

I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): 6/28/2021

ORM Number: LRN-2021-00296

Associated JDs: N/A

Review Area Location¹: State/Territory: TN City: Nashville County/Parish/Borough: Davidson

Center Coordinates of Review Area: Latitude 36.010656 Longitude -86.645531

II. FINDINGS

- **A. Summary:** Check all that apply. At least one box from the following list MUST be selected. Complete the corresponding sections/tables and summarize data sources.
 - The review area is comprised entirely of dry land (i.e., there are no waters or water features, including wetlands, of any kind in the entire review area). Rationale: N/A or describe rationale.
 - ☐ There are "navigable waters of the United States" within Rivers and Harbors Act jurisdiction within the review area (complete table in Section II.B).
 - There are "waters of the United States" within Clean Water Act jurisdiction within the review area (complete appropriate tables in Section II.C).
 - There are waters or water features excluded from Clean Water Act jurisdiction within the review area (complete table in Section II.D).

B. Rivers and Harbors Act of 1899 Section 10 (§ 10)²

§ 10 Name	§ 10 Size		§ 10 Criteria	Rationale for § 10 Determination
N/A.	N/A.	N/A	N/A.	N/A.

C. Clean Water Act Section 404

Territorial Seas and Traditional Navigable Waters ((a)(1) waters): ³						
(a)(1) Name	(a)(1) Size		(a)(1) Criteria	Rationale for (a)(1) Determination		
N/A.	N/A.	N/A.	N/A.	N/A.		

Tributaries ((a)	Tributaries ((a)(2) waters):							
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination				
D-8	761	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-8 was observed in drier than normal conditions in the wet part of the growing season. D-8 had a moderately defined channel with riffle pool sequences, hydric soils, and macroinvertebrates. This stream had discontinuous trickling flow with frequent pools.				
D-9	821	linear feet	(a)(2) Intermittent tributary contributes	D-9 was observed in both drier and wetter than normal conditions in the wet part of the growing season. D-9 had a well-defined bed and bank, hydric				

¹ Map(s)/figure(s) are attached to the AJD provided to the requestor.

² If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.

³ A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD Form.



Tributaries ((a)(2) waters	s):		
(a)(2) Name	(a)(2) Si		(a)(2) Criteria	Rationale for (a)(2) Determination
			surface water flow directly or indirectly to an (a)(1) water in a typical year.	soils, direct groundwater input, salamanders, and crayfish. D-9 had shallow pools connected via trickling flow in drier than normal conditions.
D-18	547	linear feet	(a)(2) Perennial tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-18 was observed in both wetter and drier than normal conditions in the wet part of the growing season. D-18 had active base flow during both drier than normal and wetter than normal conditions, moderate bed and bank, caddisflies, and direct groundwater input.
D-20	19	linear feet	(a)(2) Perennial tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-20 was observed in both wetter and drier than normal conditions in the wet part of the growing season. D-20 was observed to be a small window into a subterranean river, where D-18 continues underground and emerges as D-20. The flow and volume of D-18 is identical to stream D-20. An output point just outside the property boundary could be observed during the site visit, with identical flow and volume.
D-22	171	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-22 was observed in both wetter than drier than normal conditions in the wet part of the growing season. D-22 was observed to have active flow, groundwater input, hydric soils, and moderate bed and bank. D-22 had trickling flow with pools in drier than normal conditions and active flow throughout the channel in wetter than normal conditions.
D-24 Upper	887	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-24 Upper was observed in drier than normal conditions in the wet part of the growing season. D-24 Upper had obligate lotic organisms and direct groundwater input. D-24 Upper had pools and trickling flow in drier than normal conditions.
D-25 Lower	756	linear feet	(a)(2) Perennial tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-25 was observed in drier than normal conditions in the wet part of the growing season. D-25 was documented having strong bed and bank, cadis fly casings, and base flow after no rain events for 7 days.
D-25	52	linear feet	(a)(2) Intermittent tributary	D-25 was observed in drier than normal conditions in the wet part of the growing season. D-25 was



Tributaries ((a)(2) waters	s):		
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
			contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	documented having strong bed and bank, cadis fly casings, and base flow after no rain events for at least 7 days previous.
D-27	544	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-27 was observed in drier than normal conditions in the wet part of the growing season. D-27 was documented with strong bed and bank, populations of stone and wood caddis, and base flow after no rain for at least 7 days previous.
D-28	117	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-28 was observed in drier than normal conditions in the wet part of the growing season. D-28 was documented with strong bed and bank, direct groundwater input from small trickling seeps, stone and wood caddis casings, and base flow after no rain for at least 7 days previous.
D-30	45	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-30 was observed in both drier and wetter than normal conditions in the wet part of the growing season. D-30 had no flow in drier than normal conditions but had an active groundwater seep input in wetter than normal conditions. D-20 had moderate bed and macroinvertebrates.

Lakes and ponds, and impoundments of jurisdictional waters ((a)(3) waters):					
(a)(3) Name	(a)(3) Size		(a)(3) Criteria	Rationale for (a)(3) Determination	
N/A.	N/A.	N/A.	N/A.	N/A.	

Adjacent wetla	Adjacent wetlands ((a)(4) waters):					
(a)(4) Name	(a)(4) Size		(a)(4) Criteria	Rationale for (a)(4) Determination		
WTL-D	0.118	acre(s)	(a)(4) Wetland	WTL-D does abut an (a)(2) jurisdictional water		
			abuts an (a)(1)-	(Stream D-8). WTL-D was observed to have a direct		
			(a)(3) water.	connection during the Corps site visit.		
WTL-E	0.042	acre(s)	(a)(4) Wetland	WTL-E does abut an (a)(2) jurisdictional water		
			abuts an (a)(1)-	(Stream D-8). WTL-E was observed to have a direct		
			(a)(3) water.	connection during the Corps site visit.		
WTL-H	0.049	acre(s)	(a)(4) Wetland	WTL-H does abut an (a)(2) jurisdictional water		
		. ,	abuts an (a)(1)-	(Stream D-9). WTL-H was observed to have a direct		
			(a)(3) water.	connection during the Corps site visit.		



D. Excluded Waters or Features

Excluded waters ((b)(1) - (b)	(12)):4		
Exclusion Name	Exclusion		Exclusion ⁵	Rationale for Exclusion Determination
D-1	137	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-1 was observed to have weak bed and bank, no flow, and heavy leaf litter in wetter than normal conditions in the wet part of the growing season.
D-2	204	linear feet	(b)(1) Surface water channel that does not contribute surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-2 was verified on site to end in a sinkhole complex within the project area and therefore does not contribute surface flow directly or indirectly to an (a)(1) water in a typical year. D-2 was verified to have weak bed and bank, groundwater input, and active flow at the time of both site visits.
D-3	147	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-3 was observed in wetter than normal conditions in the wet part of the growing season. D-3 had weak bed and bank, no active, flow, and upland vegetation growing within the channel.
D-4	98	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-4 was observed in wetter than normal conditions in the wet part of the growing season. D-4 had weak bed and bank, no base flow, heavy leaf litter, and no groundwater input.
D-5	165	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-5 was observed in wetter than normal conditions in the wet part of the growing season. D-5 had weak bed and bank, no base flow, leaf litter, and no groundwater input.
D-6	174	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-6 was observed in wetter than normal conditions in the wet part of the growing season. D-6 had weak bed and bank, leaf litter, a vegetated channel dominated by upland species, and no base flow.
D-7	170	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-7 was observed on site in wetter than normal conditions in the wet part of the growing season. D-7 had weak bed and bank, no active flow, non-hydric soils, and heavy leaf litter.
D-10	347	linear feet	(b)(3) Ephemeral feature, including an ephemeral	D-10 was observed in both drier and wetter than normal conditions in the wet part of the growing season. D-10 was documented both times with

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⁴ Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.

⁵ Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.



Excluded waters ((b)(1) - (b))(12)):4		
Exclusion Name	Exclusion		Exclusion ⁵	Rationale for Exclusion Determination
			stream, swale, gully, rill, or pool.	no flow, weak bed and bank, with leaf litter present in the channel.
D-11	158	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-11 was observed in both drier and wetter than normal conditions in the wet part of the growing season. D-11 was documented both times with no flow, weak bed and bank, with leaf litter present in the channel.
D-12	57	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-12 was observed in drier than normal conditions in the wet part of the growing season. D-12 was documented with no flow, weak bed and bank, no groundwater input, with leaf litter present in the channel.
D-13	76	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-13 was observed in drier than normal conditions in the wet part of the growing season. D-10 was documented with no flow, weak bed and bank, with leaf litter present in the channel.
D-14	192	linear feet	(b)(1) Surface water channel that does not contribute surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-14 could not be traced to an a(1) water using LiDAR/DEM mapping outside of the project area. D-14 ultimately ends in a sinkhole complex just east of the review area. D-14 was observed in drier than normal conditions in the wet part of the growing season. D-14 was documented with active base flow after 7 days of no precipitation, multiple populations of obligate lotic organisms.
D-15 Upper	208	linear feet	(b)(1) Surface water channel that does not contribute surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-15 Upper could not be traced to an a(1) water using LiDAR/DEM mapping outside of the project area. D-15 Upper ultimately ends in a sinkhole complex just east of the review area. D-15 Upper was observed in drier than normal conditions in the wet part of the growing season. D-15 Upper was documented with active base flow following 7 days of no precipitation, wood, stone, and net building caddis flies, and hydric soil throughout the channel.
D-15 Lower	208	linear feet	(b)(1) Surface water channel that does not contribute surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-15 Lower could not be traced to an a(1) water using LiDAR/DEM mapping outside of the project area. D-15 Upper ultimately ends in a sinkhole complex just east of the review area. D-15 Lower was observed in drier than normal conditions in the wet part of the growing season. D-15 Lower was documented with active base flow following 7 days of no precipitation, wood, stone, and net building caddis flies, and hydric soil throughout the channel.



Excluded waters ((b)(1) - (b))(12)): ⁴		
Exclusion Name	Exclusion		Exclusion ⁵	Rationale for Exclusion Determination
D-16	225	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-16 was observed on site in both drier and wetter than normal conditions in the wet part of the growing season. D-16 had weak bed and bank, no active flow, non-hydric soils, and a moderately vegetated channel.
D-17	483	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-17 was observed in drier than normal conditions in the wet part of the growing season. D-17 had weak bed and bank, no active flow, non-hydric soils, and a a heavy layer of leaf litter.
D-19	415	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-19 was observed in drier than normal conditions in the wet part of the growing season. D-19 had weak bed and bank, no active flow, non-hydric soils, and a moderately vegetated channel.
D-21	192	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-21 was observed in wetter than normal conditions in the wet part of the growing season. D-21 was observed to have no base flow, weak bed and bank, drift lines, and no groundwater input.
D-23	222	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-23 was observed in both wetter and drier than normal conditions in the wet part of the growing season. D-23 had weak bed and bank, no active flow, non-hydric soils, and a moderately vegetated channel.
D-26	177	linear feet	(b)(1) Surface water channel that does not contribute surface water flow directly or indirectly to an (a)(1) water in a typical year.	D-26 was observed in both wetter and drier than normal conditions in the wet part of the growing season. D-26 was observed on site to end in a sinkhole complex/wetland area within the review area and therefore does not contribute surface flow to and (a)(1) water in a typical year. D-26 was observed to have active flow during both site visits and wood and stone building caddis flies.
D-29	121	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	D-29 was observed in both drier and wetter than normal conditions in the wet part of the growing season. D-29 was observed to have erosional bank with a weakly defined bed. The channel was covered by leaf litter during consultant site visit, but flow patterns could be seen during the Corps site visit. Non-hydric soils were found within the resource.
WTL-A	0.285	acre(s)	(b)(1) Non-adjacent wetland.	WTL-A does not abut an (a)(1)-(3) jurisdictional water; is not inundated by flooding from an (a)(1)-(3) water in a typical year; is not physically separated from an (a)(1)-(3) water solely by a natural berm, bank, dune, or similar natural feature; nor by an artificial dike, barrier, or similar



Excluded waters ((b)(1) – (b)(12)): ⁴						
Exclusion Name	Exclusion		Exclusion ⁵	Rationale for Exclusion Determination		
				artificial structure. WTL-A appears to drain into a sinkhole complex on site and does not appear to connect to a jurisdictional water. WTL-A does not have perennial or intermittent flow and does not meet the definition of an (a)(1)-(3) water.		
WTL-B	0.293	acre(s)	(b)(1) Non- adjacent wetland.	WTL-B does not abut an (a)(1)-(3) jurisdictional water; is not inundated by flooding from an (a)(1)-(3) water in a typical year; is not physically separated from an (a)(1)-(3) water solely by a natural berm, bank, dune, or similar natural feature; nor by an artificial dike, barrier, or similar artificial structure. WTL-B appears to drain into a sinkhole complex on site and does not appear to connect to a jurisdictional water. WTL-B does not have perennial or intermittent flow and does not meet the definition of an (a)(1)-(3) water.		
WTL-C	0.154	acre(s)	(b)(1) Non-adjacent wetland.	WTL-C does not abut an (a)(1)-(3) jurisdictional water; is not inundated by flooding from an (a)(1)-(3) water in a typical year; is not physically separated from an (a)(1)-(3) water solely by a natural berm, bank, dune, or similar natural feature; nor by an artificial dike, barrier, or similar artificial structure. WTL-C appears to drain via sheet flow and then ephemeral to the southwest toward the sinkhole complex associated with WTL-A. WTL-C does not have perennial or intermittent flow and does not meet the definition of an (a)(1)-(3) water.		
WTL-F	0.110	acre(s)	(b)(1) Non- adjacent wetland.	WTL-F does not abut an (a)(1)-(3) jurisdictional water; is not inundated by flooding from an (a)(1)-(3) water in a typical year; is not physically separated from an (a)(1)-(3) water solely by a natural berm, bank, dune, or similar natural feature; nor by an artificial dike, barrier, or similar artificial structure. WTL-F appears to drain via ephemeral to the southwest toward the stream resource D-8. WTL-F does not have perennial or intermittent flow and does not meet the definition of an (a)(1)-(3) water.		
WTL-G	0.145	acre(s)	(b)(1) Non- adjacent wetland.	WTL-G does not abut an (a)(1)-(3) jurisdictional water; is not inundated by flooding from an (a)(1)-(3) water in a typical year; is not physically separated from an (a)(1)-(3) water solely by a natural berm, bank, dune, or similar natural feature; nor by an artificial dike, barrier, or similar artificial structure. WTL-G appears to be an isolated resource with no outlet. WTL-G does		



Excluded waters ((b)(1) - (b))(12)):4		
Exclusion Name	Exclusion		Exclusion ⁵	Rationale for Exclusion Determination
				not have perennial or intermittent flow and does not meet the definition of an (a)(1)-(3) water.
WTL-I	0.072	acre(s)	(b)(1) Non-adjacent wetland.	WTL-I does not abut an (a)(1)-(3) jurisdictional water; is not inundated by flooding from an (a)(1)-(3) water in a typical year; is not physically separated from an (a)(1)-(3) water solely by a natural berm, bank, dune, or similar natural feature; nor by an artificial dike, barrier, or similar artificial structure. WTL-I appears to be an isolated resource with no outlet. WTL-I does not have perennial or intermittent flow and does not meet the definition of an (a)(1)-(3) water.
WTL-J	0.026	acre(s)	(b)(1) Non-adjacent wetland.	WTL-J does not abut an (a)(1)-(3) jurisdictional water; is not inundated by flooding from an (a)(1)-(3) water in a typical year; is not physically separated from an (a)(1)-(3) water solely by a natural berm, bank, dune, or similar natural feature; nor by an artificial dike, barrier, or similar artificial structure. WTL-J appears to drain into the sinkhole complex associated with resource D-15 Lower. WTL-J does not have perennial or intermittent flow and does not meet the definition of an (a)(1)-(3) water.
WTL-K	0.037	acre(s)	(b)(1) Non-adjacent wetland.	WTL-K does not abut an (a)(1)-(3) jurisdictional water; is not inundated by flooding from an (a)(1)-(3) water in a typical year; is not physically separated from an (a)(1)-(3) water solely by a natural berm, bank, dune, or similar natural feature; nor by an artificial dike, barrier, or similar artificial structure. WTL-K appears to be an isolated resource with no outlet. WTL-K does not have perennial or intermittent flow and does not meet the definition of an (a)(1)-(3) water.
Pond A	0.024	acre(s)	(b)(1) Lake/pond or impoundment that does not contribute surface water flow directly or indirectly to an (a)(1) water and is not inundated by flooding from an (a)(1)-(a)(3) water in a typical year.	Pond A was documented on site as an isolated pond with a clay liner with no inlet or outlet channels. Without an outlet, Pond A does no contribute surface water flow to an (a)(1) water in a typical year.

III. SUPPORTING INFORMATION



- **A.** Select/enter all resources that were used to aid in this determination and attach data/maps to this document and/or references/citations in the administrative record, as appropriate.
 - ☑ Information submitted by, or on behalf of, the applicant/consultant: Approved Jurisdictional Determination Request, March 30, 2021. Additional Information submitted May 12, 2021.

This information is not sufficient for purposes of this AJD.

Rationale: A field visit was required to verify connectivity of resources on site.

- ☐ Data sheets prepared by the Corps: Title(s) and/or date(s).

- ☐ Previous Jurisdictional Determinations (AJDs or PJDs): ORM Number(s) and date(s).
- Antecedent Precipitation Tool: <u>provide detailed discussion in Section III.B.</u>
- □ USFWS NWI maps: Park at Cane Ridge NWI Vicinity Map
- ☐ USGS topographic maps: Title(s) and/or date(s).

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	N/A.
USDA Sources	N/A.
NOAA Sources	N/A.
USACE Sources	N/A.
State/Local/Tribal Sources	N/A.
Other Sources	N/A.

- **B.** Typical year assessment(s): The consultant site visit on January 19, 2021 was conducted in drier than normal conditions in the wet part of the growing season. The Corps site visit on April 13, 2021 was conducted in wetter than normal conditions in the wet part of the growing season.
- C. Additional comments to support AJD: Resources D-2, D-26, D-14, D-15 Upper, and D-15 Lower were verified on site and/or using LiDAR DEM maps to end in sinkhole complexes with no known outlet and are therefore not considered jurisdictional. Jurisdictional resources D-18 and D-20 were verified on site and using LiDAR/DEM maps to continue to flow via subterranean river, daylighting just east of the project area, which was documented with equal flow volume and velocity. See LRN-2021-00296_20210419_MFR-SVN for more details.