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): August 16, 2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Form 1 of 4 Buffalo District, Hawthorne of Aurora, DA No. 2015-00978, Isolated Wetlands B (0.03 ac.), D (0.02 ac.), E (0.16 ac.), G (0.23 ac.), I (0.08 ac.) J (0.48 ac.), L (0.04 ac.) and Isolated Ephemeral Stream 3 (218 lf) and Isolated Stream 4 (164 lf)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Ohio County/parish/borough: Portage City: Aurora
Center coordinates of site (lat/long in degree decimal format): Lat. 41.33494 °, Long.-81.36637 °
Universal Transverse Mercator: 17
Name of nearest waterbody: Pond Brook
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cuyahoga River
Name of watershed or Hydrologic Unit Code (HUC): 04110002

☑ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☑ Office (Desk) Determination. Date: January 29, 2016

☑ Field Determination. Date(s): November 16, 2015, *Click here to enter a date.*

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 no "*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 waters[2] (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: Established by OHWM

   Elevation of established OHWM (if known): *Click here to enter text.*

2. **Non-regulated waters/wetlands (check if applicable):[3]**

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

☑ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: An on-site field review was conducted on November 16, 2015. Areas of inundation was observed within the delineated area where water has accumulated allowing for the growth of hydrophytic vegetation and the development of hydric soils. **Wetlands B (0.03 ac.), D (0.02 ac.), E (0.16 ac.), G (0.23 ac.), I (0.08 ac.) J (0.48 ac.) and L (0.04 ac.)** were determined to be isolated wetlands as they were located within depressions that were surrounded by upland and are hydrologically isolated from any waters on-site or that have been identified on the U.S.G.S. OH-Aurora Topographic map. Two ephemeral stream channels were identified on-site **Stream 3 (218 lf) and Stream 4 (164 lf)**. **Streams 3 and 4** originate in a wooded area located to the northeast of an apartment complex. During the site review, it was observed that **Streams 3 and 4** exhibited a defined bed and bank and an ordinary high water mark in the wooded portion. The stream channels lost their defined bed and bank and ordinary high water mark as they flowed southwest into the maintained mowed area of the apartment complex. The stream flow dissipates at this point. No evidence of a stream channel or swale was observed flowing to the south beyond the wooded area. A review of the U.S.G.S. OH-Aurora Topographic map does not show that stream channels historically existed within the general area of **Streams 3 and 4**. **Streams 3 and 4** were determined to isolated streams as no hydrological connection could be established from **Streams 3 and 4** to a waters of the U.S. on-site. They are hydrologically isolated from other waters on-site. In addition, **Wetlands B, D, E, G, I, J and L** has no potential to affect interstate commerce under 328.3(a)(3)(i-iii) (See Section IVB of this form); and are therefore to be an intrastate, non-navigable, isolated water.

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 waterbody[4] 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.*

Identify flow route to TNW[5]: *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.*

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary 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
☐ OHWM[6] (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.*	

(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.*

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(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:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
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: *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: *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.*

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☐ Tributary waters: # linear feet # width (ft).
   - ☐ Other non-wetland waters: # acres.
     Identify type(s) of waters: *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 jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area: # acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   - ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: # acres.

7. **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.

[8]See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☑ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☑ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: *Click here to enter text.*
- ☑ Other: (explain, if not covered above): An on-site field review was conducted on November 16, 2015. Areas of inundation was observed within the delineated area where water has accumulated allowing for the growth of hydrophytic vegetation and the development of hydric soils. **Wetlands B (0.03 ac.), D (0.02 ac.), E (0.16 ac.), G (0.23 ac.), I (0.08 ac.) J (0.48 ac.) and L (0.04 ac.)** were determined to be isolated wetlands as they were located within depressions that were surrounded by upland and are hydrologically isolated from any waters on-site or that have been identified on the U.S.G.S. OH-Aurora Topographic map. Two ephemeral stream channels were identified on-site **Stream 3 and Stream 4**. **Streams 3 and 4** originate in a wooded area located to the northeast of an apartment complex. During the site review, it was observed that **Streams 3 and 4** exhibited a defined bed and bank and an ordinary high water mark in the wooded portion. The stream channels lost their defined bed and bank and ordinary high water mark as they flowed southwest into the maintained mowed area of the apartment complex. The stream flow dissipates at this point. No evidence of a stream channel or swale was observed flowing to the south beyond the wooded area. A review of the U.S.G.S. OH-Aurora Topographic map does not show that stream channels historically existed within the general area of **Streams 3 and 4**. **Streams 3 and 4** were determined to isolated streams as no hydrological connection could be established from **Streams 3 and 4** to a waters of the U.S. on-site. They are hydrologically isolated from other waters on-site. In addition, **Wetlands B , D, E, G, I , J and L** has no potential to affect interstate commerce under 328.3(a)(3)(i-iii) and are therefore determined to be an intrastate, non-navigable, isolated water.

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): 382 linear feet 2 width (ft).
- ☐ Lakes/ponds: # acres.
- ☐ Other non-wetland waters: # acres. List type of aquatic resource: *Click here to enter text.*.
- ☑ Wetlands: 1.04 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: BL Companies September 21, 2015 and revised December 09, 2015
- ☑ 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: ORM Database
  - ☑ USGS NHD data. ORM Database
  - ☑ USGS 8 and 12 digit HUC maps. ORM Database
- ☑ U.S. Geological Survey map(s). Cite scale & quad name: OH-Aurora
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: *Click here to enter text.*
- ☑ National wetlands inventory map(s). Cite name: ORM Database
- ☐ State/Local wetland inventory map(s): *Click here to enter text.*
- ☐ FEMA/FIRM maps: *Click here to enter text.*
- ☐ 100-year Floodplain Elevation is: *Click here to enter text.* (National Geodectic Vertical Datum of 1929)

☑ Photographs: ☑ Aerial (Name & Date): Google Earth Pro 2016

☐ or ☐ Other (Name & Date): *Click here to enter text.*

☐ 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): *Click here to enter text.*

B. ADDITIONAL COMMENTS TO SUPPORT JD: Wetland J was previously identified by the Huntington District as 2007-00949-CUY-RR4-Wetland K for a jurisdictional determination done for a roadway project. During the site verification on November 16, 2016, Shawn Blohm and Tina Stonemetz could not find a surface water connection from Wetland J to any other surface water on-site. It was determined to be an isolated water.

August 16, 2016

Shawn Blohm
Regulatory Specialist

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): August 16, 2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Form 2 of 4, Buffalo District, Hawthorne of Aurora, DA No. 2015-00978, Stream 1- Unnamed Tributary Pond Brook, Perennial (477 linear feet), Adjacent Wetland H (0.11 acre) and Adjacent Wetland C (0.05 acre)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Ohio County/parish/borough: Portage City: Aurora
Center coordinates of site (lat/long in degree decimal format): Lat. 41.33494 °, Long. -81.36637 °
Universal Transverse Mercator: 17
Name of nearest waterbody: Pond Brook
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cuyahoga River
Name of watershed or Hydrologic Unit Code (HUC): 04110002

☑ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☑ Office (Desk) Determination. Date: January 29, 2016

☑ Field Determination. Date(s): November 19, 2015, *Click here to enter a date.*

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 waters[2] (RPWs) that flow directly or indirectly into TNWs
☐ Non-RPWs that flow directly or indirectly into TNWs
☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
☑ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
☐ Impoundments of jurisdictional waters
☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:
Non-wetland waters: 477 linear feet: 6 width (ft) and/or 0.065 acres.
Wetlands: 0.16 acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM

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:

[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 waterbody[4] 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: acres
Drainage area: square miles

Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through 3 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.*

Identify flow route to TNW[5]:

Tributary stream order, if known:

(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.*

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary 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: Leaf pack and woody debris		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
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: 20 (or greater)
Describe flow regime: The stream flows for brief periods after heavy rain events, or during snowmelt.
Other information on duration and volume: *Click here to enter text.*

Surface flow is: Discrete and Confined Characteristics: There is a defined bed and bank

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
☐ OHWM[6] (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.*	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain:
Identify specific pollutants, if known: N/A

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

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

- ☐ Riparian corridor. Characteristics (type, average width): Wide forested buffer
- ☐ 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: 0.16 acres acres

Wetland type. Explain: Emergent and scrub-shrub

Wetland quality. Explain: Wetland C is a palaustrine emergent wetland that is located within old field habitat. Wetland H has a paluastrine scrub-shrub component and a palaustrine emergent component. Wetland H is a linear wetland that is located adjacent to North Aurora Road.

Project wetlands cross or serve as state boundaries. Explain: *Click here to enter text.*

(b) General Flow Relationship with Non-TNW:

Flow is: Ephemeral Flow Explain: Wetland C and H receive water from rainfall or snowmelt during late winter/early spring when snowmelt contributes to the amount of water held within the wetlands. Groundwater Seeps and/or springs were not observed within the wetlands. Water from Wetlands C and H drain to the east outside of the delineation area under North Aurora Road through a storm sewer inlet. The storm water sewer outlets into a storm water detention pond located to the east of North Aurora Road that is located outside of the delineation area. The storm water detention pond outlets into a large wetland complex (approximately 1.04 acres) that directly abuts a portion of Stream 1 (perennial) that is located outside of the delineation area. This water then flows northwest in Stream 1 back under North Aurora Road into the delineation area. Stream 1 flows west into Pond Brook. Pond Brook Flows south into Tinkers Creek. Tinkers creek flows into the Cuyahoga River. The Cuyahoga River becomes a TNW further downstream.

Surface flow is: Overland Sheetflow

Characteristics: Water from Wetland C flows northeast into Wetland H. Wetland H flows northeast along North Aurora Road into a storm water catch basin. The water flows from the catch basin underneath North Aurora Road into storm water detention pond located to the east of North Aurora Road. Water flows out of the water detention pond towards the northeast into a large wetland complex that directly abuts an unnamed perennial stream that flows into Pond Brook. The USGS OH-Aurora Topographic map identifies this tributary as intermittent, but in late fall when the field verification was conducted, the tributary had a high flow volume. During the site visit, it was determined that the tributary has perennial flow. Water from Pond Brook flows into Tinkers Creek, which flows into the Cuyahoga River which becomes a TNW near its outlet into Lake Erie.

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: Water from Wetland C flows northeast into Wetland H. Wetland H flows northeast along N. Aurora Road into a catch basin. The water flows from the catch basin northeast under N. Aurora Road into storm water retention pond located on the opposite side of the road. Water flows out of the water detention pond towards the northeast into a large wetland complex that directly abuts Stream 1. Stream 1 flows west into Pond Brook. The USGS OH-Aurora Topographic map identifies this tributary as intermittent, but in late fall when the field verification was conducted, the tributary had a high volume of flow. It was determined that the tributary has perennial flow. Water from Pond Brook flows into Tinkers Creek, which flows into the Cuyahoga River which becomes a TNW near its outlet into Lake Erie.
  - ☐ 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 15-20 river miles from TNW.

Project waters are 10-15 aerial (straight) miles from TNW.

Flow is from: Wetland to Navigable Waters

Estimate approximate location of wetland as within the 500-year or greater .

(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: Emergent wetland vegetation
- ☐ 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: 3

Approximately (1.20) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Yes	1.04	*Y/N*	#
No	0.11	*Y/N*	#
No	0.05	*Y/N*	#
No	0.01	*Y/N*	#

Summarize overall biological, chemical and physical functions being performed: Wetlands store runoff, filter pollutants, and settle sediment that would otherwise be transported to the downstream.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Wetlands C and H are located adjacent to Stream 1. Stream 1 is perennial and flows into Pond Brook. A review of NWI mapping shows that four wetlands are located adjacent to or abut Stream 1 within and outside of the delineation area. Wetland C sheet flows to the east into Wetland H and provides water to Wetland H. Wetland H is a linear wetland that is located to the west of W. Aurora Road.

Water in Wetland H flows offsite to the east through a storm water catch basin inlet located on the west side of W. Aurora Road. Based on NWI mapping and aerial photographs, water flows to the east under W. Aurora Road where it leaves the delineated area and into a storm water detention basin located to the east of W. Aurora Road. From there the water discharges to the north into a large wetland complex that directly abuts Stream 1. This wetland complex and portion of Stream 1 is located outside of the delineated area. The water then flows to the west back under W. Aurora Road and back into the delineation area. Stream 1 continues to flow west outside of the delineation area into Aurora Pond, which is an impoundment of Pond Brook. Water flows to the south out of Aurora Pond into Pond Creek. Pond Brook flows south into Tinkers Creek. Tinkers Creek flows to the northwest into the Cuyahoga River. The Cuyahoga River flows to the north where it becomes a TNW near its confluence with Lake Erie. Pond Brook is designated modified warmwater habitat (MWH)[1]. Tinkers Creek is designated warmwater habitat (WWH) [2]. The Cuyahoga River is designated WWH[3]. According to the Total Maximum Daily Loads of the Lower Cuyahoga River [4]. Pond Brook is a channelized, wetland stream designated MWH based on its low habitat quality and ongoing channel maintenance under the Ohio Drainage Law (ORC 6131) (1991 survey results). The stream is mostly pooled, and receives drainage from adjacent wetlands, suburban development, and effluent from two WWTPs. Fish and macro-invertebrates were fair but met the designated MWH use and is now in FULL attainment of its designated use based on 2000 survey results. Tinkers Creek is the largest tributary of the Cuyahoga River and drains portions of Portage, Geauga, Summit and Cuyahoga counties. Tinkers Creek has a drainage area of 96.4 square miles and a total length of about 30 miles and enters the Cuyahoga River at RM 16.36. The watershed lies on a glaciated plateau. Soils are mostly silt loam and clayey silt loam. Wetland swamps, bogs and fens are common in the upper watershed. Flows in the lower section of the creek are highly influenced by the discharge of treated wastewater from upstream WWTPs; in 1991 the combined effluent had a median discharge of 11.623 mgd or 17.9 cubic feet per second (cfs). Portions of the stream are on bedrock and form waterfalls which are a natural barrier to fish passage. The lower portions of the stream have formed the Tinkers Creek Gorge which is a National Natural Landmark. Recent acquisitions in the basin by MetroParks Serving Summit County and the Cleveland Metro Parks have increased the amount of protected watershed in the basin. Many local communities are also involved in protecting and acquiring parkland in the basin. The Summary of 303(d) List Status for the Lower Cuyahoga River watershed (1998) states that the major causes of impairment are Organic enrichment/dissolved oxygen, metals, unknown toxicity, nutrients and habitat alteration. Sources of impairment within the Cuyahoga River watershed include organic and nutrient enrichment, siltation, low dissolved oxygen, habitat and flow alteration related issues have been identified as the primary causes of impairment. According to a United States Environmental Protection Agency Fact Sheet No. 2 (Values and Functions of Wetlands)[5], Wetlands store runoff, filter pollutants and settle sediment that would otherwise be transported to the downstream. Wetlands help to maintain and improve water quality by intercepting pollutants before the water enters open water. Trees and other vegetation help to slow storm water runoff protecting land and property. Wetlands located near headwater streams and urban areas are especially valuable because they slow and store storm water runoff in developed areas. Wetlands are critical to the survival of a wide variety animal and plants, many of which are endangered or threatened. Since the wetlands C and H are located in close proximity to a heavily traveled road surrounded by residential development and commercial development, the wetlands provide an important function of filtering roadway runoff preventing it from reaching the downstream TNW. Because of this, it has been determined that Wetlands C and H have a significant nexus with the downstream TNW because they filter road way pollutants and allow for sediment settle in water before the water reaches the downstream TNW.

1, 2 and 3: Ohio Administrative Code 3745-1-26 http://www.epa.ohio.gov/portals/35/rules/01-26.pdf

4: http://www.epa.ohio.gov/portals/35/tmdl/Cuyahoga_lower_final_report.pdf

5: http://nepis.epa.gov

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:

- ☐ TNWs: # linear feet # width (ft), Or, # acres.
- ☐ Wetlands adjacent to TNWs: # acres.

2. RPWs that flow directly or indirectly into TNWs.

- ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
- ☑ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Stream 1 was determined to be a perennial stream. The stream is identified as an intermittent tributary on the USGS Topographic map. The USGS Topographic map shows that Stream 1 originates about ½ mile to the southeast of the delineation area. The headwater of stream 1 has been modified significantly by development. Two large storm water detention basins have been constructed upstream of the delineation area that contribute flow to this stream. A large wetland complex is located immediately to the east of N. Aurora Road which also contributes water flow to the stream. Water was observed flowing in this channel during the original waters delineation in April 2015 and during the delineation of waters verification on November 19, 2015. A small intermittent channel identified as Stream 2 on the site also contributes groundwater to Stream 1. Stream 2 originates at a sandstone outcrop and water was observed discharging from the sandstone outcrop into Stream 1. Stream 1 flows into Pond Brook. Pond Brook Flows into Tinkers Creek. Tinkers creek flows into the Cuyahoga River. The Cuyahoga River becomes a TNW further downstream near it mouth with Lake Erie.

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

- [x] Tributary waters: 477 linear feet 6 width (ft).
- [ ] Other non-wetland waters: # acres.
  Identify type(s) of waters: *Click here to enter text.*

3. Non-RPWs[8] that flow directly or indirectly into TNWs.

- [ ] Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

- [ ] Tributary waters: linear feet width (ft).
- [ ] Other non-wetland waters: # acres.
  Identify type(s) of waters: *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.

- [x] Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: 0.16 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.*

[8]See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ Wetlands: # acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.

☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.

☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).

☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: *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: BL Companies dated September 21, 2015 and Revised December 09, 2015

☑ 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: ORM Database

☑ USGS NHD data.

☑ USGS 8 and 12 digit HUC maps.

☑ U.S. Geological Survey map(s). Cite scale & quad name: Aurora-OH

☐ USDA Natural Resources Conservation Service Soil Survey. Citation: *Click here to enter text.*

☑ National wetlands inventory map(s). Cite name: ORM Database

☐ State/Local wetland inventory map(s): *Click here to enter text.*

☐ FEMA/FIRM maps: *Click here to enter text.*

☐ 100-year Floodplain Elevation is: *Click here to enter text.* (National Geodectic Vertical Datum of 1929)

☑ Photographs: ☑ Aerial (Name & Date): Google Earth Pro 2016

☐ or ☐ Other (Name & Date): *Click here to enter text.*

☐ 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): *Click here to enter text.*

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Stream 1, Wetland H , and Wetland C were previously identified in a delineation completed by the Huntington District as a part of a roadway project located along North Aurora Road. Stream 1 was identified as 2007-00949-CUY-RR2-UT 8,

Wetland H was identified as 2007 -00949-CUY RR2-Wetland M, and Wetland C was identified as 2007-00949-CUY-RR2. Wetlands and streams that were identified by the Huntington District are still present as of November 16, 2015.

August 16, 2016

Shawn Blohm
Regulatory Specialist

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): September 16, 2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Form 3 of 4, Buffalo District, Hawthorne of Aurora, DA No. 2015-00978, Stream 2-Intermittent, (152 linear feet) and Abutting Wetland K (0.01 acre)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Ohio County/parish/borough: Portage City: Aurora
Center coordinates of site (lat/long in degree decimal format): Lat. 41.33494 °, Long. -81.36637 °
Universal Transverse Mercator: 17
Name of nearest waterbody: Pond Brook
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cuyahoga River
Name of watershed or Hydrologic Unit Code (HUC): 04110002

☑ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☑ Office (Desk) Determination. Date: January 29, 2016

☑ Field Determination. Date(s): November 19, 2015, *Click here to enter a date.*

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 waters[2] (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☑ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:
Non-wetland waters: 152 linear feet: 4 width (ft) and/or 0.013 acres.
Wetlands: 0.01 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and OHWM1987 Delineation Manual and OHWM

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:**

[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 waterbody[4] 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:
Drainage area:

Average annual rainfall:
Average annual snowfall:

(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.*

Identify flow route to TNW[5]:

Tributary stream order, if known:

(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):

[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:
Average depth:
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: Leaf pack and woody debris

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
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:
Other information on duration and volume: *Click here to enter text.*

Surface flow is: Discrete and Confined Characteristics:

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
- ☐ OHWM[6] (check all indicators that apply):
  - ☐ clear, natural line impressed on the bank
  - ☐ changes in the character of soil
  - ☐ shelving
  - ☐ vegetation matted down, bent, or absent
  - ☐ leaf litter disturbed or washed away
  - ☐ sediment deposition
  - ☐ water staining
  - ☐ other (list): *Click here to enter text.*
  - ☐ the presence of litter and debris
  - ☐ destruction of terrestrial vegetation
  - ☐ the presence of wrack line
  - ☐ sediment sorting
  - ☐ scour
  - ☐ multiple observed or predicted flow events
  - ☐ abrupt change in plant community *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:
  - ☐ oil or scum line along shore objects
  - ☐ fine shell or debris deposits (foreshore)
  - ☐ physical markings/characteristics
  - ☐ tidal gauges
  - ☐ other (list): *Click here to enter text.*
- ☐ Mean High Water Mark indicated by:
  - ☐ survey to available datum;
  - ☐ physical markings;
  - ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: Identify specific pollutants, if known: N/A

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

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

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: *Click here to enter text.*
  - ☐ Fish/spawn areas. Explain findings:
  - ☐ 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:
Wetland quality. Explain:
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: Discrete
Characteristics:

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 15-20 river miles from TNW.
Project waters are 1 (or less) 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: The water appeared clear at the time of the site verification.
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): Wooded buffer, greater than 30 feet width.
- ☑ Vegetation type/percent cover. Explain: Emergent wetland vegetation.
- ☐ 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: 44
Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
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: Wetlands store runoff, filter pollutants, and settle sediment that would otherwise be transported to the downstream TNW.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: :

4. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: # linear feet # width (ft), Or, # acres.
   - ☐ Wetlands adjacent to TNWs: # acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☑ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Stream 2 originates at a groundwater spring/seep at a sandstone outcrop located to the south of Wetland K. Water was observed flowing in the channel during the original site delineation on April 15, 2015 and in November 16, 2015. Based upon the groundwater source and two subsequent observations of water in the Stream 2 on April 15 2016 and November 16, 2016, it was determined that Stream 2 has at least intermittent flow. Wetland K directly abuts intermittent Stream 2. Stream 2 flows into perennial Stream 1 (UNT to Pond Brook). Pond Brook flows into Tinkers Creek. Tinkers Creek flows into the Cuyahoga River. The Cuyahoga River becomes a TNW downstream near its mouth at Lake Erie.

   Provide estimates for jurisdictional waters in the review area (check all that apply):
   - ☑ Tributary waters: 152 linear feet 4 width (ft).

☐ Other non-wetland waters: # acres.
Identify type(s) of waters: *Click here to enter text.*

3. Non-RPWs[8] that flow directly or indirectly into TNWs.

☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

☐ Tributary waters: linear feet width (ft).

☐ Other non-wetland waters: # acres.
Identify type(s) of waters: *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 K directly abuts intermittent Stream 2. Stream 2 originates as a groundwater spring/seep at a sandstone outcrop located to the south of Wetland K in the wetland delineation area. Water was observed flowing in the stream channel during the original wetland delineation on April 15, 2015 and during the site verification on November 16, 2015.

Provide acreage estimates for jurisdictional wetlands in the review area: 0.01 acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: # acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. 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.*

[8]See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ Wetlands: # acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.

☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.

☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).

☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: *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: BL Companies, September 21, 2015 and revised December 09, 2015

☑ 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: ORM Database

☑ USGS NHD data.

☑ USGS 8 and 12 digit HUC maps.

☑ U.S. Geological Survey map(s). Cite scale & quad name: Aurora-OH

☐ USDA Natural Resources Conservation Service Soil Survey. Citation: *Click here to enter text.*

☑ National wetlands inventory map(s). Cite name: ORM Database

☐ State/Local wetland inventory map(s): *Click here to enter text.*

☐ FEMA/FIRM maps: *Click here to enter text.*

☐ 100-year Floodplain Elevation is: *Click here to enter text.* (National Geodectic Vertical Datum of 1929)

☑ Photographs: ☑ Aerial (Name & Date): Google Earth Pro 2016

☐ or ☐ Other (Name & Date): *Click here to enter text.*

☐ 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): *Click here to enter text.*

B. ADDITIONAL COMMENTS TO SUPPORT JD:

August 16, 2016

Shawn BlohmShawn Blohm
Regulatory Specialist

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): August 16, 2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Form 4 of 4, Buffalo District, Hawthorne of Aurora, DA No. 2015-00978, Unnamed Tributary to Pond Brook and Adjacent Wetland A (0.07 acre) and Adjacent Wetland F (0.10 acre)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Ohio County/parish/borough: Portage City: Aurora
Center coordinates of site (lat/long in degree decimal format): Lat. 41.33494 °, Long. -81.36637 °
Universal Transverse Mercator: 17
Name of nearest waterbody: Pond Brook
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cuyahoga River
Name of watershed or Hydrologic Unit Code (HUC): 04110002

- ☑ 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: August 5, 2016
- ☑ Field Determination. Date(s): November 19, 2015, *Click here to enter a date.*

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 waters[2] (RPWs) that flow directly or indirectly into TNWs
- ☐ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☑ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:
Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: 0.17 acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM

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:**

[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 waterbody[4] 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: acres
Drainage area: square miles

Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through 3 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.*

Identify flow route to TNW[5]:

Tributary stream order, if known:

(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):

[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.

- ☐ Silts ☐ Sands ☐ Concrete
- ☐ Cobbles ☐ Gravel ☐ Muck
- ☐ Bedrock ☐ Vegetation. Type/% cover: *Click here to enter text.*
- ☐ Other. Explain: Leaf pack and woody debris

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain:
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: 20 (or greater)
Describe flow regime: The stream flows for brief periods after heavy rain events, or during snowmelt.
Other information on duration and volume: *Click here to enter text.*

Surface flow is: Discrete and Confined Characteristics: There is a defined bed and bank

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
- ☐ OHWM[6] (check all indicators that apply):
  - ☐ clear, natural line impressed on the bank
  - ☐ changes in the character of soil
  - ☐ shelving
  - ☐ vegetation matted down, bent, or absent
  - ☐ leaf litter disturbed or washed away
  - ☐ sediment deposition
  - ☐ water staining
  - ☐ other (list): *Click here to enter text.*
  - ☐ the presence of litter and debris
  - ☐ destruction of terrestrial vegetation
  - ☐ the presence of wrack line
  - ☐ sediment sorting
  - ☐ scour
  - ☐ multiple observed or predicted flow events
  - ☐ abrupt change in plant community *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:
  - ☐ oil or scum line along shore objects
  - ☐ fine shell or debris deposits (foreshore)
  - ☐ physical markings/characteristics
  - ☐ tidal gauges
  - ☐ other (list): *Click here to enter text.*
- ☐ Mean High Water Mark indicated by:
  - ☐ survey to available datum;
  - ☐ physical markings;
  - ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain:
Identify specific pollutants, if known: N/A

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

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

- ☐ Riparian corridor. Characteristics (type, average width): Wide forested buffer
- ☐ 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: 0.17 acres acres

Wetland type. Explain: Both Wetland A and F are Emergent

Wetland quality. Explain: Wetland A is a palaustrine emergent wetland that is located within old field habitat. Wetland F is a paluastrine emergent wetland surrounded by a wooded area.

Project wetlands cross or serve as state boundaries. Explain: *Click here to enter text.*

(b) General Flow Relationship with Non-TNW:

Flow is: Ephemeral Flow Explain: Wetland A and F receive water from rainfall or snowmelt during late winter/early spring when snowmelt contributes to the amount of water held within the wetlands. Groundwater Seeps and/or springs were not observed within the wetlands. Water from Wetlands A and F drain to the west through storm water basins that flow under Walnut Ridge Trail into an ephemeral stream channel that directly flows into Aurora Lake. Aurora Lake is an impoundment of Pond Brook. Pond Brook flows south into Tinkers Creek. Tinkers Creek flows into the Cuyahoga River. The Cuyahoga River becomes a TNW further downstream.

Surface flow is: Overland Sheetflow

Characteristics: Water from Wetlands A and F drains to the west via two storm water basins that discharge into an ephemeral tributary located outside of the delineated area. The off-site ephemeral tributary can be seen in historic aerial imagery as well as current aerial imagery. LIDAR imagery indicates the presence of a channel originating at a storm water drain that was identified during the on-site field investigation. The ephemeral tributary flows directly into Aurora Lake. Aurora Lake is an impoundment of Pond Brook. Pond Brook flows into Tinkers Creek, which flows into the Cuyahoga River which becomes a TNW near its outlet into Lake Erie.

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: Water from Wetland A and F both flow to the west into catch basins. The water flows from the catch basins into an unnamed ephemeral tributary of Pond Brook. Pond Brook flows into Tinkers Creek, which flows into the Cuyahoga River which becomes a TNW further downstream.
  - ☐ 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 15-20 river miles from TNW.

Project waters are 10-15 aerial (straight) miles from TNW.

Flow is from: Wetland to Navigable Waters

Estimate approximate location of wetland as within the 500-year or greater .

(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: Emergent wetland vegetation
- ☐ 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: 3

Approximately (1.20) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
No	0.07	*Y/N*	#
No	0.10	*Y/N*	#
No	1.04	*Y/N*	#
Y/N	#	*Y/N*	#

Summarize overall biological, chemical and physical functions being performed: Wetlands store runoff, filter pollutants, and settle sediment that would otherwise be transported to the downstream.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Wetlands A and F are located adjacent to Aurora Lake, an impoundment of Pond Brook. Wetlands A and F flow into an unnamed tributary of Pond Brook that is located outside of the delineation area. A review of NWI mapping shows that one additional wetland located adjacent to the unnamed tributary of Pond Brook. Wetlands A and F drain into the unnamed tributary that discharges directly into Aurora Lake, an impoundment of Pond Brook. Pond Brook flows south into Tinkers Creek. Tinkers Creek flows to the northwest into the Cuyahoga River. The Cuyahoga River flows to the north where it becomes a TNW near its confluence with Lake Erie. Pond Brook is designated modified warmwater habitat (MWH)[1]. Tinkers Creek is designated warmwater habitat (WWH) [2]. The Cuyahoga River is designated WWH[3]. According to the Total Maximum Daily Loads of the Lower Cuyahoga River [4]. Pond Brook is a channelized, wetland stream designated MWH based on its low habitat quality and ongoing channel maintenance under the Ohio Drainage Law (ORC 6131) (1991 survey results). The stream is mostly pooled, and receives drainage from adjacent wetlands, suburban development, and effluent from two WWTPs. Fish and macro-invertebrates were fair but met the designated MWH use and is now in FULL attainment of its designated use based on 2000 survey results. Tinkers Creek is the largest tributary of the Cuyahoga River and drains portions of Portage, Geauga, Summit and Cuyahoga counties. Tinkers Creek has a drainage area of 96.4 square miles and a total length of about 30 miles and enters the Cuyahoga River at RM 16.36. The watershed lies on a glaciated plateau. Soils are mostly silt loam and clayey silt loam. Wetland swamps, bogs and fens are common in the upper watershed. Flows in the lower section of the creek are highly influenced by the discharge of treated wastewater from upstream WWTPs; in 1991 the combined effluent had a median discharge of 11.623 mgd or 17.9 cubic feet per second (cfs). Portions of the stream are on bedrock and form waterfalls which are a natural barrier to fish passage. The lower portions of the stream have formed the Tinkers Creek Gorge which is a National Natural Landmark. Recent acquisitions in the basin by MetroParks Serving Summit County and the Cleveland Metro Parks have increased the amount of protected watershed in the basin. Many local communities are also involved in protecting and acquiring parkland in the basin. The Summary of 303(d) List Status for the Lower Cuyahoga River watershed (1998) states that the major causes of impairment are Organic enrichment/dissolved oxygen, metals, unknown toxicity, nutrients and habitat alteration. Sources of impairment within the Cuyahoga River watershed include organic and nutrient enrichment, siltation, low dissolved oxygen, habitat and flow alteration related issues have been identified as the primary causes of impairment. According to a United States Environmental Protection Agency Fact Sheet No. 2 (Values and Functions of Wetlands)[5], Wetlands store runoff, filter pollutants and settle sediment that would otherwise be transported to the downstream. Wetlands help to maintain and improve water quality by intercepting pollutants before the water enters open water. Trees and other vegetation help to slow storm water runoff protecting land and property. Wetlands located near headwater streams and urban areas are especially valuable because they slow and store storm water runoff in developed areas. Wetlands are critical to the survival of a wide variety animal and plants, many of which are endangered or threatened. Since the wetlands A and F

are located in close proximity to Walnut Ridge Trail and residential development, the wetlands provide an important function of filtering roadway runoff preventing it from reaching the downstream TNW. Because of this, it has been determined that Wetlands A and F have a significant nexus with the downstream TNW because they filter road way pollutants and allow for sediment settle in water before the water reaches the downstream TNW.

1, 2 and 3: Ohio Administrative Code 3745-1-26 http://www.epa.ohio.gov/portals/35/rules/01-26.pdf

4: http://www.epa.ohio.gov/portals/35/tmdl/Cuyahoga_lower_final_report.pdf

5: http://nepis.epa.gov

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:

- ☐ TNWs: # linear feet # width (ft), Or, # acres.
- ☐ Wetlands adjacent to TNWs: # acres.

2. RPWs that flow directly or indirectly into TNWs.

- ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
- ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

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.*

3. Non-RPWs[8] that flow directly or indirectly into TNWs.

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: # acres.
  Identify type(s) of waters: *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 jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: 0.16 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).

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

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).
- ☐ 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: BL Companies dated September 21, 2015 and Revised December 09, 2015
- ☑ 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: ORM Database
  - ☑ USGS NHD data.
  - ☑ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite scale & quad name: Aurora-OH
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation: *Click here to enter text.*
- ☑ National wetlands inventory map(s). Cite name: ORM Database
- ☐ State/Local wetland inventory map(s): *Click here to enter text.*
- ☐ FEMA/FIRM maps: *Click here to enter text.*

[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.*

- ☐ 100-year Floodplain Elevation is: *Click here to enter text.* (National Geodectic Vertical Datum of 1929)
- ☑ Photographs: ☑ Aerial (Name & Date): Google Earth Pro 2016
- ☐ or ☐ Other (Name & Date): *Click here to enter text.*
- ☐ 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): *Click here to enter text.*

B. ADDITIONAL COMMENTS TO SUPPORT JD:

August 16, 2016

Shawn Blohm
Regulatory Specialist

Date