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

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

#### SECTION I: BACKGROUND INFORMATION

**REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): July 3, 2012** A.

#### DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC #2012-00559-3JH, Behr Tract В.

## C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Horry** City: Center coordinates of site (lat/long in degree decimal format): Lat. 33.947779° N, Long. -78.916107° W. Universal Transverse Mercator:

Name of nearest waterbody: Kingston Swamp

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Kingston Lake

Name of watershed or Hydrologic Unit Code (HUC): Kingston Lake: HUC 0304020608

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:
- $\square$ Field Determination. Date(s): June 21, 2012

## 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): <sup>1</sup>
    - TNWs, including territorial seas
    - Wetlands adjacent to TNWs
    - Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs
    - Non-RPWs that flow directly or indirectly into TNWs
      - Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      - Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      - Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      - Impoundments of jurisdictional waters
      - Isolated (interstate or intrastate) waters, including isolated wetlands
  - b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: 1,320 linear feet: 5width (ft) and/or acres. Wetlands: 27.6 acres.
  - c. Limits (boundaries) of jurisdiction based on: Established by OHWM., 1987 Delineation Manual, Pick List Elevation of established OHWM (if known):
- Non-regulated waters/wetlands (check if applicable):<sup>3</sup> 2.
  - Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: The project area contains two upland excavated ditches. The first ditch located on the northern property lines originates along the existing Gause Road and terminates within onsite wetlands. The portion of this ditch located to the

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

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

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

west and north of the delineated wetlands was determined to have been excavated from within uplands and drains only uplands. The second ditch considered non-jurisdictional was recently excavated and provides a hydrologic connection for wetland #3 to the onsite RPW. This ditch is considered a hydrologic connection for wetland #3 to the onsite tributary and is not considered a jurisdictional feature.

# 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 waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) General Area Conditions:

Watershed size: **83,448** acres ; Drainage area: **920** acres Average annual rainfall: **51** inches Average annual snowfall: **0** inches

# (ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>
 ☐ Tributary flows directly into TNW.
 ⊠ Tributary flows through 2 tributaries before entering TNW.

Project waters are project waters are project waters are project waters are states are project waters are project waters are states are project waters are p

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

Identify flow route to TNW <sup>5</sup> : Flow of tributary is through	2 tributaries prior reaching the TNW Kingston Lake
and is located approximately 7 miles upstream.	
Tributary stream order if known, 4 <sup>th</sup>	

Tributary stream order, if known: 4<sup>th</sup>.

(b) <u>General Tributary Characteristics (check all that apply):</u> **Tributary** is: Xatural

☑ Natural
 ☑ Artificial (man-made). Explain:
 ☑ Manipulated (man-altered). Explain:

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

Average width: 5 feet

Average depth: 3 feet

Average side slopes: 3:1.

Primary tributary substrate composition (check all that apply):

🖂 Silts	🔀 Sands
Cobbles	Gravel
Bedrock	Vegetation.

Concrete

Other. Explain: Silt and sand substrates are commonly associated with perennial streams such as this that are located in this low-gradient landscape and have urban/semi-urban drainage areas of this size (~1000 acres). In these systems, flow is continuous but at a low-velocity, allowing finer sediments to accumulate on the substrate.

Type/% cover:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Tributaries slopes are stable by

being forested .

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: Meandering.

Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: Perennial flow

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

Describe flow regime: Flow regime is at least 90% of the year under normal climatic conditions.

Other information on duration and volume: **Perennial flow is defined to flow at least 90% of the year under normal climatic conditions.** Tributary is typical of very low-gradient perennial systems in the coastal plain, i.e. continuous, low velocity flow. In addition, Horry County Drainage Study of 1976 depicts the tributary as Main Drainage Canal M-27 (Sheet 13) with a discharge volume of 19 c.f.s.

Surface flow is: **Confined.** Characteristics: **Confined within the banks under normal rainfall conditions, however, this area floods after tropical storm events where water has been observed outside of the banks of tributary**.

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

Tributary has (check all that apply): Low-gradient perennial tributaries of this nature, in urban or semi-urban settings, with drainage areas of this size (~1000 acres), predictably have readily-observed OHWM indicators such as a line impressed on the bank, shelving, absent vegetation, litter washed away, water staining and sediment deposition (see Section III.D. for perennial determination).

$\boxtimes$ Bed and banks	
$\Box$ OHWM <sup>6</sup> (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. <sup>7</sup> Explain:	
If factors other than the OHWM were used to determi	ne 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;

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

f
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ti

fine shell or debris deposits (foreshore) physical markings/characteristics idal gauges

other (list):

physical markings;
 vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

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

Explain: The general watershed is semi urban with the majority of the development consisting of county roads. The majority of the watershed is forested and agricultural lands where sediments and other pollutants may enter onsite tributary and be transported t TNW.

Identify specific pollutants, if known: Sediments and other polluntants form roads and adjacent silvicultural operations and agricultural operations may enter tributary.

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

Riparian corridor. Characteristics (type, average width): **Tributary flows through a forested area that aerial photos** indicate includes wetlands. Both the upland and wetland forest areas shade and buffer the tributary and provide filtering of runoff before it enters the tributary.

- Wetland fringe. Characteristics: **See above statement**.
- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings: **Previous site visits to adjacent tracts have revealed evidence of** foraging, nesting, and travel corridors as well as minnows, tadpoles and small macrofauna located within close proximity to tributary. The above statement is typical of triburies located in the coastal plane of South Carolina.

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

- (i) Physical Characteristics:
  - (a) <u>General Wetland Characteristics:</u>
    - Properties:

Wetland size: Wetland 1-27.2 acres, Wetland 2-0.2 acres & Wetland 3- 0.2 acres

Wetland type. Explain: Palustrine.

Wetland quality. Explain: Vegetatively impaired. Timber harvesting has occurred recently within last 3 years. Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: Intermittent flow. Explain: Wetlands 1 & 2 directly abut tributary, however, wetland 3 is connected via a man-made ditch.

Surface flow is: Discrete and confined

Characteristics: Flow of wetlands 1 & 2 is directly to onsite tributary; tributary flows through wetlands. Wetland 3 flow to tributary is through a direct hydrologic connection via a man-made ditch.

> Subsurface flow: **Unknown**. Explain findings: Dye (or other) test performed:

- (c) <u>Wetland Adjacency Determination with Non-TNW:</u>
  - Directly abutting
  - Not directly abutting
    - Discrete wetland hydrologic connection. Explain: Man-made ditch.
    - Ecological connection. Explain:
    - Separated by berm/barrier. Explain:
- (d) <u>Proximity (Relationship) to TNW</u> Project wetlands are 5-10 river miles from TNW.
  Project waters are 5-10 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 were inundated at the time of initial site visit and water color observed was brown. In addition, the wetland soil was saturated to the surfce in areas that were not inundated. General watershed consists of undeveloped forested areas located both upstream and downstream within the relevant reach of the tributary.

Identify specific pollutants, if known: sediments from adjacent roads, agricultural and silvicultural operations..

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

Riparian buffer. Characteristics (type, average width): While the wetland is not truly riparian, it does act as a buffer to the adjacent stormwater system which is a direct conduit to the downstream RPW and TNW. The wetland (that also continues offsite) retains and filters runoff before it enters the stormwater ponds.

Vegetation type/percent cover. Explain: Dominant vegetation is FACW and OBL. Logging has occurred and vegetation is in the sapling stages.

- 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: 6

Approximately (400) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Onsite Wetland 1 (Y)	27.2	Offsite Wetland 1 (Y)	150
<b>Onsite Wetland 2 (Y)</b>	0.2	Offsite Wetland 2 (Y)	155
Onsite Wetland 3 (N)	0.2	Offsite Wetland 3 (N)	56
		Offsite Wetland 4 (N)	10

Summarize overall biological, chemical and physical functions being performed: **The similarly situated wetlands contribute vital biological, chemical, and physical functions to the downstream TNW.** This wetland system enhances wildlife diversity, acts as catch basins filtering sediment and pollutants from surrounding agricultural and silvicultural practices, supports the downstream food web, and provides nutrient fixation, flood attenuation and flow maintenance 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:

- Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into 2. 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:
- Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of 3. presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: The wetlands adjacent to this perennial RPW include mixed hardwood/pine palustrine forested depressional wetlands. The wetlands which are similarly situated and adjacent to the RPW are collectively performing functions consistent with following: Biological-A variety of biological functions are being performed which include providing breeding grounds, shelter, foraging, nesting and travel corridors for aquatic and wetland-dependent species. They enhance wildlife diversity through timber type changes and the transition between upland and aquatic systems. The wetlands are essential in providing collective primary productivity to downstream waters by supplying organic carbon, resulting in the nourishment of the downstream food web. Chemical- The wetlands and tributary within the review area are providing the important collective functions of removal of excess nutrients which are contributed by runoff from surrounding urban and silvicultural areas, reducing nitrogen and phosphorus loading downstream, and effectively preventing oxygen depletion that can result from eutrophication. Physical- The wetlands and tributary in the review area are collectively filtering sediments and pollutants carried by stormwater runoff from roads, urban development and silviculture areas. They are providing flood attenuation and flow maintenance functions by retaining runoff and releasing it slowly, which results in the reduction of downstream peak flows (discharge and volumes) and lower continuous flow volumes. Wetlands such as the ones identified in this reach are actively storing stormwater runoff from adjacent agricultural and silvicultural areas. Based on the collective functions described above and their importance to the biological, chemical, and physical integrity of the traditional navigable waters of Kingston Lake, it has been determined that there is a significant nexus between the relevant reach of the tributary and adjacent wetlands to the downstream TNW.

4. 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):
  - TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: 1. TNWs: linear feet width (ft), Or, acres. Wetlands adjacent to TNWs: acres.
  - RPWs that flow directly or indirectly into TNWs. 2.

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: The tributary is a named waterbody (Kingston Lake Swamp) on the USGS topographic maps. Topo maps depict the tributary a solid blue line feature which typically represents a tributary with perennial flow. In addition, Horry County Drainage Study of 1976 depicts the feature as a main drainage canal which typically represents a tributary with the flow regime of 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: **1,320** linear feet **5** width (ft).

Identify type(s) of waters:

#### Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs. 3.

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:

#### Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. 4.

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

Ketlands 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 1 & 2 directly abuts tributary; tributary flows through wetlands. 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: 27.4 acres.

#### 5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: 0.2 acres.

#### Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. 6.

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.

Impoundments of jurisdictional waters.<sup>9</sup> 7.

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or

Demonstrate that water is isolated with a nexus to commerce (see E below).

**Explain:** 

- 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).
  - Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:

Other: (explain, if not covered above): upland excavated ditches.

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). acres.
- Lakes/ponds:

Other non-wetland waters: acres. List type of aquatic resource:

<sup>&</sup>lt;sup>9</sup> To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

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

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).
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- Lakes/ponds: acres.
- Other non-wetland waters:

acres.

- Wetlands: acres.
  - acres. List type of aquatic resource:

# 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: <b>Report, maps and sketch provided by Brigman</b> .
Data sheets prepared/submitted by or on behalf of the applicant/consultant.
Office concurs with data sheets/delineation report. The exact location where the data points were collected was not visited;
however, in general the data forms represent the typical soils, vegetation, and indicators of hydrology throughout the tract.
Office does not concur with data sheets/delineation report.
Data sheets prepared by the Corps:
Corps navigable waters' study:
U.S. Geological Survey Hydrologic Atlas:
USGS NHD data.
USGS 8 and 12 digit HUC maps. Kingston Lake
U.S. Geological Survey map(s). Cite scale & quad name: Shell Quad; Quad depicts the symbol for wetlands and a solid blue
line for tributary.
USDA Natural Resources Conservation Service Soil Survey. Citation: Horry County Soil Survey page 45 depicts the hydric
soil type of Meggett for the delineated wetland areas.
National wetlands inventory map(s). Cite name: HorryNWI depicts the wetland areas as PFO1C (forested wetlands).
State/Local wetland inventory map(s):
FEMA/FIRM maps:
100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
Photographs: Aerial (Name & Date): SCDNR 2006 depicts a signature of wetlands and an open water channel.
or $\Box$ Other (Name & Date): .
Previous determination(s). File no. and date of response letter:
Applicable/supporting case law:
Applicable/supporting scientific literature:
Other information (please specify): Horry County Drainage Study of 1976 depicts the tributary as a main drainage canal (M-
27) on sheet 13.

B. ADDITIONAL COMMENTS TO SUPPORT JD: Site visit was performed under normal climatic conditions. Wetlands were determined to be adjacent, both abutting and non-abutting to the onsite tributary. Limits of jurisdiction for the onsite wetlands were established by the 1987 Corps Delineation Manual. Adjacent wetlands and onsite tributary have been determined to have a significant nexus to the downstream TNW (Kingston Lake) documented in Section III.C of this document. The drainage area is comprised of 920 acres with approximately 400 acres of wetlands.