

**Categorical Exclusion**  
**Appendix F**  
**Water Resources**

**Waters of the U.S. Determination / Wetland Delineation Report**  
**276<sup>th</sup> Street Roadway Extension Project**  
**Hamilton County, Indiana**  
**DES# 1600597**

Prepared by Joe Dabkowski, PWS RQAW Corporation.  
May 24, 2017

**Introduction**

RQAW Corporation conducted a *Waters of the United States* determination on 11/11/2016 and 3/24/2017 for 276<sup>th</sup> Street Roadway Extension Project in Hamilton County, Indiana. The project includes realigning 276<sup>th</sup> Street beginning approximately 0.60 mile west of Gwinn Road; the project will then head in a northeasterly direction for approximately 0.7 mile, head east for approximately 1.2 miles and terminate at the 281<sup>st</sup> Street/SR 19 Intersection. It is within Jackson Township, Arcadia Quadrangle, Township 20 North, Range 4 East and Sections 10, 11, 12, 14, and 15. Adjacent land use in the area is residential and agricultural.

The majority of the alignment is on new terrain; however, a portion of the alignment will follow the existing 281<sup>st</sup> Street. The project will consist of one 12-foot wide travel lane and one 4-foot wide usable (3-foot paved) shoulder in each direction. To minimize impacts to the residence located in the southwest quadrant of the 281<sup>st</sup> Street/SR 19 Intersection, the roadway will consist of one 12-foot travel lane in each direction bordered by curb with a 2-foot offset on the south side and a 4-foot wide usable (3-foot paved) shoulder on the north side of the roadway (from the at-grade railroad crossing east to SR 19). To avoid impacts to the farm located north and south of 281<sup>st</sup> Street approximately 0.2 mile west of the 281<sup>st</sup>/SR 19 Intersection, the roadway will be shifted north.

The western project terminus will include constructing a single lane roundabout that will accommodate the expected truck traffic generated by the expansion of Beck's Superior Hybrids. The at-grade railroad crossing located approximately 0.1 mile west of the 281<sup>st</sup> Street/SR 19 Intersection will be improved with gates and signals. New signage will also be installed. Roadside ditches will be constructed on both sides of the roadway to accommodate the drainage of the new roadway and will outlet at various non-jurisdictional locations. A 48-inch diameter corrugated metal pipe (CMP) structure located approximately 290 feet west of the 281<sup>st</sup> Street/SR 19 Intersection will be replaced with a 6-foot rise by 6-foot span reinforced concrete box (RCB) structure. The project will replace or reconstruct additional small drainage pipes; however, these are not associated with jurisdictional waters.

A portion of 276<sup>th</sup> Street Phase I Extension Project (Des. Number 1383334) will now be included in this project. This work includes resurfacing of existing 276<sup>th</sup> Street from the bridge over Little Cicero Creek to Gwinn Road, reconstructing a portion of Gwinn Road to provide vertical stopping sight distance, and reconstructing the intersection of 276<sup>th</sup> Street and Gwinn Road to provide intersection sight distance.

Page 4 shows the summary of the Waters Determination; pages 5 through 18 contain maps of the project location; pages 19 through 35 have photographs of the waterway and surrounding area; Pages 36 through 39 have the wetland data forms; pages 40 through 45 have the qualitative habitat evaluation index (QHEI) and headwater habitat evaluation (HHEI) forms; pages 46 through 49 include the Jurisdictional Determination Form.

**NWI Wetlands**

Two (2) National Wetlands Inventory (NWI) mapped wetlands are mapped adjacent to the project area. These mapped wetlands consist of one (1) palustrine emergent (PEM) wetland and one (1) riverine (R2UBH) wetland. The nearest NWI wetland is mapped approximately 300 feet northwest of the project area.

## **Soils**

According to the Soil Survey Geographic (SSURGO) Database of Hamilton County, two hydric soils (Brookston silty clay loam (Br) and Patton silty clay loam (Pn)) are mapped within the project area.

Brookston silty clay loam (Br), 0 to 2 percent slopes, is a poorly drained hydric soil.

Crosby silt loam (CrA), fine loamy subsoil, 0 to 2 percent slopes, is a somewhat poorly drained non-hydric soil.

Miami silt loam (MmC2), 6 to 12 percent slopes, is a moderately well drained non-hydric soil.

Miami silt loam (MmB2), 2 to 6 percent slopes, eroded, is a moderately well drained non-hydric soil.

Patton silty clay loam (Pn), 0 to 2 percent slopes, is a poorly drained hydric soil.

## **Field Reconnaissance**

### **Streams**

The field reconnaissance revealed total of eight (8) streams within the survey area of which four (4) are un-named tributaries (UNT) to Cicero Creek and six (6) are legal drains within the project area. Two of the UNT's are also considered legal drains. UNT 1/Legal Drain 6 flows in a south to north direction under 281<sup>st</sup> St. and empties into UNT 2/Legal Drain 3 to the north. The QHEI score for the UNT 1 to Cicero Creek was 39. This stream exhibited Ordinary High Water Mark (OHWM) characteristics of 4.4 feet in width and 0.3 feet in depth. Based on these criteria, this stream is likely to be considered a Waters of the United States.

UNT 2/Legal Drain 3 is an encapsulated tile drain within the project area and becomes an open channel north of the project area. This UNT flows in a southwest to northeast direction within the project area and empties into Cicero Creek to the east. No QHEI was assessed due to the stream being an encapsulated legal drain within the project area. This stream exhibited OHWM characteristics within the open channel portion outside of the project area. Based on these criteria, this stream is likely to be considered a Waters of the United States.

UNT 3 flows in a south to north direction prior to the confluence with UNT 2/Legal Drain 3. UNT 3 is an open channel outside of the project limits to the north. The HHEI score for the UNT 3 to Cicero Creek was 19. This stream exhibited OHWM characteristics of 4.3 feet in width and 3 inches in depth. Based on these criteria, this stream is likely to be considered a Waters of the United States.

UNT 4 flows in a south to north direction until its confluence with UNT 3. UNT 4 is an open channel outside of the project limits to the north. The HHEI score for the UNT 4 to Cicero Creek was 12. This stream exhibited OHWM characteristics of 0.83 feet in width and 1 inch in depth. Based on these criteria, this stream is likely to be considered a Waters of the United States.

Legal Drain 1 flows in a north to south direction through the project area before emptying into Little Cicero Creek to the south. Since this legal drain is completely encapsulated no HHEI or QHEI score was taken. Based on these criteria, this stream is likely to be considered a Waters of the United States.

Legal Drain 2 flows in a north to south direction through the project area before emptying into UNT 2/Legal Drain 3 to the south. Since this legal drain is completely encapsulated no HHEI or QHEI score was taken. Based on these criteria, this stream is likely to be considered a Waters of the United States.

Legal Drain 4 flows in a south to north direction through the project area before emptying into UNT 2/Legal Drain 3 to the south. Since this legal drain is completely encapsulated no HHEI or QHEI score was taken. Based on these criteria, this stream is likely to be considered a Waters of the United States.

Legal Drain 5 flows in a south to north direction through the project area before emptying into UNT 2/Legal Drain 3 to the south. Since this legal drain is completely encapsulated no HHEI or QHEI score was taken. Based on these criteria, this stream is likely to be considered a Waters of the United States.

### **Roadside Ditches**

Two roadside ditches (RSD) were identified within the project area within the small town of Millersburg. The vast majority of the project is through agricultural land in which no existing roadway exists. The typical roadside drainage drains off onto the surrounding landscape.

### **Wetlands**

One (1) palustrine emergent wetland (Wetland A) was identified within project area. Below is a summary of Wetland A and corresponding data points.

Wetland A (0.03 acre) is located approximately 20 feet north of 281<sup>st</sup> Street and approximately 10 feet west of Wetsone Road. This wetland has developed in a swale overtop of UNT 2/Legal Drain 3. This wetland is above the encapsulated portion of the legal drain. This wetland is considered a *Waters of the United States* due to its connectivity to an UNT 2/Legal Drain 3. Two data points (A1 and A2) were taken to identify the boundary of Wetland A.

A1 was taken within Wetland A and met all three criteria to be within a wetland. This data point exhibited 100 percent hydrophytic vegetation and soils met the sandy redox (S5) and depleted below dark surface (A11) indicators which met the hydric soils criterion. This data point exhibited three primary (surface water, saturation, and drift deposits) and three secondary (drainage patterns, crayfish burrows, and FAC-neutral test) wetland hydrology indicators.

A2 was taken approximately 15 feet northwest of data point A1 within the adjacent upland area. This data point did not meet any of the three criteria to be considered within a wetland. This data point was taken approximately two feet above the boundary of Wetland A within the adjacent upland area.

### **Conclusions**

A field reconnaissance was conducted to evaluate the presence of *Waters of the United States* for the proposed 276<sup>th</sup> Street Roadway Extension Project in Hamilton County, Indiana. Field observations identified one (1) palustrine emergent wetland, a total of eight (8) streams within the survey area of which four (4) are un-named tributaries (UNT) to Cicero Creek and six (6) are legal drains within the project area within the project limits. Two of the UNT's are also considered legal drains

Field observations did not identify any jurisdictional roadside ditches within the project area.

The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers (USACE) and this report is our best judgment based on the guidelines set forth by the USACE.

**Table 1: Stream Summary**  
**276<sup>th</sup> Street Roadway Extension Project**  
**DES# 1600597**  
**Hamilton County, Indiana**

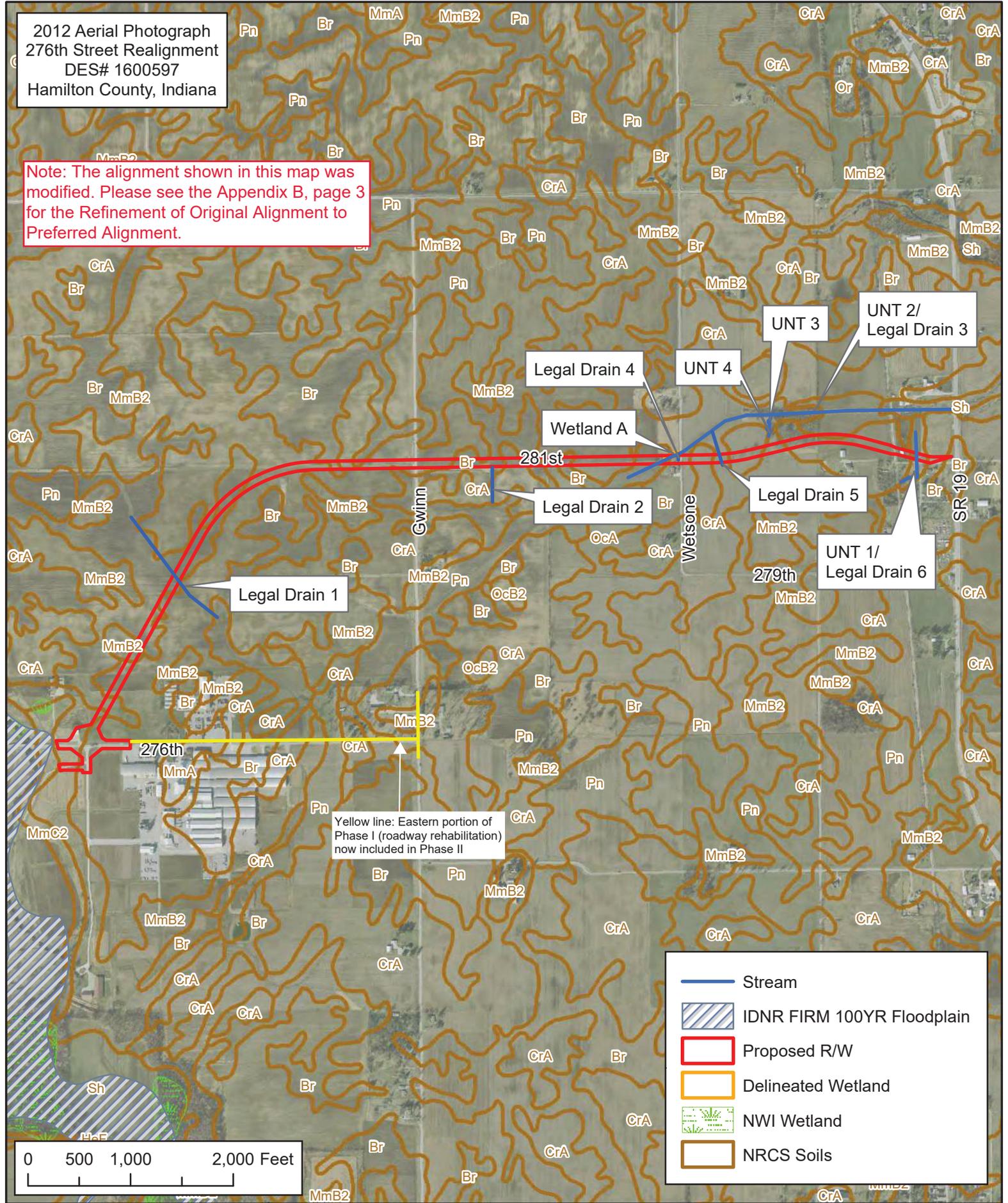
Stream Name	Photos	Lat/Long	OHWL Width (feet)	OHWL Depth (feet)	USGS Blue-line?	Riffles /Pools ?	Quality QHEI/HHEI Score(s)	Likely Water of U.S.?
UNT 1/Legal Drain 6	23-24	40.1977 N -86.0238 W	4.4	0.3	Yes	Yes	39/Fair	Yes
UNT 2/Legal Drain 3	14-15, 17	40.1976 N -86.0326 W	N/A	N/A	Yes	Yes	N/A	Yes
UNT 3 to Cicero Creek	16-20	40.1987 N -87.0289 W	4.3	0.25	No	Yes	19/Class I	Yes
UNT 4 to Cicero Creek	18, 21-22	40.1984 N -86.0289 W	0.83	0.08	No	Yes	12/Class I	Yes
Legal Drain 1	N/A	40.1947 N -86.0496 W	N/A	N/A	No	No	N/A	Yes
Legal Drain 2	N/A	40.1974 N -86.0386 W	N/A	N/A	No	No	N/A	Yes
Legal Drain 4	N/A	40.1977 N -86.0321 W	N/A	N/A	No	No	N/A	Yes
Legal Drain 5	N/A	40.1977 N -86.0306 W	N/A	N/A	No	No	N/A	Yes

**Table 2: Wetland Summary**  
**276<sup>th</sup> Street Roadway Extension Project**  
**DES# 1600597**  
**Hamilton County, Indiana**

Wetland Name	Photos	Lat/Long	Type	Total Area (acres)	Likely Water of U.S.?
Wetland A	1, 3-9	40.1978 N -86.0324 W	Palustrine Emergent	0.03	Yes

2012 Aerial Photograph  
 276th Street Realignment  
 DES# 1600597  
 Hamilton County, Indiana

Note: The alignment shown in this map was modified. Please see the Appendix B, page 3 for the Refinement of Original Alignment to Preferred Alignment.



Yellow line: Eastern portion of Phase I (roadway rehabilitation) now included in Phase II

	Stream
	IDNR FIRM 100YR Floodplain
	Proposed R/W
	Delineated Wetland
	NWI Wetland
	NRCS Soils



**RQAW**  
 CONSULTING ENGINEERS & ARCHITECTS  
 10401 North Meridian Street, Suite 401  
 Indianapolis, IN 46290

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Map Datum: NAD 83  
 Map Projection: UTM Zone 16 North



## Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

## Report—Map Unit Description (Brief, Generated)

### Hamilton County, Indiana

**Map Unit:** Br—Brookston silty clay loam, 0 to 2 percent slopes

**Component:** Brookston (95%)

The Brookston component makes up 95 percent of the map unit. Slopes are 0 to 2 percent. This component is on till plains on till plains. The parent material consists of loess over loamy till. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2w. This soil meets hydric criteria.

**Component: Crosby (5%)**

Generated brief soil descriptions are created for major soil components. The Crosby soil is a minor component.

**Map Unit: CrA—Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes****Component: Crosby (93%)**

The Crosby component makes up 93 percent of the map unit. Slopes are 0 to 2 percent. This component is on wisconsin water-lain moraines on till plains. The parent material consists of silty material or loess over loamy till. Depth to a root restrictive layer, densic material, is 24 to 40 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 30 percent.

**Component: Williamstown, eroded (5%)**

Generated brief soil descriptions are created for major soil components. The Williamstown soil is a minor component.

**Component: Treaty, drained (2%)**

Generated brief soil descriptions are created for major soil components. The Treaty soil is a minor component.

**Map Unit: MmB2—Miami silt loam, 2 to 6 percent slopes, eroded****Component: Miami, eroded (85%)**

The Miami, eroded component makes up 85 percent of the map unit. Slopes are 2 to 6 percent. This component is on till plains, till plains. The parent material consists of loess over loamy till. Depth to a root restrictive layer, densic material, is 24 to 40 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 33 percent.

**Component: Crosby (5%)**

Generated brief soil descriptions are created for major soil components. The Crosby soil is a minor component.

**Component:** Williamstown (5%)

Generated brief soil descriptions are created for major soil components. The Williamstown soil is a minor component.

**Component:** Treaty (5%)

Generated brief soil descriptions are created for major soil components. The Treaty soil is a minor component.

**Map Unit:** MmC2—Miami silt loam, 6 to 12 percent slopes, eroded

**Component:** Miami, eroded (85%)

The Miami, eroded component makes up 85 percent of the map unit. Slopes are 6 to 12 percent. This component is on till plains, till plains. The parent material consists of loess over loamy till. Depth to a root restrictive layer, densic material, is 24 to 40 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 30 percent.

**Component:** Rainsville, eroded (10%)

Generated brief soil descriptions are created for major soil components. The Rainsville soil is a minor component.

**Component:** Treaty (3%)

Generated brief soil descriptions are created for major soil components. The Treaty soil is a minor component.

**Component:** Crosby (2%)

Generated brief soil descriptions are created for major soil components. The Crosby soil is a minor component.

**Map Unit:** Pn—Patton silty clay loam, 0 to 2 percent slopes

**Component:** Patton, drained, loamy substratum (80%)

The Patton, drained, loamy substratum component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on till plains. The parent material consists of loamy glaciolacustrine deposits over loamy outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 2w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 8 percent.

**Component:** Crosby (6%)

Generated brief soil descriptions are created for major soil components. The Crosby soil is a minor component.

**Component:** Treaty, drained (5%)

Generated brief soil descriptions are created for major soil components. The Treaty soil is a minor component.

**Component:** Starks (4%)

Generated brief soil descriptions are created for major soil components. The Starks soil is a minor component.

**Component:** Westland, drained (3%)

Generated brief soil descriptions are created for major soil components. The Westland soil is a minor component.

**Component:** Palms, drained (2%)

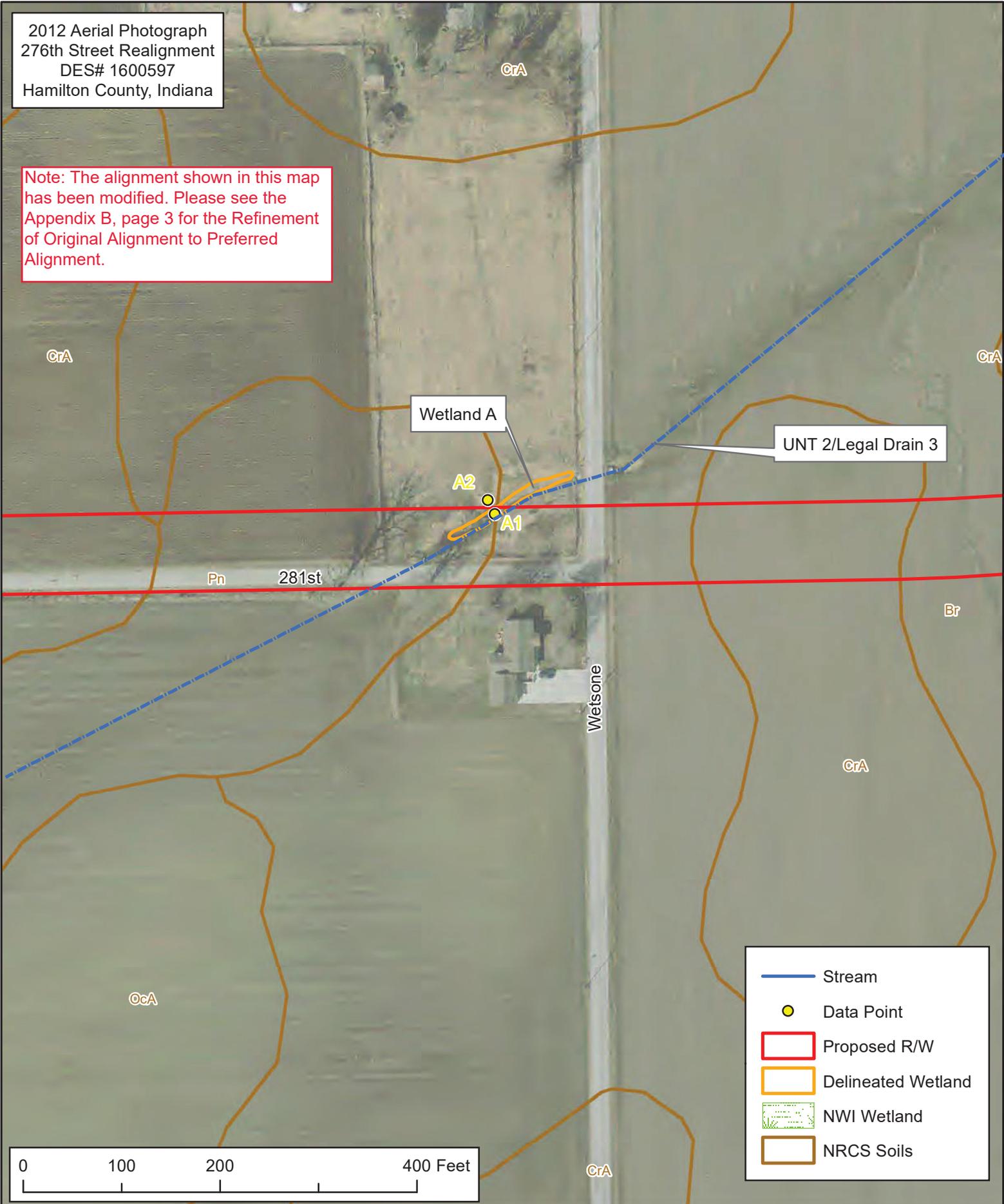
Generated brief soil descriptions are created for major soil components. The Palms soil is a minor component.

## Data Source Information

Soil Survey Area: Hamilton County, Indiana  
Survey Area Data: Version 17, Sep 14, 2016

2012 Aerial Photograph  
276th Street Realignment  
DES# 1600597  
Hamilton County, Indiana

Note: The alignment shown in this map has been modified. Please see the Appendix B, page 3 for the Refinement of Original Alignment to Preferred Alignment.



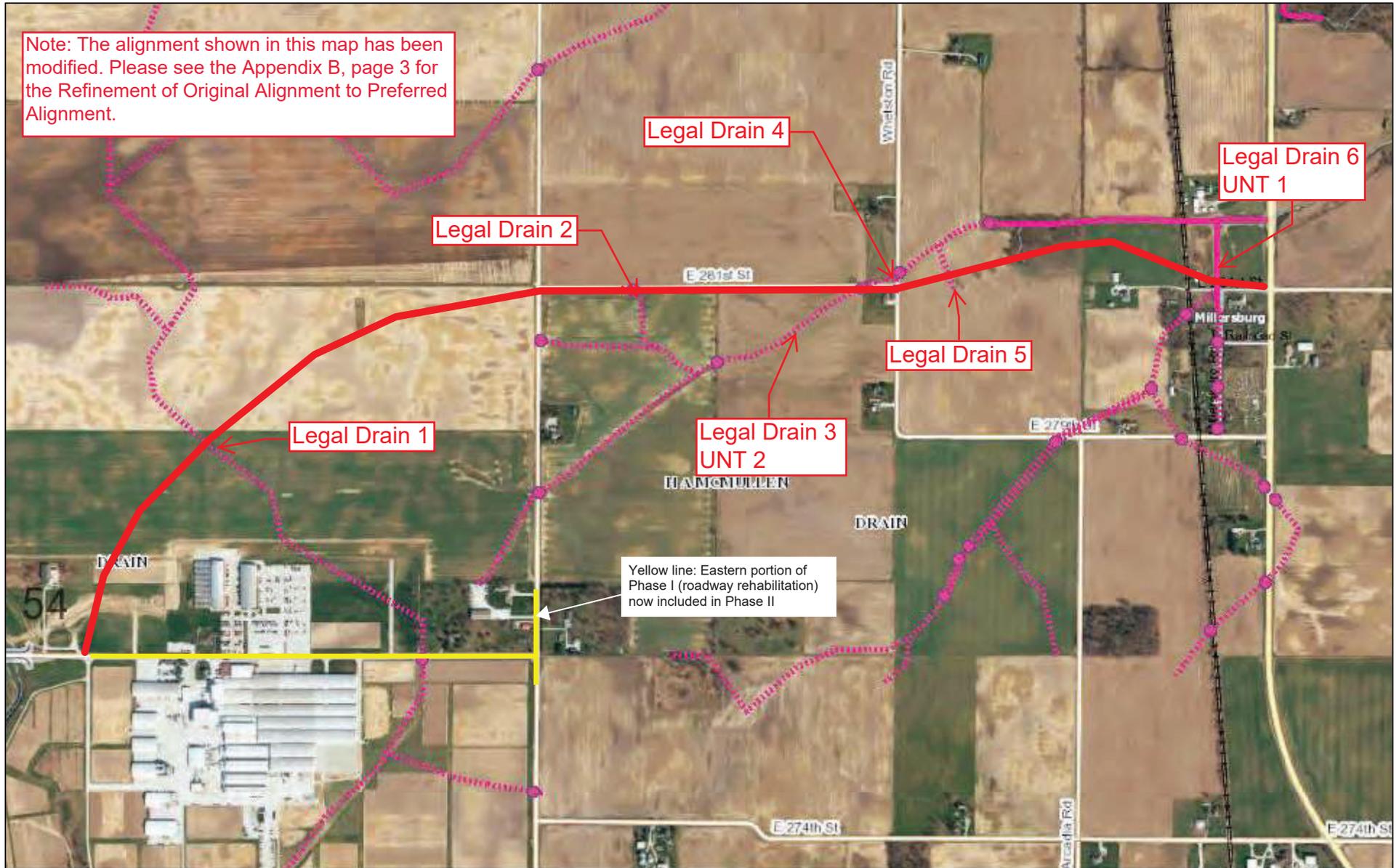
**RQAW**  
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Indianapolis, IN 46290

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Map Datum: NAD 83  
Map Projection: UTM Zone 16 North

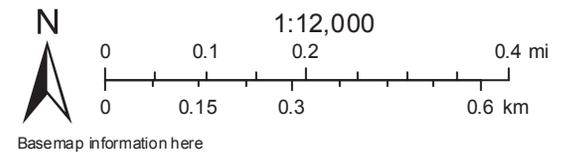


# Hamilton County Map



April 11, 2017

- <all other values>
- ⊕ MUNICIPAL MANHOLE
- Drain Name
- CLOSED DRAIN  
Des. No. 1600597



**WETLAND DETERMINATION DATA FORM – Midwest Region**

Project/Site: 276th St Phase II Project City/County: Hamilton Sampling Date: 3/24/17  
 Applicant/Owner: Hamilton County State: IN Sampling Point: A1  
 Investigator(s): JDD Section, Township, Range: 11, 20N, 4E  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 2 Lat: 40.1978 Long: -86.0324 Datum: NAD 83  
 Soil Map Unit Name: Patton silty clay loam (Pn) NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: This data point exhibited all three criterion to be considered within a wetland. This data point is taken within a swale that receives surface drainage from the surrounding area and is located above an underground tiled legal drain.	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>1m2</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>18</u></td> <td>x 3 = <u>54</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>108</u> (A)</td> <td><u>234</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.2</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>18</u>	x 3 = <u>54</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>108</u> (A)	<u>234</u> (B)	Prevalence Index = B/A = <u>2.2</u>	
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Column Totals: <u>108</u> (A)	<u>234</u> (B)																			
Prevalence Index = B/A = <u>2.2</u>																				
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is >50% ✓ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
_____ = Total Cover																				
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_____ = Total Cover																				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____																

Remarks: (Include photo numbers here or on a separate sheet.)

This data point exhibited a dominance of hydrophytic vegetation.



**WETLAND DETERMINATION DATA FORM – Midwest Region**

Project/Site: 276th St Phase II Project City/County: Hamilton Sampling Date: 3/24/17  
 Applicant/Owner: Hamilton County State: IN Sampling Point: A2  
 Investigator(s): JDD Section, Township, Range: 11, 20N, 4E  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave  
 Slope (%): 2 Lat: 40.1978 Long: -86.0324 Datum: NAD 83  
 Soil Map Unit Name: Patton silty clay loam (Pn) NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks: This data point did not exhibit any of the three criterion to be considered within a wetland. This data point is taken approximately 2 foot above Wetland A in the adjacent upland.	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>25</u> x 4 = <u>100</u> UPL species <u>80</u> x 5 = <u>400</u> Column Totals: <u>105</u> (A) <u>500</u> (B) Prevalence Index = B/A = <u>4.8</u>	
Sapling/Shrub Stratum (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					
Herb Stratum (Plot size: <u>1m2</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Schendonorus arundinaceus</u>	<u>80</u>	<u>Yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u>Poa annua</u>	<u>20</u>	<u>No</u>	<u>FACU</u>		
3. <u>Asclepias syriaca</u>	<u>5</u>	<u>No</u>	<u>FACU</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
<u>105</u> = Total Cover					
Woody Vine Stratum (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>	
2. _____	_____	_____	_____		
_____ = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					
This data point did not exhibit a dominance of hydrophytic vegetation.					







Sample #	bioSample #	Stream Name	Location
1		UNT 1 to Cicero Creek	276th St Phase 2 Project
Surveyor	Sample Date	County	Macro SampleType
JDD	3/24/17	Hamilton	
			<input type="checkbox"/> Habitat Complete
			<b>QHEI Score:</b> 39

**Impacts/Miscellaneous**

**Major Suspected Impacts (Check all that apply)**

- None
- Industrial
- WWTP
- Agricultural
- Livestock
- Silviculture
- Construction
- Urban Runoff
- Suburban
- Channelization
- Riparian Removal
- Flow Alteration
- CSOs
- Mining
- Landfills
- Natural

**Pollution Impact Comments:**

**Miscellaneous QHEI Information**

Subjective rating (1-10):	3	% Riffle:	30	Is reach representative of stream? <input type="checkbox"/> Yes
Aesthetic rating (1-10):	3	% Run:	20	
Canopy Cover (% Open):	95	% Glide:	20	
		% Pool:	30	

**General QHEI Notes:**

SITE NAME/LOCATION **276th Street Phase 2/ UNT 3 to Circero Creek**

SITE NUMBER **1** RIVER BASIN **Patoka-White** DRAINAGE AREA (mi<sup>2</sup>) **0.01**

LENGTH OF STREAM REACH (ft) **100** LAT. **40.19870** LONG. **-86.02890** RIVER CODE **1** RIVER MILE

DATE **03/24/17** SCORER **JDD** COMMENTS

**NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions**

**STREAM CHANNEL MODIFICATIONS:**  NONE / NATURAL CHANNEL  RECOVERED  RECOVERING  RECENT OR NO RECOVERY

**1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.**

TYPE	PERCENT	TYPE	PERCENT
<input type="checkbox"/> <input type="checkbox"/> BLDR SLABS [16 pts]	<input type="checkbox"/> 0%	<input type="checkbox"/> <input checked="" type="checkbox"/> SILT [3 pt]	<input type="checkbox"/> 50%
<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	<input type="checkbox"/> 0%	<input checked="" type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<input type="checkbox"/> 30%
<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]	<input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	<input type="checkbox"/> 0%
<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> CLAY or HARDPAN [0 pt]	<input type="checkbox"/> 0%
<input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	<input type="checkbox"/> 0%
<input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	<input type="checkbox"/> 20%	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	<input type="checkbox"/> 0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **0.00%** (A)

Substrate Percentage Check **100%** (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **6**

TOTAL NUMBER OF SUBSTRATE TYPES: **3**

**HHEI Metric Points**

Substrate Max = 40

**9**

A + B

**2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input checked="" type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS  MAXIMUM POOL DEPTH (centimeters): **8**

Pool Depth Max = 30

**5**

**3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS **OHWM Depth 3"** AVERAGE BANKFULL WIDTH (meters): **1.30**

Bankfull Width Max=30

**5**

**This information must also be completed**

**RIPARIAN ZONE AND FLOODPLAIN QUALITY** ☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH		FLOODPLAIN QUALITY	
L	R	L	R
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Per Bank)	Wide >10m	(Most Predominant per Bank)	Mature Forest, Wetland
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Moderate 5-10m		Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Narrow <5m		Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None		Fenced Pasture

COMMENTS

**FLOW REGIME (At Time of Evaluation) (Check ONLY one box):**

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS

**SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):**

<input type="checkbox"/> None	<input type="checkbox"/> 1.0	<input checked="" type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

**STREAM GRADIENT ESTIMATE**

Flat (0.5 ft/100 ft)  Flat to Moderate  Moderate (2 ft/100 ft)  Moderate to Severe  Severe (10 ft/100 ft)

**ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):**

QHEI PERFORMED? -  Yes  No QHEI Score  (If Yes, Attach Completed QHEI Form)

**DOWNSTREAM DESIGNATED USE(S)**

<input type="checkbox"/> WWH Name: <input type="text"/>	Distance from Evaluated Stream <input type="text"/>
<input type="checkbox"/> CWH Name: <input type="text"/>	Distance from Evaluated Stream <input type="text"/>
<input type="checkbox"/> EWH Name: <input type="text"/>	Distance from Evaluated Stream <input type="text"/>

**MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION**

USGS Quadrangle Name:  NRCS Soil Map Page:  NRCS Soil Map Stream Order   
County:  Township / City:

**MISCELLANEOUS**

Base Flow Conditions? (Y/N):  Date of last precipitation:  Quantity:   
Photograph Information:   
Elevated Turbidity? (Y/N):  Canopy (% open):   
Were samples collected for water chemistry? (Y/N):  (Note lab sample no. or id. and attach results) Lab Number:   
Field Measures: Temp (°C)  Dissolved Oxygen (mg/l)  pH (S.U.)  Conductivity (µmhos/cm)   
Is the sampling reach representative of the stream (Y/N)  If not, please explain:

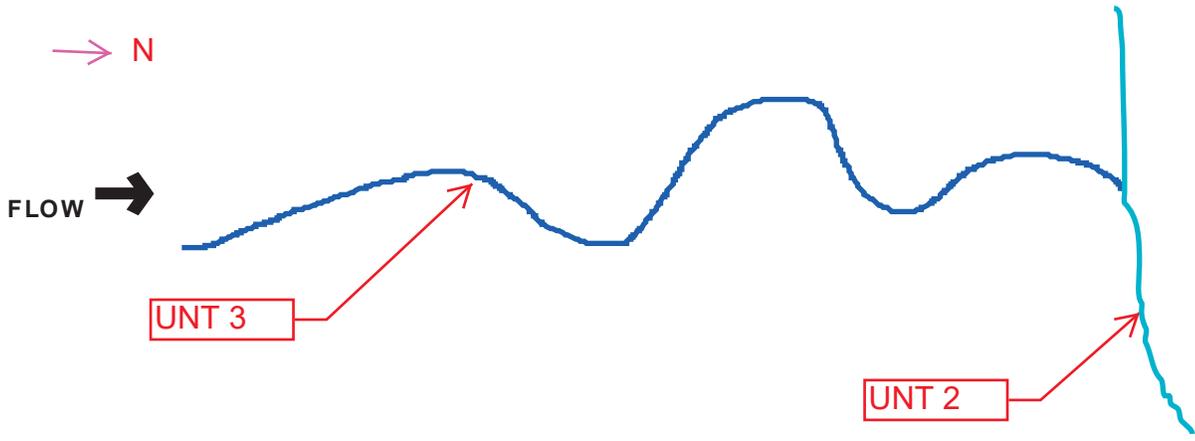
Additional comments/description of pollution impacts:

**BIOTIC EVALUATION**

Performed? (Y/N):  (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)  
Fish Observed? (Y/N)  Voucher? (Y/N)  Salamanders Observed? (Y/N)  Voucher? (Y/N)   
Frogs or Tadpoles Observed? (Y/N)  Voucher? (Y/N)  Aquatic Macroinvertebrates Observed? (Y/N)  Voucher? (Y/N)   
Comments Regarding Biology:

**DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):**

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location





# Primary Headwater Habitat Evaluation Form

12

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **276th Street Phase 2/ UNT 4 to Circero Creek**

SITE NUMBER **1** RIVER BASIN **Patoka-White** DRAINAGE AREA (mi<sup>2</sup>) **0.01**

LENGTH OF STREAM REACH (ft) **80** LAT. **40.19840** LONG. **-86.02890** RIVER CODE **1** RIVER MILE

DATE **03/24/17** SCORER **JDD** COMMENTS

**NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions**

**STREAM CHANNEL MODIFICATIONS:**  NONE / NATURAL CHANNEL  RECOVERED  RECOVERING  RECENT OR NO RECOVERY

**1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.**

TYPE	PERCENT	TYPE	PERCENT
<input type="checkbox"/> <input type="checkbox"/> BLDR SLABS [16 pts]	<input type="checkbox"/> <input type="checkbox"/> 0%	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> SILT [3 pt]	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 100%
<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	<input type="checkbox"/> <input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<input type="checkbox"/> <input type="checkbox"/> 0%
<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]	<input type="checkbox"/> <input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	<input type="checkbox"/> <input type="checkbox"/> 0%
<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<input type="checkbox"/> <input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> CLAY or HARDPAN [0 pt]	<input type="checkbox"/> <input type="checkbox"/> 0%
<input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<input type="checkbox"/> <input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	<input type="checkbox"/> <input type="checkbox"/> 0%
<input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	<input type="checkbox"/> <input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	<input type="checkbox"/> <input type="checkbox"/> 0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **0.00%** (A)

Substrate Percentage Check **100%** (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **6**

TOTAL NUMBER OF SUBSTRATE TYPES: **1**

**HHEI Metric Points**

Substrate Max = 40

**7**

A + B

**2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS \_\_\_\_\_ MAXIMUM POOL DEPTH (centimeters): **3**

Pool Depth Max = 30

**0**

**3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS \_\_\_\_\_ AVERAGE BANKFULL WIDTH (meters): **0.20**

Bankfull Width Max=30

**5**

**This information must also be completed**

**RIPARIAN ZONE AND FLOODPLAIN QUALITY** ☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH		FLOODPLAIN QUALITY	
L	R	L	R
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Per Bank)	Wide >10m	(Most Predominant per Bank)	Mature Forest, Wetland
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Moderate 5-10m		Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Narrow <5m		Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None		Fenced Pasture
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Conservation Tillage
			Urban or Industrial
			Open Pasture, Row Crop
			Mining or Construction

COMMENTS \_\_\_\_\_

**FLOW REGIME (At Time of Evaluation) (Check ONLY one box):**

<input type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input checked="" type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS \_\_\_\_\_

**SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):**

<input type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input checked="" type="checkbox"/> 2.5	<input type="checkbox"/> >3

**STREAM GRADIENT ESTIMATE**

Flat (0.5 ft/100 ft)  Flat to Moderate  Moderate (2 ft/100 ft)  Moderate to Severe  Severe (10 ft/100 ft)

**ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):**

QHEI PERFORMED? -  Yes  No QHEI Score  (If Yes, Attach Completed QHEI Form)

**DOWNSTREAM DESIGNATED USE(S)**

<input type="checkbox"/> WWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> CWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

**MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION**

USGS Quadrangle Name:  NRCS Soil Map Page:  NRCS Soil Map Stream Order   
County:  Township / City:

**MISCELLANEOUS**

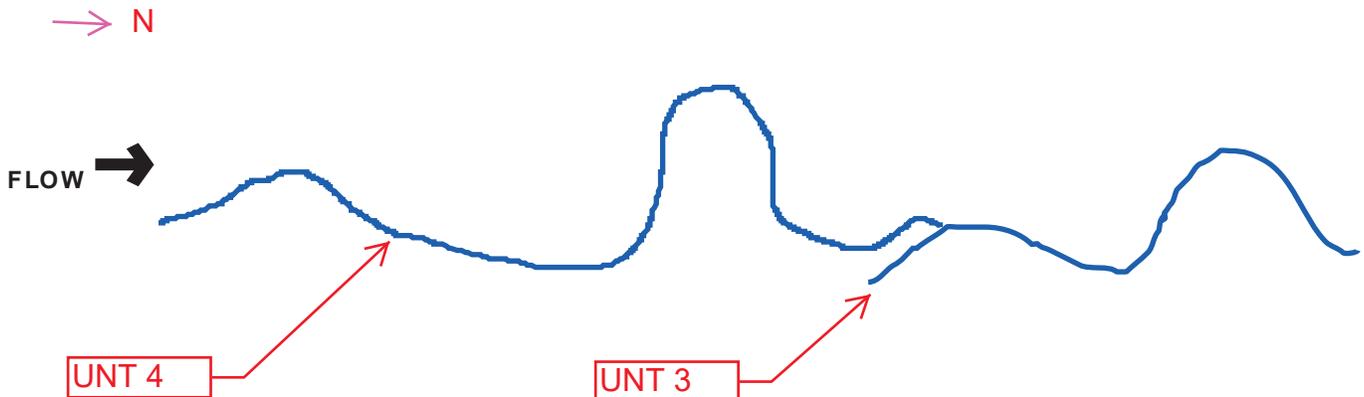
Base Flow Conditions? (Y/N):  Date of last precipitation:  Quantity:   
Photograph Information:   
Elevated Turbidity? (Y/N):  Canopy (% open):   
Were samples collected for water chemistry? (Y/N):  (Note lab sample no. or id. and attach results) Lab Number:   
Field Measures: Temp (°C)  Dissolved Oxygen (mg/l)  pH (S.U.)  Conductivity (µmhos/cm)   
Is the sampling reach representative of the stream (Y/N)  If not, please explain:   
Additional comments/description of pollution impacts:

**BIOTIC EVALUATION**

Performed? (Y/N):  (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)  
Fish Observed? (Y/N)  Voucher? (Y/N)  Salamanders Observed? (Y/N)  Voucher? (Y/N)   
Frogs or Tadpoles Observed? (Y/N)  Voucher? (Y/N)  Aquatic Macroinvertebrates Observed? (Y/N)  Voucher? (Y/N)   
Comments Regarding Biology:

**DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):**

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



**ATTACHMENT**

**PRELIMINARY JURISDICTIONAL DETERMINATION FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): 5/22/17**

**B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:**  
Joe Dabkowski, RQAW Corporation 10401 North Meridian St, Suite 401,  
Indianapolis, IN 46290

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: 276th St Phase 2 Project (DES# 1600597)**  
**(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)**

State:IN County/parish/borough: Hamilton City: Millersburg  
Center coordinates of site (lat/long in degree decimal format): Lat. 40.1978° N, Long. -86.0372° W.

Universal Transverse Mercator: NAD 83

Name of nearest waterbody: Cicero Creek

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 880 linear feet: 0.5-5 width (ft) and/or acres.

Cowardin Class: Riverine

Stream Flow: Perennial , Intermittent

Wetlands: 0.03 acres.

Cowardin Class: Emergent,

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal:

Non-Tidal:

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

Office (Desk) Determination. Date: 5/22/17

Field Determination. Date(s): 3/24/17

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to

request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring “pre-construction notification” (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant’s acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there “*may be*” waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

**SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply**

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

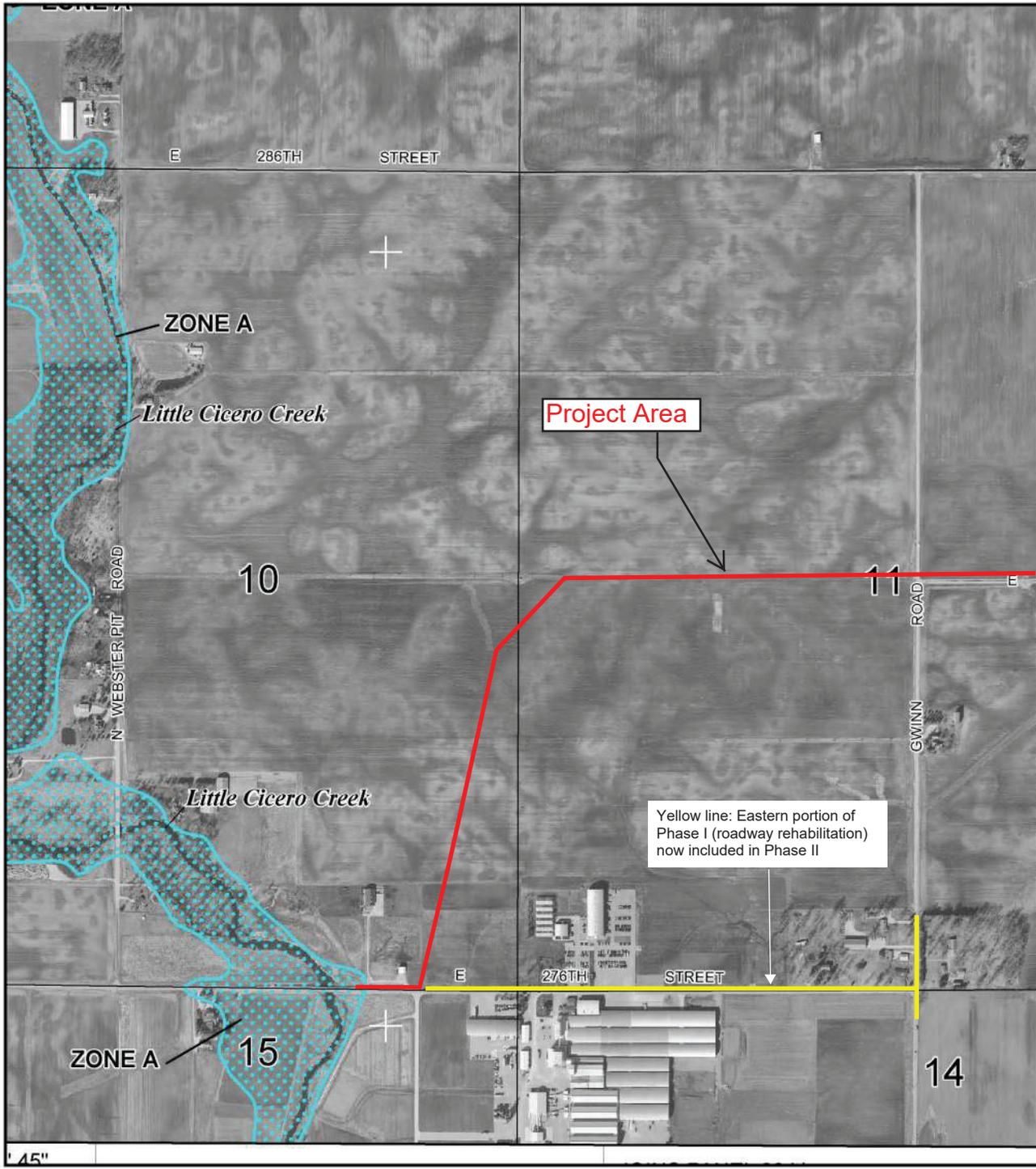
- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Arcadia/1:24,000.
- USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Hamilton County.
- National wetlands inventory map(s). Cite name: Hamilton County.
- State/Local wetland inventory map(s):
- FEMA/FIRM maps: DFIRM.
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): Hamilton County/2014.  
or  Other (Name & Date): Photographs taken on 11/11/16 & 3/24/17.
- Previous determination(s). File no. and date of response letter:
- Other information (please specify):

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

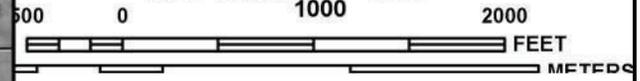
\_\_\_\_\_  
Signature and date of  
Regulatory Project Manager  
(REQUIRED)

*Joseph Dabkowski*  
\_\_\_\_\_  
5/23/2017  
Signature and date of  
person requesting preliminary JD  
(REQUIRED, unless obtaining  
the signature is impracticable)

<b>Site number</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Cowardin Class</b>	<b>Estimated amount of aquatic resource in review area</b>	<b>Class of aquatic resource</b>
Wetland A	40.1978 N	-86.0324 W	Palustrine Forest	0.03 acre	non-section 10 – wetland
UNT 1/Legal Drain 6	40.1977 N	-86.0238 W	Riverine	100 linear feet	non-section 10 – non-wetland
UNT 2/Legal Drain 3	40.1976 N	-86.0326 W	Riverine	220 linear feet	non-section 10 – non-wetland
UNT 3	40.1987 N	-86.0289 W	Riverine	100 linear feet	non-section 10 – non-wetland
UNT 4	40.1984 N	-86.0289 W	Riverine	100 linear feet	non-section 10 – non-wetland
Legal Drain 1	40.1947 N	-86.0496 W	Riverine	100 linear feet	non-section 10 – non-wetland
Legal Drain 2	40.1974 N	-86.0386 W	Riverine	100 linear feet	non-section 10 – non-wetland
Legal Drain 4	40.1977 N	-86.0321 W	Riverine	60 linear feet	non-section 10 – non-wetland
Legal Drain 5	40.1977 N	-86.0306 W	Riverine	100 linear feet	non-section 10 – non-wetland



MAP SCALE 1" = 1000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0035G

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**HAMILTON COUNTY,**  
**INDIANA**  
**AND INCORPORATED AREAS**

**PANEL 35 OF 300**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ATLANTA TOWN OF	180371	0035	G
HAMILTON COUNTY	180080	0035	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



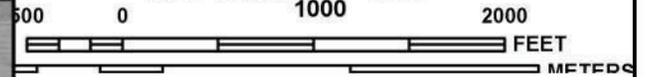
**MAP NUMBER**  
**18057C0035G**  
**MAP REVISED**  
**NOVEMBER 19, 2014**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



MAP SCALE 1" = 1000'



NFP

PANEL 0035G

# FIRM

FLOOD INSURANCE RATE MAP  
HAMILTON COUNTY,  
INDIANA  
AND INCORPORATED AREAS

PANEL 35 OF 300  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

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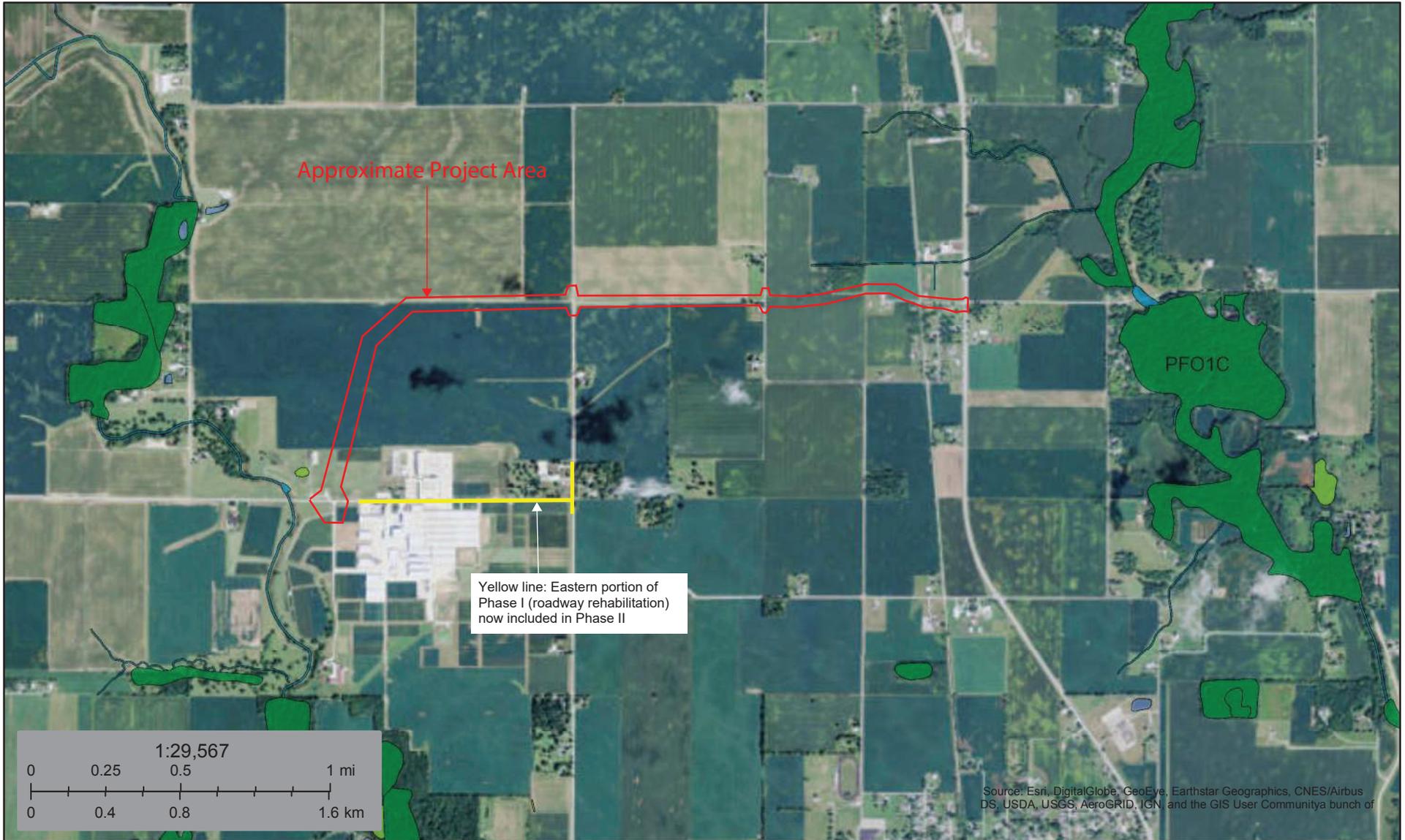
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January 30, 2017

- |                                |                                   |          |
|--------------------------------|-----------------------------------|----------|
| Estuarine and Marine Deepwater | Freshwater Forested/Shrub Wetland | Other    |
| Estuarine and Marine Wetland   | Freshwater Pond                   | Riverine |
| Freshwater Emergent Wetland    | Lake                              |          |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.