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): August 29, 2018 DISTRICT OFFICE, FILE NUMBER, FILE NAME Form 1 of 2; SAC-2018-00298 Sherwood Plantation C. PROJECT LOCATION AND BACKGROUND INFORMATION: State: South Carolina County/parish/borough: Jasper City: Hardeeville Center coordinates of site (lat/long in degree decimal format): Lat. 32.2411° N, Long. -81.0872 ° W. Universal Transverse Mercator: Name of nearest waterbody: Savannah River Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A Name of watershed or Hydrologic Unit Code (HUC): 3060110 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): May 17, 2018 and June 7, 2018 **SECTION II: SUMMARY OF FINDINGS** A. RHA SECTION 10 DETERMINATION OF JURISDICTION. There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. 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. 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: acres. c. Limits (boundaries) of jurisdiction based on: 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

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: The approximate 1438-acre site contains 14 wetlands that were determined to be non-jurisdictional. The

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.

wetlands are C, D, G, H, I, J, FF, Q, R, T, S, CC, BB and Z. These 14 wetlands are depressional wetlands, are surrounded by uplands, have no ditches or swale coming out of them that would provide a surface hydrologic connection to other wetlands or waters of the U.S., and have no evidence of discrete hydrologic flow through uplands to other wetlands or waters of the U.S. In addition to not having a surface hydrologic connection, the wetlands have 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. Although Wetlands FF and Z are located along the property boundaries, they do not appear to continue offsite. For these reasons, these 14 wetlands located within the project review area were determined to be isolated and non-jurisdictional; therefore, they are not regulated by Section 404 of the CWA.

SECTION III: CWA ANALYSIS

TAIX

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.	Identify TNW:
	Summarize rationale supporting determination: .
2.	Wetland adjacent to TNW Summarize rationale supporting conclusion that wetland is "adjacent":

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

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

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

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

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

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

(i)	General Area Con	ditions:	
	Watershed size:	Pick 1	List ;
	Drainage area:	Pick I	List
	Average annual rain	nfall:	inches
	Average annual sno		inches
(ii)	Physical Characte	ristics:	
	(a) Relationship v	vith TNW:	
	☐ Tributary f	lows direc	tly into TNW

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

	☐ 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: the presence of litter and debris destruction of terrestrial vegetation the presence of wrack line sediment sorting sediment sorting 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:

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.

			☐ tidal gauges ☐ other (list):
	(iii)	Cha	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.) Explain: artify specific pollutants, if known:
(iv) Bio	logic	al Ch	naracteristics. 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	ract	eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)		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 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)	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		logical 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		veristics of all wetlands adjacent to the tributary (if any) wetland(s) being considered in the cumulative analysis: Pick List
For each	wetl	App	proximately () acres in total are being considered in the cumulative analysis. 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:

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

ETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALI IAT APPLY):
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.
	Provide estimates for jurisdictional wetlands in the review area: acres.
7.	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:
SUC	DLATED [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:
Pro	vide estimates for jurisdictional waters in the review area (check all that apply):

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.

		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):
	facto judgr	ide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR ares (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional 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: 20.06 acres.
	a find	ide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such ding 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.
	SUPP	N IV: DATA SOURCES. ORTING 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: Newkirk. Data sheets prepared/submitted by or on behalf of the applicant/consultant. Concurs 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: Wahee fine sandy loam, Bladen fine sandy loam National wetlands inventory map(s). Cite name: 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): or ☐ Other (Name & Date):
		Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: The approximate 1438-acre site contains 14 wetlands (C, D, G, H, I, J, FF, Q, R, T, S, CC, BB and Z) that were determined to be non-jurisdictional and not subject to regulation under Section 404 of the CWA. The jurisdictional status of the remaining wetlands, aquatic resources and features are discussed on Form 2 of 2.

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
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	.]	REPORT COMPLETION DATE FOR	APPROVED JURISDICTIONAL	DETERMINATION (JD	D): August 29,	2018
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	В.	DISTRICT OFFICE	, FILE NUMBER	, FILE NAME: JD Form 2	2 of 2; SAC-2018-00298 Sherwood Plantati
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В.	DISTRICT OFFICE, FILE NUMBER, FILE NAME: JD Form 2 of 2; SAC-2018-00298 Sherwood Plantation
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: South Carolina County/parish/borough: Jasper County City: Hardeeville Center coordinates of site (lat/long in degree decimal format): Lat. 32.2411° N, Long81.0872 ° W. Universal Transverse Mercator: Name of nearest waterbody: Savannah River
	Name of nearest Traditional Navigable Water (TNW) Into which the aquatic resource flows: Savannah River Name of watershed or Hydrologic Unit Code (HUC): 3060110 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): May 17, 2018 and June 7, 2018
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce Explain:
B.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	re Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): 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
60.6	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: A: 58.99 ac; B: 0.23 ac; E: 0.30 ac; F: 1.19 ac; K: 1.41 ac; L: 6.67 ac; M: 11.28 ac; N: 0.23 ac; O: 68.96 ac; P: 61 ac; U: 139.34 ac; V: 42.66 ac; W: 18.6 ac; X: 25.59 ac; Y: 78.43 ac; AA: 5.8 ac; DD: 14.42 ac; and EE: 0.02 ac; Total: 534.76 ac; AB: 0.02 ac; AB: 0.02 ac; Total: 534.76 ac; AB: 0.02 ac; Total: 534.76 ac; AB: 0.02 ac; AB: 0.02 ac; AB: 0.02 ac; Total: 534.76 ac; AB: 0.02 ac; AB: 0.
	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: There are 4 non-jurisdictional pond features present within the project review area. Two of the pond features located adjacent to Speedway Boulevard/ US Hwy 17 are former borrow pits. These borrow pit ponds were excavated from uplands for the purpose of obtaining fill material. As stated in the Preamble to the November 13, 1986, Regulations found on page 41217 (Federal Register vol. 51 No. 219) "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" are generally not considered waters of the U.S. The other two ponds present within the project review area are located between Wetland O and P. These ponds were excavated from uplands for an unknown purpose. All four ponds consist of open water and do not meet the three parameters of a wetland. For these reasons, the ponds were determined to be non-jurisdictional and not subject to regulation under Section 404 of the CWA.

There are also two linear features that were determined to be non-jurisdictional. Both features are ditches that were excavated from uplands. They did not display OHW marks and there was no evidence that they carried relatively permanent flow. However, the ditches provide a surface hydrologic connection from wetlands (Wetland B and L) to other waters. The jurisdictional status of Wetlands B and L are discussed in Section III of this basis form. The two linear features were determined to be non-jurisdictional and not subject to regulation under Section 404 of the CWA.

There is also one road that goes through the project review area that has roadside swales. By definition, the swales are non-jurisdictional and are not subject to regulation under Section 404 of the CWA. However, the swales provide a surface hydrologic connection from several wetlands (E, F, K and L) to other waters. The jurisdictional status of these wetlands is discussed in Section III of this basis form.

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: Savannah River.

Summarize rationale supporting determination: The Savannah River is a tidal river and a Section 10 water; therefore, the Savannah River is considered a TNW.

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": The Savannah River has an expansive wetland system that extends into the project review area. Wetlands A, O, P, M, N, U, V, W, X, Y, DD and EE are part of the larger wetland system that continues offsite and is contiguous with the Savannah River. Wetlands M, N, O, and P are separated from one another by roads that were constructed through the wetland. Wetlands U, V and W are separated from one another by roads that were constructed through the wetland. Based on jurisdictional determination NWP-2007-428, the US EPA determined on February 25, 2008, that wetlands separated by an artificial barrier, which are roads in this instance, does not sever the areas from functioning as one wetland. Therefore, Wetlands M, N, O and P, as identified on the jurisdictional determination plat, are considered one wetland. Additionally, Wetlands U, V and W, as identified on the jurisdictional determination plat, are considered one wetland. For the reasons discussed above, Wetlands A, O, P, M, N, U, V, W, X, Y, DD and EE are considered to be adjacent to the Savannah River (TNW).

Wetland B has a surface hydrologic connection through a non-jurisdictional ditch to and through wetland A, which is part of a larger wetland system that continues offsite and is contiguous with the Savannah River. Therefore, Wetland B is considered to be adjacent to the Savannah River (TNW).

Wetlands K, F, E have a surface hydrologic connection through a roadside swale that runs through the property to U.S. Hwy 17. Wetland L has a surface hydrologic connection through a non-jurisdictional ditch that flows to the roadside swale that runs through the property to U.S. Hwy 17. The swale continues along Highway 17 where it then flows into Wetland A, which is part of a larger wetland system that continues offsite and is contiguous with the Savannah River. Therefore, Wetlands K, F, E and L are considered to be adjacent to the Savannah River (TNW).

Wetland AA continues offsite and flows into an offsite roadside swale/ditch along I-95. The ditch flows into the larger offsite wetland system that is contiguous with the Savannah River. Therefore, Wetland AA is considered adjacent to the Savannah River (TNW),

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.

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

(i)	Wat Drai Ave	eral Area Conditions: ershed size: Pick List; nage area: Pick List rage annual rainfall: inches rage 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. 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): %

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

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.

		(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:
	(iii)	Cha	emical 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) Bio	logica	al Ch	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	ract	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:

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.

	Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:	
	Wetland Adjacency Determination with Non-TNW: Directly abutting Not directly abutting Discrete wetland hydrologic connection. Explain: Ecological connection. Explain: Separated by berm/barrier. Explain:	
	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.	
	Chemical Characteristics: Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general waters characteristics; etc.). Explain: Clentify specific pollutants, if known:	hed
	iological 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:	
	acteristics 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 wetlan	d, specify the following:	
	<u>Directly abuts? (Y/N)</u> <u>Size (in acres)</u> <u>Directly abuts? (Y/N)</u> <u>Size (in acres)</u>	

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:

DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL

TH	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: 534.76 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		

acres.

abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area:

⁸See Footnote # 3.

5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional wetlands in the review area: acres.
7.	Impoundments of jurisdictional waters. 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 SUC	CLATED [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.
	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): There are 4 non-jurisdictional pond features present within the project review area. Two of the pond features located adjacent to Speedway Boulevard/ US Hwy 17 are former borrow pits. These borrow pit ponds were excavated from uplands for the purpose of obtaining fill material. As stated in the Preamble to the November 13, 1986, Regulations found on page 41217 (Federal Register vol. 51 No. 219) "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" are generally not considered waters of the U.S. The other two ponds present within the project review area are located between Wetland O and P. These ponds were excavated from uplands for an unknown purpose. All four ponds consist of open water and do not meet the three parameters of a wetland. For these reasons, the ponds were determined to be non-jurisdictional and not subject to regulation under Section 404 of the CWA. There are also two linear features that were determined to be non-jurisdictional. Both features are ditches that were excavated from uplands. They did not display OHW marks and there was no evidence that they carried relatively perman
	6. 7. ISO DEC SUC

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.

waters. The jurisdictional status of Wetlands B and L are discussed in Section III of this basis form. The two linear features were determined to be non-jurisdictional and not subject to regulation under Section 404 of the CWA.

There is also one road that goes through the project review area that has roadside swales. By definition, the swales are nonjurisdictional and are not subject to regulation under Section 404 of the CWA. However, the swales provide a surface hydrologic connection from several wetlands (E, F, K and L) to other waters. The jurisdictional status of these wetlands is discussed in Section III of this basis form.

Pro	ovide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR
	tors (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).
H	Lakes/ponds: acres.
H	Other non-wetland waters: acres. List type of aquatic resource: .
H	· · · ·
	Wetlands: acres.
Dec	wide careage estimates for non-invisdictional waters in the review area that do not meet the "Cignificant Navys" standard, where such
	ovide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such inding is required for jurisdiction (check all that apply):
a 11	
片	Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
片	Lakes/ponds: acres.
님	Other non-wetland waters: acres. List type of aquatic resource:
	Wetlands: acres.
CECTI	ON IV. DATE A COLIDORO
SECTION	ON IV: DATA SOURCES.
A STIP	PORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked
	I requested, appropriately reference sources below):
\boxtimes	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Newkirk .
\boxtimes	
	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:
\boxtimes	USDA Natural Resources Conservation Service Soil Survey. Citation: Wahee fine sandy loam, Bladen fine sandy loam.
	National wetlands inventory map(s). Cite name: PFO.
	State/Local wetland inventory map(s): .
	FEMA/FIRM maps:
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
一	Photographs: Aerial (Name & Date):
_	or Other (Name & Date):
	Previous determination(s). File no. and date of response letter:
Ħ	Applicable/supporting case law: .
Ħ	Applicable/supporting scientific literature:
吕	Other information (please specify):
	other information (preuse specify).

B. ADDITIONAL COMMENTS TO SUPPORT JD: Wetlands A, B, E, F, K, L, M, N, O, P, U, V, W, X, Y, AA, DD, and EE are jurisdictional and subject to regulation under Section 404 of the CWA. The jurisdictional status of the remaining wetlands located within the project review area are discussed on Form 1 of 2.