicable/supporting case law:  Applicable/supporting scientific literature:	ed
	Other information (please specify): 1975 Horry County Drainage Study	

B. ADDITIONAL COMMENTS TO SUPPORT JD: This form documents the jurisdictional status of Wetlands W-1-W-4. These wetlands were determined to be adjacent ,non-abutting, the TNW via both onsite and offsite upland ,non-jurisdictional ditches. In addition, the project area contains several upland excavated ditches. A portion of the upland excavated ditches do display an OHWM, however lacked indicators to support a relative permenant flow of water. The remaining ditches lacked both an OHWM and indicators of relative permenant flow of water. Since these linear features do not display an OHWM and lacked indicators to support a relative permenant flow of water, they were determined not a WOUS.

Potential wetlands within the review area consisted of hydrophytic vegetation, and hydric soils, however lacked hydrology (site was inspected August 2, 2016. Prior to the site visit, it was determined that precipitation was normal for that period of the year, however, the site contains evidence of hydrologic manipulation (e.g. lakes, upland ditches). For the above listed reasons, the corps has determined that the three parameters that the define a wetland are not present within these potential wetland areas.

Finally, the project area contains four (7) upland excavated lakes. The location of one of these lakes (Lake 1 56.177 acres) was previously determined to contain only uplands documented in SAC 80-2003-1568, letter dated 10/17/03. The remaining lakes totalling 33.27 acres located adjacent to a residential development were determined to be excavated from uplands not associated with any WOUS.