

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): February 17, 2017

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: LRB-2015-01186, McIntosh Farms Development Group LLC, Form 1 of 3, Stream 1, Wetland A1/A2, Wetland B, Wetland C, Wetland D, Wetland E, Wetland F, Wetland G, Wetland I

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Ohio County/parish/borough: Lorain City: Avon
Center coordinates of site (lat/long in degree decimal format): Lat. 41.441294 °, Long. -82.063412 °
Universal Transverse Mercator: 17

Name of nearest waterbody: Kline Ditch (off-site)
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Black River
Name of watershed or Hydrologic Unit Code (HUC): 04110001

- 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: February 17, 2017
 Field Determination. Date(s): May 25, 2016

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: [Click here to enter text.](#)

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: Stream 1- 787 linear feet: 15 width (ft) and/or # acres.

Wetlands: Wetland A1/A2 (0.09 acre), Wetland B (0.08 acre), Wetland C (0.01 acre), Wetland D (0.01 acre), Wetland E (0.01 acre), Wetland F (0.04 acre), Wetland G (0.02 acre), Wetland I (0.01 acre)

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

Elevation of established OHWM (if known): Unknown

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: [Click here to enter text.](#)

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW: [Click here to enter text.](#)

Summarize rationale supporting determination: [Click here to enter text.](#)

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”: [Click here to enter text.](#)

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: 35.35 square miles (Black River Watershed)

Drainage area: 4 square miles

Average annual rainfall: 38 inches

Average annual snowfall: 43 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

- Tributary flows directly into TNW.
 Tributary flows through 3 tributaries before entering TNW.

Project waters are 5-10 river miles from TNW.

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

Project waters are 1-2 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: No

Identify flow route to TNW⁵: Stream 1 flows north off-site into Kline Ditch. Kline Ditch flows north into French Creek.

French Creek flows in a westerly direction into the Black River, a Section 10 Navigable water of the U.S.

Tributary stream order, if known: 2

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

- Tributary is:** Natural
 Artificial (man-made). Explain: [Click here to enter text.](#)
 Manipulated (man-altered). Explain: Stream 1 has been historically dredged and straightened for agriculture.

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

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.

Average width: 15 feet
Average depth: 2.5 feet
Average side slopes: 3:1

Primary tributary substrate composition (check all that apply):

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Silts | <input checked="" type="checkbox"/> Sands | <input checked="" type="checkbox"/> Concrete (culvert) |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input checked="" type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: Click here to enter text. | |
| <input type="checkbox"/> Other. Explain: Click here to enter text. | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Tributary is generally stable with some areas of bank erosion.

Presence of run/riffle/pool complexes. Explain: None observed.

Tributary geometry: Relatively Straight

Tributary gradient (approximate average slope): Less than 5%

(c) Flow:

Tributary provides for: Perennial Flow

Estimate average number of flow events in review area/year: 1 continuous

Describe flow regime: Tributary flows year round with no cessation in flow during normal precipitation years.

Other information on duration and volume:

Surface flow is: Discrete and Confined Characteristics: Surface flow is evident and obvious within the defined bed and banks of Stream 1.

Subsurface flow: Unknown Explain findings: [Click here to enter text.](#)

- Dye (or other) test performed: [Click here to enter text.](#)

Tributary has (check all that apply):

- | | |
|--|--|
| <input checked="" type="checkbox"/> Bed and banks | |
| <input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input 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 checked="" 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 type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input checked="" type="checkbox"/> abrupt change in plant community Click here to enter text. |
| <input type="checkbox"/> other (list): Click here to enter text. | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: Click here to enter text. | |

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): Click here to enter text. | |

(iii) Chemical Characteristics:

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

Explain: Water appeared mostly clear. See III(C)(3) for watershed description.

Identify specific pollutants, if known: Stream 1 receives runoff from the farm field. The runoff contains farm fertilizer and/or chemicals as well as sediment from the plow layer.

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

- Riparian corridor. Characteristics (type, average width): Stream 1 lies within an approximately 50' wide (average)

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.

forested/shrub riparian corridor.

- Wetland fringe. Characteristics: Wetland A1/A2 and Wetland C abut Stream 1.
- Habitat for:
 - Federally Listed species. Explain findings: [Click here to enter text.](#)
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: Tributary provides perennial flow which supports aquatic flora and fauna.

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: Wetland A1/A2 (0.09 acre), Wetland B (0.08 acre), Wetland C (0.01 acre), Wetland D (0.01 acre), Wetland E (0.01 acre), Wetland F (0.04 acre), Wetland G (0.02 acre), Wetland I (0.01 acre)

Wetland type. Explain: Wetland A1/A2 (PEM), Wetland B (PEM/PSS), Wetland C (PEM), Wetland D (PFO), Wetland E (PEM), Wetland F (PEM), Wetland G (PEM), Wetland I (PEM)

Wetland quality. Explain: Wetland D is of low to moderate quality as per the Ohio Rapid Assessment Method (ORAM). All other wetlands above are of relatively low quality as per the ORAM.

Project wetlands cross or serve as state boundaries. Explain: No

(b) General Flow Relationship with Non-TNW:

Flow is: Ephemeral Flow & Intermittent Flow Explain: Wetlands A1/A2 and C flow intermittently to Stream 1 during periods of precipitation, snowmelt, and seasonal high water tables. Wetlands B, D, E, F, G, and I all flow ephemerally to Stream 1 during and after precipitation and snowmelt events.

Surface flow is: Discrete and confined & overland sheetflow

Characteristics:

Wetlands A1/A2 and C directly abut and flow to Stream 1 at the areas in which the wetlands directly abut the stream (discrete and confined). Wetland B flows into non-jurisdictional Swale 6 (Form 3 of 3) and is conveyed through Wetland A-1 into Stream 1 (overland sheetflow, discrete and confined).

Wetland D flows into non-jurisdictional Swale 9 (Form 3 of 3) which outlets directly into Stream 1 via non-jurisdictional Swale 8 (Form 3 of 3) (discrete and confined).

Wetland E flows into non-jurisdictional Swale 16 (Form 3 of 3) which outlets to non-jurisdictional Ditch 4 (Form 3 of 3); Ditch 4 flows off-site into Stream 1 (discrete and confined).

Wetland F flows to Wetland G via overland sheetflow via a slight depression/concave linear feature on the landscape where it is conveyed through Wetland G into non-jurisdictional Swale 15 (Form 3 of 3). Swale 15 flows into Ditch 3 (Form 3 of 3) which continues off-site into Stream 1 (overland sheetflow, discrete and confined).

Wetland G flows into non-jurisdictional Swale 15 (Form 3 of 3). Swale 15 flows into non-jurisdictional Ditch 3 (Form 3 of 3) which continues off-site into Stream 1 (discrete and confined).

Wetland I flows into non-jurisdictional Swale 26 (Form 3 of 3) which then flows directly into Stream 1 (discrete and confined).

Subsurface flow: Unknown Explain findings: [Click here to enter text.](#)

Dye (or other) test performed: [Click here to enter text.](#)

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting- Wetlands A1/A2 and C

Not directly abutting

Discrete wetland hydrologic connection. Explain: Wetlands B, D, E, F, G, and I – See Section III(B)(2)(i)(b) Surface Flow Characteristics for description of hydrologic connection. Wetlands B, D, E, F, G, and I all flow to Stream 1 via obvious, traceable, and defined drainage patterns and/or features.

Ecological connection. Explain: [Click here to enter text.](#)

Separated by berm/barrier. Explain: [Click here to enter text.](#)

(d) Proximity (Relationship) to TNW

Project wetlands are 5-10 river miles from TNW.

Project waters are 1-2 aerial (straight) miles from TNW.

Flow is from: Wetlands to Navigable Waters

Estimate approximate location of wetland as within the 500-year or greater 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: No standing water observed in wetlands at time of visit. See III(C)(3) for watershed description.

Identify specific pollutants, if known: Wetlands receive runoff from the surrounding agricultural field including fertilizer and any agricultural chemicals applied to the fields.

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

- Riparian buffer. Characteristics (type, average width): Wetland D has a very narrow forested riparian buffer and Wetland B has a very narrow shrub buffer. The remaining wetlands largely abut active agriculture.
- Vegetation type/percent cover. Explain: Wetlands A1/A2, Wetland C, Wetland E, Wetland F, Wetland G, and Wetland I have greater than 90% emergent vegetation coverage. Wetland D has greater than 50% forested and emergent cover. Wetland B has nearly 100% emergent and shrub cover.
- Habitat for:
 - Federally Listed species. Explain findings: [Click here to enter text.](#)
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: Wetlands provide habitat for aquatic flora and fauna.

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: 8

Approximately (0.27) 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>
Wetland A	Yes	0.09	Wetland E	No	0.01
Wetland B	No	0.08	Wetland F	No	0.04
Wetland C	Yes	0.01	Wetland G	No	0.02
Wetland D	No	0.01	Wetland I	No	0.01

Summarize overall biological, chemical and physical functions being performed: The wetlands provides the following functions and services: hydrologic flux and storage including floodwater and runoff attenuation and release; sediment and nutrient transport and retention; pollutant attenuation and release; biogeochemical cycling and storage; biological productivity of micro/macro flora and fauna, decomposition, and community structure; and wildlife support including providing habitat.

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: [Click here to enter text.](#)
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: [Click here to enter text.](#)
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: The Black River is designated as a Great Lakes Area of Concern (AOC). In the watershed, major municipal and industrial discharges, combined sewer overflows, urban runoff result in high nutrient and organic loads, poor habitat quality, siltation, low dissolved oxygen concentrations, runoff from agricultural land, failing home sewage treatment, and poor stream bank land management are sources of degradation. Among the most visible threats to the Black River is the conversion of farm, forest and stream bank acreage to suburban and commercial uses.

In the French Creek sub-basin, one of only 12 designated rapidly developing watersheds in the state, extensive development is resulting in impacts to water quality (Ohio EPA, 2008). The following actions have been identified for reduction and avoidance of impairments within the Black River Watershed: abate sediment and nutrient loading to surface waters, protect riparian corridors and wetlands, maintain natural flow regimes, address home sewage treatment system impacts, reduction in runoff volume and pollution through stormwater management, discourage unnecessary impervious surfaces, use best management practices for all types of land use, manage livestock access to waters and implement manure management practices, and perform stream restoration to reduce erosion and reconnect streams to natural floodplains (Ohio EPA Division of Surface Water, 2008).

A traceable hydrologic connection exists between on-site Wetlands A1/A2, B, C, D, E, F, G, and I, and Stream 1 (tributary). Stream 1 flows north off-site into Kline Ditch, continues north into French Creek, and ultimately flows in a westerly direction into the Black River. As per Section III(B)(2)(i)(b) Surface Flow Characteristics, Wetlands A1/A2, B, C, D, E, F, G, and I all flow to Stream 1 via obvious, traceable, and defined drainage patterns and/or features.

The tributary and its similarly situated wetlands ((identified in Section III(B)(3)) have hydrologic connectivity to the Black River, thereby providing a significant nexus between the tributary and its adjacent wetlands and the downstream TNW. Hydrologic connectivity refers to the flow that transports organic matter and nutrients, energy, and aquatic organisms throughout the system (Freeman et al., 2006). The tributary influences the chemistry and physical conditions of the downstream TNW through its hydrologic input, storage, and transport of sediments and energy.

The similarly situated wetlands directly affect the nature of the water entering the tributary and its downstream receiving waters, both in quantity and chemical/physical attributes. Ultimately, this affects the downstream TNW, the Black River, as the wetlands alter the amount of flow reaching the TNW and furthermore, any additional matter such as nutrients, chemicals, sediments, and pollutants carried in that flow.

In its current state, the tributary relevant reach flows through agricultural land and residential developments. The tributary is maintaining stream functions that affect the downstream TNW including providing perennial flow, sediment transport, flora and fauna habitat, a biotic movement corridor, etc. The tributary in its current state is aiding in reducing known watershed impairments by providing a riparian corridor within a highly developed setting, providing unaltered habitat and undeveloped land, not adding to increased impervious surfaces, maintaining a natural flow regime, and providing a tributary connected to its floodplain.

The adjacent wetlands which receive the majority of their hydrologic input via precipitation and runoff from surrounding agricultural land, serve to retain and filter runoff containing sediment and pollutants such as fertilizers and agricultural chemicals that would ultimately reach the downstream TNW in their absence. Maintenance of the wetlands in their undeveloped state prevents impairments from habitat loss; reducing runoff volume as well as sediment and nutrient loading via retention of water within the wetlands; and by maintaining undeveloped land free of impervious surfaces.

According to the USEPA (2015), “scientific literature unequivocally demonstrates that streams, individually or cumulatively, exert a strong influence on the integrity of downstream waters” and that “all tributary streams, including perennial, intermittent, and ephemeral streams, are physically, chemically, and biologically connected to downstream” waters. Due to the physical, biological, and chemical connectivity of the tributary and its adjacent wetlands as described above, it has been determined that the tributary and its adjacent wetlands have a significant nexus with the downstream TNW, the Black River as the functions and services provided by the tributary and its adjacent wetlands provide more than a speculative effect on the physical integrity of the Black River.

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: Stream 1 is a perennial tributary which flows year round with no cessation in flow. Stream 1 is visible on the USGS Quadrangle as a stream and also shows up on both the USEPA MyWaters Datasets and NHD Datasets. Aerial photography during multiple years and seasons indicate water present in the channel. The May 2016 site visit and photos September 2015 Delineation Report photos indicate water in the 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: [Click here to enter text.](#)

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

- Tributary waters: 787 linear feet 15 width (ft).
 Other non-wetland waters: # acres.

Identify type(s) of waters: [Click here to enter text.](#)

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

⁸See Footnote # 3.

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: [Click here to enter text.](#)

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 A1/A2 and C directly abut Stream 1 with no upland separation, berm, or barrier.

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: [Click here to enter text.](#)

Provide acreage estimates for jurisdictional wetlands in the review area: Wetland A1/A2 0.09 acre, Wetland C 0.01 acre.

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: Wetland B (0.08 acre), Wetland D (0.01 acre), Wetland E (0.01 acre), Wetland F (0.04 acre), Wetland G (0.02 acre), Wetland I (0.01 acre).

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:

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: [Click here to enter text.](#)

Other factors. Explain: [Click here to enter text.](#)

Identify water body and summarize rationale supporting determination: [Click here to enter text.](#)

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: [Click here to enter text.](#)

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).

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.

- Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain: [Click here to enter text.](#)
- Other: (explain, if not covered above): [Click here to enter text.](#)

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: [Click here to enter text.](#)
- 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: [Click here to enter text.](#)
- 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: Location Map, Delineation Map, Project Plans
- 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: [Click here to enter text.](#)
- Corps navigable waters’ study: [Click here to enter text.](#)
- U.S. Geological Survey Hydrologic Atlas: USACE ORM USGS NHD Datasets
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 7.5 Minute Avon, OH
- USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey (<https://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>)
- National wetlands inventory map(s). Cite name: USACE ORM USFWS NWI Dataset
- State/Local wetland inventory map(s): [Click here to enter text.](#)
- FEMA/FIRM maps: USACE ORM FEMA Flood Hazard Dataset
- 100-year Floodplain Elevation is: [Click here to enter text.](#) (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Google Earth (OCT2015, MAY2012, OCT2011, DEC2009, JUN2009, MAY2007) HistoricAerials.com (1952, 1962, 1970, 2006, 2013)
 - or Other (Name & Date): Photos contained in October 2015 Delineation Report from CEC
- Previous determination(s). File no. and date of response letter: [Click here to enter text.](#)
- Applicable/supporting case law: [Click here to enter text.](#)
- Applicable/supporting scientific literature:
 - Ohio EPA. 2008. Black River Watershed TMDL Report. http://www.epa.state.oh.us/portals/35/tmdl/BlackRiverTMDL Factsheet_oct08.pdf. Accessed February 29, 2016.
 - Ohio EPA Division of Surface Water. 2008. Total Maximum Daily Loads for the Black River Watershed. www.epa.state.oh.us/portals/35/tmdl/BlackRiverTMDL_final_may08_wo_app.pdf. Accessed February 29, 2016.
 - Alexander, R.B., E.W. Boyer, R.A. Smith, G.E. Schwartz, and R.B. Moore. 2007. The Role of Headwater Streams in Downstream Water Quality. Journal of the American Water Resources Association 43.
 - Freeman, M.C., C.M. Pringle, and C.R. Jackson. 2007. Hydrologic Connectivity and the Contribution of Stream Headwaters to Ecological Integrity at Regional Scales. Journal of the American Water Resources Association. 43:5-14.
 - Meyer, J.L., D.L. Strayer, J.B. Wallace, S.L. Eggert, G.S. Helfman, and N.E. Leonard. 2007. The Contribution of Headwater Streams to Biodiversity in River Networks. Journal of the American Water Resources Association. 43: 86-103.
 - USEPA. 2013. Streams. <http://water.epa.gov/type/rsl/streams.cfm>. Accessed 8 March 2016.
 - USEPA. 2015. Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-14/475F.
 - Bruckner, Monica Z. 2012. Measuring Dissolved and Particulate Organic Carbon (DOC and POC). Montana State University Bozeman. http://serc.carleton.edu/microbelife/research_methods/biogeochemical/organic_carbon.html. Accessed 8 March 2016.

Other information (please specify): USEPA MyWaters Datasets (<https://watersgeo.epa.gov/mwm/>), Precipitation Data
(www.bestplaces.net/climate/city/ohio/avon)

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Susan Baker
Project Manager

February 17, 2017

Date

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): February 17, 2017

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: LRB-2015-01186, McIntosh Farms Development Group LLC, Form 2 of 3, Ditch 5 and Wetland H

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Ohio County/parish/borough: Lorain City: Avon

Center coordinates of site (lat/long in degree decimal format): Lat. 41.441294 °, Long. -82.063412 °
Universal Transverse Mercator: 17

Name of nearest waterbody: Kline Ditch (off-site)

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

Name of watershed or Hydrologic Unit Code (HUC): 04110001

- 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: February 17, 2017

Field Determination. Date(s): May 25, 2016

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: [Click here to enter text.](#)

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: 790 linear feet: ~3 width (ft) and/or NA acres.

Wetlands: Wetland H 0.08 acres.

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

Elevation of established OHWM (if known): Unknown

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: [Click here to enter text.](#)

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

Identify TNW: [Click here to enter text.](#)

Summarize rationale supporting determination: [Click here to enter text.](#)

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": [Click here to enter text.](#)

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: 35.35 square miles (Black River Watershed)

Drainage area: 0.6 square miles

Average annual rainfall: 38 inches

Average annual snowfall: 43 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 4 tributaries before entering TNW.

Project waters are 5-10 river miles from TNW.

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

Project waters are 1-2 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: No

Identify flow route to TNW⁵: Ditch 5 flows west through the parcel and then continues off-site into the railroad ditch. The railroad ditch continues north for approximately 4700 feet where it then turns northeast for approximately 1400 feet and flows into Kline Ditch. Kline Ditch flows north into French Creek. French Creek flows in a westerly direction into the Black River, a Section 10 Navigable water of the U.S.

Tributary stream order, if known: 1

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

Tributary is: Natural

Artificial (man-made). Explain: Ditch 5 appears to be a man-made agricultural ditch.

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.

Manipulated (man-altered). Explain: [Click here to enter text.](#)

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

Average width: 3 feet
Average depth: 1-2 feet
Average side slopes: 3:1

Primary tributary substrate composition (check all that apply):

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input checked="" type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input checked="" type="checkbox"/> Vegetation. Type/% cover: Some grassy vegetation within the channel- percentages variable. | |
| <input type="checkbox"/> Other. Explain: Click here to enter text. | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Tributary appeared relatively stable with some minor bank erosion.

Presence of run/riffle/pool complexes. Explain: None observed

Tributary geometry: Relatively Straight

Tributary gradient (approximate average slope): Less than 5%

(c) Flow:

Tributary provides for: Seasonal Flow

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

Describe flow regime: Tributary typically flows during wet periods as well as during and after precipitation and snowfall events. The tributary ceases flow during dry periods.

Other information on duration and volume: Unknown

Surface flow is: Discrete and Confined Characteristics: Surface flow is obvious traceable, and confined to a defined channel.

Subsurface flow: Unknown Explain findings: [Click here to enter text.](#)

Dye (or other) test performed: [Click here to enter text.](#)

Tributary has (check all that apply):

- | | |
|--|---|
| <input checked="" type="checkbox"/> Bed and banks | |
| <input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input checked="" 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 type="checkbox"/> leaf litter disturbed or washed away | <input checked="" type="checkbox"/> scour |
| <input 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 Click here to enter text. |
| <input type="checkbox"/> other (list): Click here to enter text. | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: Click here to enter text. | |

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): Click here to enter text. | |

(iii) Chemical Characteristics:

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

Explain: The water in the tributary appeared relatively clear. See Section IV(B) for watershed description.

Identify specific pollutants, if known: Ditch 5 receives runoff from the farm field. The runoff contains sediment, farm fertilizer, and/or chemicals as well as sediment from the plow layer.

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.

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

- Riparian corridor. Characteristics (type, average width): Ditch 5 abuts the farm field to the north but has an approximately 450' wide forested corridor to the south.
- Wetland fringe. Characteristics: Wetland H directly abuts Ditch 5.
- Habitat for:
 - Federally Listed species. Explain findings: [Click here to enter text.](#)
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: Ditch 5 provides habitat for aquatic flora and fauna.

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: 0.08 acres

Wetland type. Explain: Palustrine Emergent

Wetland quality. Explain: Wetland is of low quality (Category 1 as per Ohio Rapid Assessment Method).

Project wetlands cross or serve as state boundaries. Explain: No

(b) General Flow Relationship with Non-TNW:

Flow is: Intermittent Flow Explain: Wetland H flows to Ditch 5 during wet periods and during/after precipitation/snow melt events.

Surface flow is: Discrete and Confined

Characteristics: Wetland H flows directly into Ditch 5 where the wetland directly abuts Ditch 5.

Subsurface flow: Unknown Explain findings: [Click here to enter text.](#)

Dye (or other) test performed: [Click here to enter text.](#)

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: [Click here to enter text.](#)

Ecological connection. Explain: [Click here to enter text.](#)

Separated by berm/barrier. Explain: [Click here to enter text.](#)

(d) Proximity (Relationship) to TNW

Project wetlands are 5-10 river miles from TNW.

Project waters are 1-2 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) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: No standing water observed in wetland at time of visit. See Section IV(B) for watershed description.

Identify specific pollutants, if known: Wetland receives runoff from the surrounding agricultural field including sediment, fertilizer, and any agricultural chemicals applied to the fields.

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

- Riparian buffer. Characteristics (type, average width): Wetland abuts Ditch 5 and is adjacent to a 450 foot forested riparian corridor to the south.
- Vegetation type/percent cover. Explain: Emergent 100%
- Habitat for:
 - Federally Listed species. Explain findings: [Click here to enter text.](#)
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: Wetland provides habitat for aquatic flora and fauna.

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: 1

Approximately (0.08) 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>
Wetland H	Yes	0.08

Summarize overall biological, chemical and physical functions being performed: The wetland provides the following functions and services: hydrologic flux and storage including floodwater and runoff attenuation and release; sediment and nutrient transport and retention; pollutant attenuation and release; biogeochemical cycling and storage; biological productivity of micro/macro flora and fauna, decomposition, and community structure; and wildlife support including providing habitat.

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: [Click here to enter text.](#)
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: [Click here to enter text.](#)
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: [Click here to enter text.](#)

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: [Click here to enter text.](#)
 - 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: Ditch 5 was flowing during the May 2016 site visit and was flowing in September 2015 as per photos contained in the Delineation Report. Water is visible in the channel during leaf-off conditions and during multiple years as per a review of aerial photography.
Provide estimates for jurisdictional waters in the review area (check all that apply):
 - Tributary waters: 790 linear feet ~3 width (ft).
 - Other non-wetland waters: # acres.Identify type(s) of waters: [Click here to enter text.](#)
3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

⁸See Footnote # 3.

- 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: [Click here to enter text.](#)

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: [Click here to enter text.](#)
- 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 H directly abuts and touches Ditch 5 with no upland, berm, or barrier separation.**

Provide acreage estimates for jurisdictional wetlands in the review area: **0.08** 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.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: [Click here to enter text.](#)
 Other factors. Explain: [Click here to enter text.](#)

Identify water body and summarize rationale supporting determination: [Click here to enter text.](#)

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: [Click here to enter text.](#)
 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.

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*.

- 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: [Click here to enter text.](#)
- Other: (explain, if not covered above): [Click here to enter text.](#)

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: [Click here to enter text.](#)
- 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: [Click here to enter text.](#)
- 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: Location Map, Delineation Map, Project Plans
- 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: [Click here to enter text.](#)
- Corps navigable waters’ study: [Click here to enter text.](#)
- U.S. Geological Survey Hydrologic Atlas: USACE ORM USGS NHD Datasets
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 7.5 Minute Avon, OH
- USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey (<https://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>)
- National wetlands inventory map(s). Cite name: USACE ORM USFWS NWI Dataset
- State/Local wetland inventory map(s): [Click here to enter text.](#)
- FEMA/FIRM maps: USACE ORM FEMA Flood Hazard Dataset
- 100-year Floodplain Elevation is: [Click here to enter text.](#) (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Google Earth (JUN2016, SEP2015, JUN2014, APR2012, OCT2011, DEC2009, MAY2010)
 - or Other (Name & Date): Photos contained in October 2015 Delineation Report from CEC
- Previous determination(s). File no. and date of response letter: [Click here to enter text.](#)
- Applicable/supporting case law: [Click here to enter text.](#)
- Applicable/supporting scientific literature:
 - Ohio EPA. 2008. Black River Watershed TMDL Report. http://www.epa.state.oh.us/portals/35/tmdl/BlackRiverTMDLFactsheet_oct08.pdf. Accessed February 29, 2016.
 - Ohio EPA Division of Surface Water. 2008. Total Maximum Daily Loads for the Black River Watershed. www.epa.state.oh.us/portals/35/tmdl/BlackRiverTMDL_final_may08_wo_app.pdf. Accessed February 29, 2016.
 - Alexander, R.B., E.W. Boyer, R.A. Smith, G.E. Schwartz, and R.B. Moore. 2007. The Role of Headwater Streams in Downstream Water Quality. Journal of the American Water Resources Association 43.
 - Freeman, M.C., C.M. Pringle, and C.R. Jackson. 2007. Hydrologic Connectivity and the Contribution of Stream Headwaters to Ecological Integrity at Regional Scales. Journal of the American Water Resources Association. 43:5-14.
 - Meyer, J.L., D.L. Strayer, J.B. Wallace, S.L. Eggert, G.S. Helfman, and N.E. Leonard. 2007. The Contribution of Headwater Streams to Biodiversity in River Networks. Journal of the American Water Resources Association. 43: 86-103.
 - USEPA. 2013. Streams. <http://water.epa.gov/type/rs/streams.cfm>. Accessed 8 March 2016.
 - USEPA. 2015. Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-14/475F.
 - Bruckner, Monica Z. 2012. Measuring Dissolved and Particulate Organic Carbon (DOC and POC). Montana State University

Other information (please specify): USEPA MyWaters (<https://watersgeo.epa.gov/mwm/>), Precipitation Data (www.bestplaces.net/climate/city/ohio/avon)

B. ADDITIONAL COMMENTS TO SUPPORT JD:

The Black River is designated as a Great Lakes Area of Concern (AOC). In the watershed, major municipal and industrial discharges, combined sewer overflows, urban runoff result in high nutrient and organic loads, poor habitat quality, siltation, low dissolved oxygen concentrations, runoff from agricultural land, failing home sewage treatment, and poor stream bank land management are sources of degradation. Among the most visible threats to the Black River is the conversion of farm, forest and stream bank acreage to suburban and commercial uses.

In the French Creek sub-basin, one of only 12 designated rapidly developing watersheds in the state, extensive development is resulting in impacts to water quality (Ohio EPA, 2008). The following actions have been identified for reduction and avoidance of impairments within the Black River Watershed: abate sediment and nutrient loading to surface waters, protect riparian corridors and wetlands, maintain natural flow regimes, address home sewage treatment system impacts, reduction in runoff volume and pollution through stormwater management, discourage unnecessary impervious surfaces, use best management practices for all types of land use, manage livestock access to waters and implement manure management practices, and perform stream restoration to reduce erosion and reconnect streams to natural floodplains (Ohio EPA Division of Surface Water, 2008).

A traceable hydrologic connection exists between on-site Wetland H and Ditch 5 (tributary). The tributary and its similarly situated wetland ((identified in Section III(B)(3)) have hydrologic connectivity to the Black River, thereby providing a significant nexus between the tributary and its adjacent wetlands and the downstream TNW. Hydrologic connectivity refers to the flow that transports organic matter and nutrients, energy, and aquatic organisms throughout the system (Freeman et al., 2006). The tributary influences the chemistry and physical conditions of the downstream TNW through its hydrologic input, storage, and transport of sediments and energy.

The similarly situated wetland directly affects the nature of the water entering the tributary and its downstream receiving waters, both in quantity and chemical/physical attributes. Ultimately, this affects the downstream TNW, the Black River, as the wetland alters the amount of flow reaching the TNW and furthermore, any additional matter such as nutrients, chemicals, sediments, and pollutants carried in that flow.

In its current state, the tributary relevant reach flows through agricultural land and undeveloped forest. The tributary is maintaining stream functions that affect the downstream TNW including providing perennial flow, sediment transport, flora and fauna habitat, a biotic movement corridor, etc. The tributary in its current state is aiding in reducing known watershed impairments by providing a riparian corridor within a highly developed setting, providing unaltered habitat and undeveloped land, not adding to increased impervious surfaces, maintaining a natural flow regime, and providing a tributary connected to its floodplain.

The adjacent wetland which receives the majority of its hydrologic input via precipitation and runoff from surrounding agricultural land and forested land, serve to retain and filter runoff containing sediment and pollutants such as fertilizers and agricultural chemicals that would ultimately reach the downstream TNW in its absence. Maintenance of the wetland in its undeveloped state prevents impairments from habitat loss; reducing runoff volume as well as sediment and nutrient loading via retention of water within the wetland; and by maintaining undeveloped land free of impervious surfaces.

According to the USEPA (2015), “scientific literature unequivocally demonstrates that streams, individually or cumulatively, exert a strong influence on the integrity of downstream waters” and that “all tributary streams, including perennial, intermittent, and ephemeral streams, are physically, chemically, and biologically connected to downstream” waters. Due to the physical, biological, and chemical connectivity of the tributary and its adjacent wetlands as described above, it has been determined that the tributary and its adjacent wetland have a significant nexus with the downstream TNW, the Black River as the functions and services provided by the tributary and its adjacent wetland provide more than a speculative effect on the physical integrity of the Black River.

Susan Baker
Project Manager

February 17, 2017

Date

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): February 17, 2017

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: LRB-2015-01186, McIntosh Farms Development Group LLC, Form 3 of 3, Ditch 6, Non-jurisdictional Ditches 1-4, Non-jurisdictional Swales 1-26

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Ohio County/parish/borough: Lorain City: Avon
Center coordinates of site (lat/long in degree decimal format): Lat. 41.441294 °, Long. -82.063412 °
Universal Transverse Mercator: 17

Name of nearest waterbody: Kline Ditch (off-site)
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Black River
Name of watershed or Hydrologic Unit Code (HUC): 04110001

- 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: February 17, 2017
 Field Determination. Date(s): May 25, 2016

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: [Click here to enter text.](#)

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: 1100 linear feet: 4 width (ft) and/or # acres.
Wetlands: # acres.

c. Limits (boundaries) of jurisdiction based on: *Choose an item.*

Elevation of established OHWM (if known): [Click here to enter text.](#)

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: Ditch 1, Ditch 2, Ditch 3, and Ditch 4 are all non-jurisdictional aquatic resources. Ditches 1 through 4 were dug wholly in uplands, are draining wholly uplands, and have less than relatively permanent flow. Ditches 1 through 4 flow ephemerally only during and after

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.

precipitation events and snowmelt. Ditches 1 through 4 do not connect two or more other waters of the U.S. Ditches 1 through 4 are not captured tributaries; Ditches 1 through 4 were constructed for agricultural drainage purposes. As per the 1986 Regulations Preamble, 2007 U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook, and the 2008 Rapanos Guidance, Ditches 1 through 4 are not considered waters of the U.S.

Swales 1 through 26 are very slight linear depressions on the landscape. Some of the swales appeared to be erosional features while others appeared to be man-made drainage features. All 26 swales lacked any clear indicators of ordinary high water mark and also did not meet wetland criteria. As per the 2008 Rapanos Guidance, 2007 U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook, and 33CFR328.4 (Limits of Jurisdiction), Swales 1 through 26 do not meet the definition of waters of the U.S. and therefore are not considered waters of the U.S.

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: [Click here to enter text.](#)

Summarize rationale supporting determination: [Click here to enter text.](#)

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”: [Click here to enter text.](#)

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: # [Choose an item.](#)

Drainage area: # [Choose an item.](#)

Average annual rainfall: # inches

Average annual snowfall: # inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through [Choose an item.](#) tributaries before entering TNW.

Project waters are [Choose an item.](#) river miles from TNW.

Project waters are [Choose an item.](#) river miles from RPW.

Project waters are [Choose an item.](#) aerial (straight) miles from TNW.

Project waters are [Choose an item.](#) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: [Click here to enter text.](#)

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: [Click here to enter text.](#)
Tributary stream order, if known: [Click here to enter text.](#)

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

- Tributary is:** Natural
 Artificial (man-made). Explain: [Click here to enter text.](#)
 Manipulated (man-altered). Explain: [Click here to enter text.](#)

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

Average width: # feet
Average depth: # feet
Average side slopes: [Choose an item.](#)

Primary tributary substrate composition (check all that apply):

- Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover: [Click here to enter text.](#)
 Other. Explain: [Click here to enter text.](#)

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: [Click here to enter text.](#)

Presence of run/riffle/pool complexes. Explain: [Click here to enter text.](#)

Tributary geometry: [Choose an item.](#)

Tributary gradient (approximate average slope): #%

(c) Flow:

Tributary provides for: [Choose an item.](#)

Estimate average number of flow events in review area/year: [Choose an item.](#)

Describe flow regime: [Click here to enter text.](#)

Other information on duration and volume: [Click here to enter text.](#)

Surface flow is: [Choose an item.](#) Characteristics: [Click here to enter text.](#)

Subsurface flow: [Choose an item.](#) Explain findings: [Click here to enter text.](#)

Dye (or other) test performed: [Click here to enter text.](#)

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 [Click here to enter text.](#)
 other (list): [Click here to enter text.](#)
 Discontinuous OHWM.⁷ Explain: [Click here to enter text.](#)

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): [Click here to enter text.](#)

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.

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.

(iii) Chemical Characteristics:

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

Explain: [Click here to enter text.](#)

Identify specific pollutants, if known: [Click here to enter text.](#)

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

Riparian corridor. Characteristics (type, average width): [Click here to enter text.](#)

Wetland fringe. Characteristics: [Click here to enter text.](#)

Habitat for:

Federally Listed species. Explain findings: [Click here to enter text.](#)

Fish/spawn areas. Explain findings: [Click here to enter text.](#)

Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)

Aquatic/wildlife diversity. Explain findings: [Click here to enter text.](#)

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: [Click here to enter text.](#)

Wetland quality. Explain: [Click here to enter text.](#)

Project wetlands cross or serve as state boundaries. Explain: [Click here to enter text.](#)

(b) General Flow Relationship with Non-TNW:

Flow is: [Choose an item.](#) Explain: [Click here to enter text.](#)

Surface flow is: [Choose an item.](#)

Characteristics: [Click here to enter text.](#)

Subsurface flow: [Choose an item.](#) Explain findings: [Click here to enter text.](#)

Dye (or other) test performed: [Click here to enter text.](#)

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: [Click here to enter text.](#)

Ecological connection. Explain: [Click here to enter text.](#)

Separated by berm/barrier. Explain: [Click here to enter text.](#)

(d) Proximity (Relationship) to TNW

Project wetlands are [Choose an item.](#) river miles from TNW.

Project waters are [Choose an item.](#) aerial (straight) miles from TNW.

Flow is from: [Choose an item.](#)

Estimate approximate location of wetland as within the [Choose an item.](#) 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: [Click here to enter text.](#)

Identify specific pollutants, if known: [Click here to enter text.](#)

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

Riparian buffer. Characteristics (type, average width): [Click here to enter text.](#)

Vegetation type/percent cover. Explain: [Click here to enter text.](#)

Habitat for:

Federally Listed species. Explain findings: [Click here to enter text.](#)

Fish/spawn areas. Explain findings: [Click here to enter text.](#)

Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)

Aquatic/wildlife diversity. Explain findings: [Click here to enter text.](#)

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: [Choose an item.](#)

Approximately (#) 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>
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#

Summarize overall biological, chemical and physical functions being performed: [Click here to enter text.](#)

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: [Click here to enter text.](#)
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: [Click here to enter text.](#)
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: [Click here to enter text.](#)

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: **Ditch 6 was flowing steadily (~1-2 feet water depth) at the time of the May 2016 site visit and flow was visible in the September 2015 Delineation Report photographs. Flow is visible in the channel during both leaf-on and leaf-off conditions and during multiple years of aerial photos. Ditch 6 flows year round with no break except during drought conditions. Ditch 6 flows into Stream 1. Stream 1 flows north off-site into Kline Ditch, continues north into French Creek, and ultimately flows in a westerly direction into the Black River.**
 - 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: [Click here to enter text.](#)

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

- Tributary waters: 1100 linear feet 4 width (ft).**
 - Other non-wetland waters: # acres.
- Identify type(s) of waters: [Click here to enter text.](#)

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: [Click here to enter text.](#)

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: [Click here to enter text.](#)
- 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: [Click here to enter text.](#)

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.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: [Click here to enter text.](#)
- Other factors. Explain: [Click here to enter text.](#)

Identify water body and summarize rationale supporting determination: [Click here to enter text.](#)

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: [Click here to enter text.](#)

- 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.

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior 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.

- 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: [Click here to enter text.](#)
- Other: (explain, if not covered above): Ditch 1, Ditch 2, Ditch 3, and Ditch 4 are all non-jurisdictional aquatic resources. Ditches 1 through 4 were dug wholly in uplands, are draining wholly uplands, and have less than relatively permanent flow. Ditches 1 through 4 flow ephemerally only during and after precipitation events and snowmelt. Ditches 1 through 4 do not connect two or more other waters of the U.S. Ditches 1 through 4 are not captured tributaries; Ditches 1 through 4 were constructed for agricultural drainage purposes. As per the 1986 Regulations Preamble, 2007 U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook, and the 2008 Rapanos Guidance, Ditches 1 through 4 are not considered waters of the U.S.**

Swales 1 through 26 are very slight linear depressions on the landscape. Some of the swales appeared to be erosional features while others appeared to be man-made drainage features. All 26 swales lacked any clear indicators of ordinary high water mark and also did not meet wetland criteria. As per the 2008 Rapanos Guidance, 2007 U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook, and 33CFR328.4 (Limits of Jurisdiction), Swales 1 through 26 do not meet the definition of waters of the U.S. and therefore are not considered waters of the U.S.

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: [Click here to enter text.](#)
- 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: [Click here to enter text.](#)
- 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: Location Map, Delineation Map, Project Plans
- 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: [Click here to enter text.](#)
- Corps navigable waters’ study: [Click here to enter text.](#)
- U.S. Geological Survey Hydrologic Atlas: USACE ORM USGS NHD Datasets
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 7.5 Minute Avon, OH
- USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey (<https://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>)
- National wetlands inventory map(s). Cite name: USACE ORM USFWS NWI Dataset
- State/Local wetland inventory map(s): [Click here to enter text.](#)
- FEMA/FIRM maps: USACE ORM FEMA Flood Hazard Dataset
- 100-year Floodplain Elevation is: [Click here to enter text.](#) (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Google Earth (JUN2016, SEP2015, JUN2014, APR2012, OCT2011, DEC2009, MAY2010)
- or Other (Name & Date): Photos contained in October 2015 Delineation Report from CEC
- Previous determination(s). File no. and date of response letter: [Click here to enter text.](#)
- Applicable/supporting case law: [Click here to enter text.](#)
- Applicable/supporting scientific literature: [Click here to enter text.](#)
- Other information (please specify): USEPA MyWaters (<https://watersgeo.epa.gov/mwm/>), 33CFR328.4, 2008 Rapanos Guidance, 2007

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Susan Baker
Project Manager

February 17, 2017

Date