

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): 2/25/19

B. DISTRICT OFFICE, FILE NUMBER, FILE NAME: JD Form 1 of 1; SAC-2018-01257 Salisbury Tracts

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: **Dorchester County** City: **Jedburg**
Center coordinates of site (lat/long in degree decimal format): Lat. **33.043306311091° N**, Long. **-80.1896707323919° W**.
Universal Transverse Mercator:

Name of nearest waterbody: **Rumphs Hill Creek**

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

Name of watershed or Hydrologic Unit Code (HUC): **3050201**

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): **September 27, 2018**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "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: **3,932** linear feet: width (ft) and/or acres.

Wetlands: **A: 9.131 ac; B: 46.283 ac; C: 11.7; E: 0.248 ac; F: 5.002 ac; G: 0.361 ac; H: 1.307 ac; J: 0.004 ac; K: 0.004 ac;**

L: 0.005 ac; Total Wetlands: 74.046 acres. Excavated Wetlands (Ponds): D: 3.829 ac; I: 1.885 ac; Total Excavated Wetlands (Ponds) 5.714 acres.

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: **The project review area contains five (5) linear conveyances. The conveyances are of varying width and depth but did not contain water, no evidence of relatively permanent flow and no defined bed and bank. Therefore, the linear conveyances were determined to be non-jurisdictional and not regulated by Section 404 of the CWA. Although non-jurisdictional, linear conveyance #1 provides a hydrologic connection for Wetland E and F to other waters and linear conveyance #2 provides a hydrologic connection for Wetland H to other waters. The jurisdictional status of Wetland E, F and H are discussed in Section III C.**

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**

*Rumphs Hill Creek

(i) **General Area Conditions:**

Watershed size: **139,162 acres** ;

Drainage area: **3,680 acres**

Average annual rainfall: **48 inches**

Average annual snowfall: **0 inches**

(ii) **Physical Characteristics:**

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **3** tributaries before entering TNW.

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

Project waters are **5-10** river miles from TNW.
Project waters are **5-10** river miles from RPW.
Project waters are **5-10** aerial (straight) miles from TNW.
Project waters are **5-10** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: **Wetlands to Rumphs Hill Creek to Negro Branch to Cypress Swamp and then to the Ashley River (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: **Although Rumphs Hill Creek is located within the**

project review area, it was not observed onsite due to its position within the wetlands; however, all or portions of Rumphs Hill Creek both on and offsite have likely been manipulated based on a review of aerial photographs.

Tributary properties with respect to top of bank (estimate): **The tributary channel was not observed.**

Average width: **N/A** feet

Average depth: **N/A** feet

Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply): **The tributary channel was not observed, but likely has the following:**

Silts

Sands

Concrete

Cobbles

Gravel

Muck

Bedrock

Vegetation. Type/% cover:

Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: **The tributary channel was not observed, but the portion of the tributary located within the project review area is likely stable as it flows through wetlands, which can help minimize erosion.**

Presence of run/riffle/pool complexes. Explain:

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:

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): **The tributary channel was not observed but it likely has the following due to its location within the coastal plain and similar position in the landscape as nearby tributaries:**

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

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.

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

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

(iii) **Chemical Characteristics:**

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

Explain: **Although the tributary channel is located within the project review area, it was not observed due to its position within the onsite wetlands. The water quality of the tributary is likely good as no visible sources of pollutants were identified in aerial photographs. The tributary may receive stormwater runoff from adjacent developments. Although development is present in areas surrounding the project review area the area immediately upstream of the project review area is undeveloped.**

Identify specific pollutants, if known:

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

Riparian corridor. Characteristics (type, average width): **The riparian area of the tributary within the project review area is, at a minimum, approximately 1600 feet in total 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 tributaries 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: **A: 9.131 ac; B: 46.283 ac; C: 11.7; E: 0.248 ac; F: 5.002 ac; G: 0.361 ac; H: 1.307 ac; J: 0.004 ac; K: 0.004 ac; L: 0.005 ac; Total Wetlands: 74.046 acres. Excavated Wetlands (Ponds): D: 3.829 ac; I: 1.885 ac; Total Excavated Wetlands (Ponds) 5.714 acres**

Wetland type. Explain: **Forested and open water excavated wetlands.**

Wetland quality. Explain: **Good.**

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Wetlands A, B, C, G, J, K, L and Pond D and Pond I: Flow is: Intermittent Flow. Explain: The wetlands and ponds (excavated wetlands) are part of one large wetland system that abuts the tributary, Rumphs Hill Branch. Flow from the wetlands to the tributary is intermittent and may occur seasonally and/or after rain events when surface water may be present in the wetlands. In addition, when water levels in the tributary are high, the water may overtop the banks and flow directly into the abutting wetlands.

Surface flow is: **Discrete**

Characteristics:

Wetlands E and F Flow is: Intermittent Flow. Explain: Wetland E and F share a boundary with the Non-JD Linear Conveyance 1. Flow from the wetlands to the tributary is intermittent and may occur seasonally and/or after rain events when surface water may be present in the wetlands and flows into the linear conveyance where it then flows through Wetland B to the tributary..

Surface flow is: **Discrete and confined**

Characteristics:

Wetlands G Flow is: Intermittent Flow. Explain: Wetland G shares a boundary with the Non-JD Linear Conveyance 2. Flow from the wetlands to the tributary is intermittent and may occur seasonally and/or after rain events when surface water may be present in the wetlands and flows into the linear conveyance where it then flows through Wetland C to the tributary..

Surface flow is: **Discrete and confined**

Characteristics:

Subsurface flow: **Unknown**. Explain findings: .
 Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

Wetland).

Directly abutting: **Wetland A, B, C, G, J, K, L and Pond D (Excavated Wetland) and Pond E (Excavated**

Not directly abutting: **Wetland E, F and H**

Discrete wetland hydrologic connection. Explain: **Wetland H has a hydrologic surface connection to the tributary through Non-JD Linear Conveyance 2 and Wetland C. Wetland E and F are part of the same wetland (but are located on separate TMS Parcels) and have a hydrologic surface connection to the tributary through Non-JD Linear Conveyance 1 and Wetland B.**

Ecological connection. Explain: **Wetlands E, F and H also have an ecologic connection to the tributary due to their proximity to the tributary, position in the landscape, and a discrete hydrologic surface connection that may provide a corridor of aquatic species movement among the wetlands and the tributary..**

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 **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: **The water quality in the wetlands appeared to be good. Potential source of pollutants include stormwater runoff from the adjacent developments.**

Identify specific pollutants, if known: .

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

Riparian buffer. Characteristics (type, average width): **The wetlands are part of the approximate 1600 foot wide riparian buffer of the tributary..**

Vegetation type/percent cover. Explain: **Forested in the vegetated wetlands and open water in the ponds (excavated wetlands) .**

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. Vegetation within the wetlands onsite includes, but is not limited to, *Pinus taeda*, *Acer rubrum*, *Woodwardia aerolata*, *Osmunda cinnamomia*, *Arundinairia gigantea*, *Magnolia virginiana*. The vegetation within the wetlands is diverse and diverse wetlands often attract diverse wildlife.**

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

All wetland(s) being considered in the cumulative analysis: **10**

Approximately (**516.781**) 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>
A (Y)	9.131 ac	E (N)	0.248 ac
B (Y)	46.283 ac	F (N)	5.002 ac
C (Y)	11.7 ac	H (N)	1.307 ac
G (Y)	0.361 ac	Offsite 1	343 ac
D (Y)	3.829 ac	Offsite 2	94 ac
I (Y)	1.885 ac		
J (Y)	0.005 ac		
K (Y)	0.004 ac		
L (Y)	0.005 ac		

Summarize overall biological, chemical and physical functions being performed: **The project review area that is subject to this jurisdictional determination is 240.087 acres in size. The subject review area is located within a drainage area of Rumphs Hill Creek, which flows directly into Negro Branch, then to Cypress Swamp, and then to the Ashley River, the TNW. The relevant reach of Rumphs Hill Creek has a drainage area of approximately 3,680 acres in size and contains approximately 516.781 acres of freshwater, non-tidal wetlands. The wetlands located within the drainage area of Rumphs**

Hill Creek, which are included in this cumulative review, 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.

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: **The project review area that is subject to this jurisdictional determination is 240.087 acres in size. The subject review area is located within a drainage area of Rumphs Hill Creek, which flows into Negro Branch, then to Cypress Swamp, and then to the Ashley River. The relevant reach of Rumphs Hill Creek has a drainage area of approximately 3,680 acres in size and contains approximately 516.781 acres of freshwater, non-tidal wetlands. A portion of Rumphs Hill Creek, 3,932 linear feet, are located within the project review area. Wetlands A, B, C, G, J, K, L and Ponds D and I (excavated wetlands) are part of a large wetland system that is contiguous with Rumphs Hill Creek. Rumphs Hill Creek flows through the wetlands and therefore these wetlands are considered abutting wetlands. There are two potential offsite wetlands that also appear to be abutting Rumphs Hill Creek. These wetlands were identified by review of aerial photographs, soils survey information and NWI maps. In addition to the abutting wetlands, non-abutting wetlands are also located within both the project review area and within the drainage area of Rumphs Hill Branch. The non-abutting wetlands, which are the subject of this significant nexus determination, are onsite wetlands E, F and H. These wetlands have surface hydrologic connections with Rumphs Hill Creek via non-jurisdictional linear conveyances and other onsite wetlands.**

Regardless of whether the wetlands are abutting or non-abutting, wetlands located within the drainage area of Rumphs Hill Creek 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.

A review of recent aerial photographs indicate that no ongoing development is occurring within the Rumphs Hill Creek drainage area; however, it appears that existing residential, commercial and industrial developments may be present. The developments also include numerous roads and impervious surfaces, which likely contribute stormwater runoff into Rumphs Hill Creek and its adjacent wetlands. The stormwater runoff likely contains oil, trash, sediments and possibly fertilizers/chemicals from yards. .

The non-abutting wetlands, E, F and H, located within the project review area have a significant nexus to downstream TNWs as they can 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, such as in the runoff from the adjacent developments, 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.

According to the SCDHEC Watershed Information available online, there is a water quality monitoring station (CSTL-078) in Cypress Swamp located downstream from the project review area location. At CSTL-078, aquatic life uses are fully supported; however there is a due to dissolved oxygen excursions. There is also a significant increasing trend in a five-day biological oxygen demand. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standard violations. There is a significant increasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions.

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: **Rumphs Hill Creek is appears as a named blue line tributary on topographic maps and other resources. It is also visible in aerial photographs. The drainage area for the relevant reach of Rumphs Hill Creek is approximately 3680 acres, which includes developed and undeveloped uplands and a large wetland system. For these reasons, Rumphs Hill Creek was determined to have perennial flow. Rumphs Hill Creek flows to Negro Branch, to Cypress Swamp, and then to the Ashley River, the TNW.**

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: **3932** 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.

⁸See Footnote # 3.

- 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 A, B, C, G, J, K, L and Ponds D and I (excavated wetlands) are part of a large wetland system that is contiguous with Rumphs Hill Creek. Rumphs Hill Creek flows through the wetlands and therefore these wetlands are considered abutting wetlands.**
- 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: **A: 9.131 ac; B: 46.283 ac; C: 11.7; G: 0.361 ac; J: 0.004 ac; K: 0.004 ac; L: 0.005 ac; Excavated Wetland (Pond): D: 3.829 ac; Excavated Wetland (Pond) I: 1.885 ac; Total: 73.202 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 E: 0.248 ac; Wetland F: 5.002 ac; and Wetland H: 1.307 ac; Total: 6.557 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): .

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

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

Provide acreage estimates for non-jurisdictional waters in the review area, 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.**
- Data sheets prepared/submitted by or on behalf of the applicant/consultant. **Concurs 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: **Nakina fine sandy loam, Rains fine sandy loam.**
- National wetlands inventory map(s). Cite name: **PFO.**
- 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 2018.**
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 wetlands and tributary located within the project review area are jurisdictional and subject to regulation under Section 404 of the CWA..