

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

Form 1 of 2

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): 6/18/15

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Charleston District, MWV Sheep Island Tract, SAC-2014-00995-2JU

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Berkeley** City:
Center coordinates of site (lat/long in degree decimal format): Lat. 33.04739° **N**, Long. -80.15391° **W**.
Universal Transverse Mercator:

Name of nearest waterbody: **Unnamed Tributary to Sawmill Branch**

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

Name of watershed or Hydrologic Unit Code (HUC): **03050201-06**

- 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: **9/26/14, 6/18/15**
 Field Determination. Date(s): **11/7/14, 3/18/15**

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 no** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
 Wetlands adjacent to TNWs
 Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 Non-RPWs that flow directly or indirectly into TNWs
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 Impoundments of jurisdictional waters
 Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: **Pick List, Pick List, Pick List**

Elevation of established OHWM (if known): .

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).

2. Non-regulated waters/wetlands (check if applicable):³ **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: **The project area has numerous ditches associated with forestry roads throughout the site. The ditches are several feet wide by several feet deep. There was no flow observed in the ditches during the 11/7/14 site visit. In addition, the ditches did not display an ordinary high water mark, bed and bank, or other signs of relatively permanent flow. The ditches were full of water during the 3/18/15 site visit. This is most likely due to a relatively flat landscape, some culvert obstructions, and the time of year still within the wet season and not yet reaching maximum evapotranspiration. Based on the above it has been determined that the ditches lack relatively permanent flow and the presence of water in the ditches is in response to season and precipitation and they would drain more efficiently with a favorable grade and removal of obstructions. Therefore the ditches have been determined to be non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.**

Non-jurisdictional Wetland A is an isolated depressional wetland that sits lower in the landscape (1-2 feet) than the surrounding uplands. It is bound by Sheep Island Road, Route I-26, a dirt forestry road, and uplands. There is no drainage ditch running along I-26 in this location. There is a culvert under the dirt road which connects this wetland to Non-jurisdictional Wetland B. The remainder of the wetland is surrounded by uplands which was confirmed during the site visits. The wetland exhibited no apparent connection to waters of the U.S., including no physical, chemical, or biological connections, and no apparent shallow subsurface flow connections to other waters. In addition, there was no apparent ecological interconnectivity with other water features, including any waters of the U.S. or no apparent connection to interstate or foreign commerce. Therefore, it has been determined that the wetland is non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

Non-jurisdictional Wetland B is an isolated depressional wetland that sits lower in the landscape than the surrounding uplands. It is bound by a dirt forestry road with a culvert that connects it to Non-jurisdictional Wetland A. The remainder of the wetland is surrounded by uplands which was confirmed during the site visits. The wetland exhibited no apparent connection to waters of the U.S., including no physical, chemical, or biological connections, and no apparent shallow subsurface flow connections to other waters. In addition, there was no apparent ecological interconnectivity with other water features, including any waters of the U.S. or no apparent connection to interstate or foreign commerce. Therefore, it has been determined that the wetland is non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

Non-jurisdictional Wetlands C and D are isolated depressions that sit approximately 2 feet lower in the landscape than the surrounding uplands. During the site visits, it was confirmed that the wetlands are surrounded by uplands. Wetland D is greater than 100 feet from the roadside drainage ditches. Due to the storage capacity of Wetland D and the evapotranspiration potential of the surrounding loblolly pine plantation, it is not likely that subsurface flow from the wetland would reach the ditches or that any discrete unconfined flow through the uplands would occur. The wetlands exhibited no apparent connection to waters of the U.S., including no physical, chemical, or biological connections, and no apparent shallow subsurface flow connections to other waters. In addition, there was no apparent ecological interconnectivity with other water features, including any waters of the U.S. or no apparent connection to interstate or foreign commerce. Therefore, it has been determined that the wetlands are non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

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.

³ Supporting documentation is presented in Section III.F.

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: **Pick List** ;
 Drainage area: **Pick List**
 Average annual rainfall: inches
 Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

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

Project waters are **Pick List** river miles from TNW.
 Project waters are **Pick List** river miles from RPW.
 Project waters are **Pick List** aerial (straight) miles from TNW.
 Project waters are **Pick List** aerial (straight) miles from RPW.
 Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW⁵:
 Tributary stream order, if known: .

(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):

Average width: feet
 Average depth: feet
 Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

- Silts
- Sands
- Concrete
- Cobbles
- Gravel
- Muck
- Bedrock
- Vegetation. Type/% cover:
- Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
 Presence of run/riffle/pool complexes. Explain: .
 Tributary geometry: **Pick List**.
 Tributary gradient (approximate average slope): %

(c) Flow:

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

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List**. Characteristics: .

Subsurface flow: **Pick List**. 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:

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: .

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: .

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.

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:

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: .

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-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.

⁸See Footnote # 3.

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: _____ 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): **The project area has numerous ditches associated with forestry roads throughout the site. The ditches are several feet wide by several feet deep. There was no flow observed in the ditches during the 11/7/14 site visit. In addition, the ditches did not display an ordinary high water mark, bed and bank, or other signs of relatively permanent flow. The ditches were full of water during the 3/18/15 site visit. This is most likely due to a relatively flat landscape, some culvert obstructions, and the time of year still within the wet season and not yet reaching maximum evapotranspiration. Based on the above it has been determined that the ditches lack relatively permanent flow and the presence of water in the ditches is in response to season and precipitation and they would drain more efficiently with a favorable grade and removal of obstructions. Therefore the ditches have been determined to be non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.**

Non-jurisdictional Wetland A is an isolated depressional wetland that sits lower in the landscape (1-2 feet) than the surrounding uplands. It is bound by Sheep Island Road, Route I-26, a dirt forestry road, and uplands. There is no drainage ditch running along I-26 in this location. There is a culvert under the dirt road which connects this wetland

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.**

to Non-jurisdictional Wetland B. The remainder of the wetland is surrounded by uplands which was confirmed during the site visits. The wetland exhibited no apparent connection to waters of the U.S., including no physical, chemical, or biological connections, and no apparent shallow subsurface flow connections to other waters. In addition, there was no apparent ecological interconnectivity with other water features, including any waters of the U.S. or no apparent connection to interstate or foreign commerce. Therefore, it has been determined that the wetland is non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

Non-jurisdictional Wetland B is an isolated depressional wetland that sits lower in the landscape than the surrounding uplands. It is bound by a dirt forestry road with a culvert that connects it to Non-jurisdictional Wetland A. The remainder of the wetland is surrounded by uplands which was confirmed during the site visits. The wetland exhibited no apparent connection to waters of the U.S., including no physical, chemical, or biological connections, and no apparent shallow subsurface flow connections to other waters. In addition, there was no apparent ecological interconnectivity with other water features, including any waters of the U.S. or no apparent connection to interstate or foreign commerce. Therefore, it has been determined that the wetland is non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

Non-jurisdictional Wetlands C and D are isolated depressions that sit approximately 2 feet lower in the landscape than the surrounding uplands. During the site visits, it was confirmed that the wetlands are surrounded by uplands. Wetland D is greater than 100 feet from the roadside drainage ditches. Due to the storage capacity of Wetland D and the evapotranspiration potential of the surrounding loblolly pine plantation, it is not likely that subsurface flow from the wetland would reach the ditches or that any discrete unconfined flow through the uplands would occur. The wetlands exhibited no apparent connection to waters of the U.S., including no physical, chemical, or biological connections, and no apparent shallow subsurface flow connections to other waters. In addition, there was no apparent ecological interconnectivity with other water features, including any waters of the U.S. or no apparent connection to interstate or foreign commerce. Therefore, it has been determined that the wetlands are non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

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: **Non-jurisdictional Wetland A = 1.793 acres, Non-jurisdictional Wetland B = 1.192 acres, Non-jurisdictional Wetland C = 1.325 acres, Non-jurisdictional Wetland D = 1.572 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: **Wetland Delineation Submittal, Newkirk Environmental, Inc.**
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report. **Office concurs with delineation.**
 - 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: **National Hydrography Data Set.**
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: **Summerville Quadrangle.**
- USDA Natural Resources Conservation Service Soil Survey. Citation: **NRCS Web Soil Survey, Berkeley County.**
- National wetlands inventory map(s). Cite name: **NWI Wetlands Mapper.**
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **Google Earth 1989-2015.**
or Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .

- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

The project area has numerous ditches associated with forestry roads throughout the site. The ditches are several feet wide by several feet deep. There was no flow observed in the ditches during the 11/7/14 site visit. In addition, the ditches did not display an ordinary high water mark, bed and bank, or other signs of relatively permanent flow. The ditches were full of water during the 3/18/15 site visit. This is most likely due to a relatively flat landscape, some culvert obstructions, and the time of year still within the wet season and not yet reaching maximum evapotranspiration. Based on the above it has been determined that the ditches lack relatively permanent flow and the presence of water in the ditches is in response to season and precipitation and they would drain more efficiently with a favorable grade and removal of obstructions. Therefore the ditches have been determined to be non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

Non-jurisdictional Wetland A is an isolated depressional wetland that sits lower in the landscape (1-2 feet) than the surrounding uplands. It is bound by Sheep Island Road, Route I-26, a dirt forestry road, and uplands. There is no drainage ditch running along I-26 in this location. There is a culvert under the dirt road which connects this wetland to Non-jurisdictional Wetland B. The remainder of the wetland is surrounded by uplands which was confirmed during the site visits. The wetland exhibited no apparent connection to waters of the U.S., including no physical, chemical, or biological connections, and no apparent shallow subsurface flow connections to other waters. In addition, there was no apparent ecological interconnectivity with other water features, including any waters of the U.S. or no apparent connection to interstate or foreign commerce. Therefore, it has been determined that the wetland is non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

Non-jurisdictional Wetland B is an isolated depressional wetland that sits lower in the landscape than the surrounding uplands. It is bound by a dirt forestry road with a culvert that connects it to Non-jurisdictional Wetland A. The remainder of the wetland is surrounded by uplands which was confirmed during the site visits. The wetland exhibited no apparent connection to waters of the U.S., including no physical, chemical, or biological connections, and no apparent shallow subsurface flow connections to other waters. In addition, there was no apparent ecological interconnectivity with other water features, including any waters of the U.S. or no apparent connection to interstate or foreign commerce. Therefore, it has been determined that the wetland is non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

Non-jurisdictional Wetlands C and D are isolated depressions that sit approximately 2 feet lower in the landscape than the surrounding uplands. During the site visits, it was confirmed that the wetlands are surrounded by uplands. Wetland D is greater than 100 feet from the roadside drainage ditches. Due to the storage capacity of Wetland D and the evapotranspiration potential of the surrounding loblolly pine plantation, it is not likely that subsurface flow from the wetland would reach the ditches or that any discrete unconfined flow through the uplands would occur. The wetlands exhibited no apparent connection to waters of the U.S., including no physical, chemical, or biological connections, and no apparent shallow subsurface flow connections to other waters. In addition, there was no apparent ecological interconnectivity with other water features, including any waters of the U.S. or no apparent connection to interstate or foreign commerce. Therefore, it has been determined that the wetlands are non-jurisdictional and not subject to regulation under Section 404 of the Clean Water Act.

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

Form 2 of 2

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): 6/18/15

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Charleston District, MWV Sheep Island Tract, SAC-2014-00995-2JU

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Berkeley** City:
Center coordinates of site (lat/long in degree decimal format): Lat. 33.04739° **N**, Long. -80.15391° **W**.
Universal Transverse Mercator:

Name of nearest waterbody: **Unnamed Tributary to Sawmill Branch**

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

Name of watershed or Hydrologic Unit Code (HUC): 03050201-06

- 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: **9/26/14, 6/18/15**
 Field Determination. Date(s): **11/7/14, 3/18/15**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

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

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
 Wetlands adjacent to TNWs
 Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 Non-RPWs that flow directly or indirectly into TNWs
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 Impoundments of jurisdictional waters
 Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: **JD Wetland A = 2.156 acres, JD Wetland B = 20.011 acres, JD Wetland C = 1.590 acres, JD Wetland D = 0.954 acres.**

c. Limits (boundaries) of jurisdiction based on: Pick List, Pick List, Pick List

Elevation of established OHWM (if known): .

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).

2. Non-regulated waters/wetlands (check if applicable):³ [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:

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: HUC 03050201-06 = 86,887 acres

Drainage area: 1,300 acres

Drainage area was approximated for the tributary that was evaluated as part of the Significant Nexus Determination performed for this Jurisdictional Determination. This area was drawn based on apparent flow pathways and drainage areas associated with the subject relevant reach using USGS quadrangle mapping, USGS National Hydrography Dataset mapping, aerial photography, and observations of connectivity and direction of flow made in the field. The intended value of the drainage area map is to document the full collection of wetlands adjacent to the relevant reach and not to assert that the mapping represents more than approximation with respect to actual area.

Average annual rainfall: 51 inches

Average annual snowfall: 0.5 inches

³ Supporting documentation is presented in Section III.F.

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

(ii) **Physical Characteristics:**

(a) Relationship with TNW:

- Tributary flows directly into TNW.
 Tributary flows through 1 tributary before entering TNW.

Project waters are **5-10** 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: .

Identify flow route to TNW⁵: **Jurisdictional Wetlands A, B, C, & D flow during high precipitation events through non-jurisdictional ditches into an off-site unnamed perennial tributary to Saw Mill Branch which is a perennial tributary that flows into the Ashley River (TNW).**

Tributary stream order, if known: .

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

The tributary was not viewed during any of the site visits as it did not appear at that time there was any portion that was publicly accessible and viewable. A subsequent review of aerial imagery revealed a potential access point where the tributary should be viewable at a road crossing, but another site visit was not performed. Much of the tributary characteristics are unknown. Portions of the tributary are readily discernible via aerial imagery.

Tributary is: Natural
 Artificial (man-made). Explain: .
 Manipulated (man-altered). Explain: **Based on a review of USGS maps and aerial imagery, it appears as if portions of the tributary have been straightened and excavated.**

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

Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply): **Unknown**

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **Unknown.**

Presence of run/riffle/pool complexes. Explain: **Unknown.**

Tributary geometry: **Pick List. Unknown**

Tributary gradient (approximate average slope): **Unknown %**

(c) Flow:

Tributary provides for: **Perennial flow**

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

Describe flow regime: **The tributary has an approximate drainage area of 1,300 acres which consists of numerous wetlands. The tributary is depicted on the USGS Quadrangle as a blue line perennial stream. In addition, the National Hydrography Data Set depicts the tributary to have a perennial flow regime. Presence of water within the tributary is viewable at its confluence with Sawmill Branch on aerial imagery. Based on the above information, it has been determined that the tributary has a perennial flow regime.**

Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: **Unknown.**

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

Dye (or other) test performed: .

Tributary has (check all that apply): **Unknown. It is likely that the tributary has an OHWM and bed and bank.**

Bed and banks
 OHWM⁶ (check all indicators that apply):

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.

- | | |
|--|---|
| <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.⁷ 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: **Unknown.**

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: **The tributary likely provides support for water dependent species,**

including native fish communities that move within the relative reach and move downstream between the tributary and the TNW and between the stream and its adjacent wetlands, amphibians during breeding periods, and numerous wading birds and small mammals that feed on the aquatic species, including numerous categories of macroinvertebrates.

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: **JD Wetland A = 2.156 acres, JD Wetland B = 20.011 acres, JD Wetland C = 1.590 acres, JD Wetland D = 0.954 acres.**

Wetland type. Explain: **Forested.**

Wetland quality. Explain: **Wetlands appear to be of high quality providing water quality and habitat functions.**

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow.** Explain: **Flow for the on-site jurisdictional wetlands would be during the wet season and in response to precipitation events when the soils within the wetlands become saturated and reach storage capacity. JD Wetland C is connected to JD Wetland D via a ditch under a dirt road. JD Wetland D directly abuts a roadside ditch that extends into the interior of the wetland and carries water from both JD Wetland C and D through the ditch network to the PRPW/tributary and ultimately the TNW (Ashley River). The boundaries of JD Wetlands A & B terminate in uplands less than 10 feet from the roadside ditch network. During the 3/18/15 site visit, the ditches were full of water and nearly to the ground surface with saturated soils in the nearby wetlands. During the wet season and in response to precipitation events, water would be transported via discrete unconfined flow through the uplands to the associated ditches that carry water to the PRPW/tributary and ultimately the TNW (Ashley River).**

Surface flow is: **Discrete and confined**

Characteristics: **Surface flow is discrete within the wetlands and confined when it reaches the non-jurisdictional drainage ditches that provide the hydrologic connection to the TNW. Flow for the on-site wetlands would be during the wet season and in response to precipitation events when the soils within the wetlands become saturated and reach storage capacity.**

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.

JD Wetland C is connected to JD Wetland D via a ditch under a dirt road. JD Wetland D directly abuts a roadside ditch that extends into the interior of the wetland and carries water from both JD Wetland C and D through the ditch network to the pRPW/tributary and ultimately the TNW (Ashley River). The boundaries of JD Wetlands A & B terminate in uplands less than 10 feet from the roadside ditch network. During the 3/18/15 site visit, the ditches were full of water and nearly to the ground surface with ponded water and saturated soils in the nearby wetlands. During the wet season and in response to precipitation events, water would be transported via discrete unconfined flow through the uplands to the associated ditches that carry water to the pRPW/tributary and ultimately the TNW (Ashley River).

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 for the on-site jurisdictional wetlands would be during the wet season and in response to precipitation events when the soils within the wetlands become saturated and reach storage capacity. JD Wetland C is connected to JD Wetland D via a ditch under a dirt road. JD Wetland D directly abuts a roadside ditch that extends into the interior of the wetland and carries water from both JD Wetland C and D through the ditch network to the pRPW/tributary and ultimately the TNW (Ashley River). The boundaries of JD Wetlands A & B terminate in uplands less than 10 feet from the roadside ditch network. During the 3/18/15 site visit, the ditches were full of water and nearly to the ground surface with saturated soils in the nearby wetlands. During the wet season and in response to precipitation events, water would be transported via discrete unconfined flow through the uplands to the associated ditches that carry water to the pRPW/tributary and ultimately the TNW (Ashley River).**

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **5-10** river miles from TNW.

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

Flow is from: **Wetland to navigable waters.**

Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **There was no apparent evidence of poor or degraded water quality in the wetlands during the site visit.**

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: **The wetlands provide support for wetland dependent species, including amphibians during breeding periods, and numerous wading birds and small mammals that feed on the aquatic species, including numerous categories of macroinvertebrates.**

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

All wetland(s) being considered in the cumulative analysis: **7**

For the purpose of this determination, three wetlands outside of the project area within the relative reach drainage area are being evaluated as adjacent to the relative reach. This estimate is approximate, based on a review of aerial and NWI imagery, and is likely an underestimate.

Approximately (**126**) 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> |
|-----------------------------------|------------------------|------------------------------|------------------------|
| JD Wetland A Onsite (N) | 2.156 | W1 Offsite (Y) | 34 |
| JD Wetland B Onsite (N) | 20.011 | W2 Offsite (Y) | 1.6 |
| JD Wetland C Onsite (N) | 1.59 | W3 Offsite (Y) | 66 |

Summarize overall biological, chemical and physical functions being performed: JD Wetlands A, B, C, D, and W1, W2, W3 within the drainage area encompassed by the relevant reach tributary intercept runoff from the surrounding uplands. This water helps to concentrate and route detritus from the uplands, as well as that produced by the wetland vegetation itself, to the waters and TNW further down the landscape. Specifically, large quantities of decomposing biomass are conveyed to the RPW and TNW thereby providing important primary productivity toward the biological maintenance of the food web supported by the TNW. The residence time of water may be relatively short during periods of peak flow when water levels are highest, and therefore would favor rapid delivery of pollutants, including both dissolved and particulate chemicals typically found in roadside runoff as well as those typically found in moderately developed suburban to rural landscapes. However, during much of the year flow volumes are much lower and residence times are substantially increased, allowing dissolved and suspended pollutants to interact with sediments and vegetation, thus likely ameliorating the poorer water quality conditions present during higher flow periods. Additional important chemical and physical water quality functions such as denitrification, carbon storage, and sediment and phosphorous retention are also provided by JD Wetlands A, B, C, D, and W1, W2, W3.

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 project area is located in watershed 03050201-06 located in Berkeley, Charleston, and Dorchester Counties and consists primarily of the *Ashley River* and its tributaries. The watershed occupies 86,887 acres of the Lower Coastal Plain and Coastal Zone regions of South Carolina. There is a high potential for growth in this watershed, which contains portions of the Towns of Summerville and Ladson and the Cities of Charleston and North Charleston. The west bank of the Ashley River contains numerous historic structures including Middleton Place, Drayton Hall, Magnolia Gardens, Runnymede Plantation, and Charles Towne Landing State Park; all are important scenic, cultural, and tourism resources. The project area borders a very large tract of land (several thousand acres) consisting of numerous wetlands that has been permitted for mixed use development. Additionally, Sheep Island Road which is a portion of the project boundary is expected to be reconfigured to include a new interchange/exit from I-26 and continue to a large undeveloped tract on the other side of the highway. This will likely result in increased development on both

sides of the highway and create additional stresses to aquatic resources in the area. The exponential growth in this area increases the significance and importance of the aquatic resource functions currently being provided by existing wetlands.

JD Wetlands A, B, C, D, and W1, W2, W3 within the drainage area encompassed by the relevant reach tributary intercept runoff from the surrounding uplands. This water helps to concentrate and route detritus from the uplands, as well as that produced by the wetland vegetation itself, to the waters and TNW further down the landscape. Specifically, large quantities of decomposing biomass are conveyed to the RPW and TNW thereby providing important primary productivity toward the biological maintenance of the food web supported by the TNW. The residence time of water may be relatively short during periods of peak flow when water levels are highest, and therefore would favor rapid delivery of pollutants, including both dissolved and particulate chemicals typically found in roadside runoff as well as those typically found in moderately developed suburban to rural landscapes. However, during much of the year flow volumes are much lower and residence times are substantially increased, allowing dissolved and suspended pollutants to interact with sediments and vegetation, thus likely ameliorating the poorer water quality conditions present during higher flow periods. Additional important chemical and physical water quality functions such as denitrification, carbon storage, and sediment and phosphorous retention are also provided by JD Wetlands A, B, C, D, and W1, W2, W3.

Considering the amount of development currently occurring and expected to occur in this area in the near future, the functions of the wetlands in the project area play an important role relating to downstream water quality. Based on the biological, chemical, and physical functions described above, this office has concluded that a Significant Nexus exists between this relevant reach, its similarly situated adjacent wetlands and the downstream TNW Ashley River.

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: .
- 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-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: .

⁸See Footnote # 3.

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: **JD Wetland A = 2.156 acres, JD Wetland B = 20.011 acres, JD Wetland C = 1.590 acres, JD Wetland D = 0.954 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:

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

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

Provide acreage estimates for non-jurisdictional waters in the review area 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: **Wetland Delineation Submittal, Newkirk Environmental, Inc.**
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report. **Office concurs with delineation.**
 - 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: **National Hydrography Data Set.**
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: **Summerville Quadrangle.**
- USDA Natural Resources Conservation Service Soil Survey. Citation: **NRCS Web Soil Survey, Berkeley County.**
- National wetlands inventory map(s). Cite name: **NWI Wetlands Mapper.**
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **Google Earth 1989-2015.**
or Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Based on the biological, chemical, and physical functions described above, this office has concluded that a Significant Nexus exists between this relevant reach, its similarly situated adjacent wetlands and the downstream TNW Ashley River. Therefore it has been determined that JD Wetlands A, B, C, and D are jurisdictional and subject to regulation under Section 404 of the Clean Water Act.