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): March 6, 2017

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:Detroit, Bear Creek Estates, 2016-00420-117

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State:IN County/parish/borough: Dekalb City: Auburn
Center coordinates of site (lat/long in degree decimal format): Lat. 41.33014° **N**, Long. -85.03125° **E**.
Universal Transverse Mercator: 16
Name of nearest waterbody: Cedar Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Maumee River
Name of watershed or Hydrologic Unit Code (HUC): 04100005
☒ 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: March 6, 2017
☒ Field Determination. Date(s): August 11, 2016

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **are and are not** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]
☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☐ Relatively permanent 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: 11.80 acres.

c. Limits (boundaries) of jurisdiction based on: **1987 Delineation Manual**
Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):[3]
☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: **The project consists of two, palustrine forested, depressional wetlands totaling 0.59 acres. Wetland identified as Section II is 0.0.35 acres and wetland identified as Section III is 0.24 acres. Hydrology for each wetland is driven by**

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

precipitation in the form of rainfall, snowmelt, and surface runoff from the surrounding agricultural field. A site inspection on August 11, 2016 did not reveal any connection to a surface water outlets. Review of the 2016 and 2005 aerial images on Google Earth showed wet signatures and field review confirmed that the wet signatures meet all three wetland criteria. In addition, review of the USGS Map did not indicate the presence of surface water (RPW, non-RPW or TNW) in the vicinity of the both wetlands. Review of the county drainage maps obtained from the Beacon GIS website did not indicate the presence of a subsurface connection and no sign of a subsurface drain (i.e. standpipe) was observed during the site visit that could carry water from Section II and III to another surface water. Due the lack of a surface connection, both wetlands are not separated by a berm or other man-made structure from a surface water. The depressional wetlands do not provide for interstate or foreign commerce since they are not subject to commercial use and are not susceptible for commercial use in the future. In addition there is no evidence that that the wetlands support recreational use. Additionally, there are not known species that would require Section II and III to fulfill its life cycle requirements.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the 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: 2.607 **square miles**
Drainage area: 2.607 **square miles**
Average annual rainfall: 38 inches
Average annual snowfall: 34 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **4** tributaries before entering TNW.

Project waters are **5-10** river miles from TNW.
Project waters are **1-2** river miles from RPW.
Project waters are **5-10** aerial (straight) miles from TNW.
Project waters are **1-2** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: .

[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 stream order, if known: Water flow from Section I via a small opencut ditch into the Frank Stoops Drain which according to the county drainage maps flows int the Hiram Buchannon Ditch drains into the Fred Dosch Ditch (Dosch Ditch on 1:24000 USGS Quad) which the enters into Cedar Creek. Cedar Creek then discharges into the St. Joseph River and then the Maumee River a Section 10 water.

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

Tributary is:
- ☐ Natural
- ☒ Artificial (man-made). Explain: Tributary is a subsurface tile.
- ☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
- Average width: feet
- Average depth: feet
- Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

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

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Unknown, tributary is undergrond and cannot be observed..

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

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Intermittent but not seasonal flow**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: **Discrete and confined**. Characteristics: .

Subsurface flow: **Yes**. Explain findings: Tile is a mapped on the county drainage map.
- ☐ Dye (or other) test performed: .

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
☐ other (list):	

- ☐ Discontinuous OHWM.[7] Explain: .

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

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

(iii) Chemical Characteristics:

[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.

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

Explain: Unknown .

Identify specific pollutants, if known: Since the tile is underground no water could be observed at the time of the site visit so no characterization could be made on water color. Wetland identified as Section I is bordered on the south and east side by agricultural land and residential development, forest and agricultural land on the north, and forest and agrucultural land on the west side. Water quality is considered to be fair with stromwater runnoff from the agricultural land and development to have a negative impact on water quality.

(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: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size:11.80 acres

Wetland type. Explain:Palustrine Forested and Palustrine emergent.

Wetland quality. Explain:Fair to good quality; adjacent farming allows for relatively high volumes of runoff to enter wetlands, expect this runoff to contain a variety of farming-related chemicals and other pollutants.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: Hydrology for the wetland is driven by precipition and whould discharge into the drain during rain events and snowmelt.

Surface flow is**: Discrete and confined**

Characteristics: .

Subsurface flow: **Yes**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☒ Not directly abutting
  - ☒ Discrete wetland hydrologic connection. Explain: Section I drains into a small ditch that enters into a subsruface drain per the county drainage map.
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **5-10** river miles from TNW.

Project waters are **5-10** aerial (straight) miles from TNW.

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

Estimate approximate location of wetland as within the **50 - 100-year** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Section I is bordered on the south and east side by agricultural land and residential development, forest and agricultural land on the north, and forested and agriculatural land on the west side. Water quality is considered to be fair to good with stormwater runoff from the agricultural land containing sediment, nutrients, bacteria, and pesticides to have a negative impact on water quality. Section I provides a measure of water quality protection to Cedar Creek, the St. Joseph River and the Maumee River by filtering out pollutants from storm water during rain events and retaining flood waters.

Identify specific pollutants, if known: .

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

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☒ Vegetation type/percent cover. Explain:Acer saccharinum -25%, Celtis occidentalis - 15%, Ulmus rubra - 20%.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

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

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

Approximately (11.80) 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)
Section I, Y	11.80		

Summarize overall biological, chemical and physical functions being performed: According to the 2005 Cedar Creek Watershed Mangment Plan, a 2008 study of the Lower St. Joseph River Watershed along with a 2006 St. Jospeh River Watershed Management Plan pollutants were one of the many factors having a negative impact on water quality. Some of the pollutants that are affecting the water quality of Cedar Creek and the St. Joseph River that are outlined in all three reports include, but are not limited to sediment, nutrients which include nitrogen, phosphate, and toxins from pesticides and herbicides and fecal coloform. Section I is located in a mixed setting that inlcudes both agriculture and development and and will receive runoff from both. The wetland will filter out some pollutants (sediment, nutrients, and toxins) that would otherwise end up in the waters flowing into the St. Joseph River. The subject wetlands will help desynchronize potential flood flows in the St. Joesph and Maumee Rivers. All three reports also stated that wetland loss was one of the many factors that are increasing the levels of pollutants into the St. Joseph River and contributing to flood issues. The wetlands, provide help in filtering out these pollutants and store water duirng high precirption events helping to desynchronize flood flows. The subject wetlands provide more than an insubstantial role in maintaining the physical, biological, and chemical integrity of Cedar Creek, the St. Joseph River and ulitimatley the Maumee River.

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: Water from Section I flows into a tile (Frank Stoops Drain) which then discharges into the Hiram Buchannan Ditch that then connects to Cedar Creek. Cedar Creek is comprised of two HUC 11 areas, Upper Cedar Creek (04100003080) and Lower Cedar Creek (04100003090) and is part of the St. Joseph River Watershed (HUC 4100003). The St. Joseph River eventually discharges into the Maumee River a Section 10 water, which flows north east into Lake Erie. The wetlands identified as Section I are located in a predominantly agricultural setting with some residential development, it provides some ability to help trap sediment, nutrients, bacteria, and pesticides before water enters Cedar Creek , the St. Joseph River, and then the navigable Maumee River and ultimately Lake Erie. Sections of Cedar Creek have listed on the 303(d) list due to increased levels of E.coli and Section I provides some capacity to filter out fecal coliform. The wetlands in question are in the Cedar Creek Watershed, upstream of the Cedar Creek confluence with the St. Joseph River. Most of the wetlands in the Cedar Creek watershed in Indiana are relatively small and exist as fragments due to the ditching and draining that has occurred to develop land for agricultural purposes and residential and commercial development. Prior to drainage efforts, the Cedar Creek watershed was

dominated by forests and wetlands. According to the Cedar Creek Watershed Management Plan, the past 50 years has seen an increase in development for agricultural production and resident/commercial development which as further reduced wetlands and increased water entering waterways due to increased impervious surface and increased pollutant load. The majority of streams, ditches, and other waterbodies have been and continue to be dredged and straightened to support agriculture production. This makes the waterway susceptible to increased erosion, increases the pollutant load to downstream waters, negatively impacts aquatic life, and decreases ability to retain flood waters. The Lower St. Joseph-Bear Creek Watershed Management Plan (15 August 2007) reiterated this observation: "Most of the streams and ditches in the watershed have been channelized, deepened, straightened, and/or dredged at some time over the last 150 years to support agriculture and construction of roads and cities. These practices impact the capacity of the stream to support aquatic life, filter out sediments and chemicals, and control flow". This is also substantiated by the St. Joseph River Water Management Plan (28 February 2006) which states that "Many streams have been channelized and straightened to improve water flow downstream." Additionally, the 2006 report states that nonpoint source pollution makes up 75% of the water pollution in the St. Joseph River. The Cedar Creek Watershed report supports this by stating that nonpoint sources make up 65% of the water pollution in the watershed. Both the 2006 St. Joseph report and the 2005 Cedar Creek report cited that the sources of the nonpoint source pollution includes agricultural fields, yards, roads, etc…. The St. Joseph River Watershed includes portions of urban areas of Fort Wayne and Leo-Cedarville and towns that include St. Joe, Spencerville, and Grabill along with rural residential and agricultural lands. They have the greatest impact on the quality of Fort Wayne's source water, both by virtue of their proximity to the city and by the volume of water carried by the streams and the river. The remaining wetlands in the larger St. Joseph River watershed and the smaller Cedar Creek watershed, including the subject wetland, play a significant role in mitigating effects on the biological, chemical, and physical integrity of the St. Joseph and Maumee Rivers. The St. Joseph River flows into the navigable Maumee River. The ditches that drained the Great Black Swamp are conduits for fast drainage and provide little flood retention and little ability to filter/retain pollutants. This resulted in the Maumee River being flood prone and a large scale Corps flood control project is located in Fort Wayne, Indiana (Rep. Mark Souder, IN, requested $5.3 million in additional funding for additional Corps flood control work in the 2007 WRDA). Impacts to the remaining wetlands in the upper Maumee River's watershed, especially in the Fort Wayne area, will serve to reduce the effectiveness of the existing as well as future Corps flood control projects in Fort Wayne. The lower reaches of the Maumee River (in Ohio) have been designated a Great Lakes Area of Concern (AOC) and are subject to a Remedial Action Plan (RAP). In an effort to clean up the most polluted areas in the Great Lakes, the United States and Canada, in Annex 2 of the Great Lakes Water Quality Agreement, committed to cooperate with State and Provincial Governments to ensure that RAPs are developed and implemented for all designated AOCs in the Great Lakes basin. Limiting pollutants of any type in the upstream reaches of the Maumee River assists in the realization of the goals of the RAP for the Maumee River AOC. The Cedar Creek Watershed Management Plan and both the St. Joseph River Water Management Plan and Lower St. Joseph-Bear Creek Watershed Management Plan noted that flash flooding along streams in the watershed, which is largely urban Ft. Wayne is a problem. The subject wetland helps to store and slowly release potential flood waters and to limit the total pollutant load to the St. Joseph and Maumee River.

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

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

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

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

   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: .

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.

[8]See Footnote # 3.

Provide estimates for jurisdictional waters within the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
  - ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
  - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

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: **11.8**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: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  - Identify type(s) of waters: .
- ☐ Wetlands: acres.

[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: .
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: 0.59acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Wetland Delineation Report, Bear Creek Estates dated June 1, 2016, prepared by Earth Source, Inc.
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☒ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name:1:24000.
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation:USDA-NRCS Soil Survey for Dekalb County.
- ☒ National wetlands inventory map(s). Cite name:US FWS On-Line Wetland Mapper.
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date):Google Earth 2016 and 2005.
  or ☐ Other (Name & Date): .
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify):Report titled Lower St. Joseph-Bear Creek Watershed Management Plan, March 2008, St. Joseph River Watershed Management Plan, dated February 2006, Cedar Creek Watershed Management Plan, September 2005, EPA Surf Your Watershed, County Drainage Maps obtained from Becan.

B. ADDITIONAL COMMENTS TO SUPPORT JD: .