## 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): June 2, 2016** Α.
- DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC # 2011-01366; 1730 South Irby Street В.

## 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. 34.159053° N, Long. -79.763658° W. Universal Transverse Mercator: NAD 83

Name of nearest waterbody: Bitty 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): Middel Pee Dee HUC: 030402\_01

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.  $\bowtie$ 

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

## D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination. Date:
- Field Determination. Date(s): April 11, 2016

## 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: 1,608.75 linear feet: 16 width (ft) and/or acres. Wetlands: 0.20 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):<sup>3</sup> [Including potentially jurisdictional features that upon assessment are NOT waters or wetlands]

<sup>&</sup>lt;sup>1</sup> 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.

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: One man-made ditch is located perpendicular to the on-site pRPW. This feature is determined to have been excavated out of uplands for the purpose of draining only uplands and therefore is determined to be non-jurisdictional.

## SECTION III: CWA ANALYSIS

## A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

### 1. TNW

Identify TNW: Great Pee Dee River.

Summarize rationale supporting determination: Report No. 11 of the 1977 U.S. Army Corps of Engineers Charleston District Navigability Study presently classifies the Great Pee Dee River as a "navigable water of the U.S." between its mouth at Winyah Bay (R.M. 0) near Georgetown, SC to Cheraw, SC (R.M. 165). The recommended practical limit of navigation is at Blewett Falls Dam (R.M. 188.2).

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:Pick List ;Drainage area:Pick ListAverage annual rainfall:inchesAverage annual snowfall:inches

## (ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>

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

Project waters arePick List river miles from TNW.Project waters arePick List river miles from RPW.Project waters arePick List aerial (straight) miles from TNW.

<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.

	Project waters are <b>Pick List</b> aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain:
	Identify flow route to TNW <sup>5</sup> : . Tributary stream order, if known: .
(b)	General Tributary Characteristics (check all that apply):         Tributary is:
	Tributary properties with respect to top of bank (estimate):         Average width:       feet         Average depth:       feet         Average side slopes:       Pick List.
	Primary tributary substrate composition (check all that apply): <ul> <li>Silts</li> <li>Sands</li> <li>Concrete</li> <li>Gravel</li> <li>Muck</li> <li>Bedrock</li> <li>Vegetation. Type/% cover:</li> <li>Other. Explain:</li> </ul>
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:       .         Presence of run/riffle/pool complexes. Explain:       .         Tributary geometry:       Pick List.         Tributary gradient (approximate average slope):       %
(c)	<u>Flow:</u> Tributary provides for: <b>Pick List</b> Estimate average number of flow events in review area/year: <b>Pick List</b> Describe flow regime: Other information on duration and volume:
	Surface flow is: <b>Pick List.</b> Characteristics:
	Subsurface flow: <b>Pick List</b> . Explain findings: Dye (or other) test performed: .
	Tributary has (check all that apply):       Bed and banks         OHWM <sup>6</sup> (check all indicators that apply):       the presence of litter and debris         clear, natural line impressed on the bank       destruction of terrestrial vegetation         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):       .
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): <ul> <li>High Tide Line indicated by:</li> <li>oil or scum line along shore objects</li> <li>fine shell or debris deposits (foreshore)</li> <li>physical markings/characteristics</li> <li>tidal gauges</li> <li>other (list):</li> </ul>

(iii) Chemical Characteristics:

<sup>&</sup>lt;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.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Identify specific pollutants, if known:

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

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
  - Federally Listed species. Explain findings:
  - Fish/spawn areas. Explain findings:
  - Other environmentally-sensitive species. Explain findings:
  - Aquatic/wildlife diversity. Explain findings:

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

#### (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:

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

All wetland(s) being considered in the cumulative analysis: Pick List ) acres in total are being considered in the cumulative analysis. Approximately (

For each wetland, specify the following:



Summarize overall biological, chemical and physical functions being performed:

## C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

# Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

# Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- **3.** Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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:
   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: Multiple site visits, including a site visit conducted in the peak of the growing season, revealed

flowing water. Stream geomorphic indicators of perennial flow included a channel within bed and banks which had a firm sandy bottom clear of vegetation and debris. Hydrologic indicators observed within the channel include even distribution of substrate and debris being continually washed down stream. Aerial photos depict a well-defined channel with uninterrupted flow into Maple Swamp, the USGS topographic maps depict a named solid blue line feature which is the symbol for perennial flow, Florence County soil surveys depict Rains sandy loam which is a 100% hydric soil. Florence County LiDAR depicts low elevations and a defined channel. Based on the previously mentioned evidence, this perennial RPW was determined to have flow at least 90% of the year under normal conditions.

- 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: **1,608.75** linear feet **16** width (ft).
  - Other non-wetland waters: acres.
    - Identify type(s) of waters:

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

Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

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

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

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
  - Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: The site visit conducted on April 11, 2016 revealed that the 0.20 acre wetland located on-site is bisected by the OHWM of the pRPW. The wetland is determined to be contiguous and to border the perennial RPW. No natural and/or man-made barriers that could potentially obstruct the a physical, chemical, or biological connection between the wetland and the RPW were observed while on-site.

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: 0.20 acres.

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

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

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

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

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

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

- 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:

<sup>8</sup>See Footnote # 3.

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

E.	ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY): <sup>10</sup>
	<ul> <li>which are or could be used by interstate or foreign travelers for recreational or other purposes.</li> <li>from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.</li> </ul>
	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 <i>"SWANCC</i> ," the review area would have been regulated based <u>solely</u> on the
	"Migratory Bird Rule" (MBR).
	Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
det	Other: (explain, if not covered above): One man-made ditch is located perpendicular to the on-site pRPW. This feature is ermined to have been excavated out of uplands for the purpose of draining only uplands and therefore is determined to be non-
	isdictional.
	Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> 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:         .
	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.
<u>SE</u>	CTION IV: DATA SOURCES.
A.	SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked
	and requested, appropriately reference sources below): Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: The site is depicted on a survey plat prepared
	<ul> <li>Maps, plans, plots of plat submitted by of on benañ of the applicant/consultant. The site is depicted on a survey plat prepared by Nesbitt Surveying Company, Inc., dated May 2, 2016, and titled "WETLANDS MAP / PARENT TRACT LOCATED SOUTH OF THE CITY OF FLORENCE, FLORENCE / COUNTY, SOUTH CAROLINA BEING THAT PROPERTY DESIGNATED AS TMS: / 90094-01-013 &amp; 90094-01-016. PARENT TRACT NOT SURVEYED, / ACREAGE &amp; DISTENCES TAKEN FROM TAX CARDS. / WETLANDS SURVEYED FOR: / JEBAILY FAMILY LIMITED PARTNERSHIP"</li> <li>Data sheets prepared/submitted by or on behalf of the applicant/consultant.</li> </ul>
	Data sheets prepared submitted by or on behan of the appreant/consultant.

- ☑ Office concurs with data sheets/delineation report.
   ☑ Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:

 Data sheets prepared by the Corps:
 Corps navigable waters' study: Report No. 11 of the 1977 U.S. Army Corps of Engineers Charleston District Navigability Study presently classifies the Great Pee Dee River as a "navigable water of the U.S." between its mouth at Winyah Bay (R.M. 0) near Georgetown, SC to Cheraw, SC (R.M. 165). The recommended practical limit of navigation is at Blewett Falls Dam (R.M. 188.2).

U.S. Geological Survey Hydrologic Atlas:

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<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.

USGS NHD data.

USGS 8 and 12 digit HUC maps.

U.S. Geological Survey map(s). Cite scale & quad name:

USDA Natural Resources Conservation Service Soil Survey. Citation: Florence County Soil Survey Sheet 16; Florence County soil survey information depicts the project area as being comprised of the following soil types: Rains sandy loam, Exum sandy loam, Goldsboro loamy sand, and Wagram sand. Rains sandy loam is discribed as a poorly drained all hydric soil. Exum sandy loam is a moderatly well drained partially hydric soil. Goldsboro loamy sand is described as a moderalty well drained partially hydric soil and Wagram sand is described as well drained and partially hydric. The pRPW and wetland onsite are mapped Rains.

National wetlands inventory map(s). Cite name: **PFO1F**, **U42P**, **and PUBHx**; **NWIs depict the project area as mostly upland** forest. A portion of the pRPW and surronding land is mapped semipermantly flooded palustrine forest. Permantly flooded excavated unconsolidated bottom is depicted in the lower south west corner of the project area but this feature was determined not to exist within the boundaries of the project area.

- State/Local wetland inventory map(s):
  - FEMA/FIRM maps:

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

Photographs: 🖾 Aerial (Name & Date): Florence County Aerial Index 99:11227:49; SCDNR 2006.

or Other (Name & Date): Site photos submitted by the agent, taken on 3/1/16 and site photos taken by the Corps during a site visit conducted on 4/11/16.

- 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: This form addresses a 30.979 acre tract that contains 0.20 acres of emergent wetland and 1,608.75 linear feet of perennial RPW. The tributary is determined to be an RPW with perennial flow based on a site visit conducted on April 11, 2016 and documentation from a site visit conducted on June 13, 2012. In addition to the observations of continuous flow in the field, a review of USGS topographic maps show a named solid blue line feature which is indicative of perennial flow. Further review of USDA soil maps, aerial photographs, and NWIs concur with the evidence of permanent flow in this tributary. The 0.20 acre wetland adjacent to the eastern project boundary is contiguous to the perennial RPW onsite. This results in a direct hydrologic, chemical and biological connection between the wetland and the RPW.