

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): April 28, 2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CESWL-RD, The Pines, SWL-2022-00085

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Arkansas County/parish/borough: Benton City: Centerton

Center coordinates of site (lat/long in degree decimal format): Lat. 36.3937°, Long. -94.2946°

Universal Transverse Mercator: NAD 83/UTM Zone 15, 4028404.2 Northing, 383895.5 Easting

Name of nearest waterbody: Spavinaw Creek

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

Name of watershed or Hydrologic Unit Code (HUC): 11070209 (Lower Neosho)

- 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: April 27, 2022

Field Determination. Date(s): March 28, 2022

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 and are not “*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):¹

- 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: DR01-PER: 168 linear feet, 15 width (ft); DR01-INT: 811 linear feet, 3 width (ft); DR07 INT: 260 linear feet, 3 width; DR01-EPH: 2,573 linear feet, 2 width; DR04-EPH: 1,281 linear feet, 1 width; DR05-EPH: 225 linear feet, 1 width (ft); DR06-EPH: 455 linear feet, 2.5 width; DR07-EPH 48 linear feet, 3 width; and Pond 5: 0.63 acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

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: A wetland delineation by Cattails Environmental, LLC and a Corps site visit resulted in observation of five man-made ponds constructed in uplands (Pond 1-Pond 4; Pond 6). One forested wetland, resulting from seepage on a slope (WET01-SEEP), was observed; however, this feature did not connect to regulated waters. Finally, five upland swales/erosional features lacking an OHWM

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.

and supporting upland conditions (upland vegetation) were observed (DR01-UPL SWALE, DR02-UPL SWALE, DR03 UPL SWALE, DR05 UPL SWALE, and DR06-UPL SWALE).

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

(i) General Area Conditions:

Watershed size: 28.5 square miles

Drainage area: 766 acres

Average annual rainfall: 47 inches

Average annual snowfall: 9 inches

DR01-PER, DR01-INT and DR07-INT

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 2 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: N/A.

Identify flow route to TNW⁵: DR01-INT, DR01-PER, and DR07-INT flow to Spavinaw Creek, to Neosho (Grand) River (a TNW).

Tributary stream order, if known: 2nd Order

(b) General Tributary Characteristics (check all that apply):

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 is:** Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: DR01-PER: 15 feet; DR01-INT 3 feet; DR07-INT 3 feet.
Average depth: DR01-PER: 0.5 feet; DR01-INT: 0.5; DR07-INT: 0.25 feet.
Average side slopes: 2:1

Primary tributary substrate composition (check all that apply):

- Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Relatively stable reaches with minor amounts of erosion.

Presence of run/riffle/pool complexes. Explain: DR01-PER/DR01-INT and DR07-INT support riffle/run/pool complexes.

Tributary geometry: Meandering

Tributary gradient (approximate average slope): <0.01%

(c) **Flow:**

Tributary provides for: Seasonal Flow

Estimate average number of flow events in review area/year: 20 (or greater)

Describe flow regime: DR01-INT and DR07-INT support seasonal flow; DR01-PER supports a reach that likely flows perennially except for driest summer/fall months.

Other information on duration and volume: Aerial photography (Google Earth) indicates seasonal flow for DR01-INT, DR07-INT, and DR01-PER; no data available regarding volume. Benthic macroinvertebrates and fish were present during Corps site visit within the perennial reach of DR01-PER, further suggesting seasonal flow.

Surface flow is: Confined Characteristics: Relatively high banks and little out-of-bank flooding observed.

Subsurface flow: Unknown Explain findings:

- Dye (or other) test performed:

Tributary has (check all that apply):

- Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain:

If factors other than the OHWM were used to determine 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:

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.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Water was clear during site visit and tributaries appeared to support generally good water quality based on benthic community that was observed.

Identify specific pollutants, if known: Possible pollutants include those associated with agriculture and the surrounding residential development in the area, i.e., nutrients, increased sediment/turbidity, herbicides/pesticides, etc.

(iv) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width): DR01-PER and DR01-INT support a mature forested riparian community exhibiting an approximately 50' or greater width.
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings: Mature forested community supports potential roosting habitat for federally listed bat species. Riparian corridor also provides foraging corridor for federally listed bat species.
 - Fish/spawn areas. Explain findings: DR01-PER provides sufficient habitat and flow for fish species, including sunfish, darters (observed), various minnows, and additional species.
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings: Stream channels provide habitat for aquatic/semi-aquatic wildlife (herpetofauna, benthic macroinvertebrates, etc.); the mature riparian zones provide habitat for birds (nesting and foraging habitat), small/large mammals, herpetofauna, and various terrestrial insects.

DR01-EPH, DR04-EPH, DR05-EPH, DR06-EPH, DR07-EPH

(ii) Physical Characteristics:

(a) Relationship with TNW:

- Tributary flows directly into TNW.
- Tributary flows through 3 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: N/A.

Identify flow route to TNW⁸: Ephemeral channels and Pond 6 flow to Intermittent reaches of DR01 and DR07, to Spavinaw Creek, to Neosho (Grand) River (a TNW).

Tributary stream order, if known: 1st Order

(b) General Tributary Characteristics (check all that apply):

- Tributary is:**
- Natural
 - Artificial (man-made). Explain:
 - Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: DR01-EPH 2 feet; DR04-EPH 1 feet; DR05-EPH 1 feet; DR06-EPH 2.5 feet; and DR07-EPH 3 feet.

Average depth: DR01-EPH 1 feet; DR04-EPH 0.5 feet; DR05-EPH 0.25 feet; DR06-EPH 0.5 feet; and DR07-EPH 0.25 feet.

Average side slopes: 2:1

Primary tributary substrate composition (check all that apply):

- | | | |
|---|--|-----------------------------------|
| <input checked="" type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input checked="" type="checkbox"/> Cobbles | <input checked="" type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input checked="" type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Relatively stable with minor amounts of erosion.

Presence of run/riffle/pool complexes. Explain: Due to ephemeral nature of channels, morphology was primarily runs.

Tributary geometry: Meandering

Tributary gradient (approximate average slope): <0.01%

(c) Flow:

Tributary provides for: Ephemeral Flow

Estimate average number of flow events in review area/year: 11-20

Describe flow regime: Ephemeral flow resulting from storm events.

⁸ 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.

Other information on duration and volume: Duration limited to a flow in response to storm events, most likely 24-48 hours following event. Flow in DR04-EPH influenced by volume of Pond 6.

Surface flow is: Discrete and Confined Characteristics: Channels support relatively high banks in most reaches; discrete connection between Pond 5 and DR04-EPH.

Subsurface flow: Unknown Explain findings:

- Dye (or other) test performed:

Tributary has (check all that apply):

- Bed and banks
- OHWM⁹ (check all indicators that apply):
- | | |
|---|---|
| <input checked="" type="checkbox"/> clear, natural line impressed on the bank | <input checked="" type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input checked="" type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input checked="" type="checkbox"/> leaf litter disturbed or washed away | <input checked="" type="checkbox"/> scour |
| <input checked="" type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |
- Discontinuous OHWM.¹⁰ Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> High Tide Line indicated by: | <input type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: No flow/water observed in ephemeral channels; however, due to forested riparian zones, water quality would be assumed generally good.

Identify specific pollutants, if known: No specific pollutants, possible pollutants related to agriculture within subject property and surrounding parcels.

(iv) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width): Ephemeral channels are located in moderately steep area that supports a mature forested community. The narrow riparian corridor along ephemeral channels consists of red maple (*Acer rubra*), northern red oak (*Quercus rubra*), Osage orange, hackberry, and additional species common in Ozark uplands.
- Wetland fringe. Characteristics:
- Habitat for:
- Federally Listed species. Explain findings: Narrow riparian corridor supports trees that could support federally listed bat species (summer roosting habitat).
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings: Possible ephemeral habitat for semiaquatic species, such as frogs and salamanders. Narrow riparian corridor likely utilized by birds, small mammals, herpetofauna, and large mammals such as white-tail deer.

2. Characteristics 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:

⁹A 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.

¹⁰Ibid.

(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) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

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:

Aquatic/wildlife diversity. Explain findings:

3. **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: Ephemeral channels DR01-EPH, DR04-EPH, DR05-EPH, DR06-EPH, and DR07-EPH represent headwater reaches of tributaries to Spavinaw Creek, exhibiting a direct hydrologic connection to TNWs. DR01 and DR07 transition to intermittent channels within the subject property. All five channels function for transport of nutrients, minor pollutants, and flood water that would ultimately provide a minor contribution to the physical, chemical, and biological integrity of Neosho River. The tributaries support only minor functions for aquatic species; however, they do provide hydrology for downstream fisheries and also support ephemeral habitat for semi-aquatic and riparian species. An additional feature, Pond 5, is located in the north-central portion of the subject property. Pond 5 results from impounding DR04-EPH, creating a direct hydrologic connection to DR04-EPH that ultimately connects to downstream TNWs (Neosho River). Pond 5 functions for flood storage, aquatic species habitat (fish, herpetofauna), nutrient storage/transfer, organic carbon transfer, and pollutant collection/transfer due to its connection to DR04-EPH. Therefore, Pond 5 has a minor direct relationship to downstream TNWs in regard to physical, chemical, and biological contributions.
- 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: 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: Perennial reach of DR01-PER, extending approximately 168 linear feet, supports a diversity of benthic macroinvertebrates (species typical of perennial channels due to extended life cycle) and fish species (darters, cyprinids, and sunfish). A review of aerial photography also suggests perennial flow of this reach of channel.
 - 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: DR01-INT (above perennial reach) and DR07-INT support seasonal reaches that support benthic macroinvertebrates and exhibit well-defined bed/banks typical of seasonal Ozark streams. Aerial photography (Google Earth 1994-2021) further supports seasonal flows, in addition, channels are also mapped as intermittent by USGS Topographic Quadrangle Hiwassee, AR.

Provide estimates for jurisdictional waters in the review area (check all that apply):

 - Tributary waters: DR01-PER: 168 linear feet, 15 width (ft); DR01-INT: 811 linear feet, 3 width (ft); DR07 INT: 260 linear feet, 3 width (ft).
 - Other non-wetland waters: acres.

Identify type(s) of waters:
- 3. Non-RPWs¹¹ 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: DR01-EPH: 2,573 linear feet, 2 width; DR04-EPH: 1,281 linear feet, 4 width; DR05-EPH: 225 linear feet, 1 width (ft); DR06-EPH: 455 linear feet, 2.5 width; DR07-EPH 48 linear feet, 3 width (ft).
 - Other non-wetland waters: Pond 5: 0.63 acres.

Identify type(s) of waters: Pond.
- 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:

¹¹See Footnote # 3.

- 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 jurisdictional. 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.¹²

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).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹³

- 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:

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: A total of five man-made ponds (Pond 1-4; Pond 6), constructed in uplands, were identified. In addition, a forested seep (WET01-SEEP) was observed in the southern portion of subject property that is geographically isolated and lacks hydrologic connection to waters of the U.S.
- Other: (explain, if not covered above): Five upland swales were located within the subject property (DR01-UPL SWALE, DR02-UPL SWALE, DR03-UPL SWALE, DR05-UPL SWALE, and DR06-UPL SWALE) that each extend a few hundred feet within the subject property. These features drain uplands and lack an OHWM.

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole 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.

¹² To complete the analysis, refer to the key in Section III.D.6 of the Instructional Guidebook.

¹³ 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: 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):
- Lakes/ponds: Pond 1: 0.18 acre; Pond 2: 0.38 acre; Pond 3: 0.10 acre; Pond 4: 0.26 acre; and Pond 6: 0.17 acre.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: WET01-SEEP 0.04 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: Preliminary Waters of the U.S. Assessment and Wetland Delineation Report, The Pines Phases 4-7 Proposed Subdivision, Centerton, Benton County, Arkansas by Cattails Environmental, LLC dated January 2022; Addendum to Delineation Report dated March 28, 2022, by Cattails Environmental, LLC.
- 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: HUC 8 11070209 (Lower Neosho) and HUC 12: 110702090302 (Spavinaw Creek). NHD data access on Regulatory Viewer (April 2022).
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Hiwasse, AR (1:24K).
- USDA Natural Resources Conservation Service Soil Survey. Citation: Soil Survey of Benton County, Arkansas (1977); Soil maps provided by Cattails Environmental in wetland delineation report.
- National wetlands inventory map(s). Cite name: NWI maps provided by Cattails Environmental, LLC in wetland delineation report.
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Google Earth (1994-2021) and aerial maps provided in wetland delineation.
- or Other (Name & Date): Site photos provided by Cattails Environmental, LLC in wetland delineation.
- Previous determination(s). File no. and date of response letter:
- Applicable/supporting case law:
- Applicable/supporting scientific literature:
- Other information (please specify): Corps site visit conducted on March 28, 2022.

B. ADDITIONAL COMMENTS TO SUPPORT JD: A wetland delineation by Cattails Environmental, LLC (January 2022) and subsequent addendum (March 2022) identified a perennial reach of channel (DR01-PER) and two intermittent channels (DR01-INT and DR07-INT). Five ephemeral channel reaches (DR01-EPH, DR04-EPH, DR05-EPH, DR06-EPH, and DR07-EPH) supporting an OHWM were also identified within the subject property. One man-made pond (Pond 5), directly connected to an ephemeral channel (DR04-EPH) was observed in the north-central portion of the subject property. These features would be regulated as other waters of the U.S. Cattails Environmental also identified five upland swales lacking an OHWM (DR01-UPL SWALE, DR02-UPL SWALE, DR03-UPL-SWALE, DR05-UPL SWALE, AND DR06-UPL SWALE), five man-ponds constructed in uplands (POND 1-4; POND 6), and an forested seep (WET01-SEEP) that lack a significant nexus to waters of the U.S. and would not be regulated as waters of the U.S. under Section 404 of the CWA.

April 28, 2022

Date

David Rupe
Project Manager