

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):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CELRL-RDE, Martin Farms #3 Violation, RPW Tributary A, LRL-2014-00921

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Indiana County/parish/borough: Hendricks County City: near Stilesville
Center coordinates of site (lat/long in degree decimal format): Lat. 39.60711 °, Long. -86.61427 °
Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Mud Creek (HUC 12: 051202030504)
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: White River
Name of watershed or Hydrologic Unit Code (HUC): Eel River (HUC 8: 05120203)

- 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: December 18, 2017
- Field Determination. Date(s): October 27, 2014, September 13, 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.

- Waters subject to the ebb and flow of the tide.
- Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: [Click here to enter text.](#)

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are “*waters of the U.S.*” within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

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: 547 linear feet: 3 width (feet) and/or 0.038 acres.
Wetlands: 0 acres.

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

Elevation of established OHWM (if known):

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).

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

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: [Click here to enter text.](#)

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. **TNW**

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

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

2. **Wetland adjacent to TNW**

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

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

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

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

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

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) **General Area Conditions:**

Watershed size: 14 digit HUC is 6,948 acres

Drainage area: 53 acres

Average annual rainfall: 43 inches

Average annual snowfall: 18 inches

(ii) **Physical Characteristics:**

(a) Relationship with TNW:

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

Project waters are 30 (or more) river miles from TNW.

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

Project waters are 30 (or more) aerial (straight) miles from TNW.

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

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

Identify flow route to TNW⁵: RPW Tributary A flows to Mud Creek, which flows to Mill Creek. Mill Creek flows to the Eel River, which flows to the White River. The White River flows to the Wabash River. RPW Tributary A flows relatively permanently (e.g. continuously for a minimum of three months). Mud and Mill Creeks, Eel, White and Wabash Rivers flow relatively permanently (e.g., perennially). The White and Wabash Rivers are Traditionally Navigable Waters (TNWs). Tributary stream order, if known: Strahler stream order of RPW Tributary A is second order.

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

³ Supporting documentation is presented in Section III.F.

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 is:** Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain: RPW Tributary A was in a natural condition prior to the discharge of fill material into RPW Tributary A that occurred in 2011 and 2012. The work involved clearing, grading and encapsulation of this tributary.

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

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

Primary tributary substrate composition (check all that apply):

- Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover: Prior to the discharge of fill material, the riparian vegetation was mixed deciduous forest composing 100 % cover
 Other. Explain: [Click here to enter text.](#)

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The condition of RPW Tributary A prior to the discharge of fill material was stable and vegetated with defined bed and bank features, riffle and pool complexes and bar features. The bed material of RPW Tributary A consisted of silts, sands, gravel and cobbles. These characteristics are consistent with sediment sorting associated with seasonal, or greater, flow. The assessment of RPW Tributary A was based on an analysis of leaf-off aerial photography (Google Earth Pro, March 2005) taken prior to the discharge of fill material, Lidar data for Hendricks County, Indiana (IndianaMap 2011), and an assessment of the reaches of RPW Tributary A above and below the encapsulated reach based on field observations taken during two site investigation (October 27, 2014 and September 13, 2016) and photos 1-5 (October 27, 2014) included in the Record.

Tributary geometry: Meandering
Tributary gradient (approximate average slope): 2%

(c) **Flow:**

Tributary provides for: Seasonal Flow
Estimate average number of flow events in review area/year: 1

Describe flow regime: In a typical year, flow is relatively permanent and continuous during the wet season, which lasts at least three months but is often 5-6 months in duration. The channel geomorphology and stream bed substrate composition, as well as RPW Tributary A classified as a Strahler stream order two are consistent with seasonal flow.

Other information on duration and volume: Groundwater contributes to the duration of flow in RPW Tributary A, supporting continuous flow for 5-6 months per year.

Surface flow is: Discrete and Confined Characteristics: Intermittent streams have both surface and subsurface flow components. The U.S. Department of Agriculture (USDA) 1974 soil survey map for Hendricks County, the 2005 (Google Earth Pro), Lidar data for Hendricks County, Indiana (IndianaMap 2011), and leaf-off aerial photographs taken prior to the discharge of fill material (Indiana Spatial Data Portal 2011a, b, c) shows the presence of a discrete and confined channel in the location on RPW Tributary A. These same features were depicted on the 1: 24K Quad U.S. Geological Survey (USGS) topological map (Hall, Indiana), overlain with the U.S. Geological Survey National Hydrography Dataset (NHD) documented in the AR. Water was present within RPW Tributary A during the both field investigations (October 27, 2014 and September 13, 2016), which occurred during the dry period of the year. Rainfall occurring during this dry period infiltrates, providing flow to the channel via interflow/groundwater, rather than contributing to surface flows.

Subsurface flow: Yes Explain findings: Groundwater and hyporheic flow contributes to the surface flow within in RPW Tributary A, supporting sustained, continuous flow within RPW Tributary A for a period of at least three consecutive months. The (USDA) 1974 soil survey map for Hendricks County showed an intermittent (dashed line) channel in the location of RPW Tributary A, indicating seasonal/intermittent flow which requires groundwater contribution. No rainfall had occurred (www.underground.com) within five days prior to the initial site investigation (October 27, 2014) and water was flowing within Tributary A up and downstream of the encapsulated section during both site investigations (October 27, 2014 and September 13, 2016). The site investigations occurred during the dry season (fall). Therefore, RPW Tributary A flowed at least seasonally, with a subsurface component contributing to the duration of flow.

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

Tributary has (check all that apply):

- Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line

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.

- vegetation matted down, bent, or absent
- leaf litter disturbed or washed away
- sediment deposition
- water staining
- other (list): Lidar data for Hendricks County, IN (IndianaMap 2011)
- Discontinuous OHWM.⁷ Explain: [Click here to enter text.](#)
- sediment sorting
- scour
- multiple observed or predicted flow events (Oct 27, 2014 & Sept 13, 2016)
- abrupt change in plant community [Click here to enter text.](#)

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

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

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: The observable water within RPW Tributary A above and below the encapsulated section was clear and without observable sheens, films, or turbidity (October 27, 2014 and September 13, 2016). The riparian area for RPW Tributary A was forested prior to the encapsulation; therefore, general water quality was good and the tributary contained coarse organic material (leaf litter and woody debris), with stable bed and banks, as depicted in the photos taken on October 27, 2014.

Identify specific pollutants, if known: No know pollutants were present within RPW Tributary A as no water quality data exists and no data was collected during the site investigations.

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

- Riparian corridor. Characteristics (type, average width): Prior to the discharge of fill material, a forested riparian corridor was present along RPW Tributary A. The riparian corridor was greater than 100 linear feet wide on each side of this tributary and consisted of mixed deciduous forest species approximately 50 years or older.
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings: The forested riparian corridor previously surrounding RPW Tributary A may have provided habitat for the endangered Indiana bat (*Myotis sodalists*) and the threatened northern long-eared bat (*Myotis septentrionalis*). Both protected bat species find habitat within riparian corridors near relatively permanent waters.
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: Forested riparian corridors provide habitat for a variety of bird, mammal, reptile and amphibian taxa. Relatively permanent waters provide habitat for small fish and macroinvertebrates.

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: # acres

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

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

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

(b) General Flow Relationship with Non-TNW:

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

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

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

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

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

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

⁷Ibid.

- Not directly abutting
 - Discrete wetland hydrologic connection. Explain: [Click here to enter text.](#)
 - Ecological connection. Explain: [Click here to enter text.](#)
 - Separated by berm/barrier. Explain: [Click here to enter text.](#)

(d) **Proximity (Relationship) to TNW**

Project wetlands are [Choose an item.](#) river miles from TNW.
 Project waters are [Choose an item.](#) aerial (straight) miles from TNW.
 Flow is from: [Choose an item.](#)
 Estimate approximate location of wetland as within the [Choose an item.](#) floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: [Click here to enter text.](#)
 Identify specific pollutants, if known: [Click here to enter text.](#)

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

- Riparian buffer. Characteristics (type, average width): [Click here to enter text.](#)
- Vegetation type/percent cover. Explain: [Click here to enter text.](#)
- Habitat for:
 - Federally Listed species. Explain findings: [Click here to enter text.](#)
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: [Click here to enter text.](#)

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

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

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#

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

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: [Click here to enter text.](#)
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: [Click here to enter text.](#)

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

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

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

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: [Click here to enter text.](#)
- Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: RPW Tributary A was flowing during both site visits (October 27, 2014 and September 13, 2016). The site visits occurred during the driest season of the year and rainfall had not occurred within the previous 24-48 hours. The channel up and downstream from the encapsulated section demonstrated bed and bank features, OHWM, sediment sorting, gravel bars, riffle and pool complexes, and meandering geometry. Groundwater data obtained from nearby wells indicated that the elevation of groundwater in the vicinity of RPW Tributary A would be sufficient to provide groundwater contributions to the stream. All characteristics are consistent with relatively permanent flow.

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

- Tributary waters: 547 linear feet 3 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: [Click here to enter text.](#)

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

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 - Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)
 - Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)

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

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

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

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

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

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

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

7. **Impoundments of jurisdictional waters.⁹**

⁸See Footnote # 3.

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

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

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

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: [Click here to enter text.](#)
- Other factors. Explain: [Click here to enter text.](#)

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

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

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

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

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

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: [Click here to enter text.](#)
- 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: including maps, figures and photo log
- Corps navigable waters’ study: [Click here to enter text.](#)
- U.S. Geological Survey Hydrologic Atlas: See figure: aerial dated 8/29/2012

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.

- USGS NHD data.
- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Hall, Indiana 1:24K Quad
- USDA Natural Resources Conservation Service Soil Survey. Citation: 1974 USDA Soil Survey of Hendricks County, Indiana
- National wetlands inventory map(s). Cite name: [Click here to enter text.](#)
- State/Local wetland inventory map(s): [Click here to enter text.](#)
- FEMA/FIRM maps: [Click here to enter text.](#)
- 100-year Floodplain Elevation is: [Click here to enter text.](#) (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Google Earth Pro: Mar 30, 2005 a, b, c, Aug 2007, Aug 2010, Aug 29, 2012 a, b, Sept 22, 2013 a, b, Aug 28, 2014, Sep 28, 2014; Indiana Data Spatial Data Portal: 1998, 2005, 2007, 2008, 2010, 2011 a, b, c.
- or Other (Name & Date): Corps of Engineers Oct 27, 2014 Picture Key and Site Investigation Photographs, Lidar for Hendricks County, Indiana (IndianaMap 2011).
- Previous determination(s). File no. and date of response letter: [Click here to enter text.](#)
- Applicable/supporting case law: [Click here to enter text.](#)
- Applicable/supporting scientific literature: See attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921" dated December 2017.
- Other information (please specify): Information contained in: "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 2017, Appellant's Request for Appeal (LRL-2014-00921), Corps' AR (dated July 5, 2016 and provided to Review Officer on 28 July 2016), Appeal Meeting and Site Visit (September 13, 2016), and "MFR, #3 Martin Violation LRL-2014-921, Appeal Hearing and Field Visit September 13, 2016".

B. ADDITIONAL COMMENTS TO SUPPORT JD: This approved JD is associated with the unauthorized discharge of fill material into five tributaries (totaling 2,669 linear feet) and revises the approved JD, dated August 3, 2015. The August 3, 2015 approved JD, which included all five tributaries, was appealed. Based on a review of the Record for this action, an Approved JD has been completed for each tributary (RPW Tributary A, NRPW Tributary A 558, NRPW Tributary A 295, NRPW Tributary B 170, and NRPW Tributary B 1099). This approved JD is based on a review and analysis of the Record. The attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 20, 2017, documents the data, information, literature and analysis supporting this approved JD. Approved JDs for the remaining four tributaries have been detailed on separate approved JD forms.

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):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CELRL-RDE, Martin Farms #3 Violation, NRPW Tributary B 170, LRL-2014-00921

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Indiana County/parish/borough: Hendricks County City: near Stilesville
Center coordinates of site (lat/long in degree decimal format): Lat. 39.60711 °, Long. -86.61427 °
Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Mud Creek (HUC 12: 051202030504)
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: White River
Name of watershed or Hydrologic Unit Code (HUC): Eel River (HUC 8: 05120203)

- 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: December 18, 2017
- Field Determination. Date(s): October 27, 2014, September 13, 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.

- Waters subject to the ebb and flow of the tide.
- Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: [Click here to enter text.](#)

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are “waters of the U.S.” within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

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: 170 linear feet: 2 width (feet) and/or 0.008 acres.
Wetlands: 0 acres.

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

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

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

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: [Click here to enter text.](#)

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

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

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

2. Wetland adjacent to TNW

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

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

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

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

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

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) General Area Conditions:

Watershed size: 14 digit HUC is 6,948 acres

Drainage area: 30 acres

Average annual rainfall: 43 inches

Average annual snowfall: 18 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 4 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

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

Project waters are 30 (or more) aerial (straight) miles from TNW.

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

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

Identify flow route to TNW⁵: NRPW Tributary B 170 LF flows to RPW Tributary B, which flows to Mud Creek. Mud Creek flows to Mill Creek, which flows to the Eel River, which flows to the White River. The White River flows to the Wabash River. NRPW Tributary B 170 LF flows during, and for a short period following, rainfall events. RPW Tributary B flows relatively permanently (continuously for a minimum of three months). Mud and Mill Creeks, Eel, White and Wabash Rivers flow relatively permanently (e.g., perennially). The White and Wabash Rivers are Traditionally Navigable Waters (TNWs). Tributary stream order, if known: The Strahler stream order of NRPW Tributary B 170 is first order.

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

Tributary is: Natural

Artificial (man-made). Explain:.

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

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

- Manipulated (man-altered). Explain: NRPW Tributary B 170 LF was in a natural condition prior to the discharge of fill material (occurring in 2011 and 2012) into this tributary. The work involved clearing, grading and encapsulation of this tributary.

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

Average width: 2 feet
Average depth: 1.0 foot
Average side slopes: 3:1

Primary tributary substrate composition (check all that apply):

- Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover: Prior to the discharge of fill material, the riparian vegetation consisted of mixed deciduous forest, composing 100 % cover
 Other. Explain: [Click here to enter text.](#)

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The condition of NRPW Tributary B 170 LF prior to the discharge of fill material was stable and vegetated with low incision and defined bed and bank features. The post condition of the tributary is encapsulated within a pipe.

Presence of run/riffle/pool complexes. Explain: Riffle and pool complexes were likely absent resulting from the short duration (non-relatively permanent) of flow.

Tributary geometry: Meandering

Tributary gradient (approximate average slope): 2%

(c) **Flow:**

Tributary provides for: Ephemeral Flow

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

Describe flow regime: In a typical year, flow would occur during rainfall events and for a short period of time afterwards but would not flow continuously for a period of three months.

Other information on duration and volume: non-relatively permanent flow

Surface flow is: Discrete and Confined Characteristics: The U.S. Department of Agriculture (USDA) 1974 soil survey map for Hendricks County, the 2005 (Google Earth Pro) and 2011 (IndianaMap) leaf-off aerial photographs taken prior to the discharge of fill material shows the presence of a discrete and confined channel in the location of NRPW Tributary B 170. These same features were depicted on the 2011 Lidar data for Hendricks County (IndianaMap 2011), and the 1: 24K Quad U.S. Geological Survey (USGS) topological map (Hall, Indiana), overlain with the U.S. Geological Survey National Hydrography Dataset (NHD).

Subsurface flow: Unknown Explain findings: Intermittent streams have both surface and subsurface flow. The USDA 1974 soil survey map shows the presence of an intermittent stream in the location of NRPW Tributary B 170. However, the entire reach of NRPW Tributary B 170 was piped so no upstream or downstream observation of the tributary was possible during the two field investigation dates. Encapsulation of NRPW Tributary B 170 indicates that sufficient flow existed to require piping/confinement, rather than grading and filling, implying the presence of groundwater/subsurface flow.

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

Tributary has (check all that apply):

- Bed and banks
 OHWM⁶ (check all indicators that apply):
- | | |
|--|---|
| <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 Click here to enter text. |
- other (list): USDA 1974 soil survey map, 2005 and 2011 aerial photography, 2011 Lidar data for Hendricks County (IndianaMap 2011) and USGS topological map with NHD data indicates discrete, confined, sinuous tributary with bed and bank features. Encapsulation supports contention that sufficient flow was present to form OHWM. OHWM was observed on the second order tributary (RPW Tributary B) below the confluence of NRPW Tributary B 170 and NRPW Tributary B 1099.

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.

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

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

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

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Due to the piping of the tributary, no flow could be observed. However, during both site investigations flow was present within the second order, undisturbed RPW Tributary B, downstream of the confluence of NRPW Tributary B 170 and NRPW Tributary B 1099 (Photos 8 and 9 in the AR). The observable water within RPW Tributary B (which was outside of the review area) was clear without observable sheens, films, or turbidity. The riparian area for NRPW Tributary B 170 was forested prior to the encapsulation; therefore, general water quality was good and the channel contained coarse organic material (leaf litter and woody debris), with stable bed and banks.

Identify specific pollutants, if known: No know pollutants were present within NRPW Tributary B 170 as no water quality data exists and no data was collected during the site investigations.

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

- Riparian corridor. Characteristics (type, average width): Prior to the discharge of fill material, a forested riparian corridor was present along NRPW Tributary B 170. The riparian corridor was greater than 100 linear feet wide on each side of this tributary and consisted of mixed deciduous forest species approximately 50 years or older.
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings: The forested riparian corridor previously surrounding NRPW Tributary B 170 may have provided habitat for the endangered Indiana bat (*Myotis sodalists*) and the threatened northern long-eared bat (*Myotis septentrionalis*). Both protected bat species find habitat within riparian corridors near relatively permanent waters.
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: Forested riparian corridors provide habitat for a variety of bird, mammal, reptile and amphibian taxa. Non-relatively permanent waters provide habitat for macroinvertebrates and salamanders.

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: # acres

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

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

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

(b) General Flow Relationship with Non-TNW:

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

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

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

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

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

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

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

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

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

⁷Ibid.

(d) Proximity (Relationship) to TNW

Project wetlands are *Choose an item.* river miles from TNW.

Project waters are *Choose an item.* aerial (straight) miles from TNW.

Flow is from: *Choose an item.*

Estimate approximate location of wetland as within the *Choose an item.* floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: *Click here to enter text.*

Identify specific pollutants, if known: *Click here to enter text.*

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

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

Vegetation type/percent cover. Explain: *Click here to enter text.*

Habitat for:

Federally Listed species. Explain findings: *Click here to enter text.*

Fish/spawn areas. Explain findings: *Click here to enter text.*

Other environmentally-sensitive species. Explain findings: *Click here to enter text.*

Aquatic/wildlife diversity. Explain findings: *Click here to enter text.*

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

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

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

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
<i>Y/N</i>	<i>#</i>	<i>Y/N</i>	<i>#</i>
<i>Y/N</i>	<i>#</i>	<i>Y/N</i>	<i>#</i>
<i>Y/N</i>	<i>#</i>	<i>Y/N</i>	<i>#</i>
<i>Y/N</i>	<i>#</i>	<i>Y/N</i>	<i>#</i>

Summarize overall biological, chemical and physical functions being performed: *Click here to enter text.*

C. **SIGNIFICANT NEXUS DETERMINATION**

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

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

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

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

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: Based on an evaluation of the contributions of the NRPW to the downstream TNW (White River), considering volume, duration and frequency of flow of water in the NRPW, 2) proximity to the TNW, 3) the capacity to transfer nutrients and organic carbon vital to support food webs, 4) habitat services, 5) functions related to the maintenance of water quality, such as sediment trapping, and 6) other relevant factors, NRPW Tributary B 170 has more than an insubstantial or speculative effect on the chemical, physical or biological integrity of the White River, the downstream TNW; therefore, NRPW Tributary B 170 has a significant nexus to the downstream TNW. The attached MFR, dated December 2017, provides additional information supporting this determination.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: [Click here to enter text.](#)
2. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly about the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: [Click here to enter text.](#)

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

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

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

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: [Click here to enter text.](#)
- Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

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: 170 linear feet 2 width (ft).
- Other non-wetland waters: # acres.

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

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

- Wetlands directly about RPW and thus are jurisdictional as adjacent wetlands.
- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)
- Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)

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

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

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

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

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

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

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

7. **Impoundments of jurisdictional waters.⁹**

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

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

⁸See Footnote # 3.

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

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: [Click here to enter text.](#)
- Other factors. Explain: [Click here to enter text.](#)

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

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

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

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

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

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: [Click here to enter text.](#)
- 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: including maps, figures and photo log
- Corps navigable waters’ study: [Click here to enter text.](#)
- U.S. Geological Survey Hydrologic Atlas: Approved JD (LRL-2014-921) aerial dated 8/29/2012
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Hall, Indiana 1:24K Quad

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.

- USDA Natural Resources Conservation Service Soil Survey. Citation: 1974 USDA Soil Survey of Hendricks County, Indiana
- National wetlands inventory map(s). Cite name: [Click here to enter text.](#)
- State/Local wetland inventory map(s): [Click here to enter text.](#)
- FEMA/FIRM maps: [Click here to enter text.](#)
- 100-year Floodplain Elevation is: [Click here to enter text.](#) (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Google Earth Pro: Mar 30, 2005 a, b, c, Aug 2007, Aug 2010, Aug 29, 2012 a, b, Sept 22, 2013 a, b, Aug 28, 2014, Sep 28, 2014; Indiana Data Spatial Data Portal: 1998, 2005, 2007, 2008, 2010, 2011 a, b, c.
- or Other (Name & Date): Corps of Engineers Oct 27, 2014 Picture Key and Site Investigation Photographs, Lidar for Hendricks, Indiana (IndianaMap 2011)
- Previous determination(s). File no. and date of response letter: [Click here to enter text.](#)
- Applicable/supporting case law: [Click here to enter text.](#)
- Applicable/supporting scientific literature: See attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921" dated December 2017.
- Other information (please specify): Information contained in: "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 2017, Appellant's Request for Appeal (LRL-2014-00921), Corps' AR (dated July 5, 2016 and provided to Review Officer on 28 July 2016), Appeal Meeting and Site Visit (September 13, 2016), and "MFR, #3 Martin Violation LRL-2014-921, Appeal Hearing and Field Visit September 13, 2016"

B. ADDITIONAL COMMENTS TO SUPPORT JD: This approved JD is associated with the unauthorized discharge of fill material into five tributaries (totaling 2,669 linear feet) and revises the approved JD, dated August 3, 2015. The August 3, 2015 approved JD, which included all five tributaries, was appealed. Based on a review of the Record for this action, an Approved JD has been completed for each tributary (RPW Tributary A, NRPW Tributary A 558, NRPW Tributary A 295, NRPW Tributary B 170, and NRPW Tributary B 1099). This approved JD is based on a review and analysis of the Record. The attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 20, 2017, documents the data, information, literature and analysis supporting this approved JD. Approved JDs for the remaining four tributaries have been detailed on separate approved JD forms

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):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CELRL-RDE, Martin Farms #3 Violation, NRPW Tributary A 558, LRL-2014-00921

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Indiana County/parish/borough: Hendricks County City: near Stilesville
Center coordinates of site (lat/long in degree decimal format): Lat. 39.60711 °, Long. -86.61427 °
Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Mud Creek (HUC 12: 051202030504)
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: White River
Name of watershed or Hydrologic Unit Code (HUC): Eel River (HUC 8: 05120203)

- 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: December 18, 2017
 Field Determination. Date(s): October 27, 2014, September 13, 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.

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: [Click here to enter text.](#)

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are “*waters of the U.S.*” within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

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: 558 linear feet: 2 width (feet) and/or 0.026 acres.
Wetlands: 0 acres.

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

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

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

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: [Click here to enter text.](#)

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

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

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

2. Wetland adjacent to TNW

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

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

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

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

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

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) General Area Conditions:

Watershed size: 14 digit HUC is 6,948 acres

Drainage area: 53 acres

Average annual rainfall: 43 inches

Average annual snowfall: 18 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 4 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

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

Project waters are 30 (or more) aerial (straight) miles from TNW.

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

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

Identify flow route to TNW⁵: NRPW Tributary A 558 LF flows to RPW Tributary A, which flows to Mud Creek. Mud Creek flows to Mill Creek, which flows to the Eel River, which flows to the White River. The White River flows to the Wabash River. NRPW Tributary A 558 LF flows during, and for a short period following, rainfall events. RPW Tributary A flows relatively permanently (continuously for a minimum of three months). Mud and Mill Creeks, Eel, White and Wabash Rivers flow relatively permanently (e.g., perennially). The White and Wabash Rivers are Traditionally Navigable Waters (TNWs). Tributary stream order, if known: The Strahler stream order of NRPW Tributary A 558 is first order.

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

Tributary is: Natural

Artificial (man-made). Explain:.

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

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

- Manipulated (man-altered). Explain: NRPW Tributary A 558 LF was in a natural condition prior to the discharge of fill material (occurring in 2011 and 2012) into this tributary. The work involved clearing, grading and encapsulation of this tributary.

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

Average width: 2 feet
Average depth: 1.0 foot
Average side slopes: 3:1

Primary tributary substrate composition (check all that apply):

- Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover: Prior to the discharge of fill material, the riparian vegetation consisted of mixed deciduous forest, composing 100 % cover
 Other. Explain: [Click here to enter text.](#)

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The condition of NRPW Tributary A 558 LF prior to the discharge of fill material was stable and vegetated with low incision and defined bed and bank features. The post condition of the tributary is encapsulated within a pipe.

Presence of run/riffle/pool complexes. Explain: Riffle and pool complexes were likely absent resulting from the short duration (non-relatively permanent) of flow.

Tributary geometry: Meandering

Tributary gradient (approximate average slope): 2%

(c) **Flow:**

Tributary provides for: Ephemeral Flow

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

Describe flow regime: In a typical year, flow would occur during rainfall events and for a short period of time afterwards but would not flow continuously for a period of three months.

Other information on duration and volume: non-relatively permanent flow

Surface flow is: Discrete and Confined Characteristics: The U.S. Department of Agriculture (USDA) 1974 soil survey map for Hendricks County, the 2005 (Google Earth Pro) and 2011 (IndianaMap) leaf-off aerial photographs taken prior to the discharge of fill material shows the presence of a discrete and confined channel in the location of NRPW Tributary A 558. These same features were depicted on the 2011 Lidar data for Hendricks County (IndianaMap 2011), and the 1: 24K Quad U.S. Geological Survey (USGS) topological map (Hall, Indiana), overlain with the U.S. Geological Survey National Hydrography Dataset (NHD).

Subsurface flow: Unknown Explain findings: Intermittent streams have both surface and subsurface flow. The USDA 1974 soil survey map shows the presence of an intermittent stream in the location of NRPW Tributary A 558. However, the entire reach of NRPW Tributary A 558 was piped so no upstream or downstream observation of the tributary was possible during the two field investigation dates. Encapsulation of NRPW Tributary A 558 indicates that sufficient flow existed to require piping/confinement, rather than grading and filling, implying the presence of groundwater/subsurface flow.

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

Tributary has (check all that apply):

- Bed and banks
 OHWM⁶ (check all indicators that apply):
- | | |
|--|---|
| <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 Click here to enter text. |
- other (list): USDA 1974 soil survey map, 2005 and 2011 aerial photography, 2011 Lidar data for Hendricks County (IndianaMap 2011) and USGS topological map with NHD data indicates discrete, confined, sinuous tributary with bed and bank features. Encapsulation supports contention that sufficient flow was present to form OHWM. OHWM was observed on the second order tributary (RPW Tributary A) below the confluence with the NRPW Tributary A 558.
- Discontinuous OHWM.⁷ Explain: [Click here to enter text.](#)

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.

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

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

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Due to the piping of the tributary, no flow could be observed. However, during both site investigations flow was present within RPW Tributary A downstream of the confluence with NRPW Tributary A 558. The observable water within RPW Tributary A was clear without observable sheens, films, or turbidity. The riparian area for NRPW Tributary A 558 was forested prior to the encapsulation; therefore, general water quality was good and the channel contained coarse organic material (leaf litter and woody debris), with stable bed and banks.

Identify specific pollutants, if known: No know pollutants were present within NRPW Tributary A 558 as no water quality data exists and no data was collected during the site investigations.

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

- Riparian corridor. Characteristics (type, average width): Prior to the discharge of fill material, a forested riparian corridor was present along NRPW Tributary A 558. The riparian corridor was greater than 100 linear feet wide on each side of this tributary and consisted of mixed deciduous forest species approximately 50 years or older.
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings: The forested riparian corridor previously surrounding NRPW Tributary A 558 may have provided habitat for the endangered Indiana bat (*Myotis sodalists*) and the threatened northern long-eared bat (*Myotis septentrionalis*). Both protected bat species find habitat within riparian corridors near relatively permanent waters.
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: Forested riparian corridors provide habitat for a variety of bird, mammal, reptile and amphibian taxa. Non-relatively permanent waters provide habitat for macroinvertebrates and salamanders.

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: # acres

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

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

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

(b) General Flow Relationship with Non-TNW:

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

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

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

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

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

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

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

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

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

(d) Proximity (Relationship) to TNW

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

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

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

Estimate approximate location of wetland as within the *Choose an item*. floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: [Click here to enter text](#).

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

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

- Riparian buffer. Characteristics (type, average width): [Click here to enter text](#).
- Vegetation type/percent cover. Explain: [Click here to enter text](#).
- Habitat for:
 - Federally Listed species. Explain findings: [Click here to enter text](#).
 - Fish/spawn areas. Explain findings: [Click here to enter text](#).
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text](#).
 - Aquatic/wildlife diversity. Explain findings: [Click here to enter text](#).

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

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

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

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#

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

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: Based on an evaluation of the contributions of the NRPW to the downstream TNW (White River), considering volume, duration and frequency of flow of water in the NRPW, 2) proximity to the TNW, 3) the capacity to transfer nutrients and organic carbon vital to support food webs, 4) habitat services, 5) functions related to the maintenance of water quality, such as sediment trapping, and 6) other relevant factors, NRPW Tributary A 558 has more than an insubstantial or speculative effect on the chemical, physical or biological integrity of the White River, the downstream TNW; therefore, NRPW Tributary A 558 has a significant nexus to the downstream TNW. The attached MFR, dated December 2017, provides additional information supporting this determination.

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

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

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

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

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: [Click here to enter text.](#)
 Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

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: 558 linear feet 2 width (ft).
 Other non-wetland waters: # acres.

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

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

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)
 Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)

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

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

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

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

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

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

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

7. **Impoundments of jurisdictional waters.⁹**

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

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

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

⁸See Footnote # 3.

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

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos*.

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: [Click here to enter text.](#)
- Other factors. Explain: [Click here to enter text.](#)

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

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

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

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

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

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: [Click here to enter text.](#)
- 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: including maps, figures and photo log
- Corps navigable waters’ study: [Click here to enter text.](#)
- U.S. Geological Survey Hydrologic Atlas: Approved JD (LRL-2014-921) aerial dated 8/29/2012
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Hall, Indiana 1:24K Quad
- USDA Natural Resources Conservation Service Soil Survey. Citation: 1974 USDA Soil Survey of Hendricks County, Indiana
- National wetlands inventory map(s). Cite name: [Click here to enter text.](#)
- State/Local wetland inventory map(s): [Click here to enter text.](#)
- FEMA/FIRM maps: [Click here to enter text.](#)

- 100-year Floodplain Elevation is: [Click here to enter text.](#) (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Aerial (Name & Date): Google Earth Pro: Mar 30, 2005 a, b, c, Aug 2007, Aug 2010, Aug 29, 2012 a, b, Sept 22, 2013 a, b, Aug 28, 2014, Sep 28, 2014; Indiana Data Spatial Data Portal: 1998, 2005, 2007, 2008, 2010, 2011 a, b, c.
- or Other (Name & Date): Corps of Engineers Oct 27, 2014 Picture Key and Site Investigation Photographs, Lidar for Hendricks, Indiana (IndianaMap 2011)
- Previous determination(s). File no. and date of response letter: [Click here to enter text.](#)
- Applicable/supporting case law: [Click here to enter text.](#)
- Applicable/supporting scientific literature: See attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921" dated December 2017.
- Other information (please specify): Information contained in: "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 2017, Appellant's Request for Appeal (LRL-2014-00921), Corps' AR (dated July 5, 2016 and provided to Review Officer on 28 July 2016), Appeal Meeting and Site Visit (September 13, 2016), and "MFR, #3 Martin Violation LRL-2014-921, Appeal Hearing and Field Visit September 13, 2016".

B. ADDITIONAL COMMENTS TO SUPPORT JD: This approved JD is associated with the unauthorized discharge of fill material into five tributaries (totaling 2,669 linear feet) and revises the approved JD, dated August 3, 2015. The August 3, 2015 approved JD, which included all five tributaries, was appealed. Based on a review of the Record for this action, an Approved JD has been completed for each tributary (RPW Tributary A, NRPW Tributary A 558, NRPW Tributary A 295, NRPW Tributary B 170, and NRPW Tributary B 1099). This approved JD is based on a review and analysis of the Record. The attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 20, 2017, documents the data, information, literature and analysis supporting this approved JD. Approved JDs for the remaining four tributaries have been detailed on separate approved JD forms.

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):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CELRL-RDE, Martin Farms #3 Violation, NRPW Tributary B 1099, LRL-2014-00921

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Indiana County/parish/borough: Hendricks County City: near Stilesville
Center coordinates of site (lat/long in degree decimal format): Lat. 39.60711 °, Long. -86.61427 °
Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Mud Creek (HUC 12: 051202030504)
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: White River
Name of watershed or Hydrologic Unit Code (HUC): Eel River (HUC 8: 05120203)

- 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: December 18, 2017
 Field Determination. Date(s): October 27, 2014, September 13, 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.

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: [Click here to enter text.](#)

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are “waters of the U.S.” within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

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: 1099 linear feet: 2 width (feet) and/or 0.050 acres.
Wetlands: 0 acres.

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

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

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

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: [Click here to enter text.](#)

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

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

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW

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

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

2. Wetland adjacent to TNW

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

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

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

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

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

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) General Area Conditions:

Watershed size: 14 digit HUC is 6,948 acres

Drainage area: 30 acres

Average annual rainfall: 43 inches

Average annual snowfall: 18 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 4 tributaries before entering TNW.

Project waters are 30 (or more) river miles from TNW.

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

Project waters are 30 (or more) aerial (straight) miles from TNW.

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

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

Identify flow route to TNW⁵: NRPW Tributary B 1099 LF flows to RPW Tributary B, which flows to Mud Creek. Mud Creek flows to Mill Creek, which flows to the Eel River, which flows to the White River. The White River flows to the Wabash River. NRPW Tributary B 1099 LF flows during, and for a short period following, rainfall events. RPW Tributary B flows relatively permanently (continuously for a minimum of three months). Mud and Mill Creeks, Eel, White and Wabash Rivers flow relatively permanently (e.g., perennially). The White and Wabash Rivers are Traditionally Navigable Waters (TNWs). Tributary stream order, if known: The Strahler stream order of NRPW Tributary B 1099 is first order.

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

Tributary is: Natural

Artificial (man-made). Explain:.

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

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

- Manipulated (man-altered). Explain: NRPW Tributary B 1099 LF was in a natural condition prior to the discharge of fill material (occurring in 2011 and 2012) into this tributary. The work involved clearing, grading and encapsulation of this tributary.

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

Average width: 2 feet
Average depth: 1.0 foot
Average side slopes: 3:1

Primary tributary substrate composition (check all that apply):

- Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover: Prior to the discharge of fill material, the riparian vegetation consisted of mixed deciduous forest, composing 100 % cover
 Other. Explain: [Click here to enter text.](#)

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The condition of NRPW Tributary B 1099 LF prior to the discharge of fill material was stable and vegetated with low incision and defined bed and bank features. The post condition of the tributary is encapsulated within a pipe.

Presence of run/riffle/pool complexes. Explain: Riffle and pool complexes were likely absent resulting from the short duration (non-relatively permanent) of flow.

Tributary geometry: Meandering

Tributary gradient (approximate average slope): 2%

(c) **Flow:**

Tributary provides for: Ephemeral Flow

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

Describe flow regime: In a typical year, flow would occur during rainfall events and for a short period of time afterwards but would not flow continuously for a period of three months.

Other information on duration and volume: non-relatively permanent flow

Surface flow is: Discrete and Confined Characteristics: The U.S. Department of Agriculture (USDA) 1974 soil survey map for Hendricks County, the 2005 (Google Earth Pro) and 2011 (IndianaMap) leaf-off aerial photographs taken prior to the discharge of fill material shows the presence of a discrete and confined channel in the location of NRPW Tributary B 1099. These same features were depicted on the 2011 Lidar data for Hendricks County (IndianaMap 2011), and the 1: 24K Quad U.S. Geological Survey (USGS) topological map (Hall, Indiana), overlain with the U.S. Geological Survey National Hydrography Dataset (NHD).

Subsurface flow: Unknown Explain findings: Intermittent streams have both surface and subsurface flow. The USDA 1974 soil survey map shows the presence of an intermittent stream in the location of NRPW Tributary B 1099. However, the entire reach of NRPW Tributary B 1099 was piped so no upstream or downstream observation of the tributary was possible during the two field investigation dates. Encapsulation of NRPW Tributary B 1099 indicates that sufficient flow existed to require piping/confinement, rather than grading and filling, implying the presence of groundwater/subsurface flow.

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

Tributary has (check all that apply):

- Bed and banks

- OHWM⁶ (check all indicators that apply):

- | | |
|--|---|
| <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 Click here to enter text. |

- other (list): USDA 1974 soil survey map, 2005 and 2011 aerial photography, 2011 Lidar data for Hendricks County (IndianaMap 2011) and USGS topological map with NHD data indicates discrete, confined, sinuous tributary with bed and bank features. Encapsulation supports contention that sufficient flow was present to form OHWM. OHWM was observed on the second order tributary (RPW Tributary B) below the confluence of NRPW Tributary B 170 and NRPW Tributary B 1099.

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

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.

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

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

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Due to the piping of the tributary, no flow could be observed. However, during both site investigations flow was present within the second order, undisturbed RPW Tributary B, downstream of the confluence of NRPW Tributary B 170 and NRPW Tributary B 1099 (Photos 8 and 9 in the AR). The observable water within RPW Tributary B (which was outside of the review area) was clear without observable sheens, films, or turbidity. The riparian area for NRPW Tributary B 1099 was forested prior to the encapsulation; therefore, general water quality was good and the channel contained coarse organic material (leaf litter and woody debris), with stable bed and banks.

Identify specific pollutants, if known: No know pollutants were present within NRPW Tributary B 1099 as no water quality data exists and no data was collected during the site investigations.

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

- Riparian corridor. Characteristics (type, average width): Prior to the discharge of fill material, a forested riparian corridor was present along NRPW Tributary B 1099. The riparian corridor was greater than 100 linear feet wide on each side of this tributary and consisted of mixed deciduous forest species approximately 50 years or older.
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings: The forested riparian corridor previously surrounding NRPW Tributary B 1099 may have provided habitat for the endangered Indiana bat (*Myotis sodalists*) and the threatened northern long-eared bat (*Myotis septentrionalis*). Both protected bat species find habitat within riparian corridors near relatively permanent waters.
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: Forested riparian corridors provide habitat for a variety of bird, mammal, reptile and amphibian taxa. Non-relatively permanent waters provide habitat for macroinvertebrates and salamanders.

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: # acres

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

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

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

(b) General Flow Relationship with Non-TNW:

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

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

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

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

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

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

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

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

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

(d) Proximity (Relationship) to TNW

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

Project waters are *Choose an item.* aerial (straight) miles from TNW.
 Flow is from: *Choose an item.*
 Estimate approximate location of wetland as within the *Choose an item.* floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: *Click here to enter text.*
 Identify specific pollutants, if known: *Click here to enter text.*

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

- Riparian buffer. Characteristics (type, average width): *Click here to enter text.*
- Vegetation type/percent cover. Explain: *Click here to enter text.*
- Habitat for:
 - Federally Listed species. Explain findings: *Click here to enter text.*
 - Fish/spawn areas. Explain findings: *Click here to enter text.*
 - Other environmentally-sensitive species. Explain findings: *Click here to enter text.*
 - Aquatic/wildlife diversity. Explain findings: *Click here to enter text.*

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

All wetland(s) being considered in the cumulative analysis: *Choose an item.*
 Approximately (#) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
<i>Y/N</i>	<i>#</i>	<i>Y/N</i>	<i>#</i>
<i>Y/N</i>	<i>#</i>	<i>Y/N</i>	<i>#</i>
<i>Y/N</i>	<i>#</i>	<i>Y/N</i>	<i>#</i>
<i>Y/N</i>	<i>#</i>	<i>Y/N</i>	<i>#</i>

Summarize overall biological, chemical and physical functions being performed: *Click here to enter text.*

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: Based on an evaluation of the contributions of the NRPW to the downstream TNW (White River), considering volume, duration and frequency of flow of water in the NRPW, 2) proximity to the TNW, 3) the capacity to transfer nutrients and organic carbon vital to support food webs, 4) habitat services, 5) functions related to the maintenance of water quality, such as sediment trapping, and 6) other relevant factors, NRPW Tributary B 1099 has more than an insubstantial or speculative effect on the chemical, physical or biological integrity of the White River, the downstream TNW; therefore, NRPW Tributary B 1099 has a significant nexus to the downstream TNW. The attached MFR, dated December 2017, provides additional information supporting this determination.

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: [Click here to enter text.](#)
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly about the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: [Click here to enter text.](#)

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

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

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

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: [Click here to enter text.](#)
- Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

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: 1099 linear feet 2 width (ft).
- Other non-wetland waters: # acres.

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

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

- Wetlands directly about RPW and thus are jurisdictional as adjacent wetlands.
- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)
- Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)

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

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

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

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

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

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

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

7. **Impoundments of jurisdictional waters.⁹**

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

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

⁸See Footnote # 3.

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

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: [Click here to enter text.](#)
- Other factors. Explain: [Click here to enter text.](#)

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

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

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

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

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

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: [Click here to enter text.](#)
- 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: including maps, figures and photo log
- Corps navigable waters’ study: [Click here to enter text.](#)
- U.S. Geological Survey Hydrologic Atlas: Approved JD (LRL-2014-921) aerial dated 8/29/2012
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Hall, Indiana 1:24K Quad

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.

- USDA Natural Resources Conservation Service Soil Survey. Citation: 1974 USDA Soil Survey of Hendricks County, Indiana
- National wetlands inventory map(s). Cite name: [Click here to enter text.](#)
- State/Local wetland inventory map(s): [Click here to enter text.](#)
- FEMA/FIRM maps: [Click here to enter text.](#)
- 100-year Floodplain Elevation is: [Click here to enter text.](#) (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Aerial (Name & Date): Google Earth Pro: Mar 30, 2005 a, b, c, Aug 2007, Aug 2010, Aug 29, 2012 a, b, Sept 22, 2013 a, b, Aug 28, 2014, Sep 28, 2014; Indiana Data Spatial Data Portal: 1998, 2005, 2007, 2008, 2010, 2011 a, b, c.
- or Other (Name & Date): Corps of Engineers Oct 27, 2014 Picture Key and Site Investigation Photographs, Lidar for Hendricks, Indiana (IndianaMap 2011)
- Previous determination(s). File no. and date of response letter: [Click here to enter text.](#)
- Applicable/supporting case law: [Click here to enter text.](#)
- Applicable/supporting scientific literature: See attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921" dated December 2017.
- Other information (please specify): Information contained in: "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 2017, Appellant's Request for Appeal (LRL-2014-00921), Corps' AR (dated July 5, 2016 and provided to Review Officer on 28 July 2016), Appeal Meeting and Site Visit (September 13, 2016), and "MFR, #3 Martin Violation LRL-2014-921, Appeal Hearing and Field Visit September 13, 2016".

B. ADDITIONAL COMMENTS TO SUPPORT JD: This approved JD is associated with the unauthorized discharge of fill material into five tributaries (totaling 2,669 linear feet) and revises the approved JD, dated August 3, 2015. The August 3, 2015 approved JD, which included all five tributaries, was appealed. Based on a review of the Record for this action, an Approved JD has been completed for each tributary (RPW Tributary A, NRPW Tributary A 558, NRPW Tributary A 295, NRPW Tributary B 170, and NRPW Tributary B 1099). This approved JD is based on a review and analysis of the Record. The attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 20, 2017, documents the data, information, literature and analysis supporting this approved JD. Approved JDs for the remaining four tributaries have been detailed on separate approved JD forms.

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):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CELRL-RDE, Martin Farms #3 Violation, RPW Tributary A, LRL-2014-00921

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Indiana County/parish/borough: Hendricks County City: near Stilesville
Center coordinates of site (lat/long in degree decimal format): Lat. 39.60711 °, Long. -86.61427 °
Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Mud Creek (HUC 12: 051202030504)
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: White River
Name of watershed or Hydrologic Unit Code (HUC): Eel River (HUC 8: 05120203)

- 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: December 18, 2017
 Field Determination. Date(s): October 27, 2014, September 13, 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.

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: [Click here to enter text.](#)

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are “*waters of the U.S.*” within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

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: 547 linear feet: 3 width (feet) and/or 0.038 acres.
Wetlands: 0 acres.

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

Elevation of established OHWM (if known):

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).

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

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: [Click here to enter text.](#)

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. **TNW**

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

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

2. **Wetland adjacent to TNW**

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

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

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

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

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

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

(i) **General Area Conditions:**

Watershed size: 14 digit HUC is 6,948 acres

Drainage area: 53 acres

Average annual rainfall: 43 inches

Average annual snowfall: 18 inches

(ii) **Physical Characteristics:**

(a) Relationship with TNW:

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

Project waters are 30 (or more) river miles from TNW.

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

Project waters are 30 (or more) aerial (straight) miles from TNW.

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

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

Identify flow route to TNW⁵: RPW Tributary A flows to Mud Creek, which flows to Mill Creek. Mill Creek flows to the Eel River, which flows to the White River. The White River flows to the Wabash River. RPW Tributary A flows relatively permanently (e.g. continuously for a minimum of three months). Mud and Mill Creeks, Eel, White and Wabash Rivers flow relatively permanently (e.g., perennially). The White and Wabash Rivers are Traditionally Navigable Waters (TNWs). Tributary stream order, if known: Strahler stream order of RPW Tributary A is second order.

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

³ Supporting documentation is presented in Section III.F.

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 is:** Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain: RPW Tributary A was in a natural condition prior to the discharge of fill material into RPW Tributary A that occurred in 2011 and 2012. The work involved clearing, grading and encapsulation of this tributary.

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

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

Primary tributary substrate composition (check all that apply):

- Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover: Prior to the discharge of fill material, the riparian vegetation was mixed deciduous forest composing 100 % cover
 Other. Explain: [Click here to enter text.](#)

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The condition of RPW Tributary A prior to the discharge of fill material was stable and vegetated with defined bed and bank features, riffle and pool complexes and bar features. The bed material of RPW Tributary A consisted of silts, sands, gravel and cobbles. These characteristics are consistent with sediment sorting associated with seasonal, or greater, flow. The assessment of RPW Tributary A was based on an analysis of leaf-off aerial photography (Google Earth Pro, March 2005) taken prior to the discharge of fill material, Lidar data for Hendricks County, Indiana (IndianaMap 2011), and an assessment of the reaches of RPW Tributary A above and below the encapsulated reach based on field observations taken during two site investigation (October 27, 2014 and September 13, 2016) and photos 1-5 (October 27, 2014) included in the Record.

Tributary geometry: Meandering
Tributary gradient (approximate average slope): 2%

(c) **Flow:**

Tributary provides for: Seasonal Flow
Estimate average number of flow events in review area/year: 1

Describe flow regime: In a typical year, flow is relatively permanent and continuous during the wet season, which lasts at least three months but is often 5-6 months in duration. The channel geomorphology and stream bed substrate composition, as well as RPW Tributary A classified as a Strahler stream order two are consistent with seasonal flow.

Other information on duration and volume: Groundwater contributes to the duration of flow in RPW Tributary A, supporting continuous flow for 5-6 months per year.

Surface flow is: Discrete and Confined Characteristics: Intermittent streams have both surface and subsurface flow components. The U.S. Department of Agriculture (USDA) 1974 soil survey map for Hendricks County, the 2005 (Google Earth Pro), Lidar data for Hendricks County, Indiana (IndianaMap 2011), and leaf-off aerial photographs taken prior to the discharge of fill material (Indiana Spatial Data Portal 2011a, b, c) shows the presence of a discrete and confined channel in the location on RPW Tributary A. These same features were depicted on the 1: 24K Quad U.S. Geological Survey (USGS) topological map (Hall, Indiana), overlain with the U.S. Geological Survey National Hydrography Dataset (NHD) documented in the AR. Water was present within RPW Tributary A during the both field investigations (October 27, 2014 and September 13, 2016), which occurred during the dry period of the year. Rainfall occurring during this dry period infiltrates, providing flow to the channel via interflow/groundwater, rather than contributing to surface flows.

Subsurface flow: Yes Explain findings: Groundwater and hyporheic flow contributes to the surface flow within in RPW Tributary A, supporting sustained, continuous flow within RPW Tributary A for a period of at least three consecutive months. The (USDA) 1974 soil survey map for Hendricks County showed an intermittent (dashed line) channel in the location of RPW Tributary A, indicating seasonal/intermittent flow which requires groundwater contribution. No rainfall had occurred (www.underground.com) within five days prior to the initial site investigation (October 27, 2014) and water was flowing within Tributary A up and downstream of the encapsulated section during both site investigations (October 27, 2014 and September 13, 2016). The site investigations occurred during the dry season (fall). Therefore, RPW Tributary A flowed at least seasonally, with a subsurface component contributing to the duration of flow.

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

Tributary has (check all that apply):

- Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line

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.

- vegetation matted down, bent, or absent
- leaf litter disturbed or washed away
- sediment deposition
- water staining
- other (list): Lidar data for Hendricks County, IN (IndianaMap 2011)
- Discontinuous OHWM.⁷ Explain: [Click here to enter text.](#)
- sediment sorting
- scour
- multiple observed or predicted flow events (Oct 27, 2014 & Sept 13, 2016)
- abrupt change in plant community [Click here to enter text.](#)

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

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

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: The observable water within RPW Tributary A above and below the encapsulated section was clear and without observable sheens, films, or turbidity (October 27, 2014 and September 13, 2016). The riparian area for RPW Tributary A was forested prior to the encapsulation; therefore, general water quality was good and the tributary contained coarse organic material (leaf litter and woody debris), with stable bed and banks, as depicted in the photos taken on October 27, 2014.

Identify specific pollutants, if known: No know pollutants were present within RPW Tributary A as no water quality data exists and no data was collected during the site investigations.

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

- Riparian corridor. Characteristics (type, average width): Prior to the discharge of fill material, a forested riparian corridor was present along RPW Tributary A. The riparian corridor was greater than 100 linear feet wide on each side of this tributary and consisted of mixed deciduous forest species approximately 50 years or older.
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings: The forested riparian corridor previously surrounding RPW Tributary A may have provided habitat for the endangered Indiana bat (*Myotis sodalists*) and the threatened northern long-eared bat (*Myotis septentrionalis*). Both protected bat species find habitat within riparian corridors near relatively permanent waters.
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: Forested riparian corridors provide habitat for a variety of bird, mammal, reptile and amphibian taxa. Relatively permanent waters provide habitat for small fish and macroinvertebrates.

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: # acres

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

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

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

(b) General Flow Relationship with Non-TNW:

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

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

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

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

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

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

⁷Ibid.

- Not directly abutting
 - Discrete wetland hydrologic connection. Explain: [Click here to enter text.](#)
 - Ecological connection. Explain: [Click here to enter text.](#)
 - Separated by berm/barrier. Explain: [Click here to enter text.](#)

(d) **Proximity (Relationship) to TNW**

Project wetlands are [Choose an item.](#) river miles from TNW.
 Project waters are [Choose an item.](#) aerial (straight) miles from TNW.
 Flow is from: [Choose an item.](#)
 Estimate approximate location of wetland as within the [Choose an item.](#) floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: [Click here to enter text.](#)
 Identify specific pollutants, if known: [Click here to enter text.](#)

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

- Riparian buffer. Characteristics (type, average width): [Click here to enter text.](#)
- Vegetation type/percent cover. Explain: [Click here to enter text.](#)
- Habitat for:
 - Federally Listed species. Explain findings: [Click here to enter text.](#)
 - Fish/spawn areas. Explain findings: [Click here to enter text.](#)
 - Other environmentally-sensitive species. Explain findings: [Click here to enter text.](#)
 - Aquatic/wildlife diversity. Explain findings: [Click here to enter text.](#)

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

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

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#
Y/N	#	Y/N	#

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

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: [Click here to enter text.](#)
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly about the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: [Click here to enter text.](#)

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

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

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

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: [Click here to enter text.](#)
- Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: RPW Tributary A was flowing during both site visits (October 27, 2014 and September 13, 2016). The site visits occurred during the driest season of the year and rainfall had not occurred within the previous 24-48 hours. The channel up and downstream from the encapsulated section demonstrated bed and bank features, OHWM, sediment sorting, gravel bars, riffle and pool complexes, and meandering geometry. Groundwater data obtained from nearby wells indicated that the elevation of groundwater in the vicinity of RPW Tributary A would be sufficient to provide groundwater contributions to the stream. All characteristics are consistent with relatively permanent flow.

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

- Tributary waters: 547 linear feet 3 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: [Click here to enter text.](#)

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

- Wetlands directly about RPW and thus are jurisdictional as adjacent wetlands.
 - Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)
 - Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: [Click here to enter text.](#)

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

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

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

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

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

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

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

7. **Impoundments of jurisdictional waters.⁹**

⁸See Footnote # 3.

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

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

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

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: [Click here to enter text.](#)
- Other factors. Explain: [Click here to enter text.](#)

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

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

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

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

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

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

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

- Non-wetland waters (i.e., rivers, streams): # linear feet # width (ft).
- Lakes/ponds: # acres.
- Other non-wetland waters: # acres. List type of aquatic resource: [Click here to enter text.](#)
- Wetlands: # acres.

SECTION IV: DATA SOURCES.

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

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: [Click here to enter text.](#)
- 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: including maps, figures and photo log
- Corps navigable waters’ study: [Click here to enter text.](#)
- U.S. Geological Survey Hydrologic Atlas: See figure: aerial dated 8/29/2012

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.

- USGS NHD data.
- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Hall, Indiana 1:24K Quad
- USDA Natural Resources Conservation Service Soil Survey. Citation: 1974 USDA Soil Survey of Hendricks County, Indiana
- National wetlands inventory map(s). Cite name: [Click here to enter text.](#)
- State/Local wetland inventory map(s): [Click here to enter text.](#)
- FEMA/FIRM maps: [Click here to enter text.](#)
- 100-year Floodplain Elevation is: [Click here to enter text.](#) (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Google Earth Pro: Mar 30, 2005 a, b, c, Aug 2007, Aug 2010, Aug 29, 2012 a, b, Sept 22, 2013 a, b, Aug 28, 2014, Sep 28, 2014; Indiana Data Spatial Data Portal: 1998, 2005, 2007, 2008, 2010, 2011 a, b, c.
- or Other (Name & Date): Corps of Engineers Oct 27, 2014 Picture Key and Site Investigation Photographs, Lidar for Hendricks County, Indiana (IndianaMap 2011).
- Previous determination(s). File no. and date of response letter: [Click here to enter text.](#)
- Applicable/supporting case law: [Click here to enter text.](#)
- Applicable/supporting scientific literature: See attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921" dated December 2017.
- Other information (please specify): Information contained in: "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 2017, Appellant's Request for Appeal (LRL-2014-00921), Corps' AR (dated July 5, 2016 and provided to Review Officer on 28 July 2016), Appeal Meeting and Site Visit (September 13, 2016), and "MFR, #3 Martin Violation LRL-2014-921, Appeal Hearing and Field Visit September 13, 2016".

B. ADDITIONAL COMMENTS TO SUPPORT JD: This approved JD is associated with the unauthorized discharge of fill material into five tributaries (totaling 2,669 linear feet) and revises the approved JD, dated August 3, 2015. The August 3, 2015 approved JD, which included all five tributaries, was appealed. Based on a review of the Record for this action, an Approved JD has been completed for each tributary (RPW Tributary A, NRPW Tributary A 558, NRPW Tributary A 295, NRPW Tributary B 170, and NRPW Tributary B 1099). This approved JD is based on a review and analysis of the Record. The attached "Memo for Record, Martin Farms #3 Violation AJD Remand, LRL-2014-00921", dated December 20, 2017, documents the data, information, literature and analysis supporting this approved JD. Approved JDs for the remaining four tributaries have been detailed on separate approved JD forms.