

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): February 4, 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 1; SAC # 2014-00655-2T and Holiday Drive Tract

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Berkeley** City: **Summerville**
Center coordinates of site (lat/long in degree decimal format): Lat. **33.042631° N**, Long. **-80.158923° W**.
Universal Transverse Mercator:

Name of nearest waterbody: **Sawmill Branch Creek**

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

Name of watershed or Hydrologic Unit Code (HUC): **3050202**

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: **2/4/15**

Field Determination. Date(s): **8/4/14, 1/26/15**

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: **Wetland A: 11.454 ac; Wetland B: 0.554; Total 12.008** acres. Note: Wetland A and Wetland B shown on the associated survey plat are part of the same wetland that extends offsite.

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

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³ [Including potentially jurisdictional features that upon assessment are NOT waters or wetlands]

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.

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **There is a linear feature present, referred to as Non-JD LF #1 on the supplemental sketch, that is located primarily offsite but enters the project review area within Wetland B and then continues offsite. Within wetland B, the linear feature is part of the wetland and not considered a tributary because it displayed no OHW mark, had no evidence of relatively permanent flow, and had no defined bed and bank. On the supplemental sketch, this portion of linear feature #1 located within wetland B is referred to as "LF #1 in wetlands."** Linear feature #1 located within the project review area is jurisdictional and subject to regulation under Section 404 of the CWA. The remainder of linear feature #1 located outside of the project review area also displayed no OHW, had no evidence of relatively permanent flow, and had no defined bed and bank. No water was observed in linear feature #1 during the August 2014 site visit, but some water was observed during the January 2015 site visit; however, the water did not appear to be flowing. Linear feature #1 continues along Holiday Drive where it turns into the adjacent property and becomes a stormwater feature/pond for the adjacent shopping center development. The stormwater feature/pond flows into double pipes approximately 48" in diameter under the shopping center/parking lot road. While linear feature #1 outside of the project review area and the stormwater feature/pond are not jurisdictional, they do provide a surface hydrologic connection for wetlands A and B located within the project review area. The hydrologic connection of the wetlands to waters of the U.S. will be discussed in Section B. 2. c of this Approved Jurisdictional Determination Form.

There is a second linear feature located in Wetland A within the project review area. This linear feature #2, referred to as "LF #2 in wetlands" on the supplemental sketch, is part of the wetland. Linear feature #2 runs the length of Wetland A but does not continue offsite and does it connect to linear feature #1. Linear feature #2 has not outlet and lacks tributary characteristics and is therefore not a tributary; however, it is located in jurisdictional Wetland A and is therefore subject to regulation under Section 404 of the CWA.

Linear features #1 and #2 located in Wetlands A and B within the project review area will not be discussed further as they are considered part of the wetlands and thus jurisdictional according to the same rationale as the wetlands.

There is a third linear feature located within the project review area. Linear feature #3, referred to as Non-JD LF #3 on the supplemental sketch, is a linear feature that appears to have been excavated from uplands to provide stormwater flow. The linear feature #3 is approximately 8 feet deep and 8 feet wide. At the time of the August 2014 site visit, the linear feature was dry, had leaf litter accumulated at the bottom, displayed no OHW mark, and displayed no evidence of relatively permanent flow. During the January 2015 site visit, water was observed in linear feature #3, but no flow was observed. Leaf litter was still present and no OHW mark was observed in linear feature #3. For these reasons, linear feature #3 (Non-JD LF #3), was determined to be non-jurisdictional and not subject to regulation under Section 404 of the CWA. When linear feature #3 comes out of the woods from an adjacent parcel, it runs parallel to and adjacent to Sheep Island Road within the project review area. Linear Feature #3 continues offsite towards Sheep Island Drive and when it reaches the shopping center, it becomes more swale like and appears to become part of the stormwater system for the shopping center.

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

Sawmill Branch Creek is located outside of the project review area

(i) General Area Conditions:

Watershed size: 86,887 acres ;
Drainage area: 3,280 acres (approximated based on topo map)
Average annual rainfall: 48 inches
Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

- Tributary flows directly into TNW.
- Tributary flows through 1 tributaries 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: Onsite wetlands to open linear feature #1 to pipe to Perennial RPW (Sawmill Branch Creek) to TNW (Ashley River).

Tributary stream order, if known:

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

Tributary is: Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain: The tributary is natural and may once have been a braided system but it was channelized and deepened. Much of Sawmill Branch near the project review area is a Corps Federal Project.

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

Average width: 40 feet
Average depth: 10 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 photography the tributary appears to be stable.

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: Relatively straight. Based on aerial photography the tributary is relatively straight.

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 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:

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):

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

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:

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: **Water quality anticipated to be fair to good. The tributary is located in a developed (residential/commercial) area so runoff and discharges of various pollutants is expected.**

Identify specific pollutants, if known:

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

Riparian corridor. Characteristics (type, average width): **The presence of and width of the riparian corridor varies throughout the length of the tributary due to the surrounding development. The riparian corridor ranges from no riparian area to approximately 1000 feet from either side of the tributary channel.**

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 various aquatic organisms**

including fish, reptiles, amphibians, as well as various birds and mammals .

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

****Wetland A and B are part of the same wetland that extends offsite but were named as separate wetlands on the survey plat associated with this jurisdictional determination. The total acreage of Wetland A and B within the boundaries of the project review area is 12.008 acres. For the purposes of this determination, Wetlands A and B will be discussed as one wetland.**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: **12.008** acres

Wetland type. Explain: **Forested.**

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.

Wetland quality. Explain: **Wetland quality appeared to be good. There were no obvious signs of degradation.**
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: **Water flows from the wetland to the non-TNW Sawmill Branch through an open non-jurisdictional linear conveyance #1 (Non-JD LF #1) that flows adjacent to Holiday Drive going through a portion of the onsite wetland (Wetland B on the survey plat and supplemental sketch) where it then continues in the wetlands and uplands offsite becoming a stormwater feature/pond. The stormwater feature/pond flows into double pipes approximately 48" in diameter and then to an underground pipe beneath the road in the shopping center where it then turns south at Azalea Square Boulevard crossing N. Main Street and continuing under the parking lot and buildings and discharging into Sawmill Branch. Flow from the wetland to Sawmill Branch is intermittent with more frequent flow events occurring during wetter times of the year and/or after rain events when surface water in the wetland may be present.**

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: **Water flows from the wetland to the non-TNW Sawmill Branch through an open non-jurisdictional linear conveyance #1 (Non-JD LF #1) that flows adjacent to Holiday Drive going through a portion of the onsite wetland (Wetland B on the survey plat and supplemental sketch) where it then continues in the wetlands and uplands offsite becoming a stormwater feature/pond. The stormwater feature/pond flows into double pipes approximately 48" in diameter and then to an underground pipe beneath the road in the shopping center where it then turns south at Azalea Square Boulevard crossing N. Main Street and continuing under the parking lot and buildings and discharging into Sawmill Branch.**

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: **Much of the area surrounding the wetland and project review area is developed. No water was observed in the wetland during the August 2014 site visit, but water quality of the wetland is anticipated to be good. There were no obvious signs of degradation.**

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 wetland is forested and is surrounded by forested uplands.**

However, the project review area and adjacent parcels are surrounded by development that includes residential development, commercial development, and an interstate. The vegetation present within the wetland includes *Pinus taeda*, *Persea borbonia*, *Quercus nigra*, *Nyssa aquatica*, and *Osmundastrum cinnamomeum*. Aquatic organisms that may be found in the forested wetland include 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 (**797**) 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>
Onsite Wetland A/B (N)	12,008		
Offsite Wetland 1 (Y)	15		
Offsite Wetland 2 (Y)	58		
Offsite Wetland 3 (Y)	712		

Summarize overall biological, chemical and physical functions being performed: **The review area includes the onsite 12,008 acre wetland (Wetland A and B), offsite wetlands totaling approximately 785 acres, and approximately 18,000 linear feet of tributary (Sawmill Branch). The review area includes the headwaters of Sawmill Branch. Headwater wetland systems 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 headwater 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 flow 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.**

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:

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 review area includes the onsite 12,008 acre wetland (Wetland A and B), offsite wetlands totaling approximately 785 acres, and approximately 18,000 linear feet of tributary (Sawmill Branch). The review area includes the headwaters of Sawmill Branch. Headwater wetland systems 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 flow 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. Sawmill Branch drains directly into the Ashley River (TNW). SCDHEC has two monitoring stations on Sawmill Branch. According to SCDHEC's Watershed Water Quality Assessments, at the upstream monitoring station, CSTL-043, which is just downstream of the drainage area for this cumulative review and the discharge point for the underground pipe into Sawmill Branch, aquatic life uses are partially supported due to dissolved oxygen excursions. In addition, there is a significant increasing trend in turbidity. There is also a significant increasing trend in pH. Recreational uses are fully supported. And there is a decreasing trend in biological oxygen demand and fecal coliform bacteria concentration suggesting improved conditions. The watershed that the project review area is located in, HUC 03050201-06, has a high potential for growth and includes the Town of Summerville, Ladson, and the Cities of Charleston and North Charleston. The area surrounding the project review area is heavily developed with potential for future development to occur in the remaining undeveloped areas, including the project review area and adjacent parcels. When wetlands and streams are filled or altered, many of the services that they provide are compromised and the loss of those services affects downstream TNWs. The wetlands and tributary within the review area have a significant nexus to downstream TNWs as they provide a source of carbon and nutrients, can provide water quality functions, can store excess water minimizing flooding impacts downstream, can maintain seasonal flow volumes, and can transport organisms, carbon, nutrients, sediments, clean water, as well as pollutants, such as those associated with heavy traffic, landscaping chemicals, etc. found within the review area, that may be present or could become present, to downstream TNWs.

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: **Sawmill Branch appears on topo maps as both a blue line and named tributary. The tributary, including the channel and water within the tributary, are visible in aerial photography. The drainage area of Sawmill Branch is estimated to be approximately 8,000 acres in size, which includes approximately 1,000 acres of wetlands. SCDHEC also has two water quality monitoring stations in Sawmill Branch indicating that flow is year round to allow for continued monitoring. In addition, a portion of Sawmill Branch within the drainage area discussed in this review is a Corps Federal Project site. For these reasons, Sawmill Branch was determined to have perennial flow. Sawmill Branch is located offsite.**

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:

⁸See Footnote # 3.

- 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: **12.008** 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): **Linear feature #3, referred to as Non-JD LF #3 on the supplemental sketch, is a linear feature that appears to have been excavated from uplands to provide stormwater flow. The linear feature #3 is approximately 8 feet deep and 8 feet wide. At the time of the August 2014 site visit, the linear feature was dry, had leaf litter accumulated at the bottom, displayed no OHW mark, and displayed no evidence of relatively permanent flow. During the January 2015 site visit, water was observed in linear feature #3, but no flow was observed. Leaf litter was still present no OHW mark was observed in linear feature #3. For these reasons, linear feature #3 (Non-JD LF #3), was determined to be non-jurisdictional and not subject to regulation under Section 404 of the CWA. When linear feature #3 comes out of the woods from an adjacent parcel, it runs parallel to and adjacent to Sheep Island Road within the project review area. Linear Feature #3 continues offsite towards Bear Island Drive and**

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.

when it reaches the shopping center, it becomes more swale like and appears to become part of the stormwater system for the shopping center.

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: **Newkirk Environmental, Inc.**
- 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: .
- National wetlands inventory map(s). Cite name: **PFO1B,** .
- State/Local wetland inventory map(s): **Pantego fine sandy loam.**
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): **Berkeley 2006, Google Earth 2012, 2014.**
 - 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 12.008 acre wetland (Wetland A and B) located within the project review area is jurisdictional and subject to regulation under Section 404 of the CWA. Linear conveyance #3 was determined to be non-jurisdictional and not subject to regulation under Section 404 of the CWA. Linear conveyance #1 and #2 located in the wetlands within the project review area are part of the wetlands and therefore regulated by Section 404 of the CWA.