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); March 9, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District, Bill Fine, The View at White Oak East Subdivision, LRN-2018-00061

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: TN County/parish/borough: Hamilton City: Harrison

Center coordinates of site (lat/long in degree decimal format): 35.186427, -85.053514

Universal Transverse Mercator: 16

Name of nearest waterbody: Wolfe Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A-isolated waters Name of watershed or Hydrologic Unit Code (HUC): Wolftever Creek: 0602000104

- 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: January 18, 2018
- Field Determination. Date(s): November 29, 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. 395
- 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 NO "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area, [Required]

1. Waters of the U.S.

- a. Indicate presence of waters of U.S. in review area (check all that apply); ¹
 - TNWs, including territorial seas
 - Wetlands adjacent to TNWs
 - Relatively permanent waters2 (RPWs) that flow directly or indirectly into TNWs
 - Non-RPWs that flow directly or indirectly into TNWs
 - Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 - Impoundments of jurisdictional waters
 - Isolated (interstate or intrastate) waters, including isolated wetlands
- b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: linear feet: width (ft) and/or acres. Wetlands: acres.
- c. Limits (boundaries) of jurisdiction based on: Pick List Elevation of established OHWM (if known):
- 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.

Two isolated waters (P-1, W-1), and a feature not consistent with the definition of a WoUS because it is not a tributary (S-1) exist within the property, an ephemeral stream (S-1), a wetland (W-1), and one man-made depressional open water (P-1). Earliest topographic imagery (1925) indicated that all aquatic features were jurisdictional, and prior to the CWA, jurisdiction was lost, presumably to agricultural activities. Figures 1-3 depict the project boundary, and existing features on site.

S-1: A 1,100' reach of ephemeral stream located on the property that has been previously disturbed by agricultural activities. It has fine silt and gravel as the predominant substrate and an herbaceous riparian area with sparse tree canopy and cover. The watershed size of S-1 is approximately 64 acres. S-1 originates from P-1 and flows southeast through an open agricultural field for approximately 1,100 feet, at which point, its OHWM disappears into open pasture. S-1 is not consistent with the definition of WOTUS because it is not a tributary, and does not flow to a navigable water. The nearest tributary (Wolfe Branch), is approximately 1950' to the east, separated by uplands consisting of agricultural fields and mixed hardwood forest. S-1 is depicted on Figure 2 of this document.

W-1: A 0.14 acre, emergent, herbaceous wetland area located in the most northeast corner of the project boundary, and all topography northeast of S-1 slopes to this area, with the most northern edge bordered by a berm and hillside. W-1 is situated on a site that has been disturbed by previous agriculture activities and has sparse herbaceous vegetation with little habitat value. W-1 appears to receive hydrology only from overland runoff and precipitation, and has no visible channels entering or exiting the feature. Aerial photography (1997) and topographic photography (1980) indicates that the location of W-1 was previously an open water pond, presumably constructed as a source of water for livestock. 2006 aerial photography indicates that the pond was no longer present. It is geographically isolated by 1028' of disturbed uplands from the nearest waters of the U.S. (Wolfe Branch). It is not in the 100 year floodplain. W-1 does not contribute to nutrient cycling, sediment retention, organic carbon transport for the nearest tributary. It is not a seed source for plants, a food source or a wildlife corridor for fauna in the nearest tributary. It neither contributes to biomass export nor has faunal similarity with the nearest tributary. W-1 is depicted on Figure 2 of this document.

P-1: A 0.14 acre man-made, open water pond with no wetlands. P-1 has sparse emergent and woody vegetation and appears to have been constructed as an agricultural pond by the creation of a berm at the current origination point of S-1. P-1 is located in the northwestern corner of the property, approximately 200' from Highway 58. Early topographic imagery (1925), suggests that S-1 was present in the current location of P-1. P-1 was constructed prior to the CWA, as indicated by topographical imagery (1966). The watershed size of P-1 is approximately 18 acres. It is separated by approximately 3,142' of disturbed uplands from the nearest waters of the U.S (Wolfe Branch). P-1 is the origination point of S-1 within the project boundary. P-1 is depicted on Figure 2 of this document.

The three features listed above were examined, including a review of maps/plans submitted by the applicant, USGS Survey Maps, aerial photographs and observations recording during site inspections. The data does not indicate a surface connection or shallow groundwater connection to waters of the U.S. A site visit on 29 November 2017 confirmed that the waterbodies do not have a surface or shallow groundwater connection to waters of the U.S. And are geographically isolated. The waterbodies do not support a link to interstate or foreign commerce. They are not known to be used by interstate or foreign travelers for recreation or other purposes; do not produce fish or shellfish that could be taken and sold in interstate or foreign commerce. The waterbodies were determined to be non-jurisdictional under the CWA because they lacked links to interstate commerce sufficient to serve as a basis for jurisdiction.

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: Pick List Drainage area: Pick List Average annual rainfall: inches Average annual snowfall: inches
- (ii) Physical Characteristics:
 - (a) <u>Relationship with TNW:</u>

 Tributary flows directly into TNW.
 Tributary flows through <u>Pick List</u> tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW. Project waters are **Pick List** river miles from RPW. Project waters are **Pick List** aerial (straight) miles from TNW. Project waters are **Pick List** aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain: Identify flow route to TNW⁵: Tributary stream order, if known:

- (b) General Tributary Characteristics (check all that apply):
 - Tributary is: Natural

Artificial (man-made). Explain:					
Manipulated	(man-altered).	Explain:			

 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		

Concrete

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

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.

		Presence of run/riffle/pool complexes. Explain: Tributary geometry: Pick List Tributary gradient (approximate average slope):	%		
	(c)	<u>Flow:</u> Tributary provides for: <u>Pick List</u> Estimate average number of flow events in review are Describe flow regime: Other information on duration and volume:	a/year: Pick List		
		Surface flow is: Pick List. Characteristics:			
		Subsurface flow: Pick List . Explain findings:			
	Tributary has (check all that apply):				
		 Bed and banks OHWM⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM.⁷ Explain: 	 the presence of litter and debris destruction of terrestrial vegetation the presence of wrack line sediment sorting scour multiple observed or predicted flow events abrupt change in plant community 		
	If factor	s other than the OHWM were used to determine lateral 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):	extent of CWA jurisdiction (check all that apply): 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:				
	Identify specific pollutants, if known:				
	(iv) Bid	ological Characteristics. Channel supports (check all Riparian corridor. Characteristics (type, average widt Wetland fringe. Characteristics: Habitat for: □ Federally Listed species. Explain findings: □ Fish/spawn areas. Explain findings: □ Other environmentally-sensitive species. Explain □ Aquatic/wildlife diversity. Explain findings:	h): .		
2.	2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW				
		ysical Characteristics: <u>General Wetland Characteristics:</u> Properties: Wetland size: acres Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. E:	nlain:		

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

(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?

- 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:

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

- 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. <u>RPWs that flow directly or indirectly into TNWs.</u>
 - 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-RPWs⁸ that flow directly or indirectly into TNWs.

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

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

- Tributary waters: linear feet width (ft).
 - Other non-wetland waters: acres.
 - Identify type(s) of waters:
- 4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
- 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.

⁸See Footnote # 3.

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:

Identify water body and summarize rationale supporting determination:

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

acres.

Tributary waters: linear feet width (ft).

Other non-wetland waters:

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): Review area includes S-1, a feature not considered a WoUS, because it is not consistent with the definition of a tributary and does not flow to a navigable water.

Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> 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): S-1: 1,100 linear feet, 2 width (ft).
- Lakes/ponds: P-1: 0.14 acres.
- Other non-wetland waters: acres. List type of aquatic resource:
- Wetlands: W-1: 0.14 acres.

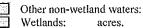
Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.

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.

acres. List type of aquatic resource:



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.
 - \boxtimes Data sheets prepared by the Corps:
 - Corps navigable waters' study:
 - \boxtimes U.S. Geological Survey Hydrologic Atlas:ORM2,
 - 🛛 USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
 - U.S. Geological Survey map(s). Cite scale & quad name:
 - X USDA Natural Resources Conservation Service Soil Survey. Citation: ORM2
 - National wetlands inventory map(s). Cite name:ORM2.
 - State/Local wetland inventory map(s):
 - \boxtimes FEMA/FIRM maps:ORM2.
 - 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
 - Photographs: Aerial (Name & Date): Google Earth, 10/11/2016; Historicaerials.com 1997, 2006, 2010
 - or Other (Name & Date): Historicaerials.com; topographic imagery, 1925, 1966, 1980
 - Previous determination(s). File no. and date of response letter:
 - Applicable/supporting case law:
 - Applicable/supporting scientific literature:
 - Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: Two waters (P-1 and W-1), and a feature not consistent with the definition of a WoUS because it does not flow to a navigable water (S-1), exist within the property. See rationale in Section II. B. 2.

Additional Information:

1. Absence of any surface drainage features between the isolated water and the nearest water of the U.S. Site visit on November 29, 2017 confirmed no potential outflow from the wetlands would be possible under normal circumstances because of the historic development in the area.

2. Absence (or presence) of any berms between the isolated water and the nearest water of the U.S.? An earthen berm was present on the northeast border of the wetland feature (W-1), but was constructed prior to CWA, and had mature trees present.

3. Horizontal distance to the nearest water of the U.S. The nearest water body is Wolfe Branch, located approximately 1,600 linear feet east of the eastern border of the property boundary.

4. Source of hydrology for the isolated water

a. Precipitation, seeps? Overland flow? Hydrology for the isolated wetland appears to be precipitation and ditches routed into the wetlands from previous agricultural activities. No seeps were observed.

b. Could the nearest water of the U.S. could, during extreme floods, overflow into the isolated water? The site is not mapped on FEMA's National Flood Hazard Layer as a flood hazard area. The isolated features are upgradient from nearest waters of the U.S.

5. During extreme storm/flood conditions, could the isolated water "overflow" into the nearest water of the U.S.? The site is not mapped on FEMA's National Flood Hazard Layer as a flood hazard area. Additionally the nearest water of the U.S. is approximately 1,600 linear feet away.

6. Description of the intervening land between the isolated water and the nearest water of the U.S. (potential for shallow subsurface connection)

a. Is it all forested? Is it 50% forested and 50% residential? The wetlands are forested, mixed hardwoods, and the surrounding areas are completely developed in residential or agricultural development.

b. If vegetated, with what species? Wetland vegetation consists of sweetgum trees.

If the land provides habitat, describe type and quality. The land could provide limited habitat for species including amphibians, small mammals, birds, and insects. Due to the surrounding development the site offers very little habitat and is not a corridor type resource.

7. Mapped or actual soil types on- and off-site (potential for shallow subsurface connection). *Bodine cherty silt loam, 5 to 12 percent slopes; Collegedale silt loam, 12 to 25 percent slopes; Guthrie silt loam; Roane cherty silt loam, 2 to 6 percent slopes; Fullerton gravelly silt loam, 5 to 12 percent slopes and 15 to 25 percent slopes; Minvale gravelly silt loam, 2 to 5 percent slopes, 5 to 12 percent slopes, and 12 to 20 percent slopes; Woodmont silt loam.*

8. Floodplain designation, if any, of the area where the isolated water is located in relation to the nearest water of the U.S. *The isolated wetland pond, and non-jurisdictional stream are located approximately 2,100 linear feet away from a FEMA mapped special flood hazard area (1% annual chance flood hazard).*

9. Proof of absence of shallow subsurface connection (e.g., waterwells, geologic analysis, dye test, etc) Lack of interstate commerce connection:

1. Lack of interstate use by interstate or foreign travelers for recreational purposes

a. Lack of habitat or resources of special significance which would attract interstate or foreign travelers. Site is located on private property, access to interstate or foreign travelers is not available.

b. Lack of bird and wildlife species of special significance which would attract interstate or foreign travelers. *Site is located on private property, access to interstate or foreign travelers is not available. No bird or wildlife species of special significance were observed or known to occur in the wetland and pond, and non-jurisdictional stream, that would attract interstate or foreign travelers.*

2. Lack of fish or shellfish which could be taken or sold in interstate or foreign commerce. *The isolated wetland and pond, and non-jurisdictional stream do not contain habitat that can support fish or shellfish species.*

3. Lack of industrial purposes (e.g., water withdrawal for industrial use): The isolated wetland and pond, and non-jurisdictional stream lack any industrial use.

4. Lack of agriculture which is sold interstate/foreign No past, present, or future agricultural practices have or will take place within the wetland and pond, and non-jurisdictional stream or on nearby properties.

5. Lack of silviculture which is sold interstate/foreign: The wetland and pond areas are approximately 0.14 acre in size, and the non-jurisdictional stream is approximately 1,100 linear feet and are located on private property to be developed for residential housing. Given the size of the wetland and pond, there is no evidence to suggest a commercial silvicutural operation would be viable