

**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): January 6, 2016**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; CESAC-RD-NE; SAC 2015-01255-4S - Marion Farms**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: South Carolina County/parish/borough: **Marion** City: **Marion**  
Center coordinates of site (lat/long in degree decimal format): Lat. **34.062111° N**, Long. **-79.372611° W**.  
Universal Transverse Mercator:

Name of nearest waterbody: **UNT Flat Swamp**

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): **Middle Pee Dee HUC: 03040201-11**

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): **December 09, 2015**

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

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

Waters subject to the ebb and flow of the tide.

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

Explain: .

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

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

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<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: linear feet: width (ft) and/or Impoundment of WOUS **0.4** acres.

Wetlands: **2.7** 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]**

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: **One upland excavated drainage ditch is located on-site. This ditch was determined to have less that seasonal**

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

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

flow, to have been man-made and was excavated out of uplands and there for is a not a jurisdictional feature. The ditch was observed to directly abut the delineated wetland and to flow off-site during a site visit conducted on December 09, 2015 and provides a discrete hydrologic connection between the onsite wetland and the off-site pRPW.

One man made upland excavated pond is located on site. This feature is determined to have been excavated out of uplands based on a site visit conducted on December 09, 2015. Soils surrounding this feature were non-hydric soils with high chroma and value and did not contain any indicators of hydrology and therefore the feature 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 USACE 1977 Navigability Study, on the Great Pee Dee River Basin presently classifies the Great Pee Dee River as a navigable water of the U.S. between its mouth at Winyah Bay in Georgetown, SC (R.M. 0) and Blewett Falls Dam at R.M. 188.2. Wetlands on site are hydrologically connected, via road side drainage ditch, to an off site unnamed perinneal RPW that drains into Jefferies Ditch. Jefferies Ditch converges with Jeffereis Creek . Jeffereies Creek flows unobstructed into the Great Pee Dee River near R.M. 87..**

##### 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: **111,369 acres** ; HUC: **03040201\_11**

Drainage area: **4,900 acres**

Average annual rainfall: **48.9 inches**

Average annual snowfall: **1.3 inches**

###### (ii) Physical Characteristics:

(a) Relationship with TNW:

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

- Tributary flows directly into TNW.
- Tributary flows through **2** tributaries before entering TNW.

Project waters are **30 (or more)** 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 do not cross or serve as state boundaries.**

Identify flow route to TNW<sup>5</sup>: **The wetlands on-site are adjacent to an UNT of Flat swamp via a non-jurisdictional drainage ditch, the UNT of Flat Swamp flows uninterrupted into Catfish Creek (pRPW) which flows directly into the Great Pee Dee River, a TNW.**

Tributary stream order, if known: **The tributary is a 2<sup>nd</sup> order stream**

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

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

Tributary properties with respect to top of bank (estimate): **The tributary is located offsite and therefore not viewed during this field verification. No public access points exist along the reach of the tributary.**

Average width: feet  
 Average depth: feet  
 Average side slopes:.

Primary tributary substrate composition (check all that apply):

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

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Tributaries in this watershed are typically low gradient, low velocity and therefore do not experience high levels of erosion and would be considered stable.

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Meandering. Based on USGS topographic survey informations, the National Wetlands Inventory and aerial photographs the off site pRPW is located in a naturally low lying drainage area, displays natural sinuosity and is surrounded by forested wetlands.**

Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Perennial flow**

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

Describe flow regime: **Based on a review of the available desktop resources to include Marion County LiDAR with Hydrolines and Hillshade, USGS topographic survey information, marion county soil survey information, NWIs and Aerial photographs, the tributary was determined to have flow at least 90% of the year during normal climactic conditions. Marion County Lidar shows uninterrupted flow through a naturally low lying drainage area into Catfish Creek. Aerial photographs depict the tributary as a naturally sinuous shaded linear feature. USGS topo info depicts a solid blue line feature. A solid blue line on a USGS topo map is the symbol for perennial flow. Marion County soils survey info depicts poorly drained all hydric soils and NWIs depict saturated, seasonally flooded, and semi permanently flooded wetlands surrounding the tributary..**

Other information on duration and volume:

Surface flow is: **Confined.** Characteristics: **Based on review of available desktop resources, flow was determined to be confined within bed and banks of tributary..**

Subsurface flow: **Unknown.** 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):

<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.

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

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

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

(iii) **Chemical Characteristics:**

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

Explain: **Downstream portions of the tributary report aquatic life uses are not supported due to dissolved oxygen excursions, which are compounded by a significant decreasing trend in dissolved oxygen concentration. Decreasing trends in turbidity and total nitrogen concentration suggest improving conditions for these parameters. DDE was detected in the 2001 sediment sample. Land use in this watershed consist of approxiamtly 36.4% agrgricultural land, 35.4% forested wetland, 18.6% forested land, 6.5% urban land, 2.6% scrub-shrub, 0.3% non-forested wetlands and 0.2% water. According to the SCDHEC website there is low to moderate potential for growth in this watershed. This watershed contains the Marion Industrial Park and the Latta Industrial Park. U.S. Highway 76 and U.S. Higway 501 By pass (both located in this watershed) are four lane major highways that serve as major access corridors the Grand Strand and will increase in traffic and development.**

Identify specific pollutants, if known: **DDE was detected in the 2001 sediment sample. Due to the fact that the majority of the land use in this watershed is agricultural, the potential exist for herbicides and other pollutants, such as fertilizers to enter the off-site pRPW. This type of land use requires regular manipulation of the soil, which creates increased amounts of suspended sediments within downstream tributaries. Run off from highways and directly from urban areas provides the potential for increased fertilizers and fecal coliform as well as oils and other chemicals used in vehicles and on lawns. These types of pollutants have the potential to effect already low dissolved oxygen levels in Catfish creek and effect decreasing trends in turbidity and total nitrogen.**

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<sup>7</sup>Ibid.

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

Riparian corridor. Characteristics (type, average width): **Based on a review of aerial photographs the off site pRPW supports an approximately riparian corridor that varies from 200' to approximately 800'. This riparian zone contributes to the overall health of the aquatic system by filtering out pollutants, providing essential habitat, slowing flood waters and preventing erosion.**

Wetland fringe. Characteristics:

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings:

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

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: **2.7 wetland and 0.4 acre impoundment of WOUS** acres (The wetlands within the project area are part of a larger approximalty 90 acre wetland however only 43 acres are located within the project boundary)

Wetland type. Explain: **Palustrine forested and impoundment of WOUS.**

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

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

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: **A drainage ditch that is encompassed within the project wetlands provides a hydrologic connection between the offsite pRPW and the wetlands within the project area.**

Surface flow is: **Discrete and confined**

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

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

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

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

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **30 (or more)** 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 **500-year or greater** 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: **Standing water observed in the on-site wetland was clear. Land use in this watershed consist of approximately 36.4% agricultural land, 35.4% forested wetland, 18.6% forested land, 6.5% urban land, 2.6% scrub-shrub, 0.3% non-forested wetlands and 0.2% water. According to the SCDHEC website there is low to moderate potential for growth in this watershed. This watershed contains the Marion Industrial Park and the Latta Industrial Park. U.S. Highway 76 and U.S. Highway 501 By pass (both located in this watershed) are four lane major highways that serve as major access corridors the Grand Strand and will increase in traffic and development.**

Identify specific pollutants, if known: **Due to the fact that the majority of the land use in this watershed is agricultural, the potential exist for herbicides and other pollutants, such as fertilizers to enter the off-site pRPW. This type of land use requires regular manipulation of the soil, which creates increased amounts of suspended sediments within downstream tributaries. Run off from highways and directly from urban areas provides the potential for increased fertilizers and fecal coliform as well as oils and other chemicals used in vehicals and on lawns. These types of pollutants have the potential to effect already low dissolved oxygen levels in Catfish creek and effect decreasing trends in turbidity and total nitrogen.**

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

Riparian buffer. Characteristics (type, average width):

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

Habitat for:

Federally Listed species. Explain findings: .

Fish/spawn areas. Explain findings: .

Other environmentally-sensitive species. Explain findings: .

Aquatic/wildlife diversity. Explain findings: **This wetland system enhances wildlife diversity through timber type changes and the transition between upland and aquatic systems..**

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

All wetland(s) being considered in the cumulative analysis: **20-25**

Approximately ( **2,140** ) 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	2000	N	5.5
N	2.7	N	3.2
N	0.4	N	14.8
N	1.15	N	10.79
N	1.4	N	71
N	2.1	N	2.6
N	2.6	N	2.3
N	7.7	N	.95
N	.15	N	7.6
N	0.4	N	.05
N	2.7		

Summarize overall biological, chemical and physical functions being performed: **The perennial RPW and its adjacent wetlands are providing important biological, chemical, and physical functions within a predominately upland drainage area. According to the SCDHEC website Land use in this watershed consist of approximately 36.4% agricultural land, 35.4% forested wetland, 18.6% forested land, 6.5% urban land, 2.6% scrub-shrub, 0.3% non-forested wetlands and 0.2% water. According to the SCDHEC website there is low to moderate potential for growth in this watershed. This watershed contains the Marion Industrial Park and the Latta Industrial Park. U.S. Highway 76 and U.S. Highway 501 By pass (both located in this watershed) are four liand major highways that serve as major access corridors the Grand Strand and will increase in traffic and development. The watershed is predominately rural with a large portion of the land in agricultrual production. The majority of the wetlands within the drainage area are depressional wetlands that ares situated relativly low in the landscape and receive and store runoff from the surrounding uplands. This water storage prevents flood flows from high rainfall events from moving quickly downstream. The perennial RPW and its adjacent wetlands act as a catch basin to help filter out pollutants from the neighboring agricultural land. This wetland system enchances wildlife diversity, acts as a catch basin filtering sediments and pollutants from surrounding croplands, supports down stream food webs, and provides nutrient fixation, flood attenuation, and flow maintnacen functions. See III.C.3 below for more details.**

**C. SIGNIFICANT NEXUS DETERMINATION**

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

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

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

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

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: **The off site pRPW that is assessed in this form, along with all similarly situated adjacent freshwater wetlands are collectively performing functions consistent with the following: Biologically, wetlands adjacent to the pRPW include depressional wetlands. As such a variety of biological functions are being performed which include providing breeding grounds and shelter for aquatic species and foraging areas for wetland dependent species. These wetlands and the adjacent pRPW are essential in providing organic carbons in the form of their collective primary productivity to downstream waters, resulting in the nourishment of the downstream food web. Chemically, the pRPW and adjacent wetlands are providing the important collective functions of removal of excess nutrients into the downstream TNW. These pollutants, which are contributed to by runoff from surrounding uplands are prevented from being discharged downstream due to suspended sediments and other pollutants being retained within the wetlands. The low velocity of and gradient of the pRPW also contribute to the removal of pollutants because the suspended pollutants have time to settle out of the water. This reduces nitrogen and phosphorous loading downstream and effectively prevents oxygen depletion that can result from eutrophication. Physically, the pRPW and adjacent wetlands are collectively performing flow maintenance functions, including retaining runoff inflow and storing rain water, temporarily. Flow maintenance results in the reduction of downstream peak flows (discharge and volume), helping to maintain seasonal flow volumes and reducing the frequency of overbank events which flood adjacent properties. Increased water velocity also increases the amount of sediments and other pollutants in the TNW. Based on the collective functions described above and their importance to the biological, chemical, and physical integrity of the traditional navigable waters of the Great Pee Dee River, it has been determined that there is a significant nexus between the relevant reach of the tributary and all adjacent wetlands to the downstream TNW.**

Documentation for the Record only: Significant nexus findings for seasonal RPWs and/or wetlands abutting seasonal RPWs:

**D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):**

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- TNWs: linear feet width (ft), Or, acres.
- Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: **Based on a review of the available desktop resources to include Marion County LiDAR with Hydrolines and Hillshade, USGS topographic survey information, Marion county soil survey information, NWIs and Aerial photographs, the tributary was determined to have flow at least 90% of the year during normal climactic conditions. Marion County Lidar shows uninterrupted flow through a naturally low lying drainage area into Catfish Creek. Aerial photographs depict the tributary as a naturally sinuous shaded linear feature. USGS topo info depicts a solid blue line feature. A solid blue line on a USGS topo map is the symbol for perennial flow. Marion County soils survey info depicts poorly drained all hydric soils and NWIs depict saturated, seasonally flooded, and semi permanently flooded wetlands surrounding the tributary.**

Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

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

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.

Identify type(s) of waters:

3. **Non-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

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

indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

- Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

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

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

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

Provide acreage estimates for jurisdictional wetlands in the review area: **2.7** 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: During a site visit on December 09, 2015 the impoundment was determined to have been excavated out of a wetland that is adjacent to but not directly abutting a RPW that flows directly or indirectly into a TNW, which 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 and are jurisdictional. Data supporting this conclusion is provided at Section III.C. The impoundment is surrounded to the west and south by hydric soils that were inundated and/or saturated at the time of the site visit. This feature also directly abuts the delineated wetland.**

**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>**

- 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: .

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

<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.

**Other: (explain, if not covered above): One upland excavated drainage ditch is located on-site. This ditch was determined to have less than seasonal flow, to have been man-made and was excavated out of uplands and there for is not a jurisdictional feature. The ditch was observed to directly abut the delineated wetland and to flow off-site during a site visit conducted on December 09, 2015 and provides a discrete hydrologic connection between the onsite wetland and the off-site pRPW.**

**One man made upland excavated pond is located on site. This feature is determined to have been excavated out of uplands based on a site visit conducted on December 09, 2015. Soils surrounding this feature were non-hydric soils with high chroma and value and did not contain any indicators of hydrology and therefore the feature is determined to be non-jurisdictional..**

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

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

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

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

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: **The project area is depicted on sheets 1 -2 of 2 of the sketch submitted by the agent titled “SAC 2015-01255-4S; Marion Farms / Approx. 112 acre Tract / for Chris Newman et al.; Marion County, SC” and last revised on December 15, 2015..**
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters’ study: **Charleston District 1977 Navigability Report No. 11..**
- 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: **Centenary Quad; USGS topographic survey information within Centenary quad depicts the project area as cleared uplands. A dashed blue line feature is depicted as bisecting the northern project boundary and turning east within the project area. During a site visit conducted on December 09, 2015 this feature was determined to be a ditch with less than seasonal flow, to have been man-made and excavated out of uplands and there for is not a jurisdictional feature. The ditch was observed to flow off-site during a site visit conducted on December 09, 2015 and provides a discrete hydrologic connection between the onsite wetland and the off-site pRPW..**
- USDA Natural Resources Conservation Service Soil Survey. Citation: **Marion County Soil Sheet # 28; Marion County Soil Survey information depicts the soils within the delineated wetland as Rains a poorly drained all hydric sandy loam. Soils outside of the delineated wetlands are described as well drained non-hydric sandy loam or moderately well drained partially hydric fine sandy loams. .**
- National wetlands inventory map(s). Cite name: **U21, and U42P; The NWIs depict the project area as a combination of upland evergreen forest and upland agricultural fields. .**
- State/Local wetland inventory map(s):          .
- FEMA/FIRM maps:          .
- 100-year Floodplain Elevation is:          (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): **99:11221:19 and SCDNR 2006.**
  - or  Other (Name & Date): **Photos taken on-site, submitted by Headwater environmental dated 9/8/15 and Photos taken on-site by the Corps dated 12/9/15..**
- 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 112 acre tract that contains approximately 2.7 acres of jurisdictional freshwater wetlands and an approximately 0.4 acre impoundment of a WOUS.

The offsite RPW was determined to have perennial flow based on a review of the available desktop resources to include Marion County LiDAR with Hydrolines and Hillshade, USGS topographic survey information, Marion county soil survey information, NWIs and Aerial photographs. The tributary was determined to have flow at least 90% of the year during normal climactic conditions. Marion County Lidar shows uninterrupted flow through a naturally low lying drainage area into Catfish Creek. Aerial photographs depict the tributary as a naturally sinuous shaded linear feature. USGS topo info depicts a solid blue line feature. A solid blue line on a USGS topo map is the symbol for perennial flow. Marion County soils survey info depicts poorly drained all hydric soils and NWIs depict saturated, seasonally flooded, and semi permanently flooded wetlands surrounding the tributary

One upland excavated drainage ditch is located on-site. This ditch was determined to have less than seasonal flow, to have been man-made and was excavated out of uplands and there for is not a jurisdictional feature. The ditch was observed to directly abut the delineated wetland and to flow off-site during a site visit conducted on December 09, 2015 and provides a discrete hydrologic connection between the onsite wetland and the off-site pRPW. The wetlands on-site are adjacent to an UNT of Flat swamp via the non-jurisdictional drainage ditch, the UNT of Flat Swamp flows uninterrupted into Catfish Creek (pRPW) which flows directly into the Great Pee Dee River, a TNW.

During a site visit on December 09, 2015 the impoundment was determined to have been excavated out of a wetland that is adjacent to but not directly abutting a RPW that flows directly or indirectly into a TNW, which 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 and are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Wetland boundaries were determined, during the site visit conducted on December 09, 2015, based on the criteria set forth by the 1987 Wetland Delineation Manual and 2010 Coastal Plain Supplement. These wetlands were determined to be jurisdictional based on the hydrological connection, provided by a non-jurisdictional ditch to an offsite pRPW that flows uninterrupted into Catfish Creek (pRPW) which flows directly into the Great Pee Dee River, a TNW. During the above reference site visit wetlands were found to be either saturated or inundated and a high water table was observed. Wetlands within the project area are currently part of a fully functional wetland system that provides pollution filtration, essential habitat, and flood prevention. The wetland and off site RPW addressed in this form are determined to have a significant nexus to the downstream TNW in Section IIIC above.