

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

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): December 16, 2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form ____1 of 2 SAC-2021-01303 Ashley River Lumber Tracts A and D

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: Dorchester County City: Ridgeville

Center coordinates of site (lat/long in degree decimal format): Lat. 33.0903 °, Long. -80.3014 °.

Universal Transverse Mercator:

Name of nearest waterbody: Ashley River/Cypress Swamp

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

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

☒ 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 1, 2022

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: Wetland B: 7.3 acres; Wetland C: 0.78 acre: Total: 8.08 acres

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known): .

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

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

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

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. **TNW**

Identify TNW: .

Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”: .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

Offsite Tributary 2 is the non-TNW discussed on this Form 1

(i) **General Area Conditions:**

Watershed size: 139,162 acres

Drainage area: 106.1 acres

Average annual rainfall: 52 inches

Average annual snowfall: <1 inches

(ii) **Physical Characteristics:**

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☒ Tributary flows through 2 tributaries before entering TNW.

Project waters are 5-10 river miles from TNW.

Project waters are 5-10 river miles from RPW.

Project waters are 1 (or less) 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: .

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

Identify flow route to TNW⁵: From RPW to TNW..

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: 7 feet

Average depth: 2 feet

Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

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

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Based on aerial photographs and LiDAR, Offsite Tributary 2 appears to flow through wetlands and forested areas before reaching the Cypress Swamp/Ashley River; therefore, the tributary is likely stable with minimal erosion. The upper end of the Offsite Tributary 2 was observed from Coburn Town Road and no erosion was visible.

Presence of run/riffle/pool complexes. Explain: None.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Perennial Flow**

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

Describe flow regime: Perennial flow .

Other information on duration and volume: .

Surface flow is: **Confined**. Characteristics: .

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

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☒ Bed and banks	
☒ OHWM ⁶ (check all indicators that apply):	
☒ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	
☐ Discontinuous OHWM. ⁷ Explain: .	

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

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) **Chemical Characteristics:**

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.

⁶ 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.

⁷ Ibid.

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

Explain: The water quality appeared to be good.

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 habitat for small organisms such as small fish, insects, and amphibians. Larger wildlife such as mammals and wading birds may also utilize the channels as a food and water source. The tributary may also provide a corridor for movement of aquatic organisms from adjacent wetlands to downstream waters.

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: Wetland B: 7.3 acres; Wetland C: 0.78 acre: Total: 8.08 acres

Wetland type. Explain: Freshwater emergent.

Wetland quality. Explain: The wetland quality appeared to be good.

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

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Wetland B flows to a non-jurisdictional off-site roadside swale on Coburn Town Road under a culvert to the offsite Tributary 2, which flows to the Cypress Swamp/Ashley River. Flow from Wetland B through the non-jurisdictional swale to off-site **Tributary 2 is intermittent** and may occur seasonally and/or after rain events when surface water may be present in the wetland.

Wetland C flows to a non-jurisdictional ditch which flows to the off-site roadside swale on Coburn Town Road under a culvert to the off-site Tributary 2, which flows to the Cypress Swamp/Ashley River. Flow from Wetland C through the non-jurisdictional ditch to the non-jurisdictional swale to off-site Tributary 2 is intermittent and may occur seasonally and/or after rain events when surface water may be present in the wetland.

Surface flow is: **Confined**

Characteristics: .

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

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☒ Not directly abutting

☒ Discrete wetland hydrologic connection. Explain: Wetland B flows to a non-jurisdictional off-site roadside swale on Coburn Town Road under a culvert to the offsite Tributary 2. Wetland C flows to a non-jurisdictional ditch which flows to the off-site roadside swale on Coburn Town Road under a culvert to the off-site Tributary 2.

☐ 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 **2-year or less** 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: Water quality appeared to be good.

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 may be utilized by various species of insects, amphibians, reptiles, mammals and birds, all of which may use the wetlands for all or part of their lives, such as for foraging, nesting and/or for shelter.

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

All wetland(s) being considered in the cumulative analysis:3

Approximately (24.58) 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>
Wetland B (N)	7.3 acres		
Wetland C (N)	0.78 acres		
Offsite Wetland (Y)	16.5 acres		

Summarize overall biological, chemical and physical functions being performed: **The drainage area subject to this Approved Jurisdictional Basis Form 1 is approximately 106.1 acres in size. The subject drainage area includes approximately 24.58 acres of wetlands. Wetlands B and C are located on-site and do not abut the off-site Tributary 2. The third wetland is approximately 16.5 acres in size, is located off-site, and abuts the off-site Tributary 2. Wetland B flows to a non-jurisdictional off-site roadside swale on Coburn Town Road under a culvert to the offsite Tributary 2. Wetland C flows to a non-jurisdictional ditch which flows to the off-site roadside swale on Coburn Town Road under a culvert to the off-site Tributary 2. The wetlands located within the drainage area of this reach included in this cumulative review provide a variety of functions that are important for the downstream waters. The wetlands not only provide habitat for various aquatic and terrestrial organisms, including a variety of insects, amphibians, reptiles, mammals and birds, but are also a source of food, nutrients, and carbon for organisms located downstream. The wetlands are especially important for the water quality of a watershed. Water runoff from adjacent uplands may contain pollutants, sediments, excess nutrients, etc. The runoff water that flows through the wetlands before entering the tributaries have the opportunity to be filtered out prior to flowing to downstream TNWs. In addition, excess water can be temporarily stored thereby minimizing potential flooding of downstream areas and can also slowly release water downstream to maintain seasonal flow volumes. Runoff water may also transport organisms, nutrients, and carbon from the wetlands into the tributaries, which continue to flow to downstream TNWs.**

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 *Raplanos* 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 drainage area subject to this Approved Jurisdictional Basis Form 1 is approximately 106.1 acres in size. The subject drainage area includes approximately 24.58 acres of wetlands. Wetlands B and C are located on-site and do not abut the off-site Tributary 2. The third wetland is approximately 16.5 acres in size, is located off-site, and abuts the off-site Tributary 2. Wetland B flows to a non-jurisdictional off-site roadside swale on Coburn Town Road under a culvert to the off-site Tributary 2. Wetland C flows to a non-jurisdictional ditch which flows to the off-site roadside swale on Coburn Town Road under a culvert to the off-site Tributary 2. Wetland B and C are the subject of this significant nexus determination.

Regardless of whether the wetlands are abutting or non-abutting, wetlands located within the drainage area of this relevant reach of off-site Tributary 2 provide a variety of functions that are important for the downstream waters and the watershed as a whole. The wetlands not only provide habitat for various aquatic and terrestrial organisms, including a variety of insects, amphibians, reptiles, mammals and birds, but are also a source of food, nutrients, and carbon for organisms located downstream. The wetlands are especially important for the water quality of a watershed. Water runoff from adjacent uplands that may contain pollutants, sediments, excess nutrients, etc., that flows through the wetlands before entering the tributaries has the opportunity to be filtered out prior to flowing to downstream TNWs. In addition, excess water can temporarily be stored thereby minimizing potential flooding of downstream areas and can also slowly release water downstream to maintain seasonal flow volumes. Runoff water may also transport organisms, nutrients, and carbon from the wetlands into the tributaries, which continue to flow to downstream TNWs. The wetlands are especially important for the quality of a watershed.

The project review area is located within the Cypress Swamp, HUC 03050201-05. According to the SCDHEC Watershed Information for the Cypress Swamp, there is a moderate potential for growth for much of this watershed, which contains portions of the Town of Ridgeville and Summerville. A review of recent aerial photographs indicates that development activities are not currently occurring within this drainage area. The area is rural with a mix of commercial, residential and agricultural livestock activities. The non-abutting Wetlands B and C located within the drainage area have a significant nexus to the downstream TNW as they provide a source of carbon and nutrients, can perform water quality functions, can provide water storage capabilities, can maintain seasonal flow volumes, and have the ability to transport organisms, carbon, nutrients, sediments, clean water, as well as any pollutants that may be present or could become present, to downstream TNWs. When wetlands are filled or altered, many of the services that they provide may be lost and the loss of those services affects downstream waters and TNWs.

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.

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: **Wetland B: 7.3 acres; Wetland C: 0.78 acre: Total: 8.08 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).

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: .

⁸See Footnote # 3.

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

¹⁰Prior 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 estimates for jurisdictional waters in the review area (check all that apply):

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

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

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

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

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

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

SECTION IV: DATA SOURCES.

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: Soil and Wetland Consulting.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant. Concur with conclusions.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name:
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Jedburg loam, Daleville silt loam..
☐ National wetlands inventory map(s). Cite name: .
☐ 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 (Street view 1/2022; aerial 1/28/2021) .
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): Reg Viewer.

B. ADDITIONAL COMMENTS TO SUPPORT JD: The project review area includes two wetlands, Wetland B and C, that were determined to be jurisdictional and regulated by Section 404 of the CWA. The jurisdictional status of the remaining wetlands and features present within the project review area are discussed on Form 2.

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

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): December 16, 2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 2 of 2; SAC-2021-01303 Ashley River Lumber Tracts A and D

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: Dorchester County City: Ridgeville

Center coordinates of site (lat/long in degree decimal format): Lat. 33.0903 °, Long. -80.3014 °.

Universal Transverse Mercator:

Name of nearest waterbody: Ashley River/Cypress Swamp

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

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

☒ 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 1, 2022

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: Tributary 1: linear feet: 2,625 width (ft) and/or acres.

Wetlands: Wetland A: 0.81 acres; Wetland D: 0.71 acre; Wetland E: 0.1 acre; and Wetland F: 0.2 Total: 1.82 acres

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

Elevation of established OHWM (if known): .

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

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

Explain: **The project review area includes numerous linear features that were determined to be non-jurisdictional.**

There is a linear feature, LF 1, that connects Wetland E to Wetland F and Wetland F to another onsite linear feature, LF 2. LF 1 was excavated from uplands, has no defined bed and bank, has no visible OHW mark and no evidence of relatively permanent flow. However, it does provide a surface hydrologic connection for Wetland E and F. LF 2 was excavated from uplands for the purpose of draining stormwater. LF 2 was excavated to a depth that reaches the

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

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

groundwater table and had water present at the time of the site visit. It does not have a defined bed and bank or evidence of relatively permanent flow. LF 2 flows through the property and connects to an offsite railroad track ditch. The railroad track ditch connects with the offsite portion of onsite Tributary 1. LF 2 provides a surface hydrologic connection from Wetlands D, E and F to downstream waters. The jurisdictional status of Wetlands D, E and F is discussed in Section III B of this Form 2. There are additional linear features present within the project review area that were excavated from uplands, drain only uplands, have no defined bed or bank, and no evidence of relatively permanent water. These linear features, including LF 1 and LF 2, were determined to be non-jurisdictional and no subject to regulation under Section 404 of the CWA.

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

*****Onsite Tributary 1 is the non-TNW discussed on this Form 2*****

(i) General Area Conditions:

Watershed size: 139,162 acres

Drainage area: 141.1 acres

Average annual rainfall: 52 inches

Average annual snowfall: <1 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

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

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

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

Project waters are **5-10** river miles from RPW.

Project waters are **1 (or less)** 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: From RPW to TNW..

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: 7 feet

Average depth: 2 feet

Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

☒ Silts

☒ Sands

☐ Concrete

☐ Cobbles

☐ Gravel

☐ Muck

☐ Bedrock

☐ Vegetation. Type/% cover:

☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Tributary 1 appears to be stable.

Presence of run/riffle/pool complexes. Explain: None.

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Perennial Flow**

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

Describe flow regime: Perennial flow .

Other information on duration and volume: .

Surface flow is: **Confined**. Characteristics: .

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

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☒ Bed and banks

☒ OHWM⁶ (check all indicators that apply):

☒ clear, natural line impressed on the bank

☐ changes in the character of soil

☐ shelving

☐ vegetation matted down, bent, or absent

☐ leaf litter disturbed or washed away

☐ sediment deposition

☐ water staining

☐ other (list):

☐ Discontinuous OHWM.⁷ Explain: .

☐ the presence of litter and debris

☐ destruction of terrestrial vegetation

☐ the presence of wrack line

☐ sediment sorting

☐ scour

☐ multiple observed or predicted flow events

☐ abrupt change in plant community

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

☐ High Tide Line indicated by:

☐ oil or scum line along shore objects

☐ fine shell or debris deposits (foreshore)

☐ Mean High Water Mark indicated by:

☐ survey to available datum;

☐ physical markings;

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.

⁶ 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.

⁷ Ibid.

- ☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) Chemical Characteristics:

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

Explain: The water quality appears to be good.

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 habitat for small organisms such as small

fish, insects, and amphibians. Larger wildlife such as mammals and wading birds may also utilize the channels as a food and water source. The tributary may also provide a corridor for movement of aquatic organisms from adjacent wetlands to downstream waters.

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: Wetland A: 0.81 acres; Wetland D: 0.71 acre; Wetland E: 0.1 acre; and Wetland F: 0.2 Total: 1.82 acres

Wetland type. Explain: Freshwater emergent and forested.

Wetland quality. Explain: The wetland quality appeared to be good.

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

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Wetland A flows to a non-jurisdictional offsite railroad ditch, which flows to the offsite portion of Tributary 1. Tributary 1 flows under the railroad track and S. Railroad Avenue where it continues to flow to the Cypress Swamp/Ashley River. Flow from Wetland A through the railroad ditch to Tributary 1 is intermittent and may occur seasonally and/or after rain events when surface water may be present in the wetland.

Flow is: **Intermittent flow**. Explain: Wetland E flows through non-jurisdictional linear feature 1 (LF 1), through Wetland E, through the downstream end of LF 1, to linear feature 2 (LF 2) to the offsite railroad ditch to the offsite portion of Tributary 1. Tributary 1 flows under the railroad track and S. Railroad Avenue where it continues to flow to the Cypress Swamp/Ashley River. Flow from Wetland E through LF 1, Wetland F, LF 1, LF 2, the railroad ditch to Tributary 1 is intermittent and may occur seasonally and/or after rain events when surface water may be present in the wetland.

Flow is: **Intermittent flow**. Explain: Wetland F flows through linear feature 1 (LF 1) to linear feature 2 (LF 2), to the offsite railroad ditch, to the offsite portion of Tributary 1. Tributary 1 flows under the railroad track and S. Railroad Avenue where it continues to flow to the Cypress Swamp/Ashley River. Flow from Wetland F, through LF 1, LF 2, the railroad ditch to Tributary 1 is intermittent and may occur seasonally and/or after rain events when surface water may be present in the wetland.

Flow is: **Intermittent flow**. Explain: Wetland D flows through the off-site roadside swale on Coburn Town Road to linear feature 2 (LF 2), to the offsite railroad ditch, to the offsite portion of Tributary 1. Tributary 1 flows under the railroad track and S. Railroad Avenue where it continues to flow to the Cypress Swamp/Ashley River. Flow from Wetland D, through the roadside swale on Coburn Town Road to linear feature 2 (LF 2), to the offsite railroad ditch, to the offsite portion of Tributary 1 is intermittent and may occur seasonally and/or after rain events when surface water may be present in the wetland.

Surface flow is: **Confined**

Characteristics: .

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

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
☒ Not directly abutting

☒ Discrete wetland hydrologic connection. Explain: Wetland A flows to a non-jurisdictional offsite railroad ditch, which flows to the offsite portion of Tributary 1. Tributary 1 flows under the railroad track and S. Railroad Avenue where it continues to flow to the Cypress Swamp/Ashley River. Wetland E flows through non-jurisdictional linear feature 1 (LF 1), through Wetland E, through the downstream end of LF 1, to linear feature 2 (LF 2) to the offsite railroad ditch to the offsite portion of Tributary 1. Wetland F flows through linear feature 1 (LF 1) to linear feature 2 (LF 2), to the offsite railroad ditch, to the offsite portion of Tributary 1. Wetland D flows through the off-site roadside swale on Coburn Town Road to linear feature 2 (LF 2), to the offsite railroad ditch, to the offsite portion of Tributary 1.

- ☐ 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 **2-year or less** 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: Water quality appeared to be good.
 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 may be utilized by various species of insects, amphibians, reptiles, mammals and birds, all of which may use the wetlands for all or part of their lives, such as for foraging, nesting and/or for shelter.

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

All wetland(s) being considered in the cumulative analysis: **4**
 Approximately (1.82) 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>
Wetland A (N)	0.81 acres		
Wetland D (N)	0.71 acre		
Wetland E (N)	0.1 acre		
Wetland F (N)	0.2 acre		

Summarize overall biological, chemical and physical functions being performed: **The drainage area subject to this Approved Jurisdictional Basis Form 2 is approximately 141 acres in size. The subject drainage area includes approximately 1.82 acres of wetlands. Wetland A flows to a non-jurisdictional offsite railroad ditch, which flows to the offsite portion of Tributary 1. Tributary 1 flows under the railroad track and S. Railroad Avenue where it continues to flow to the Cypress Swamp/Ashley River. Wetland E flows through non-jurisdictional linear feature 1 (LF 1), through Wetland E, through the downstream end of LF 1, to linear feature 2 (LF 2) to the offsite railroad ditch to the offsite portion of Tributary 1. Wetland F flows through linear feature 1 (LF 1) to linear feature 2 (LF 2), to the offsite railroad ditch, to the offsite portion of Tributary 1. Wetland D flows through the off-site roadside swale on Coburn Town Road to linear feature 2 (LF 2), to the offsite railroad ditch, to the offsite portion of Tributary 1. The wetlands located within the drainage area of this reach included in this cumulative review provide a variety of functions that are important for the downstream waters. The wetlands not only provide habitat for various aquatic and terrestrial organisms, including a variety of insects, amphibians, reptiles, mammals and birds, but are also a source of food, nutrients, and carbon for organisms located downstream. The wetlands are especially important for the water quality of a watershed. Water runoff from adjacent uplands may contain pollutants, sediments, excess nutrients, etc. The runoff water that flows through the wetlands before entering the tributaries have the opportunity to be filtered out prior to flowing to downstream TNWs. In addition, excess water can be temporarily stored thereby minimizing potential flooding of downstream areas and can also slowly release water downstream to maintain seasonal flow volumes. Runoff water may also transport organisms, nutrients, and carbon from the wetlands into the tributaries, which continue to flow to downstream TNWs.**

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 drainage area subject to this Approved Jurisdictional Basis Form 2 is approximately 141 acres in size. The subject drainage area includes approximately 1.82 acres of wetlands and approximately 2,625 linear feet of perennial tributary. Wetlands A, D, E and F are located on-site and do not abut the onsite Tributary 1. Wetland A flows to a non-jurisdictional offsite railroad ditch, which flows to the offsite portion of Tributary 1. Tributary 1 flows under the railroad track and S. Railroad Avenue where it continues to flow to the Cypress Swamp/Ashley River. Wetland E flows through non-jurisdictional linear feature 1 (LF 1), through Wetland E, through the downstream end of LF 1, to linear feature 2 (LF 2) to the offsite railroad ditch to the offsite portion of Tributary 1. Wetland F flows through linear feature 1 (LF 1) to linear feature 2 (LF 2), to the offsite railroad ditch, to the offsite portion of Tributary 1. Wetland D flows through the off-site roadside swale on Coburn Town Road to linear feature 2 (LF 2), to the offsite railroad ditch, to the offsite portion of Tributary 1. Wetlands A, D, E and F are the subject of this significant nexus determination.

Regardless of whether the wetlands are abutting or non-abutting, wetlands located within the drainage area of this relevant reach of onsite Tributary 1 provide a variety of functions that are important for the downstream waters and the watershed as a whole. The wetlands not only provide habitat for various aquatic and terrestrial organisms, including a variety of insects, amphibians, reptiles, mammals and birds, but are also a source of food, nutrients, and carbon for organisms located downstream. The wetlands are especially important for the water quality of a watershed. Water runoff from adjacent uplands that may contain pollutants, sediments, excess nutrients, etc., that flows through the wetlands before entering the tributaries has the opportunity to be filtered out prior to flowing to downstream TNWs. In addition, excess water can temporarily be stored thereby minimizing potential flooding of downstream areas and can also slowly release water downstream to maintain seasonal flow volumes. Runoff water may also transport organisms, nutrients, and carbon from the wetlands into the tributaries, which continue to flow to downstream TNWs. The wetlands are especially important for the quality of a watershed.

The project review area is located within the Cypress Swamp, HUC 03050201-05. According to the SCDHEC Watershed Information for the Cypress Swamp, there is a moderate potential for growth for much of this watershed, which contains portions of the Town of Ridgeville and Summerville. A review of recent aerial photographs indicates that development activities are not currently occurring within this drainage area. The area is rural with a mix of commercial, residential and

agricultural livestock activities. The non-abutting Wetlands A, D, E and F located within the drainage area have a significant nexus to the downstream TNW as they provide a source of carbon and nutrients, can perform water quality functions, can provide water storage capabilities, can maintain seasonal flow volumes, and have the ability to transport organisms, carbon, nutrients, sediments, clean water, as well as any pollutants that may be present or could become present, to downstream TNWs. When wetlands are filled or altered, many of the services that they provide may be lost and the loss of those services affects downstream waters and TNWs.

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: **Onsite Tributary 1 appears on LiDAR, is visible on the ground, has a defined bed and bank, visible OHW mark, and relatively permanent flow. It has a drainage area of approximately 141 acres, including both uplands and wetlands. For these reasons the tributary was determined to have perennial flow.**
☐ 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: **2,625** 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.

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: **Wetland A: 0.81 acres; Wetland D: 0.71 acre; Wetland E: 0.1 acre; and Wetland F: 0.2 Total: 1.82 acres**

⁸See Footnote # 3.

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).

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): **Refer to Section II.B.2.**

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

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

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

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

SECTION IV: DATA SOURCES.

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

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

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

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Soil and Wetland Consulting.
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant. Concur with conclusions
 - ☐ Office concurs with data sheets/delineation report.
 - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
 - ☐ USGS NHD data.
 - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name: .
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Jedburg loam, Daleville silt loam..
- ☐ National wetlands inventory map(s). Cite name: .
- ☐ 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 (Street view 1/2022; aerial 1/28/2021) .
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): Reg Viewer.

B. ADDITIONAL COMMENTS TO SUPPORT JD: The project review area includes Tributary 1 and four Wetlands A, D, E and F that were determined to be jurisdictional and regulated by Section 404 of the CWA. The project review area also includes linear features that were determined to be non-jurisdictional and not subject to regulation under Section 404 of the CWA. The jurisdictional status of the remaining wetlands and features present within the project review area are discussed on Form 1.