

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

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): June 30, 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 3; CESAC -RD-NE; SAC 2015-00401-4S Williamsburg County Cooperative Commerce Center

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Williamsburg** City: **Kingstree**
Center coordinates of site (lat/long in degree decimal format): Lat. **33.722579° N**, Long. **-79.810372° W**.
Universal Transverse Mercator: **NAD83**

Name of nearest waterbody: **Kingstree Swamp Canal**

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **The Aquatic Resource (Isolated Wetland) documented on this basis form was determined to be confined within the boundaries of the project area and therefore does not flow into a TNW.**

Name of watershed or Hydrologic Unit Code (HUC): **Black River HUC:03040205_07**

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): **April 21, 2015**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 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, Pick List**

Elevation of established OHWM (if known):N/A.

2. Non-regulated waters/wetlands (check if applicable):³

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: A **potentially jurisdictional wetland** , totaling 0.56 acres, located within the project area was determined to be non-jurisdictional due to the lack of discernible or traceable outfall connections to other Waters of the US. Although, based on a site visit conducted on April 21, 2015, the wetland in itself meets the criteria set forth in the 1987 Wetland Delineation Manual and the 2010 Coastal Plain Supplement, water on-site was determined to drain into the wetland. A site visit conducted on April 21, 2015 also revealed that the wetland onsite is a depressional feature that is completely encompassed by a 2' upland berm that consist of non-hydric soils. The onsite wetland is completely surrounded by uplands with no hydrologic connection to any waters of the United States.. This wetland was determined to be isolated in a previous JD (SAC 2011-00517-4) issued on August 5, 2011, wherein the reviewer also took into account the design and implementation of the surrounding storm water management system which consists of an adjacent upland swale and two yard inlets that outfall into an upland excavated ditch on the south side of Commerce Drive. No Hydrologic connection was established between the wetland and the storm water management system.

This site also contains 3 man-made ditches that are determined to have been excavated out of uplands and to drain only uplands and therefore are determined to be non-jurisdictional features. Non-jurisdictional Ditch 1 is located perpendicular to the south side of Commerce Drive and runs parallel to U.S. Highway 52. This feature originates as an outfall structure located adjacent to the south side of Commerce Drive , that receives storm water runoff from the surrounding uplands and intersects an offsite man made linear feature downstream. While on site standing water was observed in this ditch that was overgrown with vegetation. A soil sample taken from the bottom of the ditch revealed non-hydric high chroma sandy clay soils. This ditch was excavated out of uplands that were first identified in JD- SAC 1995-32826 fka SAC 80-95-0229(Y) issued on May 5, 1995. This ditch was constructed sometime after the issuance of the before mentioned JD and originally identified in SAC 2011-00517-4 issued on August 05, 2011. A site visit on April 23, 2015 and recent aerial photographs reveal that this feature continues off-site where it turns abruptly to the west and enters an open water stromwater management system. Due to the fact that this ditch was man-made, excavated entirely out of uplands, and drains only uplands it is determined to be a non-jurisdictional feature.

Non-Jurisdictional Ditches 2 and 3 run parallel to U.S. Highway 52 and have been excavated out of uplands that were first identified in jurisdictional determination SAC 2008-02266-4JJ issued on December 15, 2009 . These linear features were excavated after the issuance of the before mention JD in addition to the construction of a cul-de-sac. Non-jurisdictional ditches 2 and 3 both originate on either side of the cul-de-sac and were observed to have standing water and no sinuosity during a site visit conducted on April 21, 2015. Non-jurisdictional ditch 2 ties into an unnamed perennial RPW that is addressed on Basis Form 2 of 3. Non-jurisdictional ditch 3 intersects an offsite linear feature that flows into Kingstree Swamp Canal and is addressed on Basis Form 3 of 3. Due to the fact that these manmade features were excavated out of uplands and drain only uplands they are determined to be non-jurisdictional.

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: .

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 Conditions:

Watershed size: **Pick List** ;

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: **N/A**.

Identify flow route to TNW⁵: .

Tributary stream order, if known: .

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

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

(b) General Tributary 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):

- | | | |
|--|--|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> 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):

- | | |
|---|---|
| <input type="checkbox"/> Bed and banks | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: . | |

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- | | |
|--|--|
| <input checked="" type="checkbox"/> High Tide Line indicated by: | <input checked="" type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: .

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: .

2. **Characteristics 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

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) **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:

<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:

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: 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-RPWs⁸ 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 jurisdictional. 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:

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

⁸See Footnote # 3.

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

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

- Previous determination(s). File no. and date of response letter: SAC 1995-32826 fka SAC-80-95-0229(Y) dated May 15, 1995, SAC 2008 02266-4JJ issued on December 15, 2009, and SAC 2001-00517-4 issued on August 05, 2011.
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify): **Grading and Storm Drainage Plan entitled "Williamsburg County Industrial Park for Williamsburg County Development Corporation" Sheets C6 and C7 dated September 21, 1998 by B.P. Barber & Associates, Inc..**

B. **ADDITIONAL COMMENTS TO SUPPORT JD:** This Form addresses a 0.56 acre isolated wetland. The site visit was conducted during a period of normal climatic conditions as determined by NRCS WETS data. One isolated wetland was assessed within the project area totaling 0.56 acres. A review of infrared aerial photographs, soil maps, and NWI maps prior to the site visit determined that this area was a potential wetland. The wetland boundary was verified during the site visit on April 21, 2015. Hydric soils, a prevalence of hydrophytic vegetation, and hydrology indicators such as water stained leaves and saturation within the upper 12" were observed. This depressional wetland area retains water within the wetland boundary and has no evidence of a chemical or biological connection to other waters of the US; therefore, the wetland was determined to be non-jurisdictional. Although, the wetland in itself meets the criteria set forth in the 1987 Wetland Delineation Manual and the 2010 Coastal Plain Supplement, water on-site was determined to drain into the wetland. The wetland onsite is a depressional feature that is completely encompassed by a 2' upland berm that consists of non-hydric soils. The onsite wetland is completely surrounded by uplands with no hydrologic connection to any waters of the United States. This wetland was determined to be isolated in a previous JD (SAC 2011-00517-4) issued on August 5, 2011, wherein the Corps also took into account the design and implementation of the surrounding storm water management system which consist of an adjacent upland swale and two yard inlets that outfall into an upland excavated ditch on the south side of Commerce Drive. No Hydrologic connection was made between the wetland and the storm water management system.

This site also contains 3 man-made ditches that are determined to have been excavated out of uplands and to drain only uplands and therefore are determined to be non-jurisdictional features. Non-jurisdictional Ditch 1 is located perpendicular to the south side of Commerce Drive and runs parallel to U.S. Highway 52. This feature originates as an outfall structure located adjacent to the south side of Commerce Drive, that receives storm water runoff from the surrounding uplands and intersects an offsite man made linear feature downstream. While on site standing water was observed in this ditch that was overgrown with vegetation. A soil sample taken from the bottom of the ditch revealed non-hydric high chroma sandy clay soils. This ditch was excavated out of uplands that were first identified in JD- SAC 1995-32826 fka SAC 80-95-0229(Y) issued on May 5, 1995. This ditch was constructed sometime after the issuance of the before mentioned JD and originally identified in SAC 2011-00517-4 issued on August 05, 2011. A site visit on April 23, 2015 and recent aerial photographs reveal that this feature continues off-site where it turns abruptly to the west and enters an open water stromwater management system. Due to the fact that this ditch was man-made, excavated entirely out of uplands, and drains only uplands it is determined to be a non-jurisdictional feature. Non-Jurisdictional Ditches 2 and 3 run parallel to U.S. Highway 52 and have been excavated out of uplands that were first identified in jurisdictional determination SAC 2008-02266-4JJ issued on December 15, 2009 . These linear features were excavated after the issuance of the before mention JD in addition to the construction of a cul-de-sac. Non-jurisdictional ditches 2 and 3 both originate on either side of the cul-de-sac and were observed to have standing water and no sinuosity during a site visit conducted on April 21, 2015. Non-jurisdictional ditch 2 ties into an unnamed perennial RPW that is addressed on JD SAC 2015-00401-4S Basis Form 2 of 3. Non-jurisdictional ditch 3 intersects an offsite linear feature that flows into Kingtree Swamp Canal and is addressed on JD SAC 2015-00401-4S Basis Form 3 of 3. Due to the fact that these manmade features were excavated out of uplands and drain only uplands they are determined to be non-jurisdictional.

Basis Form 2 of 3 addresses an unnamed perennial RPW on site.

Basis Form 3 of 3 addresses "Jurisdictional Wetland B" which has a Hydrological connection to Kingtree Swamp Canal via an off-site drainage ditch and "Jurisdictional Wetland A" which encompasses an impoundment of WOUS and directly abuts Kingtree Swamp Canal, a pRPW.

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- 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: **1,651** linear feet: **10** width (ft) and/or acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: **Established by OHWM, **Pick List**, **Pick List****

Elevation of established OHWM (if known):N/A.

2. Non-regulated waters/wetlands (check if applicable):³

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: **Documented on Basis Form 1 of 3.**

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND 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: **Black River.**

Summarize rationale supporting determination: **Report No. 6 of the U.S. Army Corps of Engineers 1977 Navigability Study: The Corps presently classifies the Black River as a "Navigable water of the U.S." from its mouth at R.M. 0 on the Great Pee Dee River near Georgetown, South Carolina to the Seaboard Coast Line Railroad bridge at R.M. 49.6.**

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 Conditions:

Watershed size: **Pick List** ;
Drainage area: **Pick List**
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

- Tributary flows directly into TNW.
- Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW⁵: .

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 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
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by: Mean High Water Mark indicated by:
 oil or scum line along shore objects survey to available datum;
 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, etc.).

Explain: .

Identify specific pollutants, if known: .

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: .

2. **Characteristics 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

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) **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:

<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:

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: 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: **It was determined by a site visit conducted on April 21, 2015, that flow of the tributary is at least**

90% of the year under normal climatic conditions. The tributary's geomorphic indicators of perennial flow where a firm sandy bottom free of vegetation and debris contained within a bed and bank system with the presence of an OHWM. Hydrologic indicators include an open channel with evenly distributed substrates and water bars where leaves and debris are washed downstream by the constant flowing of water. Aerial photographs depict a shaded linear feature, typically the signature of a defined channel. The tributary is depicted on USGS topographic maps as a solid blue line feature that flows unobstructed into Kingtree Swamp Canal. While on site flowing water was observed through a large box culvert beneath U.S. Highway 52.

- 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: **1651** linear feet **10** width (ft).
 Other non-wetland waters: acres.
 Identify type(s) of waters: .

3. Non-RPWs⁸ 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: **The on-site wetlands, documented in detail on Basis Form 3 of 3, that continue off-site and directly abut Kingtree Swamp Canal also directly abut the pRPW that is documented on this form. Based on a site visit conducted on April 21, 2014, there were no natural or manmade obstructions to the physical, biological, and/or chemical connection between the wetland system and the pRPW. .**
 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: **8.3** acres Documented on Basis Form 3 of 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 jurisdictional. Data supporting this conclusion is provided at Section III.C **Documented on Basis Form 3 of 3.**

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: Documented on Basis Form 3 of 3

⁸See Footnote # 3.

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

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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). **Documented on Basis Form 1 of 3**
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): **Documented on Basis Form 1 of 3.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

SECTION IV: 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: **The project area is depicted on a plat prepared by Kevin Wilson Land Surveying and submitted by S&ME, titled "BOUNDARY SURVEY FOR / WILLIAMSBURG COUNTY / COOPERATIVE COMMERCE CENTER / WILLIAMSBURG COUNTY, SOUTH CAROLINA" and dated January 14, 2015. Non-jurisdictional Ditches are depicted on a supplemental sketch prepared by the Corps titled "SAC 2015-00401-4S - Supplemental Sketch / Williamsburg County Cooperative Commerce Center" and dated June 25, 2015..**
- 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: **Report No. 6 of the Corps Charleston District 1977 Navigability 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: **Kingtree Quad: The USGS topographic survey information within Kingtree Quad depicts the project area as mostly cleared uplands that are bisected by a solid blue line feature that flows into**

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.

Kingtree Swamp Canal. The project area is also depicted as containing an impoundment and forested wetlands abutting Kingtree Swamp Canal .

USDA Natural Resources Conservation Service Soil Survey. Citation: **Williamsburg County Soil Survey Sheet 16 depicts the project area as being comprised of the following soil types: Gourdin, Yemassee, Emporia, Eunola and Hobcow.**

National wetlands inventory map(s). Cite name: **PFO1Bd, U11, PABHx; The NWI map depicts the project area as consisting of a combination of agricultural uplands and palustrine forest that include Palustrine Aqua Bed .**

State/Local wetland inventory map(s):

FEMA/FIRM maps:

100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

Photographs: Aerial (Name & Date): **1989 (1660-081), 1994 (7447-019), 1999 (11227:182), 2006.**

or Other (Name & Date): **Photographs submitted by S&ME dated 1/14/2015 and site photos taken by the Corps dated 6/ 21/ 2011 and 4/21/2015.**

Previous determination(s). File no. and date of response letter: **SAC 1995-32826 fka SAC-80-95-0229(Y) dated May 15, 1995, SAC 2008 02266-4JJ issued on December 15, 2009, and SAC 2001-00517-4 issued on August 05, 2011.**

Applicable/supporting case law:

Applicable/supporting scientific literature:

Other information (please specify): **Grading and Storm Drainage Plan entitled "Williamsburg County Industrial Park for Williamsburg County Development Corporation" Sheets C6 and C7 dated September 21, 1998 by B.P. Barber & Associates, Inc..**

B. ADDITIONAL COMMENTS TO SUPPORT JD: This form addresses 1,651 linear feet of an unnamed tributary of Kingtree Swamp Canal that bisects the project area and was determined to have perennial flow during a site visit conducted on April 21, 2014. While on site flowing water was observed through a large box culvert beneath U.S. Highway 52 onto the site. It was determined that flow of the tributary is at least 90% of the year under normal climatic conditions. The tributary's geomorphic indicators of perennial flow where a firm sandy bottom free of vegetation and debris contained within a bed and bank system with the presence of an OHWM. Hydrologic indicators include an open channel with evenly distributed substrates and water bars where leaves and debris are washed downstream by the constant flowing of water. Aerial photographs depict a shaded linear feature, typically the signature of a defined channel and USGS topographic maps depict a solid blue line feature, which is the symbol for perennial flow. A portion of the on-site wetlands that continue off-site and directly abut Kingtree Swamp Canal also directly abut the pRPW that is documented on this form. Based on a site visit conducted on April 21, 2014, there were no natural or manmade obstructions to the physical, biological, and/or chemical connection between the wetland system and the pRPW. These wetlands are documented in greater detail on Basis Form 3 of 3. Based on NRCS WETS data climatic conditions during the time of the site visit where within normal range.

Basis Form1 of 3 addresses an isolated wetland on site totaling 0.56 acres.

Basis Form 3 of 3 addresses "Jurisdictional Wetland A" that encompasses an impoundment of a WOUS and directly abuts Kingtree Swamp Canal and" Jurisdictional Wetland B" which has a Hydrological connection to Kingtree Swamp Canal via an off-site drainage ditch.

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

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): June 30, 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 3 of 3; CESAC -RD-NE; SAC 2015-00401-4S Williamsburg County Cooperative Commerce Center

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Williamsburg** City: **Kingstree**
Center coordinates of site (lat/long in degree decimal format): Lat. **33.722579° N**, Long. **-79.810372° W**.
Universal Transverse Mercator: **NAD83**

Name of nearest waterbody: **Kingstree Swamp Canal**

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Black River**

Name of watershed or Hydrologic Unit Code (HUC): **Black River HUC:03040205_07**

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): **April 21, 2015**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): ¹

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

Non-RPWs that flow directly or indirectly into TNWs

Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

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

Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or **1.2** acres of Impoundment of a WOUS.

Wetlands: **Wetland "A" (8.3 acres) + Wetland "B" (0.87 acres) = 9.17 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: **Documented on Basis Form 1 of 3.**

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: **Black River.**

Summarize rationale supporting determination: **Report No. 6 of the U.S. Army Corps of Engineers 1977 Navigability Study: The Corps presently classifies the Black River as a "Navigable water of the U.S." from its mouth at R.M. 0 on the Great Pee Dee River near Georgetown, South Carolina to the Seaboard Coast Line Railroad bridge at R.M. 49.6.**

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 Conditions:

Watershed size: **209,555 acres** ; HUC: **03040205-07**

Drainage area: **4,200 acres**

Average annual rainfall: **52 inches**

Average annual snowfall: **0 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 **2-5** river miles from TNW.

Project waters are **1 (or less)** river miles from RPW.

Project waters are **2-5** aerial (straight) miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from RPW.

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

Project waters cross or serve as state boundaries. Explain: **The project waters do not cross or serve as state boundaries.**

Identify flow route to TNW⁵: **Kingstree Swamp Canal (pRPW) flows unobstructed into the Black River, a TNW.**
Tributary stream order, if known: **The tributary is a 4th order stream.**

(b) General Tributary Characteristics (check all that apply):

Tributary is: Natural
 Artificial (man-made). Explain: .
 Manipulated (man-altered). Explain: **The tributary has been straightened and maintained by the Corps of Engineers.**

Tributary properties with respect to top of bank (estimate):

Average width: **20** feet
Average depth: **12** feet
Average side slopes: **3:1**.

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: Tributaries in this watershed are typically low gradient, low velocity and therefore do not experience high levels of erosion and would be considered stable.

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Relatively straight. Based on USGS topographic survey information, the National Wetlands Inventory and aerial photographs the off site pRPW follows a declining gradient and is surrounded by forested wetlands.**

Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Perennial flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime: **Based on USGS topographic survey information, the National Wetlands Inventory and aerial photographs, the off site RPW follows a declining gradient. The pRPW can be seen in aerial photographs as a shaded linear feature. This pRPW receives run off from approximately 4,200 acres of upland agricultural fields, forested wetlands, and urban development .**

Other information on duration and volume: **The pRPW receives flow surrounding wetlands and overland sheet flow. Based on the observation of a high water table within the project area it is determined that this tributary is also recharged by groundwater .**

Surface flow is: **Confined**. Characteristics: **Based on a site visit conducted on 4/21/15 flow was determined to be confined within the bed and banks of the tributary.**

Subsurface flow: **Unknown**. Explain findings: .

Dye (or other) test performed: .

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

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.

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

⁷Ibid.

- | | |
|--|--|
| <input type="checkbox"/> High Tide Line indicated by: | <input type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: **According to the SCDHEC website aquatic life and recreational uses are fully supported in the Kingstree Swamp Canal. This is a blackwater system, characterized by naturally low dissolved oxygen concentration conditions. Land use in this watershed consist of approxiamtly 31.8% agrigultural land, 29.4% forested wetland, 26.4% forested land, 5.7% urban land, 6.5% scrub-shrub, 0.1% water, and 0.1% non-forested wetlands.**

According to the SCDHEC website there is a low to moderate potential for growth in the watershed.

Identify specific pollutants, if known: **Due to the fact that the majority of the land use in this watershed is agricultural, the potential exist for herbicides and other pollutants, such as fertilizers to enter the off-site pRPW. This type of land use requires regular manipulation of the soil, which creates increased amounts of suspended sediments within downstream tributaries.**

(iv) **Biological Characteristics. Channel supports (check all that apply):**

Riparian corridor. Characteristics (type, average width): **Based on a review of aerial photographs and USGS topographic survey information the off site pRPW supports an approximately 2000' wide riparian corridor. This riparian zone contributes to the overall health of the aquatic system by filtering out pollutants, providing essential habitat, slowing flood waters and preventing erosion.**

Wetland fringe. Characteristics:

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: **0.87** acres

Wetland type. Explain: **Palustrine forested.**

Wetland quality. Explain: **Wetlands within the project area are part of a fully functional wetland system that provides pollution filtration, essential habitat, and flood prevention.**

Project wetlands cross or serve as state boundaries. Explain: **The project wetland does not cross or serve as state boundaries.**

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow.** Explain: **An off-site drainage ditch that intersects the project wetlands provides a hydrologic connection between the offsite pRPW and the wetlands within the project area.**

Surface flow is: **Discrete and confined**

Characteristics: **Flow from the project wetlands into the off site pRPW is through a drainage ditch.**

Subsurface flow: **Unknown.** Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: **Flow from the project wetlands into the off site pRPW is through a drainage ditch.**

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **2-5** river miles from TNW.

Project waters are **2-5** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters.**

Estimate approximate location of wetland as within the **100 - 500-year** 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: **Wetlands within the project area are part of a fully functional wetland system that provides pollution filtration, essential habitat, and flood prevention. No oily film or discoloration was observed. Land use in this watershed consist of approximately 31.8% agricultural land, 29.4% forested wetland, 26.4% forested land, 5.7% urban land, 6.5% scrub-shrub, 0.1% water, and 0.1% non-forested wetlands. According to the SCDHEC website there is a low to moderate potential for growth in the watershed**

Identify specific pollutants, if known: **Due to the fact that the majority of land use in this watershed is agricultural, the potential exist for herbicides and other pollutants, such as fertilizers to enter the off-site tributary. This type of land use requires regular manipulation of the soil, which creates increased amounts of suspended sediments within downstream tributaries.**

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

Riparian buffer. Characteristics (type, average width):

Vegetation type/percent cover. Explain: **Vegetation in the wetland consisted of predominantly Fac, Fac Wet, and Obligate species.**

Habitat for:

Federally Listed species. Explain findings:

- Fish/spawn areas. Explain findings: .
- Other environmentally-sensitive species. Explain findings: .
- Aquatic/wildlife diversity. Explain findings: **This wetland system enhances wildlife diversity through timber type changes and the transition between upland and aquatic systems..**

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **30 (or more)**

Approximately (**1,341.45**) acres in total are being considered in the cumulative analysis.

For each wetland, 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>
Y	1220.16	N	3.47
N	4.44	N	3.36
N	7.04	N	0.22
N	1.05	N	0.29
N	10.26	N	3.05
N	7.68	N	0.43
N	0.5	N	1.26
N	2.39	N	4.61
N	10.74	N	0.15
N	16.89	N	0.17
N	0.5	N	0.43
N	22.38	N	1.9
N	0.88	N	0.76
N	2.15	N	1.8
N	0.87	N	1.7
N	3.22	N	0.09
N	3.71	N	0.18
N	1.2	N	1.76
N	1.2	N	0.32
N	0.8	N	

Summarize overall biological, chemical and physical functions being performed:

The perennial RPW (Kingstree Swamp Canal) and its adjacent wetlands are providing important biological, chemical, and physical functions within a predominately upland drainage area. According to the SCDHEC website land use in this watershed consist of approxiamtly 31.8% agricultrual land, 29.4% forested wetland, 26.4% forested land, 5.7% urban land, 6.5% scrub-shrub, 0.1% water, and 0.1% non-forested wetlands. The watershed is predominatly rural with a large portion of the land in agricultrual production. The majority of the wetlands within the drainage area are depressional wetlands that ares situated relativley low in the landscape and receive and store runoff from the surrounding uplands. This water storage prevents flood flows from high rainfall events from moving quickly downstream. The perennial RPW and its adjacent wetlands act as a catch basin to help filter out pollutants from the neighboring agricultural land. This wetland system enchances wildlife diversity, acts as a catch basin filtering sediments and pollutants from surrounding croplands, supports down stream food webs, and provides nutrient fixation, flood attenuation, and flow maintnacen functions. See III.C.3 below for more details.

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 off site pRPW that is assessed in this form, along with all similarly situated adjacent freshwater wetlands are collectively performing functions consistent with the following: Biologically, wetlands adjacent to the pRPW include depressional wetlands. As such a variety of biological functions are being performed which include providing breeding grounds and shelter for aquatic species and foraging areas for wetland dependent species. These wetlands and the adjacent pRPW are essential in providing organic carbons in the form of their collective primary productivity to downstream waters, resulting in the nourishment of the downstream food web. Chemically, the pRPW and adjacent wetlands are providing the important collective functions of removal of excess nutrients into the downstream TNW. These pollutants, which are contributed to by runoff from surrounding uplands are prevented from being discharged downstream due to suspended sediments and other pollutants being retained within the wetlands. The low velocity of and gradient of the pRPW also contribute to the removal of pollutants because the suspended pollutants have time to settle out of the water. This reduces nitrogen and phosphorous loading downstream and effectively prevents oxygen depletion that can result from eutrophication. Physically, the pRPW and adjacent wetlands are collectively performing flow maintenance functions, including retaining runoff inflow and storing rain water, temporarily. Flow maintenance results in the reduction of downstream peak flows (discharge and volume), helping to maintain seasonal flow volumes and reducing the frequency of overbank events which flood adjacent properties. Increased water velocity also increases the amount of sediments and other pollutants in the TNW. Based on the collective functions described above and their importance to the biological, chemical, and physical integrity of the traditional navigable waters of the Great Pee Dee River, it has been determined that there is a significant nexus between the relevant reach of the tributary and all adjacent wetlands to the downstream TNW.**

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: 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: **Kingtree Swamp Canal is depicted as a named solid blue line with many tributaries on the USGS topographic survey maps. A solid blue line on USGS topo maps is the symbol for perennial flow. Kingtree Swamp canal can also be seen from aerial photographs as a shaded linear feature with a defined channel. The portion of the Kingtree swamp canal adjacent to the project area is a 4th order stream.**

On-site pRPW Documented on Basis Form 2 of 3 .

- 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-RPWs⁸ 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.

⁸See Footnote # 3.

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: **8.3 acres of on-site wetlands (Jurisdictional Wetland X) are part of a 2000' wide riparian corridor that abuts Kingstree swamp canal. This system can be observed in aerial photograph, NWIs, and on USGS topographic survey maps. Based on a site visit conducted on April 21, 2015 and the above mentioned resources there are no natural or man made barriers to obstruct the chemical, physical, and/or biological connection between the on-site wetland (Jurisdictional Wetland X) and the of site pRPW (Kingstree Swamp Canal).**
 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: **8.3** 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 jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: **0.87** 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: The 1.2 acre impoundment was excavated entirely out of jurisdictional wetlands that directly abut Kingstree Swamp Canal a pRPW.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH 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: .

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.

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

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

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). Documented on Basis Form 1 of 3.
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): **Documented on Basis Form 1 of 3.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands:

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.

SECTION IV: 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: **The project area is depicted on a plat prepared by Kevin Wilson Land Surveying and submitted by S&ME, titled "BOUNDARY SURVEY FOR / WILLIAMSBURG COUNTY / COOPERATIVE COMMERCE CENTER / WILLIAMSBURG COUNTY, SOUTH CAROLINA" and dated January 14, 2015. Non-jurisdictional Ditches are depicted on a supplemental sketch prepared by the Corps titled " SAC 2015-00401-4S - Supplemental Sketch / Williamsburg County Cooperative Commerce Center " and dated June 25, 2015..**
- 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: **Report No. 6 of the Corps Charleston District 1977 Navigability 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: **Kingtree Quad: The USGS topographic survey information within Kingtree Quad depicts the project area as mostly cleared uplands that are bisected by a solid blue line feature that flows into Kingtree Swamp Canal. The project area is also depicted as containing an impoundment and forested wetlands abutting Kingtree Swamp Canal .**
- USDA Natural Resources Conservation Service Soil Survey. Citation: **Williamsburg County Soil Survey Sheet 16 depicts the project area as being comprised of the following soil types: Gourdin, Yemassee, Emporia, Eunola and Hobcow.**
- National wetlands inventory map(s). Cite name: **PFO1Bd, U11, PABHx; The NWI map depicts the project area as consisting of a combination of agricultural uplands and palustrine forest that include Palustrine Aqua Bed .**
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **1989 (1660-081), 1994 (7447-019), 1999 (11227:182), 2006**
 - or Other (Name & Date): **Photographs submitted by S&ME dated 1/14/2015 and site photos taken by the Corps dated 6/ 21/ 2011 and 4/21/2015.**
- Previous determination(s). File no. and date of response letter: **SAC 1995-32826 fka SAC-80-95-0229(Y) dated May 15, 1995, SAC 2008 02266-4JJ issued on December 15, 2009, and SAC 2001-00517-4 issued on August 05, 2011.**
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): **Grading and Storm Drainage Plan entitled "Williamsburg County Industrial Park for Williamsburg County Development Corporation" Sheets C6 and C7 dated September 21, 1998 by B.P. Barber & Associates, Inc..**

B. ADDITIONAL COMMENTS TO SUPPORT JD: This form addresses a 111.64 acre tract that contains 9.17 acres of jurisdictional freshwater wetlands and 1.2 acres of an impoundment of a WOUS. 8.3 acres of the jurisdictional wetlands (Jurisdictional Wetland A) are directly abutting Kingstree Swamp Canal and encompass a 1.2 acre impoundment of a WOUS. 0.87 acres of jurisdictional wetlands (Jurisdictional Wetland B) are adjacent to Kingstree Swamp canal via an off-site drainage ditch. The site also contains an approximately 0.56 acre of wetland that lacks a hydrologic connection to other waters of the United States which is addressed on Basis Form 1 of 3 and an on-site perennial RPW that is addressed on Form 2 of 3.

The offsite RPW addressed in this form which is the basis for jurisdictiona was determined to have perennial flow based on a review of the USGS topographic maps, aerial photographs, and information obtained during a site visit conducted on April 21, 2015. The topographic information within Kingstree Quad depicts the project area as mostly cleared uplands that are bisected by a solid blue line feature that flows into Kingstree Swamp Canal. The project area is also depicted as containing an impoundment and forested wetlands abutting Kingstree Swamp Canal. Observations of a high water table and redox features within the upper 6-16 inches of soils in adjacent wetlands, during a site visit, suggest that this RPW is recharged by ground water as well as run off. Kingstree Swamp Canal drains into the Black River, a TNW.

An offsite drainage ditch runs just outside the southern boundary of the project area. This ditch directly abuts Jurisdictional Wetland B within the project area and provides a hydrologic connection between jurisdictional wetland B and the offsite pRPW (Kingstree Swamp Canal). A site visit conducted on April 21, 2015 revealed the ditch continuing off-site into Kingstree Swamp Canal.

Wetland boundaries were determined, during the site visit conducted on April 21, 2015, based on the criteria set forth by the 1987 Wetland Delineation Manual and 2010 Coastal Plain Regional Supplement. Jurisdictional Wetland B is determined to be jurisdictional based on the hydrological connection, provided by a non-jurisdictional ditch to an offsite pRPW that flows unobstructed into the Black River, a TNW. Jurisdictional Wetland A is part of a larger wetland system that continues off-site and directly abuts Kingstree Swamp Canal. During the above reference site visit wetlands were found to be saturated and a high water table was observed. Wetlands within the project area are currently part of a fully functional wetland system that provides pollution filtration, essential habitat, and flood prevention. The wetland and off site RPW addressed in this form are determined to have a significant nexus to the downstream TNW in Section IIIC above. Climatic conditions were determined to be within normal range at the time of the site visit based on NRCS WETS data.

Basis Form1 of 3 addresses a non-jurisdictional isolated wetland on site totaling 0.56 acres.

Basis Form 2 of 3 addresses 1,651 linear feet of on-site perennial RPW.