

**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):** May 23, 2012

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:** Charleston District, SCDOT S-81 Bridge Replacement Project across Tools Fork Creek, SAC 2011-01233-DS

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: South Carolina County/parish/borough: York County City:

Center coordinates of site (lat/long in degree decimal format): Lat.34.9639534 ° **N**, Long 81.1211345° **W**.

Universal Transverse Mercator:

Name of nearest waterbody: Tools Fork Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Name of watershed or Hydrologic Unit

Code (HUC): Fishing Creek (03050103-060) to Catawba River Basin-TNW (03050103)

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: May 10, 2012

Field Determination. Date(s): January 12, 2012

**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):<sup>1</sup>**

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters<sup>2</sup> (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: Stream B (UT to Tools Fork Creek) 71 linear feet; Stream A (Tools Fork Creek) 362 linear feet (length);  
Stream B (UT to Tools Fork Creek) 4 feet; Stream A (Tools Fork Creek) 15-17 feet (width) and Pond A 0.4 acres.

Wetlands: acres.

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

Elevation of established OHWM (if known): .

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

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

Explain: **The applicant has identified a linear feature within the project limits that provides a hydrologic connection**

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

<sup>2</sup> 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).

<sup>3</sup> Supporting documentation is presented in Section III.F.

from Pond A to Stream B. This linear feature appears to be a shallow roadside ditch along S-81. During the field view, no water was observed in this non-jurisdictional linear drainage feature. This feature does have bed and bank features, but does not have any evidence of an ordinary high water mark. Nor was there evidence of flow. This is based upon the fact that the “channel” was full of leaves (not water stained) and other material (plastic bottles, Styrofoam cups, etc.) that were scattered and not deposited in any wrack lines or piles. This non-jurisdictional linear drainage feature continues from Pond A to Stream B (where evidence of flow is present and jurisdiction is established). Based upon this lack of evidence of flow, the identified linear drainage feature was determined to not be jurisdictional in the area between Pond A and Stream B.

### **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<sup>4</sup> 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: Fishing Creek Watershed (03050103-060): 136,173 acres

Drainage area: Tools Fork Creek at S-81 bridge approx 5 square miles

Average annual rainfall: Based on York Co Soil Survey 46.7 inches

Average annual snowfall: Based on York Co Soil Survey 2.6 inches

**(ii) Physical Characteristics:**

**(a) Relationship with TNW:**

Tributary flows directly into TNW.

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

Tributary flows through **3** tributaries before entering TNW. **Tools Fork Creek & Tributaries to Wildcat Creek to Fishing Creek to Catawba River (TNW)**

Project waters are **25-30** river miles from TNW.  
Project waters are **1 (or less)** river miles from RPW.  
Project waters are **20-25** 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

Identify flow route to TNW<sup>5</sup>: Stream B flows to Tools Fork Creek, which flows to Wildcat Creek, which flows to Fishing Creek, which flows to Catawba River (TNW)

Tributary stream order, if known: Tools Fork Creek is a second order stream at S-81 roadway crossing, and Streams B is a first order stream.

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

**Tributary** is:  Natural Stream A (Tools Fork Creek) is a natural stream  
 Artificial (man-made). Explain:  
 Manipulated (man-altered). Explain: Stream B appears to be a manipulated drainage feature that may have once been associated with the tributary that is currently impounded as Pond A.

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

Average width: Stream B (UT to Tools Fork Creek) 4 feet; Stream A (Tools Fork Creek) 15-17 feet  
Average depth: Stream B (UT to Tools Fork Creek) 0.25-0.75 feet, Stream A (Tools Fork Creek) 0.5-1.5 feet  
Average side slopes: **Vertical (1:1 or less).**

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: Stream A (Tools Fork Creek) and Stream B appear to be fairly stable but somewhat incised.

Presence of run/riffle/pool complexes. Explain: Abundant riffle/pools present in Stream A (Tools Fork Creek).

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): 1-2 %

(c) Flow:

Tributary provides for: **Seasonal flow**

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

Describe flow regime: Stream A (Tools Fork Creek) is a blue line on the USGS map, has established bed and banks, an ordinary high water mark, and has a perennial flow regime.

The upper limits of Stream B are located on the non-jurisdictional linear drainage feature where there is enough roadside drainage along with the intermittent drainage from Pond A have created a head cut in this channel. This appears to be the location where enough surface water is present and flowing fast enough to incise the channel to form a deeper channel that is intercepting shallow sub surface groundwater. This location includes an established bed and banks with an OHWM and flow was observed during the field view. Stream B begins at this head cut and continues to Tools Fork Creek. It is the determination by the Corps that Stream B is a seasonal RPW and is experiencing flow for at least three consecutive months during a typical year. This is based upon the limited drainage area to Stream B, presence of upstream impoundment, and evidence within Stream B of flow.

Other information on duration and volume:

Surface flow is: **Discrete and confined.** Characteristics: flow in both Stream A (Tools Fork Creek) and Stream B are confined within the established bed and banks.

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

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks  
 OHWM<sup>6</sup> (check all indicators that apply):

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

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris                     |
| <input type="checkbox"/> changes in the character of soil                     | <input checked="" type="checkbox"/> destruction of terrestrial vegetation      |
| <input checked="" type="checkbox"/> shelving                                  | <input type="checkbox"/> the presence of wrack line                            |
| <input type="checkbox"/> vegetation matted down, bent, or absent              | <input checked="" type="checkbox"/> sediment sorting                           |
| <input type="checkbox"/> leaf litter disturbed or washed away                 | <input checked="" type="checkbox"/> scour                                      |
| <input checked="" type="checkbox"/> sediment deposition                       | <input checked="" type="checkbox"/> multiple observed or predicted flow events |
| <input checked="" type="checkbox"/> water staining                            | <input type="checkbox"/> abrupt change in plant community                      |
| <input type="checkbox"/> other (list):  |  |
- Discontinuous OHWM.<sup>7</sup> Explain: .

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

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

**(iii) Chemical Characteristics:**

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

Explain: Water was fairly clear and no observed pollutants or excessive sediment depositions were noted.

Identify specific pollutants, if known: N/A.

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

- Riparian corridor. Characteristics (type, average width): Stream A (Tools Fork Creek) and Stream B have forested riparian corridors that are well established within the project limits. However, some portions of this riparian corridor contain residential developments. The majority of the riparian corridor is forested and wider than 50 feet on either side of Stream A (Tools Fork Creek). This area around the S-81 includes a mix of rural/undeveloped lands and residential developments.
- 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: Tools Fork Creek and unnamed tributary (Stream B) provide an opportunity for many organisms (aquatic and terrestrial to not only have areas of refuge, but also to provide areas for foraging and rearing of young.

**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: .

<sup>6</sup>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.

<sup>7</sup>Ibid.

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: Majority of delineated are dominated by a mix of maturing hardwood/softwood forests.
- Habitat for:
- Federally Listed species. Explain findings: .
  - Fish/spawn areas. Explain findings: .
  - Other environmentally-sensitive species. Explain findings: .
  - Aquatic/wildlife diversity. Explain findings: .

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

All wetland(s) being considered in the cumulative analysis: **Pick List**  
Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
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Summarize overall biological, chemical and physical functions being performed:

### C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
4. **Documentation for the Record only: Significant nexus findings for seasonal RPWs and/or wetlands abutting seasonal RPWs:** The upper limits of Stream B are located on the non-jurisdictional linear drainage feature where there is enough roadside drainage along with the intermittent drainage from Pond A have created a head cut in this channel. This appears to be the location where enough surface water is present and flowing fast enough to incise the channel to form a deeper channel that is intercepting shallow sub surface groundwater. This location includes an established bed and banks with an OHWM and flow was observed during the field view. Stream B begins at this head cut and continues to Tools Fork Creek. It is the determination by the Corps that Stream B is a seasonal RPW and is experiencing flow for at least three consecutive months during a typical year. This is based upon the limited drainage area to Stream B, presence of upstream impoundment, and evidence within Stream B of flow.

The physical characteristics of this tributary and impoundment include flow management functions by retaining runoff from the adjacent residential/agricultural developments/areas and storing rainwater temporarily after storm events. Flow maintenance results in the reduction of downstream peak flows, which help to maintain seasonal flow volumes, and can reduce stream erosion. Functions of the tributary and impoundment that impact the chemical integrity of the downstream TNW (Catawba River) include the filtering of excess nutrients found in runoff from the surrounding uplands due to residential/agricultural developments/areas. This filtering/uptake function reduces nitrogen and phosphorus loading downstream in Tools Fork Creek, Fishing Creek, and ultimately the Catawba River (TNW). A variety of biological functions are also being performed by this Seasonal RPW and impoundment by providing breeding grounds/shelter for aquatic wildlife and foraging areas for water dependant species and other wildlife. This tributary and impoundment provide diversity through different types of water (tributary and impoundment), and by providing forested/scrub-shrub riparian connections from adjacent uplands the larger downstream riparian corridor/Tools Fork Creek. It is based upon these functions that SRPW Stream B, and Impoundment Pond A have a significant nexus to Catawba River by providing a substantial contribution to the integrity of the physical, chemical, and biological features of Tools Fork Creek (RPW), Fishing Creek, and the Catawba River (TNW).

**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: Stream A (Tools Fork Creek) appears as a solid blue line on the USGS map for this area and S-81 crosses this stream by a bridge within the project limits. In addition, during the field view, perennial flow regime was observed along with established bed and banks, an established ordinary high water mark, as were numerous fish.
  - 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. The upper limits of Stream B are located on the non-jurisdictional linear drainage feature where there is enough roadside drainage along with the intermittent drainage from Pond A have created a head cut in this channel. This appears to be the location where enough surface water is present and flowing fast enough to incise the channel to form a deeper channel that is intercepting shallow sub surface groundwater. This location includes an established bed and banks with an OHWM and flow was observed during the field view. Stream B begins at this head cut and continues to Tools Fork Creek. It is the determination by the Corps that Stream B is a seasonal RPW and is experiencing flow for at least three consecutive months during a typical year. This is based upon the limited drainage area to Stream B, presence of upstream impoundment, and evidence within Stream B of flow.

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

- Tributary waters: **Stream B (UT to Tools Fork Creek) 71 linear feet; Stream A (Tools Fork Creek) 362 linear feet (length); Stream B (UT to Tools Fork Creek) 4 feet; Stream A (Tools Fork Creek) 15-17 feet width (ft).**
  - Other non-wetland waters: acres.
- Identify type(s) of waters: .

**3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

- Tributary waters:            linear feet            width (ft).  
 Other non-wetland waters:            acres.

Identify type(s) of waters:            .

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.  
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:  
  
 Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area:    acres.

**5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area:    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.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from “waters of the U.S.,” or  
**It appears from aerial photography, soil survey information and from the field view that that Pond A was created from Waters of the U.S. Specifically, Pond A was created by placing an impoundment/earthen dam within a wetland. Only a portion ( 0.4 acres) of Pond A is located within this project boundary.**  
  
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or  
 Demonstrate that water is isolated with a nexus to commerce (see E below).

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

- 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:**            .

<sup>8</sup>See Footnote # 3.

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

<sup>10</sup> **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 estimates for jurisdictional waters in the review area (check all that apply):

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

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

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): **The applicant has identified a linear feature within the project limits that provides a hydrologic connection from Pond A to Stream B. This linear feature appears to be a shallow roadside ditch along S-81. During the field view, no water was observed in this non-jurisdictional linear drainage feature. This feature does have bed and bank features, but does not have any evidence of an ordinary high water mark. Nor was there evidence of flow. This is based upon the fact that the "channel" was full of leaves (not water stained) and other material (plastic bottles, Styrofoam cups, etc.) that were scattered and not deposited in any wrack lines or piles. This non-jurisdictional linear drainage feature continues from Pond A to Stream B (were evidence of flow is present and jurisdiction is established). Based upon this lack of evidence of flow, the identified linear drainage feature was determined to not be jurisdictional in the area between Pond A and Stream B.**

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: Mulkey.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - 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: Rock Hill West, South Carolina.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Page 41, Helena, Mixed Alluvial Soils, and Enon soil series.
- National wetlands inventory map(s). Cite name: U43, PUBHh & U21.
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date):(1999) 12090:49.  
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): .

5. **B. ADDITIONAL COMMENTS TO SUPPORT JD:** Provide data and rationale indicating that tributary is perennial: Stream A (Tools Fork Creek) appears as a solid blue line on the USGS map for this area and S-81 crosses this stream by a bridge within the project limits. In addition, during the field view, perennial flow regime was observed along with established bed and banks, an established ordinary high water mark, as were numerous fish. Based on observed flow regime, the Corps finds that Stream A (Tools Fork Creek) is a Relatively Permanent Waters, and is jurisdictional

The upper limits of Stream B are located on the non-jurisdictional linear drainage feature where there is enough roadside drainage along with the intermittent drainage from Pond A have created a head cut in this channel. This appears to be the location where enough surface water is present and flowing fast enough to incise the channel to form a deeper channel that is intercepting shallow sub surface groundwater. This location includes an established bed and banks with an OHWM and flow was observed during the field view. Stream B begins at this head cut and continues to Tools Fork Creek. It is the determination by the Corps that Stream B is a seasonal RPW and is experiencing flow for at least three consecutive months during a typical year. This is based upon the limited drainage area to Stream B, presence of upstream impoundment, and evidence within Stream B of flow. Based on observed flow regime, the Corps finds that Stream B (UT to Tools Fork Creek) is a Seasonally Relatively Permanent Waters, and is jurisdictional. The physical characteristics of this tributary and impoundment include flow management functions by retaining runoff from the adjacent residential/agricultural developments/areas and storing rainwater temporarily after storm events. Flow maintenance results in the reduction of downstream peak flows, which help to maintain seasonal flow volumes, and can reduce stream erosion. Functions of the tributary and impoundment that impact the chemical integrity of the downstream TNW (Catawba River) include the filtering of excess nutrients found in runoff from the surrounding uplands due to residential/agricultural developments/areas. This filtering/uptake function reduces nitrogen and phosphorus loading downstream in Tools Fork Creek, Fishing Creek, and ultimately the Catawba River (TNW). A variety of biological functions are also being performed by this Seasonal RPW and impoundment by providing breeding grounds/shelter for aquatic wildlife and foraging areas for water dependant species and other wildlife. This tributary and impoundment provide diversity through different types of water (tributary and impoundment), and by providing forested/scrub-shrub riparian connections from adjacent uplands the larger downstream riparian corridor/Tools Fork Creek. It is based upon these functions that SRPW Stream B, and Impoundment Pond A have a significant nexus to Catawba River by providing a substantial contribution to the integrity of the physical, chemical, and biological features of Tools Fork Creek (RPW), Fishing Creek, and the Catawba River (TNW).

Based on aerial photography, soil survey information and from the field view, Pond A was created from Waters of the U.S. Specifically, Pond A was created by placing an impoundment/earthen dam within a wetland. Only a portion (0.4 acres) of Pond A is located within this project boundary. Based on the fact that this impoundment was created from waters of the U.S., the Corps finds that Pond A is a jurisdictional impoundment that is hydrologically connected to Stream B and Stream A (Tools Fork Creek).

The waters documented on this form include a perennial Stream A (Tools Fork Creek), a seasonal RPW-Stream B (UT to Tools Fork Creek), and Pond A which is adjacent to and hydrologically connected to these jurisdictional tributaries. Based on guidance in RGL 07-01, perennial RPW's are subject to jurisdiction under the Clean Water Act. Seasonal RPW's are also jurisdictional under CWA, but agency policy is to provide any information in support of a Significant Nexus Determination for these waters. Therefore, this office has made the determination that the waters documented on this form are jurisdictional Waters of the U.S.

The applicant has identified a linear feature within the project limits that provides a hydrologic connection from Pond A to Stream B. This linear feature appears to be a shallow roadside ditch along S-81. During the field view, no water was observed in this non-jurisdictional linear drainage feature. This feature does have bed and bank features, but does not have any evidence of an ordinary high water mark. Nor was there evidence of flow. This is based upon the fact that the "channel" was full of leaves (not water stained) and other material (plastic bottles, Styrofoam cups, etc.) that were scattered and not deposited in any wrack lines or piles. This non-jurisdictional linear drainage feature continues from Pond A to Stream B (where evidence of flow is present and jurisdiction is established). Based upon this lack of evidence of flow, the identified linear drainage feature was determined by the Corps to not be jurisdictional in the area between Pond A and Stream B.