APPPROVED 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): 26 April 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District, Vanderbilt Property, LRN-2017-00799

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State: TN County/parish/borough: Williamson City: Franklin
Center coordinates of site (lat/long in degree decimal format): 35.931383, -86.813674
Universal Transverse Mercator:
Name of nearest waterbody: UT to South Prong (Subject Reach)
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Harpeth River
Name of watershed or Hydrologic Unit Code (HUC): 05130204 - Harpeth
☒ 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: 26 April 2018
☒ Field Determination. Date(s): October 25, 2017, and December 8, 2017.

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[2] (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: 1,516 linear feet: ~ 10 ft width (ft) and/or acres.
      Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known): varies.

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
Summarize rationale supporting conclusion that wetland is "adjacent": .

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

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

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

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

If the 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: The Harpeth River Watershed is 134,547 **acres**
Drainage area: The drainage area of the subject stream is 70.4 acres **acres**
Average annual rainfall: 52.84 inches
Average annual snowfall: 2.7 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.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .
Identify flow route to TNW[5]: The subject stream flows to South Prong (RPW), and then to Spencer Creek (RPW), Spencer Creek Flows to the Harpeth River, a Navigable water of the U.S. The overall distance from the stream to the navigable water is approximately 4.2 river miles.
Tributary stream order, if known: The subject stream is a 1st order stream.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

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

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: The upper reach of the tributary appears to in an unaltered state, but the lower reach may have been altered (straightened) via historic farming and pasture practices. The 1951 aerial for the site shows the site is a primarily a farm field, but there is a linear feature in the field which coincides with the current location of the subject tributary.

Tributary properties with respect to top of bank (estimate):
Average width: 10 feet feet
Average depth: ~ 3 feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

☒ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☒ Bedrock		

☒ Vegetation. Type/% cover: *A small portion of the subject stream has vegetation growing in/ the on the banks of the channel; however this area coincides with an aerial powerline, and it is suspected the vegetation has been maintained in this area by cutting trees (all other portions of the subject stream are lined with trees).
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Lower portions of the channel are incised with silt bottoms, while upper reaches have bedrock beds, but no evidence of recent sloughing of banks or high erosion areas (no recent sediment deposits observed in channel, no recent sediment deposited over stream substrate as bedrock was visible.

Presence of run/riffle/pool complexes. Explain: BDY hydrologic determination form dated 8/10/17 notes weak to moderate pool-riffle sequences in upper reach, and absent to weak pool-riffle sequences in lower reach. .

Tributary geometry: **Relatively straight** BDY hydrologic determination form dated 8/10/17 notes lower reach is relatively straight, but upper reach is noted as having minimal sinuosity along steep slope.

Tributary gradient (approximate average slope): 4 % (BDY data)

(c) Flow:

Tributary provides for: **Ephemeral flow**

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

Describe flow regime: Continuous flow in response to precipitation.

Other information on duration and volume: Subject reach was observed flowing after a 3 plus in rain fall, but not flowing after 1 inch rain events. .

Surface flow is: **Discrete and confined.** Characteristics: Entire reach has well defined bed and banks (but for the disturbed portion in the powerline right of way area).

Subsurface flow: **Yes**. Explain findings: bedrock seep noted in upper reach (BDY data).
☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☒ changes in the character of soil	☒ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☒ vegetation matted down, bent, or absent	☒ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☒ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community

☐ other (list):
☒ Discontinuous OHWM.[7] Explain: the OHWM has been disrupted in the area where the powerline crosses over the stream due to the removal of trees, in this area the banks are more moderate and non-woody vegetation slopes down to the bottom of the channel.

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[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

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

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

☐ Mean High Water Mark indicated by:
- ☐ survey to available datum;
- ☐ physical markings;
- ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Groundwater/seep input noted near the head of the stream, multiple pools of clear standing water in portions of the stream with bedrock substrate observed during October site visit, slightly cloudy water is depicted in the BDY photo 11 showing flow in the lower reach after the 3 plus inch rainfall event.

Identify specific pollutants, if known: Cloudy water appears to be shown in the BDY photo 11 showing flow after the 3 plus inch rain event; no other specific pollutants have been identified in the stream, but the site was historically an active pasture, so fecal coliform from cows using the property could have historically entered the stream when the site was an active pasture; and the BDY report supposes some of the property may have been involved in phosphate mining based on the presence of a mining tailing symbol on a historic USGS map.

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

☒ Riparian corridor. Characteristics (type, average width): Upper reach has wide riparian corridor , 50 m (BDY report), lower reach has 15 m (BDY report).

☐ Wetland fringe. Characteristics: .

☒ Habitat for:
- ☐ Federally Listed species. Explain findings: .
- ☐ Fish/spawn areas. Explain findings: .
- ☐ Other environmentally-sensitive species. Explain findings: .
- ☒ Aquatic/wildlife diversity. Explain findings: The stream would provide general habitat functions for terrestrial animals (opossums, raccoons, skunks, squirrels, birds); no full time aquatic species use the stream.

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:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

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?
  - The subject stream has the capacity to carry pollutants to the Harpeth River during flow events by virtue of the stream conveying flow through the subject stream to its confluence with South Prong, and then Spencer Creek; the TNW is approximately 4.2 miles downstream to the Harpeth River, a navigable water of the U.S. Here the capacity of the subject stream to carry pollutants to the TNW is relatively high, despite the ephemeral flow (11-20 events/year per the BDY report) because of the relatively short distance from the subject stream to the navigable water (4.2 miles). It is of note that the lower half of the subject feature is described in the BDY report as incised and/or eroding and head cutting,, and the Harpeth River (the nearest TNW) is 303d listed for sediment.

- 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?
  - The subject stream provides habitat services for terrestrial animals (water source, general habitat functions), but no spawning areas for recreationally or commercially important species are located in the subject stream.

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
  - The subject stream has the capacity to transfer nutrients and organic carbon vital to support downstream foodwebs to downstream waters, but macroinvertabrates were not observed in the subject stream, so these functions would be minimal.

- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?
  - The BDY report and submittal estimates the subject feature has flow events between 11 to 20 times/year, and that the USGS StreamStats calculates the mean annual flow for the stream at 0.168 CFS, the 7 Day 10 Year Low Flow at 0.000676 CFS, and the mean summer flow at 0.0358 CFS. The BDY report also estimates the subject feature makes up 0.052% of the Harpeth River watershed (as measured at the confluence of spencer Creek and the Harpeth River). The BDY report also estimates the subject feature would contribute 0.049%

of the Harpeth River's flow as measured at the confluence of Spencer Creek and the Harpeth River. Here the subject tributary has a low, but measurable contribution to the Harpeth River. The contribution of ~0.049% of the flow in the Harpeth River supports physical connections (actual physical contribution of water flow), chemical connections (water flow has the capacity to transport sediment; the Harpeth River is 303d listed for sediment, and conversely, contribution of non-polluted water has the capacity to dilute polluted waters in the Harpeth River), and biological contributions (contribution of flow supports aquatic life in the Harpeth River, and the subject tributary has also has a limited capacity to convey organic matter to support foodwebs).

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:

   The State of Tennessee lists the Harpeth River on the 303d list for 2016 for river segment TN05130204 016_1000 HARPETH RIVER, which is 6.8 miles long, and begins at the confluence of Spencer Creek and the Harpeth River. The causes of impairment are (1) loss of biological integrity due to siltation, (2) low dissolved oxygen, and (3) total phosphorus. The sources of the pollutants are listed as municipal point sources and discharges from MS4 areas. This segment of the river is listed as a "Category 5" stream, which is defined as "One or more uses are not being met. A TMDL is needed for the listed pollutants." A Category 5 assessment is the most sever of the categories (Category 1 is defined as "Waterbody or waterbody segments meet all designated uses").

   https://www.tn.gov/content/dam/tn/environment/water/documents/wr_wq_303d-2016-final.pdf

   The BDY report and submittal estimates the subject feature has flow events between 11 to 20 times/year, and that the USGS StreamStats calculates the mean annual flow for the stream at 0.168 CFS, the 7 Day 10 Year Low Flow at 0.000676 CFS, and the mean summer flow at 0.0358 CFS. The BDY report also estimates the subject feature makes up 0.052% of the Harpeth River watershed (as measured at the confluence of spencer Creek and the Harpeth River). The BDY report also estimates the subject feature would contribute 0.049% of the Harpeth River's flow as measured at the confluence of Spencer Creek and the Harpeth River. Here the subject tributary has a low, but measurable contribution to the Harpeth River. The contribution of ~0.049% of the flow in the Harpeth River supports physical connections (actual physical contribution of water flow), chemical connections (water flow has the capacity to transport sediment; the Harpeth River is 303d listed for sediment, and conversely, contribution of non-polluted water has the capacity to dilute polluted waters in the Harpeth River), and biological contributions (contribution of flow supports aquatic life in the Harpeth River, and the subject tributary has also has a limited capacity to convey organic matter to support foodwebs).

   It is clear the subject feature does not contribute a statistically significant amount of flow to the Harpeth River, however standard to be evaluated under the Significant Nexus is "whether the tributary and its adjacent wetlands are likely to have an effect that is more than speculative or insubstantial on the chemical, physical, and biological integrity of a traditionally navigable water." The subject feature is a tributary, and while the flow contributed is a minor portion of the Harpeth River's flow, it is measurable, therefore the effect of the tributary on the Harpeth River is not speculative. Additionally, because the subject feature has the capacity to carry pollutants to the Harpeth River (i.e. sediment) via the 4.2 mile flow through two other tributaries, and because the Harpeth River is a 303d listed stream (for sediment) the input of additional pollutants into the Harpeth River would further contribute to the Loss of biological integrity due to siltation in the Harpeth River; therefore the effect cannot be characterized as insubstantial. The USACE concludes the subject feature has a significant nexus to the Harpeth River (which is 4.2 miles downstream).

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:

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[8] 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: **1,516 linear feet** linear feet **10 feet in** 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 jurisidictional. 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.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

[8] See 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
☒ 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: http://www.lrn.usace.army.mil/Missions/Regulatory/Navigable-Waters-List/Cumberland-River-and-Tributaries/
☒ 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: Franklin, TENN.
☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Google Earth and https://www.historicaerials.com/ - 1951 aerial
or ☒ Other (Name & Date): BDY Photo 11 from February 13, 2018, submittal.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☒ Other information (please specify):December site visit report and documentation of OHWM.

B. ADDITIONAL COMMENTS TO SUPPORT JD: