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:	BACKO	GROUND	INFORMAT	ION

A	. REPORT COMPLETION DATE FOR	APPROVED JURISDICTIONAL	L DETERMINATION (ID): May 6, 201	Q

ъ,	Brickyard Project, KDNR #918-0501
	PROJECT LOCATION AND BACKGROUND INFORMATION: State: KY County/parish/borough: Whitley City: Corbin Center coordinates of site (lat/long in degree decimal format): 36.889379 °N, 84.096061 °W Universal Transverse Mercator: Name of nearest waterbody: Eaton Branch Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cumberland River Name of watershed or Hydrologic Unit Code (HUC): Lynn Camp Creek (051301010804) 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.
1	EVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date: February 5, 2019 Field Determination. Date(s): November 27, 2018
SECT A. R	TION II: SUMMARY OF FINDINGS HA SECTION 10 DETERMINATION OF JURISDICTION.
329) [ARE NO "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 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. C	WA SECTION 404 DETERMINATION OF JURISDICTION.
There [Requ	ARE NO "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review are ired]
1	. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): 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 inviditional. For large

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

[&]quot;seasonally" (e.g., typically 3 months).

3 Supporting documentation is presented in Section III.F.

IOW2: A 0.63 acre man-made, open water pond with wetland fringe (IW3). The drainage patterns and hydrologic connectivity of the site have been severely altered by historic mining. The watershed size of IOW2 is approximately 0.84 acres. It is separated by approximately 572' of uplands from the nearest water of the U.S (R6). IOW2 and IW3 are depicted on Page 2 of the site map. This feature appears to have been constructed prior to 2006 (based on a review of aerial photography).

IOW3: A 1.4 acre man-made, open water pond with no wetlands. The drainage patterns and hydrologic connectivity of the site have been severely altered by historic mining. The watershed size of IOW3 is approximately 0.02 acres. It is separated by approximately 685' of uplands from the nearest waters of the U.S (R6). This feature appears to have been constructed prior to 2006 (based on a review of aerial photography) and drains downslope to IOW4 via overland sheet flow.

IOW4: A 1.1 acre man-made, open water pond with no wetlands. The drainage patterns and hydrologic connectivity of the site have been severely altered by historic mining. The watershed size of IOW4 is approximately 0.25 acres and receives inflow from IOW3. It is separated by approximately 546' of uplands from the nearest waters of the U.S (OW5). This feature appears to have been constructed prior to 2006 (based on a review of aerial photography).

IW1: An isolated man-made feature that consists of 0.11 acres of emergent wetlands. The drainage patterns and hydrologic connectivity of the site have been severely altered by historic mining. The watershed size of IW1 is approximately 0.04 acres. It is separated by approximately 452' of uplands from the nearest water of the U.S (R6). This feature appears to have been constructed prior to 2006 (based on a review of aerial photography).

IW2: A man-made feature that consists of 0.16 acres of wetlands. The drainage patterns and hydrologic connectivity of the site have been severely altered by historic mining. The watershed size of IW2 is approximately 0.21 acres. It is separated by approximately 740' of uplands from the nearest waters of the U.S (R6). This feature appears to have been constructed prior to 2006 (based on a review of aerial photography).

All features listed above were examined, including a review of maps/plans submitted by the applicant, USGS Survey Maps, aerial photographs and observations recorded during site inspections. A site visit on November 27, 2018 confirmed that IOW2, IOW3, IOW4, IW1, IW2, and IW3 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; and are not known to be used for industrial purposes in interstate commerce. The waterbodies were determined to be non-jurisdictional under the CWA due to the rationale above.

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.

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) -	Wa Dra Ave	neral Area Conditions: tershed size: Pick List sinage area: Pick List erage annual rainfall: inches erage annual snowfall: inches
(ii)		Relationship with TNW: Tributary flows directly into TNW. Tributary flows through Pick List 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: Artificial (man-made). Explain: Manipulated (man-altered). Explain:
		Tributary properties with respect to top of bank (estimate): Average width: feet Average depth: feet Average side slopes: Pick List.
		Primary tributary substrate composition (check all that apply): Silts Sands Concrete Gravel Muck Bedrock Vegetation. Type/% cover: Other. Explain:
		Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Presence of run/riffle/pool complexes. Explain: Tributary geometry: Pick List

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.

		Tributary gradient (approximate average slope):	%	
	(c)	Flow: Tributary provides for: Pick List Estimate average number of flow events in review are Describe flow regime: Other information on duration and volume:	ea/ye	ar: Pick List
		Surface flow is: Pick List. Characteristics: .		
		Subsurface flow: Pick List. Explain findings: 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 ☐ 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 fa	ctors	sother 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):	Mea	at of CWA jurisdiction (check all that apply): an High Water Mark indicated by: survey to available datum; physical markings; vegetation lines/changes in vegetation types.
(iii)	Che	emical Characteristics:		
	Cha	racterize tributary (e.g., water color is clear, discolored characteristics, etc.). Explain:	, oily	film; water quality; general watershed
(iv)		ntify specific pollutants, if known: ogical 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):	•
Cha	racte	eristics of wetlands adjacent to non-TNW that flow	direc	tly or indirectly into TNW
(i)	(a)	sical Characteristics: General Wetland Characteristics: Properties: Wetland size: acres Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Ex	plain	· .
		General Flow Relationship with Non-TNW: Flow is: Pick List, Explain:		

2.

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.

			Surface flow is: Characterist						
			Subsurface flow		t. Explain findings: performed:				
		(c)	Directly abu Not directly Discrete Ecologi	tting abutting wetland h	nination with Non-? ydrologic connectio tion. Explain: /barrier. Explain:				
		(d)	Project waters a Flow is from: P	s are Pick re Pick Li ick List.	List river miles from st aerial (straight) m	iles from T			
	(ii)	Cha	mical Characte	risties: system (e. cteristics;	etc.). Explain:		ek List floodplain. oil film on surface; w	/ater qua	lity; general
	(iii)		Riparian buffer. Vegetation type. Habitat for: Federally List Fish/spawn a Other enviro	Character percent co sted specie reas. Expl nmentally-	s. Explain findings:	width); xplain findi	, ,		
3.	Cha	racte	eristics of all we	lands adja	acent to the tributa	ry (if any)			
		All	wetland(s) being	considered	in the cumulative as	nalysis: Pic	k Eist		
		App	roximately () acres i	n total are being con	sidered in t	he cumulative analys	is.	
		For	each wetland, spe	cify the fo	llowing:				
			Directly abuts?	Y/N)	Size (in acres)		Directly abuts? (Y/	<u>N)</u>	Size (in acres)
			Summarize over	all biologic	al, chemical and nh	vsical fimet	ions being performer	1.	

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:

- 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:
- 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):

ΑI	L 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: 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 combinare adjacent and with similarly situated adjacent wetlands, have a significant Data supporting this conclusion is provided at Section III.C.	
		Prov	vide acreage estimates for jurisdictional wetlands in the review area:	acres.
	6.	Wet	tlands adjacent to non-RPWs that flow directly or indirectly into TNWs Wetlands adjacent to such waters, and have when considered in combination adjacent and with similarly situated adjacent wetlands, have a significant no Data supporting this conclusion is provided at Section III.C.	on with the tributary to which they are
		Prov	vide estimates for jurisdictional wetlands in the review area: acres.	
	7.	As a	poundments of jurisdictional waters. ⁹ a general rule, the impoundment of a jurisdictional tributary remains jurisdictional tributa	ed above (1-6), or
E.	DECINO	GRAI CLUD which from which Inters Other	TED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISO DATION OR DESTRUCTION OF WHICH COULD AFFECT INTERDING ANY SUCH WATERS (CHECK ALL THAT APPLY): 10 the are or could be used by interstate or foreign travelers for recreational or of a which fish or shellfish are or could be taken and sold in interstate or foreign the are or could be used for industrial purposes by industries in interstate comstate isolated waters. Explain: or factors. Explain: water body and summarize rationale supporting determination:	STATE COMMERCE, ther purposes. a commerce.
		Tribu Other Id	estimates for jurisdictional waters in the review area (check all that apply): utary waters: linear feet width (ft). er non-wetland waters: acres. dentify type(s) of waters: ands: acres.	
(O)	Salti V4, I	If po Engi Revie Wate Othe ng, In	URISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK AL otential wetlands were assessed within the review area, these areas did not meanineers Wetland Delineation Manual and/or appropriate Regional Supplementiew area included isolated waters with no substantial nexus to interstate (or Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review are solely on the "Migratory Bird Rule" (MBR). Ters do not meet the "Significant Nexus" standard, where such a finding is refer: (explain, if not covered above): Based on a review of information submodule. On October 31, 2018, and a site inspection of the survey area on Novand IW2, and IW3 are not waters of the U.S. and are not jurisdictional defined by 33 CFR Part 328.3(a). See rationale in Section II. B. 2.	neet the criteria in the 1987 Corps of tts. foreign) commerce. rea would have been regulated based required for jurisdiction. Explain: nitted by Biological Systems ember 27, 2018, IOW2, IOW3,
	MB	R fact profe Non-	acreage estimates for non-jurisdictional waters in the review area, where the stors (i.e., presence of migratory birds, presence of endangered species, use clessional judgment (check all that apply): a-wetland waters (i.e., rivers, streams): linear feet width (ft). es/ponds: acre.	

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.

-	Other non-wetland waters: Wetlands: acres.	acres. List type of	aquatic resour	ce:	
V	where such a finding is required for	jurisdiction (check a	n the review ar all that apply):	ea that do	not meet the "Significant Nexus" standard
	Non-wetland waters (i.e., rivers	s, streams): lin	ear feet,	width (ft)	.
	Lakes/ponds: acre.				
1	Other non-wetland waters: Wetlands: acres	acres. List type o	f aquatic resou	rce:	
f	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: From delineation report titled "Alder	n
Resources, LLC / LRN-2014-01047 / Jurisdictional Determination Amendment Request" dated January 4, 2019.	
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:	
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: 1:24K KY-Corbin	
☑ USDA Natural Resources Conservation Service Soil Survey. Citation: ORM2, Reviewed on February 5, 2019	
National wetlands inventory map(s). Cite name: ORM2, Reviewed on February 5, 2019	

55	State/Local wetland inventory map(s):
\boxtimes	FEMA/FIRM maps: ORM2.
\$8.	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
\boxtimes	Photographs: Aerial (Name & Date): USGS-1997, Google Earth, 1997, 2004, 2006, 2008, 2010, and 2015
	or Other (Name & Date):
\boxtimes	Previous determination(s). File no. and date of response letter: LRN-2014-01047, June 17, 2014.
	Applicable/supporting case law:
050 280	Applicable/supporting scientific literature:
	Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: