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.

SEC A.	CTION I: BACKGROUND INFORMATION REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): January 19, 2022
В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: CEMVR-RD-2021-0934
С.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Illinois County/parish/borough: Sangamon City: Chatham Center coordinates of site (lat/long in degree decimal format): Lat. 39.642096° N, Long. 89.716399° W. Universal Transverse Mercator: 16 Name of nearest waterbody: Panther Creek Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Illinois River Name of watershed or Hydrologic Unit Code (HUC): 07130007 (South Fork Sangamon River) Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): ☐ Office (Desk) Determination. Date: January 19, 2022 ☐ Field Determination. Date(s):
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
revi	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the ew 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: CNA CECTION 404 DETERMINATION OF HIRISDICTION.
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	re Are "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 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: 3,496 linear feet: 10 width (ft) and/or acres. Wetlands: 0.03 acres.
	c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):
	 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

TNIX

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.

•	Walled a Proceeding and This
	Summarize rationale supporting determination: .
1.	Identify TNW:

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.

Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions: Watershed size: 867 square miles Drainage area: 0.88 square miles Average annual rainfall: 37.4 inches Average annual snowfall: 22 inches

(ii) Physical Characteristics:

(a) Relationship with TNW: ☐ Tributary flows directly into TNW. Tributary flows through 4 tributaries before entering TNW. Project waters are 30 (or more) river miles from TNW. Project waters are 1 (or less) river miles from RPW. Project waters are 30 (or more) 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:

Identify flow route to TNW5: S1 Intermittent and S2 Intermittent Stream combine to form S1 Perennial Stream > Panther Creek > Sugar Creek > Sangamon River > Illinois River (TNW).

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

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 stream order, if known: .	
(b) General Tributary Characteristics (check all that apply	·):
Tributary is: Natural	
☐ Artificial (man-made). Explai	n: Explain: Stream 1 begins as a tile drainage that surfaces on the west
side of on-site railroad tracks, enters a culvert that runs eastward und	
stream is surficial and part of it appears to enter a subsurface drain th	at discharges/surfaces downstream near the confluence with Stream
2 with the surficial portion of Stream 1. From the confluence with St	
appears to be "natural". Stream 2 also originates from a tile drain on via culvert, then crosses under the rail road and enters into a drop box	
immediately before Stream 1 enters a forested area in the southeasete	ern portion of the project site. Stream 2 is shown as a blue line
stream on USGS topographic maps and an intermittent stream in NW	
of the mapped area. Furthermore, on the east side of Highway 4, who subsurface conduits, and no surficial characteristics necessary to be of	
Stream 2 appears to originate from tile drainage as shown on the atta	
Tuth 4	
Tributary properties with respect to top of bank (esti- Average width: 10 feet	mate):
Average depth: 0.5 - 1 feet	
Average side slopes: 3:1.	
Primary tributary substrate composition (check all tha	t apply):
⊠ Silts ⊠ Sands	Concrete
☐ Cobbles ☐ Gravel	Muck
☐ Bedrock ☐ Vegetation. Type/% ☐ Other. Explain: .	cover:
	ighing banks]. Explain: S1 and S2 are relatively stable with minor
erosion per views from Delineation Photolog. Presence of run/riffle/pool complexes. Explain: Prese	nt throughout the stream reach in the forested area in the
southeastern portion of the project site.	9
Tributary geometry: Meandering	
Tributary gradient (approximate average slope): 3 %	
(c) Flow:	
Tributary provides for: Intermittent but not seasona Estimate average number of flow events in review are	l flow
Describe flow regime: .	a year: 20 (or greater)
Other information on duration and volume: .	
Surface flow is: Discrete. Characteristics: .	
Surface flow is: Discrete. Characteristics:	
	m 1 is surficial, and part of it appears to enter a subsurface drain
that discharges/surfaces downstream near the confluence with Stream	
into a pipe from immediately west of railroad tracks and discharges i the southeasetern portion of the project site. See photos in the attached	
Dye (or other) test performed:	1
Tributary has (check all that apply):	
Bed and banks	
\boxtimes OHWM ⁶ (check all indicators that apply):	—
☐ clear, natural line impressed on the bank☐ changes in the character of soil	the presence of litter and debris destruction of terrestrial vegetation
	the presence of wrack line
vegetation matted down, bent, or absent	sediment sorting
leaf litter disturbed or washed away	scour
sediment deposition water staining	multiple observed or predicted flow events abrupt change in plant community
other (list):	
☑ Discontinuous OHWM. ⁷ Explain:A portion of are subsurface. See detailed comments above and in the Wetland Del	of the volume of Stream 1 and all of Stream 2, for a certain length,
are substituce. See detailed confinients above and in the Welland Del	шеанон кероп

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.

If factors other than the OHWM were used to determine	ine lateral extent of CWA jurisdiction (check all that apply):
High Tide Line indicated by:	Mean High Water Mark indicated by:
oil or scum line along shore objects	survey to available datum;
fine shell or debris deposits (foreshore)	physical markings;
physical markings/characteristics	vegetation lines/changes in vegetation types.
☐ tidal gauges	
other (list):	
(iii) Chemical Characteristics:	
Characterize tributary (e.g., water color is clear, discolored Explain:	l, oily film; water quality; general watershed characteristics, etc.).
Identify specific pollutants, if known: .	

portion	of the	logical Characteristics. Channel supports (check all that apply): Riparian corridor. Characteristics (type, average width): Stream 1 has a forested riparian corridor in the southeastern project site with an average width of approximatlely 80 feet. 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: eristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(i)	Phy	vsical Characteristics:
(-)		General Wetland Characteristics:
		Properties:
		Wetland size: 0.03 acres Wetland type. Explain: PEM.
		Wetland quality. Explain: The wetland is of low quality with high coverage of reed canary grass. The wetland also
apparer	itly rec	beived high silt loads from the adjoining agricultural fields.
		Project wetlands cross or serve as state boundaries. Explain: No.
	(b)	General Flow Relationship with Non-TNW:
а.	2°1 1	Flow is: Perennial flow . Explain: This wetland lies in a depression that appears to have formed from the now non
Stream		rain that previously intersected Stream 1 near its beginning. Wetland A appears to be fed by and continuously discharge into
Stream		
		Surface flow is: Confined
		Characteristics: .
		Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:
	(c)	Wetland Adjacency Determination with Non-TNW:
		Directly abutting
		☐ Not directly abutting ☐ Discrete wetland hydrologic connection. Explain: .
		Ecological connection. Explain:
		Separated by berm/barrier. Explain: .
	(d)	Proximity (Relationship) to TNW
	(u)	Project wetlands are 30 (or more) river miles from TNW.
		Project waters are 30 (or more) aerial (straight) miles from TNW.
		Flow is from: Wetland to navigable waters.
		Estimate approximate location of wetland as within the 500-year or greater floodplain.
(ii)		emical Characteristics:
	Cha	racterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed
	Ider	characteristics; etc.). Explain:
(ii	ii) Bio⊡	logical Characteristics. Wetland supports (check all that apply): Riparian buffer. Characteristics (type, average width):
		Vegetation type/percent cover. Explain: PEM-90%; PFO -10% (one large Salix nigra)
		Habitat for:
		Federally Listed species. Explain findings:
		☐ Fish/spawn areas. Explain findings: ☐ Other environmentally-sensitive species. Explain findings:
		Aquatic/wildlife diversity. Explain findings:
3 CI	aract	aristics of all watlands adjacent to the tributory (if any)

Characteristics of all wetlands adjacent to the tributary (if any)
All wetland(s) being considered in the cumulative analysis: 1
Approximately (0.03) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

 $\begin{array}{c|cccc} \underline{\text{Directly abuts? (Y/N)}} & \underline{\text{Size (in acres)}} & \underline{\text{Directly abuts? (Y/N)}} & \underline{\text{Size (in acres)}} \\ Y & 0.03 & & & & \end{array}$

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 ALI
	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: S1 is a Perennial stream identified in the wetland delineation. ☑ 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: S1 Intermittent and S2 Intermittent form to create S1 Perennial. Sediment sorting and largely absent detritus in the wetted perimter of the channel. Both on-site streams were flowing well during the site reconnaissance, and rain had not occurred in the previous 48 hours.

	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: 3,496 linear feet 10 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: . ■ The fact that th
	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: Wetland 1 abuts S1 as illustrated in Exhibit 6. Sediment sorting and largely absent detritus in the wetted perimter of the channel. This wetland lies in a depression that appears to have formed from the now non-flowing tile drain that previously intersected Stream 1 near its beginning. Wetland A appears to be fed by and continuosly discharge into Stream 1.
	Provide acreage estimates for jurisdictional wetlands in the review area: 0.03 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.	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).
DE	OLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

E.

 ⁸See Footnote # 3.
 To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 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.

	 which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
	Identify water body and summarize rationale supporting determination:
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres.
F.	NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Other: (explain, if not covered above):
	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: Terracon Wetland Delineation, May 7, 2021. 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: USGS NHD data. USGS 8 and 12 digit HUC maps.
	 U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000; Chatham, IL. Exhibit 1, Terracon Wetland Delineation 2021. USDA Natural Resources Conservation Service Soil Survey. Citation: Exhibit 3, Terracon Wetland Delineation 2021. National wetlands inventory map(s). Cite name: Exhibit 2, Terracon Wetland Delineation 2021. State/Local wetland inventory map(s): FEMA/FIRM maps: Exhibit 5, Terracon Wetland Delineation 2021. 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Exhibit 4, Terracon Wetland Delineation 2021. or ☑ Other (Name & Date): Photolog, Terracon Wetland Delineation 2021. Previous determination(s). File no. and date of response letter: Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

