

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): December 14, 2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC 2011-00755-4E Koppers Site - Two Mile Creek

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Florence** City:
Center coordinates of site (lat/long in degree decimal format): Lat. **34.202999° N**, Long. **-79.724620° W**.
Universal Transverse Mercator:

Name of nearest waterbody: **Two Mile Creek**

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

Name of watershed or Hydrologic Unit Code (HUC): **Jeffries Creek (HUC 03040201-09)**

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: **September 26, 2011**

Field Determination. Date(s):

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 **0.21** acres.

Wetlands: **1.27** acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual, Established by OHWM, Pick List

Elevation of established OHWM (if known): .

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: .

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: .

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: **137,115 acres** ; HUC **03040201-09 (Jeffries Creek Watershed)**

Drainage area: **1202 acres**

Average annual rainfall: **50 inches**

Average annual snowfall: **0 inches**

(ii) **Physical Characteristics:**

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **2** tributaries before entering TNW.

Project waters are **20-25** river miles from TNW.

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

Project waters are **5-10** aerial (straight) miles from TNW.

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

Project waters cross or serve as state boundaries. Explain: **The project waters originate.**

Identify flow route to TNW⁵: **The perennial RPW on site, which is named Two Mile Creek, flows into Polk Swamp, which flows into Jeffries Creek. Jeffries Creek is a perennial RPW that flows directly into the Great Pee Dee River, a TNW.**

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: **The tributary is a 1st order stream.**

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

Tributary is:

Natural

Artificial (man-made). Explain:

Manipulated (man-altered). Explain: **The tributary is a natural stream named Two Mile**

Creek; however, the upstream portion of the tributary has been straightened and maintained within the project boundary as evidenced by the presence of berms on either side of the stream banks .

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

Average width: **3-6** feet

Average depth: **3-4** feet

Average side slopes: **Vertical (1:1 or less).**

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: The tributary is relatively stable with minimal erosion observed in the upstream portion of the tributary where overflow of a stormwater system enters the tributary.

Presence of run/riffle/pool complexes. Explain: **Some riffle/pool complexes were observed within the portion of the tributary on site.**

Tributary geometry: **Relatively straight.**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Perennial flow**

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

Describe flow regime: **According to the SC State Climatology Office, the drought status for Florence County is moderate and has been listed as moderate since June 17, 2011. Perennial flow was determined based on the presence of an OHWM, wrack lines, sediment sorting, disturbed leaf litter and debris, and depositional bars in the channel. This tributary also receives overland sheetflow from adjacent wetlands on site and downstream of the project area .**

Other information on duration and volume: **The topography map depicts a natural drainageway in this location, which is shown as u-shaped contour lines, and depicts this tributary as a solid blue line named Two Mile Creek. A jurisdictional determination completed on property located immediately west of this project area also determined that this tributary has perennial flow. This JD file number is SAC 2010-00275-4 and the letter is dated October 25, 2010..**

Surface flow is: **Discrete and confined.** Characteristics:

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

changes in the character of soil

shelving

vegetation matted down, bent, or absent

leaf litter disturbed or washed away

sediment deposition

water staining

other (list):

Discontinuous OHWM.⁷ Explain:

the presence of litter and debris

destruction of terrestrial vegetation

the presence of wrack line

sediment sorting

scour

multiple observed or predicted flow events

abrupt change in plant community

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

High Tide Line indicated by:

oil or scum line along shore objects

fine shell or debris deposits (foreshore)

physical markings/characteristics

Mean High Water Mark indicated by:

survey to available datum;

physical markings;

vegetation lines/changes in vegetation types.

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

⁷Ibid.

- tidal gauges
- other (list):

(iii) Chemical Characteristics:

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

Explain: **The water in the channel is somewhat clear with no oily film observed. Debris is located in the channel and the tributary receives overflow from adjacent stormwater ponds. According to the SCDHEC Watersheds website, this watershed consists of almost 37% agricultural land, 22% forested wetland, 21% forested land, and over 15% urban land. Additional land uses in this watershed include scrub/shrub land, nonforested wetland, and water.**

Identify specific pollutants, if known: **According to SCDHEC, a review of the monitoring station for Polk Creek (RS-01003) shows that aquatic life and recreational uses are fully supported. This is a blackwater system characterized by naturally low dissolved oxygen and pH levels.**

The project area is located adjacent to an industrial site that has been required by EPA to perform remedial actions to remove chemicals found within the project area. A Nationwide Permit application has been submitted by the applicant to remove an approximately 12" layer of soil within the project area and replace it with clean earthen fill materials.

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

Riparian corridor. Characteristics (type, average width): **The average width of the riparian corridor is 50-100'.**

Wetland fringe. Characteristics: **The tributary intersects approximately 210 acres of wetlands.**

Habitat for:

Federally Listed species. Explain findings: .

Fish/spawn areas. Explain findings: .

Other environmentally-sensitive species. Explain findings: .

Aquatic/wildlife diversity. Explain findings: **This tributary provides an important aquatic habitat and corridor**

which promotes wildlife diversity in the watershed. This tributary originates east of the City of Florence in an area that consists predominately of industrial and commercial sites.

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: **1.27 (Wetlands B & C) acres**

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

Wetland quality. Explain: **The wetlands in the review area are considered fully function due to minimal**

impacts.

Project wetlands cross or serve as state boundaries. Explain: **The project wetlands are located within Florence County and do not cross or serve as state boundaries.**

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: **The wetlands flow into the on-site perennial RPW only after major storm events.**

Surface flow is: **Overland sheetflow**

Characteristics: .

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: .

Ecological connection. Explain: .

Separated by berm/barrier. Explain: **Wetland B is separated from the on-site perennial RPW by uplands created from maintenance of the existing tributary..**

(d) Proximity (Relationship) to TNW

Project wetlands are **20-25** 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: **The water in the channel is somewhat clear with no oily film observed. Debris is**

located in the channel and the tributary receives overflow from adjacent stormwater ponds. According to the SCDHEC Watersheds website, this watershed consists of almost 37% agricultural land, 22% forested wetland, 21% forested land, and over 15% urban land. Additional land uses in this watershed include scrub/shrub land, nonforested wetland, and water.

Identify specific pollutants, if known: According to SCDHEC, a review of the monitoring station for Polk Creek (RS-01003) shows that aquatic life and recreational uses are fully supported. This is a blackwater system characterized by naturally low dissolved oxygen and pH levels. The project area is located adjacent to an industrial site that has been required by EPA to perform remedial actions to remove chemicals found within the project area. A Nationwide Permit application has been submitted by the applicant to remove approximately 1' of soil within the project area and replace it with clean earthen fill materials.

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

- Riparian buffer. Characteristics (type, average width): Average width is 50-100'.
- Vegetation type/percent cover. Explain: Sweet gum (*Liquidambar styraciflua*), Red Maple (*Acer rubrum*), Water Oak (*Quercus nigra*), Red Bay (*Persea borbonia*), Giant Cane (*Arundinaria gigantea*), and Black Gum (*Nyssa sylvatica*).
- 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: 7
 Approximately (260) 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	200	N	38
Y	10	N	4
N	1.4	N	1.6
N	5		

Summarize overall biological, chemical and physical functions being performed: The on-site wetlands labeled Wetland B and Wetland C and the perennial RPW contribute vital biological, chemical, and physical functions to the downstream TNW. The wetlands and the pRPW make up an important ecological system with vital aquatic habitat that supports an abundance of wildlife in a predominately urban area within the watershed. Due to the prevalence of agriculture land and urban land use in this watershed and the location of these wetlands on property impacted from industrial activities, these waters of the US are acting as a catch basin for the adjacent uplands by filtering sediments, herbicides, and other pollutants and by reducing the amount of flood waters reaching the downstream TNW.

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: **Wetland B in the review area is contributing vital biological, chemical, and physical functions to the adjacent perennial RPW and the downstream TNW. This wetland provides important aquatic habitat within uplands in a watershed that is comprised of over 36% agricultural land and on land predominately used as an industrial site. This site has been required by EPA to conduct remedial actions to remove chemicals found within the soil, and this wetland has acted as a catch basin on site to reduce the amount of chemicals and other pollutants that reach 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: **Based on a review of the topographic map and aerials, the tributary depicted as "Jurisdictional Perennial RPW" on the plat flows year-round. The aerials depict this tributary as a shaded linear feature, and the topographic map depicts a solid blue line that originates south of the project site and continues north off site. This tributary has perennial flow based on the presence of an OHWM, wrack lines, sediment sorting, disturbed leaf litter and debris, and depositional bars in the channel. This tributary receives overland sheetflow from the surrounding wetlands on site and downstream as well as uplands on site. This tributary was previously determined to have perennial flow based on a jurisdictional determination of a site located immediately west of the project area (SAC 2010-00275-4). This JD is referenced in Section IV A below. This tributary is named Two Mile Creek and continues northeast where it flows into Polk Swamp, which flows into Jeffries Creek. Jeffries Creek is a perennial RPW that flows directly into the Great Pee Dee River (a TNW)..**

- 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: **0.21 acres;** 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.

⁸See Footnote # 3.

- 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: **Based on a review of the topographic map, NWIs, and soil survey, the wetland depicted on the plat as "Wetland C" directly abuts the on-site perennial RPW. The topographic map depicts a solid blue line intersecting the boundary of the wetland on site, and the NWI and soils depict this wetland as PF04Ad and Coxville, a hydric soil, respectively.**
- 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: **approx. 1.0** 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: **approx. 0.27** 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: .

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): .

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.

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: **Report by Tidewater, plat by Ervin Engineering Co., Inc.**
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: **Florence East.**
- USDA Natural Resources Conservation Service Soil Survey. Citation: **pg 10.**
- National wetlands inventory map(s). Cite name: **U42P, PF01Bd.**
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **99:11227:3.**
or Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): **JD on property located immediately west of site (SAC 2011-00755-4E, letter dated October 25, 2010).**

B. ADDITIONAL COMMENTS TO SUPPORT JD: Based on a review of the topographic map, aerials, NWIs, and soil survey, Wetlands B & C are jurisdictional based on their adjacency to the on-site tributary depicted as "Jurisdictional Perennial RPW" on the plat. Wetland B is separated from the jurisdictional tributary by a man-made berm and was determined in Section III C above to be jurisdictional based on a significant nexus to the downstream TNW. Wetland C directly abuts the boundary of the jurisdictional tributary within the project boundary. The jurisdictional tributary was determined to flow year-round based on a review of the topographic map and aerials. The aerials depict this tributary as a shaded linear feature, and the topographic map depicts a solid blue line that originates south of the project site and continues north off site. This tributary has perennial flow based on the presence of an OHWM, wrack lines, sediment sorting, disturbed leaf litter and debris, and depositional bars in the channel. This tributary receives overland sheetflow from the surrounding wetlands on site and downstream as well as uplands on site. This tributary was previously determined to have perennial flow based on a jurisdictional determination of a site located immediately west of the project area (SAC 2010-00275-4, letter dated October 25, 2010). This tributary is named Two Mile Creek and continues northeast where it flows into Polk Swamp, which flows into Jeffries Creek. Jeffries Creek is a perennial RPW that flows directly into the Great Pee Dee River (a TNW).