

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): 2011-11-08

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 2 of 2; SAC 2011-00970-4M True Faith Deliverance Church JD

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Florence** City: **Florence**
Center coordinates of site (lat/long in degree decimal format): Lat. **34.182781° N**, Long. **-79.700646° W**.
Universal Transverse Mercator: **NAD83**

Name of nearest waterbody: **Canal Branch**

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): **3040201**

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): **2011-09-07**

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: **sRPW#1 = 140** linear feet: **3.0** width (ft) and/or **0.01** acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM, 1987 Delineation Manual, 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: **The portion of the sRPW#1 which continues into uplands was determined to be non-jurisdictional in accordance with SAC guidance because it is excavated in uplands and draining only uplands. This portion is located outside of the wetlands which are described on form 1 of 2 as "Wetland 1".**

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: **2,578,560 acres** ;

Drainage area: **16.2 acres**

Average annual rainfall: **44.5 inches**

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **4** tributaries before entering TNW.

Project waters are **15-20** river miles from TNW.

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

Project waters are **10-15** 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: **N/A**.

Identify flow route to TNW⁵: **sRPW#1 is a tributary of pRPW#1 (Canal Branch, a perennial RPW) and receives water from it during the wet season and in response to precipitation events throughout the year. sRPW#1 flows to the north into pRPW#1, which has been described as "Canal Branch" on USGS Topo Maps and can be seen on**

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.

aerial photographs. Canal Branch continues east until it flows into Polk Swamp Canal (pRPW), which continues south and east until it flows into Jeffries Creek (pRPW). Jeffries Creek continues in an east and southeast direction until it flows into the Great Pee Dee River, a TNW.

Tributary stream order, if known: 1.

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

Tributary is: Natural

Artificial (man-made). Explain: sRPW#1 is a man-made drainage feature associated with

historic agricultural operations on the subject property (now a change of use to commercial) and current agricultural operations on property to the south.

Manipulated (man-altered). Explain: .

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

Average width: 8 feet

Average depth: 4 feet

Average side slopes: 2:1.

Primary tributary substrate composition (check all that apply):

Silts

Sands

Concrete

Cobbles

Gravel

Muck

Bedrock

Vegetation. Type/% cover:

Other. Explain: Loamy soil.

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Man-made, maintained.

Presence of run/riffle/pool complexes. Explain: No riffle and pool complexes were observed.

Tributary geometry: Relatively straight.

Tributary gradient (approximate average slope): <2 %

(c) Flow:

Tributary provides for: Seasonal flow

Estimate average number of flow events in review area/year: 11-20

Describe flow regime: Flow is within the wet season and in response to precipitation events in the dry season.

Other information on duration and volume: .

Surface flow is: Confined. Characteristics: Height of OHWM indicates a presence of surface water due to intercepting the water table during the wet season.

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

tidal gauges

other (list):

Mean High Water Mark indicated by:

survey to available datum;

physical markings;

vegetation lines/changes in vegetation types.

(iii) **Chemical Characteristics:**

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

⁷Ibid.

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

Explain: **Water was absent at the time of the site visit, which was during a drought period.**

Identify specific pollutants, if known: **Unknown.**

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

Riparian corridor. Characteristics (type, average width): **Periodically flooded area outside of the channel through a portion of the length of the reach due to confluence with pRPW#1; important for shading and buffering and supports clean water. Feature appears to be well connected to its adjacent floodplain.**

Wetland fringe. Characteristics: **The feature is within floodplain wetlands associated with pRPW#1 (Canal Branch).**

Habitat for:

Federally Listed species. Explain findings: .

Fish/spawn areas. Explain findings: .

Other environmentally-sensitive species. Explain findings: .

Aquatic/wildlife diversity. Explain findings: **Tributary supports breeding grounds and shelter for aquatic dependent species such as fish, and amphibians, and insect larvae. Evidence of upland species frequenting the area included neotropical songbirds.**

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: The seasonal RPW (unnamed tributary of Canal Branch) lies partially within an emergent wetland which has been described as a jurisdictional wetland on Form 1 of 2. The emergent wetlands adjacent and directly abutting the seasonal RPW have been maintained above-ground by historic agricultural operations and also currently for site maintenance for future commercial development. The wetlands which are similarly situated and adjacent to the seasonal RPW are collectively performing functions consistent with the 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 rural 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 and rural 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 development 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 the Great Pee Dee River, it has been determined that there is a significant nexus between the relevant reach of the tributary and adjacent wetlands to the downstream TNW.

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: **Flow of the on-site tributary described on the sketch as sRPW#1 (Unnamed Tributary of Canal Branch) was determined to be seasonal due to the presence of an indicators that this resource has above-ground flow during the wet season and in response to precipitation events throughout the remainder of the year. Stream geomorphic indicators of seasonal flow were a well-defined channel within bed and banks and presence of an OHWM. No vegetation was growing within the bottom channel, which was approximately 3' wide at the bottom. A sandy loam and consolidated bottom was observed within the channel. Topographic maps do not depict this reach and aerial photos do not show any evidence of the stream through canopy cover. Flow continues in a north direction and enters emergent wetlands abutting a named tributary, Canal Branch (pRPW#1), which have been described on Form 1 of 2. Canal Branch flows to the east into Polk Swamp Canal (perennial RPW). Polk Swamp Canal continues south and flows into Jeffries Creek (perennial RPW) which continues in an east-southeast direction, providing a hydrologic connection to the Great Pee Dee River (TNW).**

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: **140** linear feet **3** 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.

⁸See Footnote # 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:

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): _____

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.

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.

- 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: **Provided by Mr. Robert Davis, Jr., PE of Davis Structural and Civil Engineers, 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: **Sheet 11, Coxville, Norfolk.**
 - National wetlands inventory map(s). Cite name: **U21.**
 - State/Local wetland inventory map(s): **Florence County, U21.**
 - FEMA/FIRM maps:
 - 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
 - Photographs: Aerial (Name & Date): **1989 (1662-081), 1994 (7447-129), 1999 (11223:3), 2006.**
 or Other (Name & Date): **Site Photography dated 2011-09-07 by USACE.**
 - Previous determination(s). File no. and date of response letter:
 - Applicable/supporting case law:
 - Applicable/supporting scientific literature:
 - Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: On-site wetlands and a perennial RPW (Canal Branch) on the subject site have been determined to be jurisdictional and are described on Form 1 of 2. Flow of the on-site tributary described on the sketch as sRPW#1 (Unnamed Tributary of Canal Branch) was determined to be seasonal due to the presence of an indicators that this resource has above-ground flow during the wet season and in response to precipitation events throughout the remainder of the year. Stream geomorphic indicators of seasonal flow were a well-defined channel within bed and banks and presence of an OHWM. No vegetation was growing within the bottom channel, which was approximately 3' wide at the bottom. A sandy loam and consolidated bottom was observed within the channel. Topographic maps do not depict this reach and aerial photos do not show any evidence of the stream through canopy cover. Flow continues in a north direction and enters emergent wetlands abutting a named tributary, Canal Branch (pRPW#1), which have been described on Form 1 of 2. The portion of the sRPW#1 which continues into uplands was determined to be non-jurisdictional in accordance with SAC guidance because it is excavated in uplands and draining only uplands. This portion is located outside of the wetlands which are described on form 1 of 2 as "Wetland 1". Canal Branch flows to the east into Polk Swamp Canal (perennial RPW). Polk Swamp Canal continues south and flows into Jeffries Creek (perennial RPW) which continues in an east-southeast direction, providing a hydrologic connection to the Great Pee Dee River (TNW). No other potentially jurisdictional features were observed on the subject property.