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): November 16, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: SWL, Sturdevant - Lawrence Co - Request for Corps JD, SWL-2018-00274.

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Missouri County/parish/borough: Lawrence City:

Center coordinates of site (lat/long in degree decimal format): Lat. 37.07591, Long. -94.04154

Universal Transverse Mercator: NAD 83/UTM Zone 15, 4103800.70 Northing, 407418.66 Easting

Name of nearest waterbody: Cave Spring Branch

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

Name of watershed or Hydrologic Unit Code (HUC): 11070207

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form

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

✓ Office (Desk) Determination. Date: October 31, 2018✓ Field Determination. Date(s): October 25, 2018

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 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.

Indic	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: linear feet: width (ft) and/or acres. Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on:

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: One 1.1-acre emergent wetland is located on the property. Aerial imagery with mapped NWI wetlands supplied by Environmental Research Center of Missouri, Inc. (the requestor) shows a large pond on the east side of the project area. The 1971 Sarcoxie USGS Quadrangle and 2017 Google aerial imagery, however, do not show the pond, so it is believed that the pond was filled in at some point in time prior to 1971. Field investigations showed that the current wetland is not connected to any waters of the United States. The wetland

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.

is therefore not jurisdictional because it is geographically isolated and does not have any substantial nexus to interstate (or foreign) commerce.

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

CII	characteristics of non-11(1) that now directly of matricely into 11(1)					
(i)	General Area Conditions: Watershed size: Drainage area:					
	Average annual rainfall: inches Average annual snowfall: inches					
 (ii) Physical Characteristics: (a) Relationship with TNW: ☐ Tributary flows directly into TNW. ☐ Tributary flows through tributaries before entering TN Project waters are river miles from TNW. Project waters are river miles from RPW. Project waters are aerial (straight) miles from TNW. Project waters are 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:				

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

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.

		Ave Ave	erage v erage o	perties wi width: fee depth: fee side slope	et et	to top of bank (estimate):					
		Primary t	tributa	ary substra	ate compos	sition (check all	that app	ly):					
			Silts			Sands					Concrete		
			Cobl	bles		Gravel					Muck		
			Bedi	ock		Vegetation. T	ype/% c	over	:				
			Othe	r. Explair	ı:								
		Presence Tributary	of ru	n/riffle/po netry:	ol complex	highly eroding, xes. Explain: verage slope): 9		ıg ba	nks]. E	xplai	n:		
	(c)	Flow:											
		Tributary			r of flow e	vents in review	oron/was						
				flow regin		vents in review	area/yea	и.					
					ration and	volume:							
				s: Charac									
				-	in finding test perfo								
		Tributary	has (check all	that apply)):							
			Bed	and banks	3								
			OHV	VM ⁶ (che	ck all indic	ators that apply	·):						
	clear, natural line impressed on the bank the presence of litter and debris												
		J	c	hanges in	the charac	ter of soil		des	truction	of te	errestrial vegetation		
	shelving the presence of wrack line												
		I	_			wn, bent, or abs	ent	sed	iment so	orting	2		
		J				washed away		sco					
		ļ	_	ediment d							ed or predicted flow	v events	
		ļ,	_	vater stain	_			abr	upt chan	ige ir	n plant community		
		'		ther (list)		F 1.							
			Disc	ontinuous	OHWM. ⁷	Explain:							
		If factors			OHWM w e indicated						VA jurisdiction (che Mark indicated by:	eck all that apply):	
		J	c	il or scun	line along	g shore objects		sur	vey to a	vailal	ble datum;		
		J	f	ine shell o	r debris de	posits (foresho	re)	phy	sical ma	arkin	gs;		
		I	□ p	hysical m	arkings/ch	aracteristics		veg	getation 1	lines	changes in vegetati	ion types.	
		J	ti	dal gauge	s								
		I	_ o	ther (list)									
(iii)	Cha	mical Characterize to Explain: atify specification	ributa	ry (e.g., v		is clear, discolo	ored, oily	/ film	ı; water	quali	ity; general watersh	ned characteristics, etc.).	
(iv)	Biol	_				upports (check (type, average v		app	oly):				
		r				(Jr -, 1 mgo)	/-						

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. ⁷Ibid.

		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:								
Cha	aract	teristics 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: Explain:								
		Surface flow is:								
		Characteristics: Subsurface flow: Explain findings:								
		Dye (or other) test performed:								
	(a)	Wetland Adjacency Determination with Non-TNW:								
	(c)	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 river miles from TNW.								
		Project waters are aerial (straight) miles from TNW. Flow is from:								
		Estimate approximate location of wetland as within the floodplain.								
(ii)		emical Characteristics:								
		aracterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics;). Explain:								
		ntify specific pollutants, if known:								
(iii)	Bio	ological 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:								
Cha		teristics of all wetlands adjacent to the tributary (if any)								
	All	wetland(s) being considered in the cumulative analysis:								

3.

2.

Approximately () acres in total are being considered in the cumulative analysis.

<u>Directly abuts? (Y/N)</u> <u>Size (in acres)</u>

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):

1.	NWs 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: 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 abut KF w 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).	
Е.	OR	OLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADAT R DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHE LL 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:	
	Ide	entify water body and summarize rationale supporting determination:	
	Pro	ovide 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.	

 ⁸See Footnote # 3.
 9 To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 10 Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

F.	NO	N-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): Field investigations showed that the current wetland is not connected to any waters of the United States. The wetland is therefore not jurisdictional because it is geographically isolated and does not have any substantial nexus to interstate (or foreign) commerce.
	(i.e.	vide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors, presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment sek all that apply):
	П	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: 1.1 acres.
		vide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a ing 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:
SE	CTIO	ON IV: DATA SOURCES.
A.		PPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and tested, appropriately reference sources below):
	~	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Environmental Research Center of Missouri, Inc., 2018
		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: 11070207, Spring
		USGS NHD data.
		USGS 8 and 12 digit HUC maps.
	~	U.S. Geological Survey map(s). Cite scale & quad name: 24k, SARCOXIE
		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 Geodetic Vertical Datum of 1929)
	<u> </u>	Photographs: Aerial (Name & Date): Environmental Research Center of Missouri, Inc., 2018.
	~	
		or Other (Name & Date): Corps site visit photographs dated October 25, 2018.
		Previous determination(s). File no. and date of response letter:
		Applicable/supporting case law:
		Applicable/supporting scientific literature: Other information (places specify):
D		Other information (please specify): ADDITIONAL COMMENTS TO SUPPORT ID: This finding is based on a propriet in a few particular of a combination of few particular in the company of the combination of few particular in the combination of the
В.		ADDITIONAL COMMENTS TO SUPPORT JD: This finding is based upon an examination of a combination of factors, primarily

related to the position in the landscape and the lack of a physical connection between the wetland in relation to the nearest jurisdictional water (Cave Spring Branch). Based on these findings, the determination is that the wetland is non-jurisdictional because it is currently isolated and

there are no potential links to interstate commerce; and therefore the requirement of 33 C.F.R. § 328.3(a)(3) is not satisfied.

SWL, Sturdevant - Lawrence Co - Request for Corps JD, SWL-2018-00274-7-

Vin Elli	November 16, 2018
Jim Ellis Project Manager	Date
Floject Wallagel	