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

		REPORT COMPLETION DATE FOR	APPROVED JURISDICTIONA	L DETERMINATION (JI)): January	9, 2	2018
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DISTRICT OFFICE. FILE NAME, AND NUMBER: Little Rock District, City of Little Rock, 2001-17226-3

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C.	PRO	DJECT LOCATION AND BACKGROUND INFORMATION:
	Cent Nam Nam	e: Arkansas County/parish/borough: Pulaski City: Little Rock ter coordinates of site (lat/long in degree decimal format): Lat. 34.72495°, Long92.18786°
	~	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.	REV	VIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
	~	Office (Desk) Determination. Date: January 9, 2018
		Field Determination. Date(s):
SEC	CTIO	N II: SUMMARY OF FINDINGS
The		A SECTION 10 DETERMINATION OF JURISDICTION. "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area d]
		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: The Arkansas River is a Section 10, navigable waterway used in the interstate transportation of commercial goods and services. Historically, the Old Channel Fourche Creek flows into the Arkansas River and Fourche Creek. The channel was altered during construction of the McClellan-Kerr Arkansas River Navigation System.
		A SECTION 404 DETERMINATION OF JURISDICTION. "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): 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: 2,153 linear feet: 35 width (ft) and/or 0.67 acres. Wetlands: acres.
		c. Limits (boundaries) of jurisdiction based on: Established by OHWM
		Elevation of established OHWM (if known): 232.5
	2.	Non-regulated waters/wetlands (check if applicable): ³ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW: Arkansas River; Fourche Creek

Summarize rationale supporting determination: The Arkansas River and Fourche Creek are designated Section 10, navigable waterways, used in the interstate transportation of goods and services.

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

General Area Conditions:

Watershed size: 729,561.8 acres Drainage area: 15,013.08 acres Average annual rainfall: 49.56 inches Average annual snowfall: 4.6 inches (ii) Physical Characteristics: (a) Relationship with TNW: Tributary flows directly into TNW. Tributary flows through 0 tributaries before entering TNW. Project waters are 1 (or less) river miles from TNW. Project waters are 1 (or less) river miles from RPW. Project waters are 1 (or less) aerial (straight) miles from TNW. Project waters are 1 (or less) aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain: The project does not cross or serve as a state boundary Identify flow route to TNW⁵: The stream flows into the TNW. Tributary stream order, if known: The stream is an intermittent stream. (b) General Tributary Characteristics (check all that apply): Tributary is: ☐ Natural Artificial (man-made). Explain: Manipulated (man-altered). Explain: The Old Channel Fourche Creek was altered during construction of the McClellan-Kerr Arkansas River Navigation System.

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.

	Ave Ave	ry properties with a crage width: 35 fee crage depth: 10-20 crage side slopes:	t feet	to top of bank (esti	mate):			
			compos	sition (check all tha	t apply	y):		
	~	Silts	~	Sands		I		Concrete
		Cobbles		Gravel		I	~	Muck
	~	Bedrock	~	Vegetation. Type	e/% co	ver: Duckb	ill sp	pecies; possibly 5% covere3
		Other. Explain:						
	is also fil meander vegetation Presence Tributary	lled with sediment/ ing. The stream ba	backfill inks are complex vely Str	I flow from the Ark not highly eroded. xes. Explain: No raight	ansas	River and F	Four	in: The tributary flow is shallow and stagnant. It che Creek. The stream is straight and not as, the area is densely populated with trees and
(c)	Estimate Des	average number of	f flow e This is		a/year		lows	s into the Arkansas River.
				ined Characteristic the area is dense wi			ow is	s discrete and confined for most of the channel.
		ce flow: Unknown Dye (or other) tes	_	-				
		changes in the shelving vegetation mave leaf litter district sediment deposition water staining other (list): Discontinuous Ol	all indication implication implication implication in the control of the control	eators that apply): pressed on the bank tter of soil wn, bent, or absent washed away Explain:		destruction the presence sediment so scour multiple ob abrupt chan	of te e of orting oservenge in	
	If factors	High Tide Line in	ndicated ne along ebris de	by: g shore objects eposits (foreshore)	Mea	an High Wa survey to av physical ma	iter N vaila arkin	Mark indicated by: ble datum;
(iii) Che	emical Ch	aracteristics:						

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.

		Ider	Explain: Water quality in the Old Fourche Creek Channel is discolored as its quality is similar to the Arkansas River. atify specific pollutants, if known: The channel has similar pollutants as the Arkansas River. Pollutants include petroleum ducts used by barge and boat traffic, industrial companies, water treatment plants, and runoff from chemicals used in cultural activities are some factors that can be found.
		(iv)	Biological Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): The existing riparian corridor is densely vegetated in many locations. It is approximately 30 – 40 feet along both sides of the stream. 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:
2.			eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
	(i)		sical Characteristics: 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:
		(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 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)	Cha	emical Characteristics: racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; b. Explain:

(ii)

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:
Δ austic/wildlife diversity Explain findings:

${\bf 3.} \quad {\bf Characteristics\ of\ all\ wetlands\ adjacent\ to\ the\ tributary\ (if\ any)}$

All wetland(s) being considered in the cumulative analysis: 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):

	· · · · · · · · · · · · · · · · · · ·
1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
	TNWs: 1,063 linear feet, 35 width (ft), 0.85 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: USGS topographical maps and NHD data shows the Old Channel Fourche Creek to be a Section 10, TNW at both openings that connect with the Arkansas River. The remaining channel is not specifically categorized, but water is in the channel most of the year round and has indicators of bed and banks and an ordinary high-water mark. All information indicates the flow is more than ephemeral.
	Provide estimates for jurisdictional waters in the review area (check all that apply):
	Tributary waters: 1,090 linear feet 35 width (ft), 0.87 acres
	Other non-wetland waters: acres.
	Identify type(s) of waters:

	3.		-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.
		Prov	ride 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.	Wet	lands 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.	Wet	lands 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.
		Prov	ride acreage estimates for jurisdictional wetlands in the review area: # acres.
	6.	Wet	lands 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.
		Prov	ride estimates for jurisdictional wetlands in the review area: acres.
	7.	Imp	oundments of jurisdictional waters. ⁹
			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.	OR	DES	ED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATIO TRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHEC AT APPLY): ¹⁰
			th 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.
		whic	ch are or could be used for industrial purposes by industries in interstate commerce.
		Inter	estate isolated waters. Explain:
		Othe	er factors. Explain:
	Ide	ntify v	water body and summarize rationale supporting determination:
		-	stimates for jurisdictional waters in the review area (check all that apply):
			utary waters: linear feet width (ft).
		Othe	er non-wetland waters: acres.
		I	dentify type(s) of waters:
		Wetl	lands: # 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.	NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
	 ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. ☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the
	"Migratory Bird Rule" (MBR).
	Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
	Other: (explain, if not covered above):
	Provide acreage estimates for non-jurisdictional waters in the review area, where the <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): linear feet width (ft).
	Lakes/ponds: acres.
	Other non-wetland waters: acres. List type of aquatic resource:
	Wetlands: acres.
	Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
	Non-wetland waters (i.e., rivers, streams): linear feet # width (ft).
	Lakes/ponds: acres.
	Other non-wetland waters: acres. List type of aquatic resource: .
	Wetlands: acres.
SEC	CTION 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: The application was submitted on behalf of the City of Little Rock by Pollution Management, Inc. 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: 11110207 – Lower Arkansas-Maumelle
	USGS NHD data.
	USGS 8 and 12 digit HUC maps.
	▼ U.S. Geological Survey map(s). Cite scale & quad name: 1:24K – Sweet Home
	USDA Natural Resources Conservation Service Soil Survey. Citation: Pulaski County Soil Survey
	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)
	Photographs: Aerial (Name & Date):
	or Other (Name & Date):
	Previous determination(s). File no. and date of response letter: 2001-17226-2 dated November 7, 2008
	Applicable/supporting case law:
	Applicable/supporting scientific literature:
	Other information (please specify):
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B. ADDITIONAL COMMENTS TO SUPPORT JD: The Old Channel Fourche Creek has bed and banks and an ordinary high-water mark. It connects with a Section 10 water, the Arkansas River on the eastern portion of the channel and a Section 10 water, Fourche Creek as Fourche Creek enters the Arkansas River on the eastern portion of the channel. Between the Section 10 portions of the channel, it is also jurisdictional for Section 404 authority and review.