APPROVED JURISDICTIONAL DETERMINATION FORM

U.S. Army Corps of Engineers

Form 1 of 2

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

C. PROJECT LOCATION AND BACKGROUND INFORMATION:	

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): January 8, 2016

State: South Carolina County/parish/borough: Charleston City: Awendaw
Center coordinates of site (lat/long in degree decimal format): Lat. ° 33.01526N, Long. ° -79.60237W.

Universal Transverse Mercator:

Name of nearest waterbody: AIWW

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: None
Name of watershed or Hydrologic Unit Code (HUC): 3050209

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): 11/17/15

SECTION II: SUMMARY OF FINDINGS

SECTION I: BACKGROUND INFORMATION

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There A	re no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the
review a	rea. [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.

There 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.

Indica	te presence of waters of U.S. in review area (check all that apply): 1
	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: linear feet: width (ft) and/or acres. Wetlands: acres.

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

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

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

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

³ Supporting documentation is presented in Section III.F.

Potentially jurisdictional wateThere are 9 wetlands located within the project review area that were determined to be isolated and non-jurisdictional. These wetlands are all depressional wetlands, are surrounded by uplands, and have no ditches, swales or other linear features coming out of them that would potentially provide a surface hydrologic connection from the wetland to a water of the U.S. In addition, there was no visible signs of discrete flow through the uplands from the isolated wetlands to waters of the U.S. There was also no apparent shallow subsurface hydrologic connection, and no apparent physical, chemical, or biological connection, to waters of the U.S. The wetlands also have no apparent ecological interconnection to waters of the U.S. For these reasons, Wetlands 1, 2, 4, 7, 8, 9, 12, 13, and 14 were determined to be isolated and nonjurisdictional and therefore not regulated by Section 404 of the CWA.

Also located within the project review area is an active sand mining pit. The sand mining pit present at the time of the site visit, which was authorized by SCDHEC Mining under GPI-002067 issued December 2, 2014, was located in uplands, was actively being mined, was full of water due to high ground water table and recent heavy rains, and was void of all vegetation. As stated in the Preamble to the November 13, 1986, Regulations found on page 41217, "waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and resulting body of water meets the definition of waters of the United States." For these reasons, this sand mining pit was determined to be non-jurisdictional and not regulated by Section 404 of the CWA. Please note that additional sand mining activities are anticipated to occur within the project review area; therefore, the number, size, and/or location of sand mining pits within the project review area may change as a result of ongoing and future mining operations. The approximate location and size of the sand mining pit that was present at the time of the November 17, 2015, site visit and that was determined to be non-jurisdictional is depicted in the supplemental sktech in the project file.

In addition to the sand mining pit, there were also several new linear coveyances that were recently dug from uplands adjacent to newly constructed mining roads/paths through the project review area. The dimensions of the linear features varied, but were approximately 8 feet deep and 8-feet wide. Water was observed flowing through these features but appeared to be a result of a high water table and recent heavy rains. The linear features did not provide a surface hydrologic connection from any wetland to a water of the U.S. The linear features were excavated from uplands, did not display an OHW mark, but did have flowing water at the time of the site visit. For these reasons, the linear conveyances were determined to be nonjurisdictional and not regulated by Section 404 of the CWA. Similar to the sand mining pits, additional linear conveyances may be excavated in association with the ongoing and future sand mining operations within the project review area; therefore, the number and location of linear conveyances may vary from the linear conveyances that were observed during the November 17, 2015, site visit. The non-jurisdictional features are depicted on the supplemental sketch in the project file.

rs and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

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:

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 waterbody 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)		sical Characteristics: 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. 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:	
	(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:	

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.

				Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM. ⁷ Explain: the presence of litter and debris destruction of terrestrial vegetation the presence of wrack line sediment sorting scour multiple observed or predicted flow events abrupt change in plant community
				If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by:
		(iii)	Cha	mical Characteristics: racterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: .tify specific pollutants, if known: .
(iv)	Biol	ogica	al Ch	aracteristics. 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.	Cha	racte	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
		(i)		sical 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

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.

	Project wedands are Pick L Flow is from: Pick List . Estimate approximate loca	ist aerial (straight) m		ı.
(ii)	Chemical Characteristics:	.g., water color is cle lain:		e; water quality; general watershed
3. Ch	i) Biological Characteristics. W Riparian buffer. Characte Vegetation type/percent of Habitat for: Federally Listed specie Fish/spawn areas. Exp. Other environmentally Aquatic/wildlife divers aracteristics of all wetlands adj All wetland(s) being considered Approximately () acres land, specify the following:	ristics (type, average over. Explain: es. Explain findings: lain findings: -sensitive species. Esity. Explain finding acent to the tributa	width): xplain findings: s: ry (if any)	alysis.
	Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Project wetlands are Pick List river miles from TNW

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

	TERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL 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:
	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 ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

D.

⁸See Footnote # 3.

		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:
E.	SU C	OLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
	Ide	ntify water body and summarize rationale supporting determination:
		vide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres.
F.		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): Also located within the project review area is an active sand mining pit. The sand
min	ing j	pit present at the time of the site visit, which was authorized by SCDHEC Mining under GPI-002067 issued December 2,
		as located in uplands, was actively being mined, was full of water due to high ground water table and recent heavy rains, and I of all vegetation. As stated in the Preamble to the November 13, 1986, Regulations found on page 41217, "waterfilled
dep	ressi	ons created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill,
		gravel unless and until the construction or excavation operation is abandoned and resulting body of water meets the on of waters of the United States." For these reasons, this sand mining pit was determined to be non-jurisdictional and not
regi	ulate	d by Section 404 of the CWA. Please note that additional sand mining activities are anticipated to occur within the project area; therefore, the number, size, and/or location of sand mining pits within the project review area may change as a result of
ong	oing	and future mining operations. The approximate location and size of the sand mining pit that was present at the time of the
Nov file.		er 17, 2015, site visit and that was determined to be non-jurisdictional is depicted in the supplemental sktech in the project

In addition to the sand mining pit, there were also several new linear coveyances that were recently dug from uplands adjacent to newly constructed mining roads/paths through the project review area. The dimensions of the linear features varied, but were approximately 8 feet deep and 8-feet wide. Water was observed flowing through these features but appeared to be a result of a high water table and recent heavy rains. The linear features did not provide a surface hydrologic connection from any wetland to a water of the U.S. The linear features were excavated from uplands, did not display an OHW mark, but did have flowing water at the time of the site visit. For these reasons, the linear conveyances were determined to be non-jurisdictional and not regulated by Section 404 of the CWA. Similar to the sand mining pits, additional linear conveyances may be excavated in association with the ongoing and future sand mining operations within the project review area; therefore, the number and location of linear conveyances may vary from the linear conveyances that were observed during the November 17, 2015, determined to be non-jurisdictional, and depicted on the supplemental sketch in the project file..

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):

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.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

□ □ ⊠ Tota	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: Non-JD Wetland 1: 2.78 ac; 2: 0.15 ac; 4: 0.55 ac; 7: 0.43 ac; 8: 0.83 ac; 9: 2.34 ac; 12: 1.06; 13: 4.96; 14: 5.99 ac; al: 19.09 acres.
	wide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such adding 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.
and	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: Terracon. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Concur with conclusions. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: USDA Natural Resources Conservation Service Soil Survey. Citation: Rutlege loamy fine sand, Sewee complex National wetlands inventory map(s). Cite name: PSS1A, PSS1C, PFO State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Google 2015; Charleston 2006 or Other (Name & Date): Previous determination(s). File no. and date of response letter: SAC-2007-00145-2J dated April 6, 2007. Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: Nine wetlands present within the project review area were determined to be isolated and non-jurisdictional. In addition, a non-jurisdictional upland excavated sand mining pit and several non-jurisdictional linear features were found to be present within the project review area. These wetlands and features are all non-jurisdictional and not regulated by Section 404 of the CWA. The remaining wetlands within the project review area are discussed in Form 2 of 2.

APPROVED JURISDICTIONAL DETERMINATION FORM

U.S. Army Corps of Engineers

Form 2 of 2

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 8, 2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER;; SAC #2007-00145-2T Jefferson Tract Form 2 of 2

C. 1	PROJECT LOCATION AND BACKGROUND INFORMATION: State: South Carolina County/parish/borough: Charleston City: Awendaw Center coordinates of site (lat/long in degree decimal format): Lat. ° 33.01526N, Long. ° -79.60237W. Universal Transverse Mercator: Name of nearest waterbody: AIWW
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Awendaw Creek Name of watershed or Hydrologic Unit Code (HUC): 0305209 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: 1/7/16 Field Determination. Date(s): 11/17/15
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION 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 iew 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 DETERMINATION 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): 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: Wetland 3: 8.51 ac; Wetland 5: 4.29 ac; Wetland 10: 1.89 ac; and Wetland 11: 9.97 ac; Total: 24.66 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual, Pick List, Pick List Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable): ³ [Including potentially jurisdictional features that upon

assessment are NOT waters or wetlands

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

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

³ Supporting documentation is presented in Section III.F.

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

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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: Awendaw Creek

Summarize rationale supporting determination: Awendaw Creek is tidal, is a Section 10 water, and therefore is considered a TNW.

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": Based on a review of NWI maps, Soil Survey information, and aerial photographs, Wetland 3 and Wetland 5 appear to be part of one larger wetland system that continues offsite and is contiguous with Awendaw Creek, the TNW. Based on a review of NWI maps, Soil Survey information, and aerial photographs, Wetland 10 also appears to be part of the same larger wetland system that continues offsite and is contiguous with Awendaw Creek. Wetland 11 has a discrete hydrologic connection to Wetland 10. Wetlands 10 and 11 are separated by a narrow section of uplands that includes an old dirt road. The dirt road is not elevated above surrounding grade. During the site visit, Wetlands 10 and 11 were completely inundated and water from the wetlands extended into portions of the uplands between the two wetlands. In portions of the uplands between Wetland 10 and 11 that were not inundated at the time of the site visit, matted vegetation and saturated soils was observed indicating that water had recently flowed through the uplands between Wetlands 10 and 11. For these reasons, Wetland 11 was determined to have a hydrologic connection to Awendaw Creek through Wetland 10 and the offsite wetland system. Wetlands 3, 5, 10 and 11 were determined to be adjacent to Awendaw Creek and therefore jurisdictional and regulated by Section 404 of the CWA.

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: Pick List;
Drainage area: Pick List
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:

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

(a)	Relationship with TNW: ☐ Tributary flows directly into TNW. ☐ Tributary flows through 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:
(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 ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM. ⁷ Explain:
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Oil or scum line along shore objects Mean High Water Mark indicated by: Survey to available datum;

⁷Ibid.

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

		☐ fine shell or debris deposits (foreshore) ☐ physical markings; ☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types. ☐ tidal gauges ☐ other (list):	
	(iii)	Chemical Characteristics: Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, Explain: Identify specific pollutants, if known:	etc.).
(iv) Bio	ologic	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.	Cha	racteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW	
	(i)	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 Discrete wetland hydrologic connection. Explain: Ecological connection. Explain: Separated by berm/barrier. Explain:	
		(d) Proximity (Relationship) to TNW Project wetlands are Pick List river miles from TNW. Project waters are Pick List aerial (straight) miles from TNW. Flow is from: Pick List. Estimate approximate location of wetland as within the Pick List floodplain.	
	(ii)	Chemical Characteristics: Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Identify specific pollutants, if known:	
	(iii	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. Characteristics 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 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:

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

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: 24.66 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 ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: acres.
7.	Impoundments of jurisdictional waters.9 As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below). Explain:
DE	OLATED [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:

E.

 ⁸See 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.

	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 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):
	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.
	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: Terracon. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Concur with conclusions. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Data sheets prepared by the Corps: Corps navigable waters' study: U.S. Geological Survey Hydrologic Atlas: USGS NHD data. USGS 8 and 12 digit HUC maps. U.S. Geological Survey map(s). Cite scale & quad name: USDA Natural Resources Conservation Service Soil Survey. Citation: Rutlege loamy fine sand, Sewee complex National wetlands inventory map(s). Cite name: PSS1A, PSS1C, PFO State/Local wetland inventory map(s): FEMA/FIRM maps: 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Google 2015; Charleston 2006 Other (Name & Date): Other (Nam
	Previous determination(s). File no. and date of response letter: SAC-2007-00145-2J dated April 6, 2007. Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Four wetlands present within the project review area were determined to be jurisdictional and regulated by Section 404 of the CWA. The jurisdictional status of the remaining nine wetlands, mining areas, and linear features are discussed on Form 1 of 2.