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

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

SECTION I: BACKGROUND INFORMATION

REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): June 1, 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC # 2015-00262-2C Lands of Deborah Smoak Bobo and James Bobo Jr.

C.	PROJECT LOCATION AND BACKGROUND INFORMATION:
	State: South Carolina County/parish/borough: Charleston City: Johns Island
	Center coordinates of site (lat/long in degree decimal format): Lat. 32.738333° N , Long 80.044444° W . Universal Transverse Mercator:
	Name of nearest waterbody: Stono River
	Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Stono River
	Name of watershed or Hydrologic Unit Code (HUC): 03050202
	Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): ☐ Office (Desk) Determination. Date: May 1, 2015 ☐ Field Determination. Date(s): May 1, 2015
	CTION II: SUMMARY OF FINDINGS
Α.	RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew area. [Required]
	Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce Explain:
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	re Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S.
	a. Indicate presence of waters of U.S. in review area (check all that apply): 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 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: 0.904 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:
SEC	CTIO	N III: CWA ANALYSIS
A.	TNV	Ws AND WETLANDS ADJACENT TO TNWs
	Sect	agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete tion 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 Section III.D.1.; otherwise, see Section III.B below.
	1.	TNW Identify TNW:
		Summarize rationale supporting determination: .
	2.	Wetland adjacent to TNW Summarize rationale supporting conclusion that wetland is "adjacent":
В.	СН	ARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):
		s section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps rmine whether or not the standards for jurisdiction established under <i>Rapanos</i> have been met.
	wate mor (per	agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent ters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 of this). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round rennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, to Section III.D.4.
	EPA rela	etland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts an A regions will include in the record any available information that documents the existence of a significant nexus between a tively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even ugh a significant nexus finding is not required as a matter of law.
	water constant anal the	he waterbody is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the erbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must sider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for lytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite 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
		**The RPW located offsite was determined to be a perennial RPW under SAC-2012-00815-2U.
		(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 Project water

Project waters cross or serve as state boundaries. Explain:

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

		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 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. 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: def oil or scum line along shore objects survey to available datum; physical markings/characteristics physical markings/characteristics vegetation lines/changes in vegetation types. idal gauges other (list):
(iii)	Cha	emical Characteristics: uracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.) Explain: httify specific pollutants, if known:

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

(iv)	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:
	Aquatic/whitine diversity. Explain initialities.
2. Cha	aracteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(i)	Physical Characteristics:
	(a) <u>General Wetland Characteristics:</u>
	Properties:
	Wetland size: 0.904 acres
	Wetland type. Explain: Palustrine Forested . Wetland quality. Explain: Fair to good .
	Project wetlands cross or serve as state boundaries. Explain: .
	1 Toject wettands cross of serve as state boundaires. Explain.
	(b) General Flow Relationship with Non-TNW:
	Flow is: Intermittent flow. Explain: Water from the wetland may flow to the RPW during wet times of the year or
when wa	ater over tops the wetland.
	Surface flow is: Discrete and confined
	Characteristics: Water from the wetland flows directly to the jurisdictional RPW through a culvert on the
property	
property	•
	Subsurface flow: Unknown . Explain findings: .
	Dye (or other) test performed:
	(c) Wetland Adjacency Determination with Non-TNW:
	Directly abutting
	Not directly abutting
o oulvor	☐ Discrete wetland hydrologic connection. Explain: There is a discrete wetland hydrologic connection through t on the property to the perennial RPW offsite.
a curver	Ecological connection. Explain:
	Separated by berm/barrier. Explain:
	Department Department Department.
	(d) <u>Proximity (Relationship) to TNW</u>
	Project wetlands are 1-2 river miles from TNW.
	Project waters are 1-2 aerial (straight) miles from TNW.
	Flow is from: Wetland to navigable waters.
	Estimate approximate location of wetland as within the 100 - 500-year floodplain.
440	
(ii)	Chemical Characteristics:
	Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Water quality appeared to be good.
	Identify specific pollutants, if known: There is no direct evidence of unnatural pollutants. The surrounding landscape
within th	ne review area of the relevant reach is forested with residential development surrounding it.
	· · · · · · · · · · · · · · · · · · ·
(iii)	Biological Characteristics. Wetland supports (check all that apply):
	Riparian buffer. Characteristics (type, average width):
	Vegetation type/percent cover. Explain: Forested 100%.
	Habitat for:
	Federally Listed species. Explain findings:
	Fish/spawn areas. Explain findings:
	Other environmentally-sensitive species. Explain findings: A quotic/wildlife diversity. Explain findings: The westlands on site are forested westlands within an everall
forgeted land	☑ Aquatic/wildlife diversity. Explain findings: The wetlands on-site are forested wetlands within an overall scape containing forested uplands. The wetlands contain a diverse species of flora which often attract a diverse
	scape containing forested uplands. The wetlands contain a diverse species of nora which often attract a diverse f wildlife, which may include various species of insects, amphibians, reptiles, mammalian, and avian species; all of which
	nds for all or part of their life cucles for foraging, nesting, bnreeding, and/or shelter.

Characteristics of all wetlands adjacent to the tributary (if any) –
All wetland(s) being considered in the cumulative analysis:
Approximately (400-500) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
N	Onsite Wetland	N	Offsite Wetland 6-
	1-0.904		30.0 +
\mathbf{Y}	Offsite Wetland	N	Offsite Wetland 7-
	1-350+		1-2.0
N	Offsite Wetland	N	Offsite Wetland 8-
	2- 2.0		1-2.0
N	Offsite Wetland		
	3-4.0		
N	Offsite Wetland		
	4- 2-3.0		
N	Offsite Wetland		
_	5- 7-8.0		

Summarize overall biological, chemical and physical functions being performed: The review area contains one forested wetland that drains to an offsite perennial RPW through a culvert. Offsite Wetlands 1-8 were confirmed under SAC-2012-00815-2U which contained a headwater stream system consisting of a tributary (the perennial RPW) and approximately 8 wetlands. Headwater systems provide a variety of functions that are important for the downstream waters and the watershed as a whole. Wetland and tributaries not only provide habitat for various aquatic and terrestrial organisms. including a variety of insects, amphibians, reptiles, mammals, and birds, but are also a source of food, nutrients, and carbon for organisms located downstream. Headwater wetlands and tributaries are especially important for the quality of a watershed. Runoff, which may contain pollutants, sediments, excess nutrients, etc., from adjacent uplands that flows through wetlands before entering tributaries has the opportunity to be filtered out prior to flowing to downstream TNWs. Excess water can temporarily be stored in wetlands thereby minimizing potential flooding of downstream areas. In addition, water can also slowly be released from wetlands downstream to maintain seasonal flow volumes. Runoff water may also transport organisms, nutrients, and carbon from the wetlands into the tributaries, which continue to flow to downstream TNWs. Small headwater tributaries often have shallow water, low volume, and slow flow, which allows for more surface area of the water column to come into contact with channel substrate and any vegetation that may be present, allowing for sediments and pollutants to settle out of or be filtered from the water column before reaching downstream TNWs. The wetland within the review area is forested and provides water retention and storage functions allow for slow release to downstream waters, act as a nutrient and carbon sink, as well as provide habitat for mammalian, avian, and aquatic species.

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: **The wetlands within the cumulative review including the onsite wetland were previously determined to have a significant nexus under jurisdictional determination SAC-2012-00815-2U.

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

DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):		
1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: TNWs: linear feet width (ft), Or, acres. Wetlands adjacent to TNWs: acres.	
2.	RPWs that flow directly or indirectly into TNWs. Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: The RPW, located offsite, was determined to be a perennial RPW in SAC-2012-00815-2U.	
	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: 0.904 acres.	

Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

D.

⁸See Footnote # 3.

		Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
		Provide estimates for jurisdictional wetlands in the review area: acres.
	7.	Impoundments of jurisdictional waters. As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. Demonstrate that impoundment was created from "waters of the U.S.," or Demonstrate that water meets the criteria for one of the categories presented above (1-6), or Demonstrate that water is isolated with a nexus to commerce (see E below). Explain:
E.	SUC SUC SUC	LATED [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):
	fact	vide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR ors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional gment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
		vide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such ading is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
SE	CTIC	NIV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Robert Frank Land Surveying, Chris Fralick.

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.

\boxtimes	Data sheets prepared/submitted by or on behalf of the applicant/consultant.
	Office concurs with data sheets/delineation report.
	Office does not concur with data sheets/delineation report.
	Data sheets prepared by the Corps: .
	Corps navigable waters' study:
	U.S. Geological Survey Hydrologic Atlas: .
	USGS NHD data.
	USGS 8 and 12 digit HUC maps.
\boxtimes	U.S. Geological Survey map(s). Cite scale & quad name: Lands of Bobo-Legareville Quadrangle.
\boxtimes	USDA Natural Resources Conservation Service Soil Survey. Citation: Soil Map.
\boxtimes	National wetlands inventory map(s). Cite name: Aerial Photo W/ NWI Overlay .
	State/Local wetland inventory map(s): .
	FEMA/FIRM maps: .
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
\boxtimes	Photographs: Aerial (Name & Date):
	or \(\subseteq Other (Name & Date): Pictures 1-8 .
\boxtimes	Previous determination(s). File no. and date of response letter: SAC-2012-00815-2U
	Applicable/supporting case law: .
	Applicable/supporting scientific literature: .
	Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: Based on the above information it has been determined by this office that the wetland on site is jurisdictional and subject to Clean Water Act regulation.