SECTION I: BACKGROUND INFORMATION
A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): October 31, 2019

B. DISTRICT OFFICE, FILE NUMBER, FILE NAME: JD Form 1 of 2; Charleston District, SAC-2013-00936 Chapin Technology Park, Lexington County

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Projects is located 0.8 mile west of the I-26 and S-48 (Columbia Ave.) Interchange (exit 91)
   State: South Carolina  County/parish/borough: Lexington County  City: Chapin
   Center coordinates of site (lat/long in degree decimal format): Lat. 34.175028°, Long. -81.331334°.
   Name of nearest waterbody: Risters Creek
   Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Broad River
   Name of watershed or Hydrologic Unit Code (HUC): 0305010607-02 Wateree Creek-Broad River
   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: October 31, 2019
   Field Determination. Date(s): September 12, 2013 for PJD issued Nov. 7, 2013.

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 7 (Risters Creek): 1,733.84 linear feet, Tributary 8: 1,393.35 linear feet, Tributary 9: 179.64 linear feet, Tributary 10: 52.52 linear feet, Tributary 1: 1,864.11 linear feet, Tributary 2: 887.24 linear feet and Tributary 4/4a: 3,129.79 linear feet: various width (ft) and/or acres.
         Wetlands: Wetland A: 0.04 ac and Wetland B: 0.03 acres.
      c. Limits (boundaries) of jurisdiction based on: Established by OHWM., 1987 Delineation Manual, Pick List
         Elevation of established OHWM (if known):.

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1 Boxes checked below shall be supported by completing the appropriate sections in Section III below.
2 For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least “seasonally” (e.g., typically 3 months).
2. Non-regulated waters/wetlands (check if applicable):³ [Including potentially jurisdictional features that upon assessment are NOT waters or wetlands]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: .

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

   Identify TNW: .

   Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

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

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

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

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

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

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

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

   (i) General Area Conditions:
      Watershed size: 16,658 acres; Wateree Creek 030501060702
      Average annual rainfall: 44.6 (based on data from www.weather-us.com) inches
      Average annual snowfall: 1.5 (based on data from www.weather-us.com) inches

   (ii) Physical Characteristics:
      (a) Relationship with TNW:
         ☐ Tributary flows directly into TNW.
         ☒ Tributary flows through 2 tributaries before entering TNW.

         Project waters are 2.5 river miles from TNW.
         Project waters are 1 (or less) river miles from RPW.
         Project waters are 2.5 aerial (straight) miles from TNW.

³ Supporting documentation is presented in Section III.F.
⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
Project waters are 1 (or less) aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain: N/A.

Identify flow route to TNW: SRPW are tributaries to Risters Creek that flows to Wateree Creek to the Broad River (TNW).

Tributary stream order, if known: SRPW's are first and second order streams.

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

Tributary is:  
- Natural

Tributary properties with respect to top of bank (estimate):
- Average width:  feet
- Average depth:  feet
- Average side slopes: Pick List.

Primary tributary substrate composition (check all that apply):
- Silts
- Sands
- Cobbles
- Gravel
- Bedrock
- Vegetation. Type/% cover:
- Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Fairly stable banks within an area that is predominantly wooded.


Tributary geometry: Meandering.

Tributary gradient (approximate average slope): Unknown %

(c) Flow:

Tributary provides for: Seasonal flow

Estimate average number of flow events in review area/year: 11-20

Describe flow regime: The tributaries all have distinct channels and clear OHWM's.

Other information on duration and volume: The SRPW's flow during winter/spring season and when there are heavy rains.

Surface flow is: Discrete and confined. Characteristics: Water flows within bed and banks of channels.

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
  - 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
  - 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:
  - 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.

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\(^5\) 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.
(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: Watershed 03050106-07 (formerly 03050106-060) is located in Newberry, Fairfield, and Richland Counties and consists primarily of the Broad River and its tributaries from the Parr Shoals dam to its confluence with the Saluda River. The watershed occupies 148,599 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 59.4% forested land, 21.4% urban land, 13.0% agricultural land, 3.0% forested wetland, 2.0% water, 0.8% barren land, and 0.4% scrub/shrub land. This section of the Broad River accepts drainage from its upper reaches, together with Mayo Creek, Crims Creek (Rocky Creek, Summers Branch), Water Creek (Risters Creek), Boone Creek, Freshley Branch, Mussel Creek, and the Little River Watershed. Hollingshead Creek (Boyd Branch, Wildhorse Branch, Metz Branch, Hope Creek, Bookman Creek) enters the river next followed by the Cedar Creek Watershed, Nipper Creek, Nicholas Creek (Swygert Branch, Moccasin Branch), Slatestone Creek, and Burgess Creek. Crane Creek and Smith Branch enter the river at the base of the watershed near the City of Columbia. Sorghum Branch, Dry Branch (Crescent Lake, Stevensons Lake, Roberts Branch), Elizabeth Lake, and Cumbess Creek drain into Crane Creek followed by North Branch Crane Creek. North Branch Cane Creek accepts drainage from Beasley Creek (Robertson Branch, Lot Branch, Hawkins Branch), Swygert Creek, Dry Fork Creek, and Long Branch. A portion of the Broad River is diverted into the Broad River Canal in Columbia before flowing into the Congaree River. Although depicted in the upper Congaree River Watershed (03050110-01), the canal is associated with this lower Broad River watershed; therefore any facilities or stations in this area will be included in this watershed. The Harbison State Forest is located next to the Broad River just downstream of Nicholas Creek and a Heritage Trust Preserve is located along Nipper Creek. There are a total of 274.1 stream miles and 671.3 acres of lake waters.

Identify specific pollutants, if known: none observed.

(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: Areas of deeper persistent water provide areas for fish.
- Other environmentally-sensitive species. Explain findings:
- Aquatic/wildlife diversity. Explain findings: SRPW's provide habitat for wildlife.

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: 0.04 ac and Wetland B: 0.03 acres
  - Wetland type. Explain: Forested.
  - Wetland quality. Explain:
  - Project wetlands cross or serve as state boundaries. Explain:
(b) General Flow Relationship with Non-TNW:
Flow is: Intermittent flow. Explain: Wetland A & B both abut Tributary 4/4A and provide hydrology to this tributary during winter/spring season and during heavy rain.
Surface flow is: Overland sheetflow
Characteristics: Wetland A & B abut Tributary 4/4A.
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:
- Ecological connection. Explain:
- Separated by berm/barrier. Explain:
(d) Proximity (Relationship) to TNW
Project wetlands are 2-5 river miles from TNW.
Project waters are 2-5 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: Watershed 03050106-07 (formerly 03050106-060) is located Newberry, Fairfield, and Richland Counties and consists primarily of the Broad River and its tributaries from the Parr Shoals dam to its confluence with the Saluda River. The watershed occupies 148,599 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 59.4% forested land, 21.4% urban land, 13.0% agricultural land, 3.0% forested wetland, 2.0% water, 0.8% barren land, and 0.4% scrub/shrub land. This section of the Broad River accepts drainage from its upper reaches, together with Mayo Creek, Crims Creek (Rocky Creek, Summers Branch), Wateree Creek (Risters Creek), Boone Creek, Freshley Branch, Mussel Creek, and the Little River Watershed. Hollingshead Creek (Boyd Branch, Wildhorse Branch, Metz Branch, Hope Creek, Bookman Creek) enters the river next followed by the Cedar Creek Watershed, Nipper Creek, Nicholas Creek (Swygert Branch, Mccasin Branch), Slatestone Creek, and Burgess Creek. Crane Creek and Smith Branch enter the river at the base of the watershed near the City of Columbia. Sorghum Branch, Dry Branch (Crescent Lake, Stevensons Lake, Roberts Branch), Elizabeth Lake, and Cumbers Creek drain into Crane Creek followed by North Branch Crane Creek. North Branch Cane Creek accepts drainage from Beasley Creek (Robertson Branch, Lot Branch, Hawkins Branch), Swygert Creek, Dry Fork Creek, and Long Branch. A portion of the Broad River is diverted into the Broad River Canal in Columbia before flowing into the Congaree River. Although depicted in the upper Congaree River Watershed (03050110-01), the canal is associated with this lower Broad River watershed; therefore any facilities or stations in this area will be included in this watershed. The Harbison State Forest is located next to the Broad River just downstream of Nicholas Creek and a Heritage Trust Preserve is located along Nipper Creek. There are a total of 274.1 stream miles and 671.3 acres of lake waters.

Identify specific pollutants, if known: Unknown.

(iii) Biological Characteristics. Wetland supports (check all that apply):
- Riparian buffer. Characteristics (type, average width): none.
- Vegetation type/percent cover. Explain: none.
- Habitat for:
  - Federally Listed species. Explain findings: none.
  - Fish/spawn areas. Explain findings: Provide breeding grounds for aquatic species.
  - Other environmentally-sensitive species. Explain findings: none.
  - Aquatic/wildlife diversity. Explain findings: Wetland A & B provide habitat for wildlife.

3. Characteristics of all wetlands adjacent to the tributary (if any)
   All wetland(s) being considered in the cumulative analysis: 2
   Approximately (0.07) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<table>
<thead>
<tr>
<th>Directly abuts? (Y/N)</th>
<th>Size (in acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetland A</td>
<td>0.04</td>
</tr>
<tr>
<td>Wetland B</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Summarize overall biological, chemical and physical functions being performed: The wetlands being evaluated in this significant nexus determination adjacent to SRPW 4/4A are performing biological, chemical, and physical functions that relate to the integrity of the TNW. The wetlands in the review area are abutting a seasonal RPW. The wetlands are predominately forested and are performing a variety of biological functions that include providing breeding grounds for aquatic species in the area and habitat for wildlife in the area. The wetlands also perform chemical functions that include filtering pollutants from nearby roads, upland development and clearing. The wetlands also perform physical functions that include flow maintenance like retaining runoff and storing stormwater temporarily during the wetter months and in times of heavy rain. This helps to reduce downstream peak flows and helps to maintain seasonal flow volumes.

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 adjacent wetland in combination with all of its adjacent wetlands, then go to Section III.D: [ ]

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

The seasonal tributaries on the site (Tributary 8, Tributary 9, Tributary 10, Tributary 1, Tributary 2 and Tributary 4/4A) are performing a variety of functions that relate to the biological, chemical, and physical functions of the downstream TNW (Broad River). Tributary 4/4A have abutting wetlands (Wetland A & B). These seasonal RPWs and wetlands are performing a variety of biological functions that include providing breeding grounds for aquatic species and habitat for wildlife in the area by providing cover and feeding areas. These seasonal RPWs and the wetlands are also performing chemical functions that include filtering pollutants from nearby major roads, from upland development and clearing. These seasonal RPWs and the wetlands are also performing physical functions that include flow maintenance like retaining runoff and storing stormwater temporarily during the winter and spring seasons and during times of heavy rain. This helps to reduce downstream peak flows and helps to maintain seasonal flows. Based on the collective functions described above and their importance to the biological, chemical, and physical integrity of the downstream TNW, it has been determined there is a significant nexus between the relevant reach of the tributaries and adjacent wetlands to the downstream TNW (Broad River).

**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: *Tributary 7 is a named (Risters Creek) solid blue line feature on the USGS map at this location. During the field view for this site associated with PJD issued November 7, 2013, perennial flow regime was observed in Tributary 7 along with established bed and banks, and a clear ordinary high water mark. Stream characteristics observed and available data led this office to conclude the tributary has a perennial flow regime.*

   - 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: *Tributaries 1, 2, 4/4A, 8, 9 & 10 appear as dotted blue lines on the USGS map. During the field view for this project, these tributaries were observed to have seasonal flow regime along with established bed and banks, and an ordinary high water mark. Stream characteristics observed and available data led this office to conclude these tributaries may not have continuous year around flow, but would have continuous flow for at least three months during the typical year.*

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

- **Tributary waters:** Tributary 7 (Risters Creek): 1,733.84 linear feet, Tributary 8: 1,393.35 linear feet, Tributary 9: 179.64 linear feet, Tributary 10: 52.52 linear feet, Tributary 1: 1,864.11 linear feet, Tributary 2: 887.24 linear feet and Tributary 4/4a: 3,129.79 linear feet: various width (ft)

- **Other non-wetland waters:** acres.
  Identify type(s) of waters: .

3. **Non-RPWs** 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: As was determined in this document, Tributary 4/4A has seasonal flow. Both Wetland A and Wetland B directly abut Tributary 4/4A.

Provide acreage estimates for jurisdictional wetlands in the review area: **Wetland A: 0.04 ac and Wetland B: 0.03 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: 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.**

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)):**

- 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: .

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8See Footnote # 3.
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.
Identify water body and summarize rationale supporting determination:  

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

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

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

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

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

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: 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: “Chapin Technology Park, Wetland Exhibit” and “Wetland Exhibit, Lines Table” provided by S&ME.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant. Office concurs with data sheets/delineation report.
- Data sheets prepared by the Corps:
- USGS NHD data.
- USGS 8 and 12 digit HUC maps. 0305010607-02 Wateree Creek-Broad River
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000, Chapin SC quadrangle.
- USDA Natural Resources Conservation Service Soil Survey. Citation: USDA-NCSS SSURGO data layers: Georgeville, Toccoa, Chenneby, Tarrus & Water.
- National wetlands inventory map(s). Cite name: USFWS Wetland Mapper: PEM1Ch, PUSCh, PUBFh, R4SBC, PUBHh, R5UBH & R2UBH.
- 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 Imagery 5/2/2018.
  or Other (Name & Date): Field View September 12, 2013.
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .
B. ADDITIONAL COMMENTS TO SUPPORT JD: Aquatic resources documented on this site include one perennial tributary, several seasonal tributaries and a seasonal tributary with abutting wetlands. Based on guidance provided, “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months) and wetlands that directly abuts an RPW are jurisdictional, however, the significant nexus finding for the record are required by Rapanos Guidance. The waters documented on this forma are under jurisdictions of the Clean Water Act and considered waters of the U.S.
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): October 31, 2019

B. DISTRICT OFFICE, FILE NUMBER, FILE NAME: JD Form 2 of 2; Charleston District, SAC-2013-00936 Chapin Technology Park, Lexington County

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Projects is located 0.8 mile west of the I-26 and S-48 (Columbia Ave.) Interchange (exit 91)

State: South Carolina County/parish/borough: Lexington County City: Chapin

Center coordinates of site (lat/long in degree decimal format): Lat. 34.175028°, Long. -81.331334 °.

Universal Transverse Mercator: NAD 83

Name of nearest waterbody: Risters Creek

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

Name of watershed or Hydrologic Unit Code (HUC): 0305010607-02 Wateree Creek-Broad River

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: October 31, 2019

Field Determination. Date(s): September 12, 2013 for PJD issued Nov. 7, 2013.

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 waters (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 6: 22.38 linear feet: 2 to 3 width (ft) and/or acres. Wetlands: acres.

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

Elevation of established OHWM (if known):

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

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 waterbody 4 is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

   (i) General Area Conditions:
      Watershed size: 16,658 acres; Wateree Creek 0305010607-02
      Drainage area: 25 acres
      Average annual rainfall: 44.6 (based on data from www.weather-us.com) inches
      Average annual snowfall: 1.5 (based on data from www.weather-us.com) inches

   (ii) Physical Characteristics:
      (a) Relationship with TNW:
         ☐ Tributary flows directly into TNW.
         ☑ Tributary flows through 3 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 2-5 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: N/A.

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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 TNW:\(^5\): Tributary 6 flows to an unnamed tributary to Risters Creek to Wateree Creek to the Broad River (TNW).

Tributary stream order, if known: First order.

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

**Tributary**
- Natural

**Tributary** properties with respect to top of bank (estimate):
- Average width: 2-3 feet
- Average depth: 0.5-1.0 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: Fairly stable banks within an area that is predominantly wooded.


Tributary geometry: Meandering. Stream channel includes some slight meanders

Tributary gradient (approximate average slope): Unknown %

(c) Flow:

Tributary provides for: Intermittent but not seasonal flow

Describe flow regime: Flow regime in tributary 6 includes some continuous flow beyond precipitation events but would not be continuous for three months during the typical year.

Other information on duration and volume: .

Surface flow is: Discrete and confined. Characteristics: Surface flow is contained within established bed and banks.

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
  - 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
  - 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:
  - oil or scum line along shore objects
  - fine shell or debris deposits (foreshore)
  - physical markings/characteristics
  - tidal gauges
  - other (list):

  - survey to available datum;
  - physical markings;
  - vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

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\(^5\) 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: Watershed 03050106-07 (formerly 03050106-060) is located Newberry, Fairfield, and Richland Counties and consists primarily of the Broad River and its tributaries from the Parr Shoals dam to its confluence with the Saluda River. The watershed occupies 148,599 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 59.4% forested land, 21.4% urban land, 13.0% agricultural land, 3.0% forested wetland, 2.0% water, 0.8% barren land, and 0.4% scrub/shrub land. This section of the Broad River accepts drainage from its upper reaches, together with Mayo Creek, Crims Creek (Rocky Creek, Summers Branch), Wateree Creek (Risters Creek), Boone Creek, Freshley Branch, Mussel Creek, and the Little River Watershed. Hollingshead Creek (Boyd Branch, Wildhorse Branch, Metz Branch, Hope Creek, Bookman Creek) enters the river next followed by the Cedar Creek Watershed, Nipper Creek, Nicholas Creek (Swygert Branch, Mocassin Branch), Slatestone Creek, and Burgess Creek. Crane Creek and Smith Branch enter the river at the base of the watershed near the City of Columbia. Sorghum Branch, Dry Branch (Crescent Lake, Stevensons Lake, Roberts Branch), Elizabeth Lake, and Cumbess Creek drain into Crane Creek followed by North Branch Crane Creek. North Branch Cane Creek accepts drainage from Beasley Creek (Robertson Branch, Lot Branch, Hawkins Branch), Swygert Creek, Dry Fork Creek, and Long Branch. A portion of the Broad River is diverted into the Broad River Canal in Columbia before flowing into the Congaree River. Although depicted in the upper Congaree River Watershed (03050110-01), the canal is associated with this lower Broad River watershed; therefore any facilities or stations in this area will be included in this watershed. The Harbison State Forest is located next to the Broad River just downstream of Nicholas Creek and a Heritage Trust Preserve is located along Nipper Creek. There are a total of 274.1 stream miles and 671.3 acres of lake waters.

Identify specific pollutants, if known: N/A.

(iv) Biological Characteristics. Channel supports (check all that apply):
- ☒ Riparian corridor. Characteristics (type, average width): Tributary 6 is within a wooded area with an estimated buffer width > 100 feet.
- ☐ 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: Tributary 6 is within a wooded area and provides an opportunity for a headwater feature that is beneficial to wildlife (food source, cover and rearing area).

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

(i) Physical Characteristics:
(a) General Wetland Characteristics:
- Properties:
  - Wetland size: acres
  - Wetland type. Explain:
  - Wetland quality. Explain:
- Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
- Flow is: Pick List. Explain:
  - Surface flow is: Pick List
  - Characteristics:
  - Subsurface flow: Pick List. Explain findings:
  - ☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:
- ☐ Directly abutting
- ☐ Not directly abutting
  - Discrete wetland hydrologic connection. Explain:
  - Ecological connection. Explain:
  - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
- Project wetlands are Pick List river miles from TNW.
- Project waters are Pick List aerial (straight) miles from TNW.
- Flow is from: Pick List.
- Estimate approximate location of wetland as within the Pick List floodplain.

(ii) Chemical Characteristics:
Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:  
Identify specific pollutants, if known:  

(iii) Biological Characteristics. Wetland supports (check all that apply):  
☐ Riparian buffer. Characteristics (type, average width):  
☐ Vegetation type/percent cover. Explain:  
☐ Habitat for:  
☐ Federally Listed species. Explain findings:  
☐ Fish/spawn areas. Explain findings:  
☐ Other environmentally-sensitive species. Explain findings:  
☐ Aquatic/wildlife diversity. Explain findings:  

3. Characteristics of all wetlands adjacent to the tributary (if any)  
All wetland(s) being considered in the cumulative analysis: Pick List  
Approximately (________) acres in total are being considered in the cumulative analysis.  

For each wetland, specify the following:  

<table>
<thead>
<tr>
<th>Directly abuts? (Y/N)</th>
<th>Size (in acres)</th>
<th>Directly abuts? (Y/N)</th>
<th>Size (in acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td></td>
<td>[ ]</td>
<td></td>
</tr>
</tbody>
</table>

Summarize overall biological, chemical and physical functions being performed:  

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

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:  
• Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?  
• Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?  
• Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?  
• Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?  

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

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: Flow regime for Tributary 6 appears to occur more frequently than just in conjunction to precipitation events. In fact, it appears that this feature would continue to have flow beyond precipitation events due to shallow subsurface flows/spring. However, due to an absence of evidence that indicates that Tributary 6 would have a three month consecutive flow during the field view, the Corps has determined this feature to be a non-relatively permanent water that has intermittted but not seasonal flow. The evidence of flow observed included bed and banks with scour/shelving/sediment deposition along with absence of terrestrial vegetation or accumulated leaves in the stream channel. This tributary provides not only seasonal and base flows for

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downstream tributaries and TNW but also provide an important conduit for nutrients (Carbon and Nitrogen) for the plants and organisms found in downstream tributaries/wetlands and ultimately the TNW (Broad River). Therefore the identified Tributary 6 is providing an important contribution to the chemical, physical, and biological integrity to downstream waters including Broad River.

2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

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

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

1. TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
   - TNWs: linear feet width (ft), Or, acres.
   - Wetlands adjacent to TNWs: acres.

2. RPWs that flow directly or indirectly into TNWs.
   - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .
     
     Provide estimates for jurisdictional waters in the review area (check all that apply):
     - Tributary waters: linear feet width (ft)
     - Other non-wetland waters: acres.
     - Identify type(s) of waters: .

3. Non-RPWs 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: **Tributary 6: 22.38 linear feet 2-3 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: acres.

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*See 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.**

   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):**

   □ which are or could be used by interstate or foreign travelers for recreational or other purposes.
   □ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
   □ which are or could be used for industrial purposes by industries in interstate commerce.
   □ Interstate isolated waters. **Explain:** _____.
   □ Other factors. **Explain:** _____.

Identify water body and summarize rationale supporting determination: _____.

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

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

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

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

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

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

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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:
- [X] Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: “Chapin Technology Park, Wetland Exhibit” and “Wetland Exhibit, Lines Table” provided by S&ME.
- [X] Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- [X] Office concurs with data sheets/delineation report.

The Corps concurs with the conclusions of the information provided.

☐ Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- USGS NHD data.
- USGS 8 and 12 digit HUC maps. 0305010607-02 Wateree Creek-Broad River
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000, Chapin SC quadrangle.
- USDA Natural Resources Conservation Service Soil Survey. Citation: USDA-NCSS SSURGO data layers: Georgeville, Toccoa, Chenneby, Tarrus & Water.
- National wetlands inventory map(s). Cite name: USFWS Wetland Mapper: PEM1Ch, PUSCh, PUBFh, R4SBC, PUBHh, R5UBH & R2UBH.
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: [X] Aerial (Name & Date): Google Earth Imagery 5/2/2018.
  or [X] Other (Name & Date): Field View September 12, 2013.
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Aquatic resources documented on this site include one non-relatively permanent tributary (Tributary 6). Based on guidance provided, NRPWs, and adjacent wetlands are jurisdictional under the Clean Water Act when a Significant Nexus to the downstream TNW can be demonstrated. This office performed the required Significant Nexus Determination and on this basis has made the determination that all the waters documented on this form, including all wetlands adjacent to the relevant reach evaluated in the SND, are jurisdictional Waters of the U.S.