

Rumbaugh North Review Area

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): October 15, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Detroit District, Michiana Branch, Rumbaugh Property JD, LRE-2018-00766-102-J18

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Indiana County/parish/borough: Allen City: Fort Wayne
Center coordinates of site (lat/long in degree decimal format): Lat. 41.190403° **N**, Long. -85.149691° **W**.
Universal Transverse Mercator: 16

Name of nearest waterbody: Roy Delagrang Drain

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

Name of watershed or Hydrologic Unit Code (HUC): HUC 12: 04100030805; Ely Run-Saint Joseph River

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 29, 2018

Field Determination. Date(s): August 30, 2018 and September 27, 2018

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: 6.013 acres.

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

Elevation of established OHWM (if known): N/A.

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: **Twelve potentially jurisdictional waters were assessed within the review area (Rumbaugh North) and ten were**

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.

determined to be isolated waters. The USFWS National Wetland Inventory (NWI) indicated four potential wetlands within the Rumbaugh North review area which is primarily mapped as Blount silt loam and Pewamo silty clay loam on the NRCS's Web Soil Survey for Allen County. Wetland F, Wetland G, Wetland H, Wetland I, Wetland J, Wetland K, Wetland L, Wetland M, Wetland N, and Wetland O, as described in the Wetland Delineation Report (Report) provided by nuInventa, are all located in the forested portion of the Rumbaugh North review area running along the western border of the parcel and extending east through the middle of the review area. The wetlands total approximately 1.558 acres in size. Review of the applicable USGS Topographic maps, USGS NHD maps, aerial imagery, and the Allen County iMap GIS Engineering Viewer did not indicate the presence of a potential flow path or other potential surface or subsurface hydrologic connection from any of these isolated wetlands to a downstream Water of the United States; this was confirmed during the site inspection. Flow patterns were observed between some of the wetlands located in this area, however, no hydrologic connection conveying this water off site in any direction to a Water of the U.S. was observed. None of the wetlands identified above are separated by a berm or other man-made structure from a surface water, provide for interstate or foreign commerce, are not subject to commercial use currently, and are not likely to be subject to commercial use in the future. In addition, there does not appear to be evidence that suggests that the wetlands support recreational use and no direct evidence was observed of known species that require the wetlands to fulfill their 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 waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

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

Identify flow route to TNW⁵: .

Tributary stream order, if known: .

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.

(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: 6.013 acres

Wetland type. Explain: Wetland A is a small forested/emergent wetland. Wetland B is a large forested/scrub shrub/emergent/open water wetland complex.

Wetland quality. Explain: Wetland A is a small low quality wetland that is heavily influenced by the agriculture field located to the west within the review area. Wetland B is a large, high quality wetland complex with a number of different habitat types and functions influenced primarily by the agriculture field to the north and residential development to the west.

Project wetlands cross or serve as state boundaries. Explain: N/A.

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: During spring snowmelt and large precipitation events throughout the year, water is conveyed from both Wetland A and Wetland B beneath Pufferbelly Trail to their respective confluences with the Carroll drain.

Surface flow is: **Discrete and confined**

Characteristics: Wetland A, as described in the Report, is approximately 0.029 acres in size located along the eastern boundary of the Rumbaugh North review area and immediately west of the residence at 327 Carroll Road. A concrete culvert was observed that would convey water from Wetland A to the east beneath Pufferbelly Trail. Standing water was observed at the outlet of the concrete culvert east of Pufferbelly Trail. Water was then conveyed off site to the east onto property at 327 Carroll Road. This was substantiated by review of aerial imagery and data sourced from the United States Geological Survey's National Hydrography Dataset (NHD). Further, reference File Number LRE-2010-00860-102, in a January 06, 2011 site inspection, Corps staff noted that, "a ditch traveled to the east", from this point along Pufferbelly Trail, however, "the exact path could not be observed". USGS NHD data indicates that water continues to flow east approximately 450 feet on the property at 327 Carroll Road and then south approximately 500 feet to a series of detention basins. The Allen County iMap GIS Engineering Viewer indicates that the Carroll drain is incorporated with these detention basins associated with the residential development to the east of the review area and on the property at 217 Carroll Road. The subsurface Carroll drain flows north and east approximately 2,600 feet to its confluence with Roy Delagrange Drain (RPW). Wetland B stretches across the entire width of the Rumbaugh North review area. USGS NHD data indicates that water flows easterly through the entirety of Wetland B towards the eastern property boundary and continues offsite to the east. A large concrete culvert was observed immediately east of the Pufferbelly Trail bridge, suggesting that water is conveyed to the east during high water. The Allen County iMap GIS Engineering Viewer indicates that a subsurface county regulated drain (Carroll drain) is located in this vicinity. Based upon the review of the Allen County iMap GIS Engineering Viewer, as well as the USGS NHD map, the concrete culvert enters the Carroll drain subsurface in this area. The Carroll drain flows approximately 3,700 feet north and east to its confluence with the Roy Delagrange Drain (RPW).

Subsurface flow: **Yes**. Explain findings: The Allen County iMap GIS Engineering Viewer indicates that a subsurface county regulated drain (Carroll drain) is located in the vicinity of a number of detention basins associated with the residential development to the east of the review area and on the property at 217 Carroll Road. The Allen County iMap GIS Engineering Viewer indicates that the Carroll drain is incorporated with these detention basins. The subsurface Carroll drain flows north and east approximately 2,600 feet to its confluence with Roy Delagrange Drain (RPW).

Dye (or other) test performed: N/A.

(c) Wetland Adjacency Determination with Non-TNW:

- Directly abutting
- Not directly abutting
 - Discrete wetland hydrologic connection. Explain: See explanation of hydrologic connection above.
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **15-20** 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 **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: Water from Wetland A was being conveyed beneath Pufferbelly Trail at the time of our site inspection. The standing water was clear and warm with an abundance of aquatic vegetation growing on its surface. Both Wetland A and Wetland B drain a mixed use area including residential, forested, and agricultural land. Due to their proximity to agricultural and residential areas, one would expect to find increased levels of Nitrogen and Phosphorus from fertilizer as well as toxins from herbicides and pesticides. Sediment loads would also be expected to be high following precipitation events during crop off periods of the year due to surface runoff from the agriculture field located on the parcel.

Identify specific pollutants, if known: N/A.

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

Riparian buffer. Characteristics (type, average width):

Vegetation type/percent cover. Explain:

Habitat for:

Federally Listed species. Explain findings:

Fish/spawn areas. Explain findings:

Other environmentally-sensitive species. Explain findings:

Aquatic/wildlife diversity. Explain findings: The large open water component of Wetland B may provide habitat for

aquatic species, waterfowl, and migratory birds.

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

All wetland(s) being considered in the cumulative analysis: **9**

Approximately (73.39) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
No	19.98	Yes	2.42
Yes	1.18	Yes	21.63
Yes	9.38	No	6.24
Yes	1.26	No	3.21
No	8.09		

Summarize overall biological, chemical and physical functions being performed: These wetlands provide some ability to help trap sediment, nutrients, bacteria, toxins, and help to retain flood waters before reaching the Roy Delagrang Drain, Ely Run, the St. Joseph River, the Maumee River (TNW), and eventually Lake Erie.

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: Wetland A, as described in the Report, is approximately 0.029 acres in size located along the eastern boundary of the Rumbaugh North review area and immediately west of the residence at 327 Carroll Road. A concrete culvert was observed that would convey water from Wetland A to the east beneath Pufferbelly Trail (20180927_0016.jpg). Standing water was observed at the outlet of the concrete culvert east of Pufferbelly Trail (20180927_0017.jpg). Water was then conveyed off site to the east onto property at 327 Carroll Road. This was substantiated by review of aerial imagery and data sourced from the United States Geological Survey's National Hydrography Dataset (NHD). Further, reference File Number LRE-2010-00860-102, in a January 06, 2011 site inspection, Corps staff noted that, "a ditch traveled to the east", from this point along Pufferbelly Trail, however, "the exact path could not be observed". USGS NHD data suggests that water continues to flow east approximately 450 feet on the property at 327 Carroll Road and then south approximately 500 feet to a series of detention basins. The Allen County iMap GIS Engineering Viewer indicates that the county regulated Carroll drain is incorporated with these detention basins associated with the residential development to the east of the review area and on the property at 217 Carroll Road. The subsurface Carroll drain flows north and east approximately 2,600 feet to its confluence with Roy Delagrang Drain (RPW). Based upon the site inspection, the Roy Delagrang Drain is a perennial RPW that exhibits an Ordinary High Water Mark (OHWM) and a defined bed and bank. The Report describes the large wetland complex located in the southern end of the Rumbaugh North review area, as Wetland B (3.922

acres) and Pond A (2.062 acres). For the purposes of this AJD, we will refer to this forested/scrub shrub/emergent/open water wetland complex as Wetland B (5.984 acres). Wetland B stretches across the entire width of the Rumbaugh North review area. USGS NHD data indicates that water flows easterly through the entirety of Wetland B towards the eastern property boundary and continues offsite to the east. A concrete culvert was observed immediately east of the Pufferbelly Trail bridge, suggesting that water is conveyed to the east during high water (20180927_0015.jpg). Based upon the review of the Allen County iMap GIS Engineering Viewer, as well as the USGS NHD data, the concrete culvert enters the Carroll drain subsurface in this area. The Carroll drain flows approximately 3,700 feet north and east through a series of detention basins associated with the residential development east of the review area and property at 217 Carroll Road to its confluence with the Roy Delagrang Drain. Based upon the site inspection, and as noted above, the Roy Delagrang Drain is a perennial RPW that exhibits an OHWM and a defined bed and bank. The Roy Delagrang Drain flows approximately 2.68 miles east to its confluence with Ely Run. Ely Run flows approximately 3.96 miles east to its confluence with the St. Joseph River. The St. Joseph River flows approximately 11.7 miles south to its confluence with the St. Mary's River in Downtown Fort Wayne to form the Maumee River (TNW). Therefore, Wetland A and Wetland B are wetlands adjacent to a perennial RPW (Roy Delagrang Drain) within the tributary system of the Maumee River and are Waters of the United States. The Roy Delagrang Drain is part of the St. Joseph River Watershed HUC8: 0410000308. The St. Joseph River eventually joins the St. Mary's River to form the Maumee River, a Section 10 Navigable Water, which flows northeast into Lake Erie. Wetland A and Wetland B are located on an undeveloped property within an agriculture field in the City of Fort Wayne surrounded by residential development on all sides. These wetlands provide some ability to help trap sediment, nutrients, bacteria, toxins, and help to retain flood waters before reaching the Roy Delagrang Drain, Ely Run, the St. Joseph River, the Maumee River (TNW), and eventually Lake Erie. The subject wetlands are located near the HUC14 boundary of the Ely Run-St. Joseph River Watershed and the Beckett's Run-St. Joseph Watershed. Both of these HUC14 St. Joseph River watersheds are located upstream of the river's confluence with the St. Mary's River and include highly developed residential areas of Fort Wayne as well as some agricultural lands south of Leo-Cedarville. Together, 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 St. Joseph River Water Management Plan (28 February 2006) states that nonpoint source pollution makes up 75% of the water pollution in the St. Joseph River. The report cited that the sources of the nonpoint source pollution include agricultural fields, transportation corridors, urban streets and yards, building roofs, parks, golf courses, and parking lots; all of which are located within the watersheds observed within the review area. With the knowledge that the St. Joseph River joins the St. Mary's to form the Maumee River, continued degradation of wetlands situated within the St. Joseph River watershed in and around Fort Wayne will have a demonstrable effect on the water quality of the Maumee River. Most of the wetlands in the Maumee River watershed in Indiana are relatively small and exist as fragments or relic portions of the Great Black Swamp, which stretched from Fort Wayne, Indiana to Toledo, Ohio and was subjected to massive drainage projects in the 1800's. The drainage work facilitated the pervasive conversion of the landscape to agricultural land. Prior to drainage efforts, the Maumee River's watershed was predominantly one large forested wetland complex with interspersed marshes. 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 has led to the Maumee River being flood prone, nutrient and pollutant rich, and has resulted in the construction of a large scale Corps flood control project 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 waters and 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, which includes the St. Joseph River Watershed, assists in the realization of the goals of the RAP for the Maumee River AOC. Wetland B has not been altered or manipulated, thus can provide some measure of flood water retention by slowing downstream flow during high flow events and will help limit the pollutant/nutrient load to the St. Joseph River and the Maumee River. The remaining waters and wetlands in the St. Joseph River watershed, including the subject wetlands, play a significant role in mitigating effects on the biological, chemical, and physical integrity of both the St. Joseph River and Maumee River, as well as Lake Erie.

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-RPWs⁸ that flow directly or indirectly into TNWs.

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

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

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

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

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

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

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

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

Provide acreage estimates for jurisdictional wetlands in the review area: **6.013** 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: .
 Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

⁸See 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.

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

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
 Identify type(s) of waters: .
- Wetlands: acres.

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

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): .

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

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: 1.558 acres.

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

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

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: "Wetland Delineation Report: Project Number 181013" prepared by nuInventa, on behalf of Ronald L. Rumbaugh, dated July 13, 2018 and revised September 07, 2018.
- 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 National Hydrography Dataset.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000, IN-Huntertown.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Web Soil Survey, Allen County.
- National wetlands inventory map(s). Cite name: USFWS Online Wetland Mapper (NWI).
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Allen County iMap GIS Engineering Viewer, 1938, 1957, 1964, 1972, 1986, 1995, 1999, 2003, 2006, 2008, 2009, 2012, and 2015. Google Earth 1998, 2005, 2014, ad 2016.
 - or Other (Name & Date): Site Photographs, Appendix B "Photographic Log" of the Wetland Delineation Report, 2018; Site Inspection Photographs, 2018.
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: "St. Joseph River Watershed Management Plan", Three States, Six Counties, One Watershed, St. Joseph River Watershed Initiative, February 28, 2006 (Funded by the Indiana Department of Environmental Management).

Other information (please specify): Site Inspection Report in Case File, August 26, 2018 and September 27, 2018. Allen County iMap GIS Engineering Viewer used to identify municipal subsurface drainage near the review area. United States Geological Survey (USGS) StreamStats data used to determine stream characteristics and the area of the drainage basin of the Roy Delagrange Drain.

B. ADDITIONAL COMMENTS TO SUPPORT JD: Based upon our review, Wetland A and Wetland B are wetlands adjacent to a perennial RPW (Roy Delagrange Drain) within the tributary system of the Maumee River and are Waters of the United States.

Rumbaugh South Review Area

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): October 15, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Detroit District, Michiana Branch, Rumbaugh Property JD, LRE-2018-00766-102-J18

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Indiana County/parish/borough: Allen City: Fort Wayne
Center coordinates of site (lat/long in degree decimal format): Lat. 41.190403° **N**, Long. -85.149691° **W**.
Universal Transverse Mercator: 16

Name of nearest waterbody: UNT to Beckett's Run

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

Name of watershed or Hydrologic Unit Code (HUC): HUC 12: 04100030806; Becketts Run-Saint Joseph River

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 29, 2018

Field Determination. Date(s): August 30, 2018 and September 27, 2018

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: 7.681 acres.

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

Elevation of established OHWM (if known): N/A.

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: **Three potentially jurisdictional waters were assessed within the review area (Rumbaugh South) and two were**

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.

determined to be isolated waters. The USFWS National Wetland Inventory (NWI) did not indicate the presence of wetlands within the Rumbaugh South review area which is primarily mapped as Blount silt loam and Glynwood silt loam on the NRCS's Web Soil Survey for Allen County. Wetland C, as described in the Wetland Delineation Report (Report) provided by nuInventa, is 0.791 acres in size located in the north east corner of the Rumbaugh South review area. Wetland D, as described in the Report, is 0.143 acres in size located south and east of Wetland C immediately west of the large residential development to the east of the review area. Review of the applicable USGS Topographic maps, USGS NHD maps, aerial imagery, and the Allen County iMap GIS Engineering Viewer did not indicate the presence of a potential flow path or other potential surface or subsurface hydrologic connection from Wetland C or Wetland D to a downstream Water of the United States; this was confirmed during the site inspections. A small culvert was observed that conveyed water from Wetland D to the east beneath Pufferbelly Trail (20180927_0013.jpg and 20180927_0014.jpg). However, no hydrologic connection conveying this water off site in any direction to a Water of the U.S. was observed. Neither Wetland C nor Wetland D are separated by a berm or other man-made structure from a surface water, provide for interstate or foreign commerce, are not subject to commercial use currently, and are not likely to be subject to commercial use in the future. In addition, there does not appear to be evidence that suggests that either wetland supports recreational use and no direct evidence was observed of known species that require the wetlands to fulfill their 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 waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

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

Identify flow route to TNW⁵: .

Tributary stream order, if known: .

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.

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

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

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

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

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

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

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: **Pick List. Characteristics:** .

Subsurface flow: **Pick List. Explain findings:** .

Dye (or other) test performed: .

Tributary has (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> Bed and banks | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: . | |

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

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

(iii) **Chemical Characteristics:**

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

Explain: .

Identify specific pollutants, if known: .

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

⁷Ibid.

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

- Riparian corridor. Characteristics (type, average width):
- 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: 7.681 acres

Wetland type. Explain: Wetland E is a forested wetland.

Wetland quality. Explain: Wetland E is a forested wetland on undeveloped property in the City of Fort Wayne. The wetland has not been manipulated by development.

Project wetlands cross or serve as state boundaries. Explain: N/A.

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: During spring snowmelt and large precipitation events throughout the year, water is conveyed from Wetland E beneath Pufferbelly Trail to its confluence with the Roy #2 drain.

Surface flow is: **Discrete and confined**

Characteristics: Along the eastern limit of Wetland E, a culvert was observed which would convey water from Wetland E to the east beneath Pufferbelly Trail towards the large residential development east of the review area. An ephemeral ditch was observed running along the east side of Pufferbelly Trail to the south. A change in plant community, water staining, and the presence of litter and debris, was observed, which has led to the conclusion that water flows through this conveyance with some regularity.

Subsurface flow: **Yes**. Explain findings: The ephemeral ditch enters a corrugated culvert approximately 300 feet south of Wetland E's conveyance beneath Pufferbelly Trail. The Allen County iMap GIS Engineering Viewer indicates that a subsurface county regulated drain (Roy #2) is located in this vicinity. Based upon the review of the Allen County iMap GIS Engineering Viewer, as well as the United States Geological Survey's National Hydrography Dataset (NHD), the corrugated culvert enters the Roy #2 drain subsurface in this area. The Roy #2 drain flows to the east through the La Cabreah Subdivision before turning south through the Eagle Lake Subdivision and continuing beneath Dupont Road. Once the subsurface drain crosses beneath Dupont Road, the drain travels approximately 950 feet south east and returns to the surface as an Unnamed Tributary (UNT) to Beckett's Run (RPW).

Dye (or other) test performed: N/A.

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: See explanation of hydrologic connection above.

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 **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: At the time of the site inspection, Wetland E held no standing water and no water was being conveyed beneath Pufferbelly Trail through the observed culvert. Therefore, no characterization could be made of the water color or quality. Wetland E appears to drain a mixed use area including residential and forested land. We would expect to find pollutants within Wetland E consistent with runoff from residential areas.

Identify specific pollutants, if known: N/A.

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

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
 - Federally Listed species. Explain findings:

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

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

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

Approximately (2.26) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
No	2.26		

Summarize overall biological, chemical and physical functions being performed: The wetland provides some ability to help trap sediment, nutrients, bacteria, toxins, and helps to retain flood waters before reaching the UNT to Beckett's Run, Beckett's Run, the St. Joseph River, the Maumee River (TNW), and eventually Lake Erie.

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: Wetland E, as described in the Report, is a forested wetland approximately 7.681 acres in size that snakes through the entirety of the Rumbaugh South review area. Along the eastern limit of Wetland E, a culvert was observed which would convey water from Wetland E to the east beneath Pufferbelly Trail towards the large residential development east of the review area (20180927_0007.jpg and 20180927_0008.jpg). An ephemeral ditch was observed running along the east side of Pufferbelly Trail to the south. A change in plant community, water staining, and the presence of litter and debris, was observed, which has led to the conclusion that water flows through this conveyance with some regularity (20180927_0009.jpg and 20180927_0010.jpg). The ephemeral ditch enters a corrugated culvert approximately 300 feet south of Wetland E's conveyance beneath Pufferbelly Trail (20180927_0011.jpg). The Allen County iMap GIS Engineering Viewer indicates that a subsurface county regulated drain (Roy #2) is located in this vicinity. Based upon the review of the Allen County iMap GIS Engineering Viewer, as well as the United States Geological Survey's National Hydrography Dataset (NHD), the corrugated culvert enters the Roy #2 drain subsurface in this area. The Roy #2 drain flows to the east through a series of detention basins associated with the La Cabreah Subdivision before turning south through the Eagle Lake Subdivision and continuing beneath Dupont Road. Once the subsurface drain crosses beneath Dupont Road, the drain travels approximately 950 feet south east and returns to the surface as an Unnamed Tributary (UNT) to Beckett's Run (RPW). Based upon the site inspection, the UNT to Beckett's Run is a perennial RPW that exhibits an Ordinary High Water Mark (OHWM) and a defined bed and bank. The UNT to Beckett's Run flows approximately 0.7 miles through the Fallen Timbers Subdivision to its confluence with Beckett's Run immediately west of Coldwater Road. Beckett's Run is also a perennial RPW that exhibits an OHWM and a defined bed and bank. Beckett's Run flows approximately 3.0 miles to its

confluence with the St. Joseph River. The St. Joseph River flows approximately 6.0 miles south to its confluence with the St. Mary's River in Downtown Fort Wayne to form the Maumee River (TNW). Therefore, Wetland E is a wetland adjacent to a perennial RPW (UNT to Beckett's Run) within the tributary system of the Maumee River and is a Water of the United States. This UNT to Beckett's Run is described as "Natural Drain" on the Allen County iMap GIS Engineering Viewer. The Unnamed Tributary (UNT) to Beckett's Run (RPW) is part of the St. Joseph River Watershed HUC8: 0410000308. The St. Joseph River eventually joins the St. Mary's River to form the Maumee River, a Section 10 Navigable Water, which flows northeast into Lake Erie. Wetland E is located on an undeveloped property in the City of Fort Wayne surrounded by residential development on all sides. The wetland provides some ability to help trap sediment, nutrients, bacteria, toxins, and helps to retain flood waters before reaching the UNT to Beckett's Run, Beckett's Run, the St. Joseph River, the Maumee River (TNW), and eventually Lake Erie. The subject wetland is located near the HUC14 boundary of the Ely Run-St. Joseph River Watershed and the Beckett's Run-St. Joseph Watershed. Both of these HUC14 St. Joseph River watersheds are located upstream of the river's confluence with the St. Mary's River and include highly developed residential areas of Fort Wayne as well as some agricultural lands south of Leo-Cedarville. Together, 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 St. Joseph River Water Management Plan (28 February 2006) states that nonpoint source pollution makes up 75% of the water pollution in the St. Joseph River. The report cited that the sources of the nonpoint source pollution include agricultural fields, transportation corridors, urban streets and yards, building roofs, parks, golf courses, and parking lots; all of which are located within the watersheds observed within the review area. With the knowledge that the St. Joseph River joins the St. Mary's to form the Maumee River, continued degradation of wetlands situated within the St. Joseph River watershed in and around Fort Wayne will have a demonstrable effect on the water quality of the Maumee River. Most of the wetlands in the Maumee River watershed in Indiana are relatively small and exist as fragments or relic portions of the Great Black Swamp, which stretched from Fort Wayne, Indiana to Toledo, Ohio and was subjected to massive drainage projects in the 1800's. The drainage work facilitated the pervasive conversion of the landscape to agricultural land. Prior to drainage efforts, the Maumee River's watershed was predominantly one large forested wetland complex with interspersed marshes. 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 has led to the Maumee River being flood prone, nutrient and pollutant rich, and has resulted in the construction of a large scale Corps flood control project 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 waters and 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, which includes the St. Joseph River Watershed, assists in the realization of the goals of the RAP for the Maumee River AOC. Wetland E has not been altered or manipulated, thus can provide some measure of flood water retention by slowing downstream flow during high flow events and will help limit the pollutant/nutrient load to the St. Joseph River and the Maumee River. The remaining waters and wetlands in the St. Joseph River watershed, including the subject wetland, play a significant role in mitigating effects on the biological, chemical, and physical integrity of both the St. Joseph River and Maumee River, as well as Lake Erie.

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-RPWs⁸ that flow directly or indirectly into TNWs.

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

⁸See 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 jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: **7.681** 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: .
 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: 0.934 acres.

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

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

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: "Wetland Delineation Report: Project Number 181013" prepared by nuInventa, on behalf of Ronald L. Rumbaugh, dated July 13, 2018 and revised September 07, 2018.
- 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 National Hydrography Dataset.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000, IN-Huntertown.
- USDA Natural Resources Conservation Service Soil Survey. Citation: Web Soil Survey, Allen County.
- National wetlands inventory map(s). Cite name: USFWS Online Wetland Mapper (NWI).
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Allen County iMap GIS Engineering Viewer, 1938, 1957, 1964, 1972, 1986, 1995, 1999, 2003, 2006, 2008, 2009, 2012, and 2015. Google Earth 1998, 2005, 2014, ad 2016.
 - or Other (Name & Date): Site Photographs, Appendix B "Photographic Log" of the Wetland Delineation Report, 2018; Site Inspection Photographs, 2018.
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: "St. Joseph River Watershed Management Plan", Three States, Six Counties, One Watershed, St. Joseph River Watershed Initiative, February 28, 2006 (Funded by the Indiana Department of Environmental Management).
- Other information (please specify): Site Inspection Report in Case File, August 26, 2018 and September 27, 2018. Allen County iMap GIS Engineering Viewer used to identify municipal subsurface drainage near the review area. United States Geological Survey (USGS) StreamStats data used to determine stream characteristics and the area of the drainage basin of the UNT to Beckett's Run.

B. ADDITIONAL COMMENTS TO SUPPORT JD: Based upon our review, Wetland E is a wetland adjacent to a perennial RPW (UNT to Beckett's Run) within the tributary system of the Maumee River and is a Water of the United States.