

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): 11 July, 2014

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: USACE - Memphis District; MVM-2013-283 Site 1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Arkansas County/parish/borough: Crittenden County City: Earle
Center coordinates of site (lat/long in degree decimal format): Lat. 35.255479 ° N, Long. -90.485308° W.
Universal Transverse Mercator:

Name of nearest waterbody: Unnamed Tributary To Ditch # 13

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

Name of watershed or Hydrologic Unit Code (HUC): Upper Blackfish Bayou 080202031503

- 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:
 Field Determination. Date(s): 8, 17 July, 8 August, 25 September, 2013, 12 June, 2014

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** "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: 3,176 linear feet: 4-6 width (ft) and/or acres.
Wetlands: Site 1 Wetlands 5.3 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

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.

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: **Site 2 addressed on separate JD form.**

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: 2,960 square miles

Drainage area: 156.5 acres

Average annual rainfall: 52.8 inches

Average annual snowfall: 1.9 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 8 tributaries before entering TNW.

Project waters are 25-30 river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 2-5 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: Project waters do not serve or cross state boundaries.

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

Identify flow route to TNW⁵: Wetlands direct surface connection to an Unnamed Tributary > Unnamed Tributary > Ditch 13 > Blackfish Ditch > Little Blackfish Bayou > Ditch 16 > Blackfish Bayou > Blackfish Lake > Blackfish Bayou (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: Unnamed Tributary ditch was constructed through an agricultural field west of Site 1 wetlands to meet a farm road and turn south before crossing under the farm road heading east along the southern border of a treeline between agricultural land to the south and the treeline to the north.

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

Average width: 5 feet

Average depth: 3 feet

Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

Silts

Sands

Concrete

Cobbles

Gravel

Muck

Bedrock

Vegetation. Type/% cover: Scrub/shrub & herbaceous 50%

Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: stable.

Presence of run/riffle/pool complexes. Explain: no.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): ~ 0.05 %

(c) Flow:

Tributary provides for: **Seasonal flow**

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

Describe flow regime: Flashy hydroperiod dependent on rain and irrigation events on surrounding agricultural land.

Other information on duration and volume: Water flow observed in ditch on 8 July and 25 September, 2013, and also on 12 June, 2014. Three days prior to 12 June, the area experienced high rainfall events; rainfall in the area measured 1.25 inches for that day and two days prior to June 12, rainfall in the area measure 0.83 inches for that day. Observed a direct surface connection between the drain within the wetlands emptying into the larger drainage ditch to the south that flows east/west. Average rainfall for June according to the WETS Station in West Memphis is 4.45 inches of rain from data collected between 1971 and 2000. Data from the WETS Station also indicates that there are 5 months where the average rainfall is greater than the month of June.

Surface flow is: **Discrete and confined.** Characteristics: Cloudy, brownish color.

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

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

High Tide Line indicated by:

oil or scum line along shore objects

Mean High Water Mark indicated by:

survey to available datum;

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.

⁶ A 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.

⁷ Ibid.

- | | |
|--|--|
| <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: discolored, watershed in the surrounding area is agricultural land with interspersed wooded areas and riparian zones along the channelized stream.

Identify specific pollutants, if known: Not known however, the area draining into the RPW is agricultural land which typically uses pesticides, herbicides and fertilizers. Also noted during site visits was the brown coloration of the tributary caused by sediment load.

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

- Riparian corridor. Characteristics (type, average width): wooded corridor approximately 55 feet wide on the north side of ditch and agricultural land on the south side of the ditch.
- 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. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: Wooded site 1 approximately 5.3 acres

Wetland type. Explain: Inland non-tidal freshwater bottomland hardwood wetland dominated by hydrophytic vegetation consisting of Sugar Berry, Green Ash, Nuttall Oak, Bald Cypress, Bitternut Hickory, Willow Oak, Pin Oak and Sycamore.

Wetland quality. Explain: Fully successional mature bottomland hardwood wetland that serve to filter contaminants from the surrounding agricultural land including sediment load while storing high water events to gradually release to RPWs downstream.

Project wetlands cross or serve as state boundaries. Explain: wetlands do not cross state boundaries.

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Flow dependent on rain events and irrigation cycles on surrounding agricultural land.

Surface flow is: **Overland sheetflow**

Characteristics: Surface water flows in two avenues; water flows from the western portion of the wetlands into the ditch bordering the west border of the wetlands. Water also flows from the southeast corner of the wetlands into the surrounding agricultural field to lower areas at the opening of a drain that breaches the western levee of a north/south drainage ditch that divides two agricultural fields.

Subsurface flow: **Unknown**. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: The western area of the wetlands has a discrete and confined surface connection ditch that flows directly into the ditch that flows east/west along the southern boundary. Water flowing from the southeast area of the wetlands flows across an agricultural field in sheet flow before it drains into the north/south ditch in the center of the property through a small drain that breaches the western levee of the ditch.

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **25-30** river miles from TNW.

Project waters are **2-5** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **100 - 500-year** 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: Surface water not observed within the wetlands at time of investigation. Wetlands surrounded on three sides by agricultural land and a farm road on one side.

Identify specific pollutants, if known: specific pollutants not known. Farming practices may introduce pollutants such as runoff sediment, fertilizers, herbicides and pesticides.

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

Riparian buffer. Characteristics (type, average width):

Vegetation type/percent cover. Explain: Wetlands are 80% bottomland hardwood forest and approximately, 20% herbaceous vegetation.

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: **1**

Approximately (5.3) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Site 1 directly abuts	5.3		

Summarize overall biological, chemical and physical functions being performed: These wetlands are connected to Blackfish Bayou (RPW) which eventually becomes a TNW at the mouth of Fifteen Mile Bayou, approximately 28.1 miles from the project site. Approximately 11.2 miles from the wetlands, Blackfish Bayou becomes an impaired waters on the 303(d) list due to siltation/turbidity caused by agriculture. These wetlands may reduce siltation/sediment transport, and filter chemicals entering the system from the adjacent agricultural fields. Nitrates are trapped preventing some eutrophication of Blackfish Bayou thereby reducing algal blooms. They also serve to slow flow downstream by holding and retaining high water events thereby changing sharp runoff peaks to slower discharges over longer periods of time, (Mitsch, William J., Gosselink, James G. 2000. Wetlands, Third Edition, John Wiley & Sons, New York, 584 pp). They provide important winter and seasonal habitat for mammals, amphibians, reptiles, and other wildlife. This system is capable of carbon export from the leaves and herbaceous plants that are shredded and dissolved by shredders and microorganisms working to provide carbon important for downstream lacustrine and riverine ecosystems. These organisms along with the high densities of plant forage are vital to the survival of the resident fish and wildlife in downstream aquatic environments throughout the year as well as the terrestrial and aquatic species foraging and reproducing in this system seasonally.

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: The wetlands at site 1 currently provide a means for retaining siltation/sediment runoff from the adjacent agricultural fields. They filter chemicals entering the system from the adjacent agricultural fields. Nitrates are trapped preventing some eutrophication of Blackfish Bayou thereby reducing algal blooms. They slow flow downstream by holding and retaining high water events thereby changing sharp runoff peaks to slower discharges over longer periods of time. This system serves to significantly affect the Blackfish Bayou (a TNW) downstream by providing a source for the wildlife food cycle, seasonal and year round habitat for wildlife, pollution attenuation, and floodwater retention.
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: .
- 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: Several site visits in June - September, 2013 and 12 June, 2014, confirmed the presence of water in the unnamed tributary. Also observed a ditch with water in it immediately within the western border of Site 1 during the last site visit. The landowner confirmed that the ditch has water in it during rain events. Additionally, WETS data for Station West Memphis indicates that the month of June averages 4.45 inches of precipitation. March, April, May, November and December are months with higher average amounts of precipitation.

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

- Tributary waters: **1,365** linear feet **4-6** width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ 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: There is a direct surface water connection ditch within the western edge of the wetland that connects the wetland directly to the seasonal RPW as observed during a site visit on 12 June, 2014.

Provide acreage estimates for jurisdictional wetlands in the review area: **5.3** 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.

⁸See Footnote # 3.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from “waters of the U.S.,” or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

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):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: .
- Other factors. Explain: .

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 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.
- 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.

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: .
- 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.

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.

- 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: Earle, Arkansas 1:24,000 .
- USDA Natural Resources Conservation Service Soil Survey. Citation: Crittenden County AR Soil Survey and GIS data .
- National wetlands inventory map(s). Cite name: .
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: FIRM of Crittenden County, AR, Panel # 050429 0100 C Revised August 23, 1999.
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): GIS World Imagery 2012.
or Other (Name & Date): Site visit 8 & 17 July, 25 September, and 8 August, 2013, 12 June, 2014 .
- 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: EPA lists Blackfish Bayou as impaired waters with Total Maximum Daily Pollutant Loads (TMDLs). Blackfish Bayou becomes impaired approximately 11.2 river miles from the project site. Blackfish Bayou is included on the final 2004 Arkansas 303(d) list for not supporting the designated use of aquatic life due to siltation/turbidity. It is also on the draft 2014 303(d) list Category 4a streams. The primary source of siltation/turbidity for Blackfish Bayou is agriculture, (source: TMDLS FOR TURBIDITY FOR SEVEN STREAM REACHES IN ARKANSAS, Prepared by FTN Associates Ltd. for EPA Region 6, Water Quality Protection Division, Oversight and TMDL Team, March 27, 2008).