

Attachment C

Wetland Delineation Report

Wetland Delineation Report

Intel Project Slice

Colliers Engineering & Design Project Number: 22011510A

December 9, 2022

Prepared for:

NiSource Inc.
801 E. 86th Avenue
Merrillville, IN 46410

Prepared by:

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EXECUTIVE SUMMARY

On behalf of NiSource Inc., Colliers Engineering & Design (CED) conducted field delineations for the Intel Project Slice within Franklin, Delaware, and Licking Counties, Ohio (hereinafter described as "Project Study Area"). The Project Study Area or "Survey Corridor" begins at latitudinal coordinates 40.139550 N and longitudinal coordinates -82.760981 W and ends at latitudinal coordinates 40.118155 N and longitudinal coordinates -82.722537 W. The Project Study Area is located approximately 18 miles northeast of Columbus, Ohio. Access to the Project Study Area can be achieved from Tippet Road, Johnstown Utica Road, Beech Road NW, and Miller Road NW.

The Project Study Area is comprised of a 100-foot wide survey corridor centered on the proposed pipeline alignment for 4.15 miles. The Project Study Area begins at latitudinal coordinates 40.139550 N and longitudinal coordinates -82.760981 W and ends at latitudinal coordinates 40.118155 N and longitudinal coordinates -82.722537 W. The Project Study Area was investigated to identify potential jurisdictional Waters of the U.S. (WOTUS) and wetlands subject to Federal or State regulatory jurisdiction. The delineation methodologies developed by the USACE and the USEPA, as described in the *1987 Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* and the subsequently issued USACE regulatory guidance regarding the identification of jurisdictional stream channels through the recognition of field indicators of an ordinary high-water mark within drainage features (Environmental Laboratory, 1987; USACE 2012; USACE 2005) were utilized during our investigation.

Based on the field investigations, two (2) wetland features and two (2) stream features were delineated within the Project Study Area by CED on November 10th, 2022 and December 6th, 2022. A total of 0.88 acres of palustrine forested (PFO) wetland, 0.18 acres of palustrine emergent (PEM) wetland, 132 linear feet of perennial (R3) stream, and 1,170 linear of intermittent (R4) stream were delineated. It is CED's professional opinion that these wetland and stream features are considered jurisdictional WOTUS since they are or either drain to Duncan Creek and Blacklick Creek. These stream and wetland features can be considered jurisdictional WOTUS since they connect and/or are directly connected to Duncan Creek and Blacklick Creek. The location and size of jurisdictional areas delineated are shown on Figure 5. Wetland Determination Map (**Appendix A**).

1.0 PROJECT INFORMATION

Project Name	Intel Project Slice
Project Location	Tippet Road, Johnstown Utica Road, Beech Road NW, and Miller Road NW
Municipality	New Albany
County	Franklin, Delaware, Licking
State	Ohio
Latitude/Longitude	40.139550 N / -82.760981 W to 40.118155 N / -82.722537 W
Project Study Area Size	+/- 4.15 mi
U.S.G.S. Quadrangle	Jersey, New Albany, and Sunbury OH
Potential Jurisdictional Waters of the U.S. (WOTUS) and wetlands	See Aquatic Resource Area Summary Table on Page 11
River Basin (HUC) & sub-watershed	Upper Scioto Basin: 8 Digit HUC Code: 0504006 Licking River Basin
Nearest Stream	Duncan Run and Blacklick Creek
Navigable Water Nexus	Stream features delineated on the Project Study Area would be considered jurisdictional WOTUS and wetlands since these features drain towards Duncan Run and Blacklick Creek
Isolated Wetlands/Waters Present (Yes/No)	Yes

2.0 INTRODUCTION

On behalf of NiSource Inc., Colliers Engineering & Design (CED) conducted field delineations for the Intel Project Slice located along Tippet Road, Johnstown Utica Road, Beech Road NW, and Miller Road NW within Franklin, Delaware, and Licking Counties, Ohio (hereinafter described as "Project Study Area"). The Project Study Area begins at latitudinal coordinates 40.139550 N and longitudinal coordinates -82.760981 W and end at latitudinal coordinates 40.118155 N and longitudinal coordinates -82.722537 W. The Project Study Area is located approximately 18 miles northeast of Columbus, Ohio. Access to the Project Study Area can be achieved from Tippet Road, Johnstown Utica Road, Beech Road NW, and Miller Road NW. The Project Study Area is bordered by residential homes, agricultural areas, and forested areas.

The Project Study Area was investigated to identify potential jurisdictional Waters of the U.S. (WOTUS) and wetlands subject to Federal or State regulatory jurisdiction. According to the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (USEPA) regulations described in Section 404 of the Clean Water Act (33 CFR Section 328.3 and 40 CFR Section 230.3) respectively, wetlands are "...areas that are inundated or saturated with surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

3.0 PROPERTY DESCRIPTION

The Project Study Area is located within the Licking River Basin (8 Digit HUC Code 05040006). Access to the Project Study Area can be achieved from Tippet Road, Johnstown Utica Road, Beech Road NW, and Miller Road NW. The western section of the Project Study Area drains west towards Blacklick Creek, and the eastern section of the Project Study Area drains north (Duncan Creek). The Project Study Area does contain a floodplain according to FEMA Floodplain Panel Maps 39089C0120H, 39089C0280H, and 39089C0257H (eff. 5/2/2007). The Project Study Area contains approximately 10% forested communities and 90% agricultural land. The forested areas are comprised of a mixture of oak, tulip poplar, red maple, pine, and sweetgum species that dominate the canopy layer. Duncan Creek is located in the eastern section of the Project Study Area, flowing south to north. The unnamed tributary located in the western section drains to Blacklick Creek.

4.0 BACKGROUND INFORMATION

Prior to on-site field investigations, several publicly available sources of information were reviewed to determine the likelihood of wetlands and surface waters occurring within Project Study Area. These mapping resources generally include, but are not limited to, the United States Geological Survey (USGS) maps (Figure 1. Project Location Map, **Appendix A**), the U.S. Department of Agriculture - Natural Resource Conservation Service (NRCS) soils database (Figure 2. Soil Series Map, **Appendix A**), National Hydrography Dataset (NHD), and the U.S. Fish & Wildlife Service National Wetlands Inventory (NWI) database (Figure 3. National Wetlands Inventory Series, **Appendix A**).

4.1 U.S. GEOLOGICAL SURVEY MAP

The Project Study Area appears on the *Jersey, New Albany, and Sunbury* Quadrangle USGS Maps (Figure 1. Project Location Map, **Appendix A**) and is depicted as developed properties which contain approximately 10% forested areas habitat communities and 90% agricultural land. Residential and forested areas are located within the vicinity of the Project Study Area to the north, south, east, and west. Elevations at the Project Study Area range from 1150 to 1200 feet above mean sea level (MSL) based on the USGS map.

4.2 SOIL SURVEY

The NRCS Web Soil Survey depicts the following five (5) Soil Series map units within the Project Study Area and provides a description of the properties and qualities of each soil:

Table 1. NRCS Soil Mapping Units for Intel Project Slice

Map Unit Symbol	Map Unit Name	Drainage Class	Runoff Class	Depth to Water Table
BeA	Bennington silt loam, 0 to 2 percent slopes	Somewhat Poorly Drained	High	About 6 to 12 inches
BeB	Bennington silt loam, 2 to 6 percent slopes	Somewhat Poorly Drained	High	About 6 to 12 inches
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	Very Poorly drained	Negligible	About 0 to 12 inches
Pe	Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes	Very Poorly Drained	Negligible	About 0 to 12 inches
Pm	Pewamo silt clay loam, low carbonate till, 0 to 2 percent slopes	Very Poorly drained	Negligible	About 0 to 12 inches

Of the five (5) mapped soil units, all are listed as being hydric. Hydric soils are described as most likely to contain wetlands primarily due to the shallow seasonal high-water table.

5.0 WETLAND & SURFACE WATER DELINEATION METHODOLOGY

The wetland delineation methodologies developed by the USACE and the USEPA, as described in the 1987 Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1 and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: *Midwest Region* (Version 2.0) and subsequently issued USACE regulatory guidance regarding the identification of jurisdictional stream channels through the recognition of field indicators of an ordinary high-water mark within drainage features (Environmental Laboratory, 1987; USACE 2012; USACE 2005), were utilized during our investigation. These methodologies generally involve the review of three parameters (vegetation, soils, hydrology) when making a wetland or non-wetland determination.

The Project Study Area was walked, community types were characterized, and wetland and surface water boundaries were flagged. Sample stations were established along the boundaries to examine vegetation, soils, and hydrology. Using this data, boundaries were established based on changes in vegetation, soils, hydrology, and surface water characteristics.

6.0 WETLAND AND SURFACE WATER DELINEATION RESULTS

6.1 WETLAND AND SURFACE WATER SUMMARY

On-site field investigations of the Project Study Area were conducted by CED on November 10th, 2022 and December 6th, 2022. The on-site delineation did verify that there are potential jurisdictional wetlands and surface waters within Project Study Area. A summary of the aquatic resources identified within the Project Study Area is provided below in Table 2: Aquatic Resource Summary. The aquatic resources were delineated as shown on Figure 5. Delineation Results (**Appendix A**). Data forms supporting the delineation are located in **Appendix B**.

Table 2: Aquatic Resource Area Summary Table

Aquatic Resource	PFO Area (AC)	PEM Area (AC)	Aquatic Resource	R3 Length (LF)	R4 Length (LF)
Wetland 1		0.18	Stream1	59	1170
Wetland 2	0.88		Stream 2	73	-
Total Wetlands by Class (AC)	0.88	0.18	Total Stream by Class (LF)	132	1170
Total Wetlands (AC)	1.06		Total Stream (LF)	1302	

Note 1: Cowardin Classification; PFO = palustrine forested wetland; PEM = palustrine emergent wetland; PUB = palustrine unconsolidated bottom (pond), R3 = perennial stream, R4 = intermittent stream

6.2 VEGETATION

Representative plant species within the wetland areas include the following: sweetgum (*Liquidambar styraciflua*), quaking aspen (*Populus tremuloides*), red maple (*Acer rubrum*), winterberry (*Ilex verticillata*), hairy willowherb (*Epilobium hirsutum*), blue vervain (*Verbena hastata*), and reed canary grass (*Phalaris arundinacea*).

Representative plant species within the upland areas include the following: johnson grass (*Sorghum halepense*) and corn (*Zea mays*).

6.3 SOILS

Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil (USDA 2003). The soils in the wetland areas were variable, but for the most part, exhibited low chroma matrices with redoximorphic features. Soils within the wetland areas on-site exhibit low chroma matrix colors and concentrations that are characteristic of reducing anaerobic conditions associated within the formation of hydric soils. Wetland soils were typically black (10YR 2/1) with yellow (7.5YR 5/6) within the upper 16 inches. Jurisdictional soils were generally underlain black (10YR 2/1) with yellow (7.5YR 5/6) down to 16 inches. Soils within jurisdictional areas meet the F3 Depleted Matrix hydric soil indicator. Textures within the jurisdictional areas include clay and loam. The upland soils within each area varied from light yellowish brown (10YR 6/4), yellowish brown (10YR 5/6), and very dark grayish brown (10YR 3/2), within the upper 16 inches. Soil textures include clay and loam.

6.4 HYDROLOGY

On-site field investigations of the Project Study Area were conducted by CED on November 10th, 2022. Indicators of hydrology present in the delineated wetlands, include, but are not limited to, drainage patterns, saturation at the surface, and geomorphic position. The USACE Antecedent Precipitation Tool (APT) was utilized for the Project Study Area and is provided **Appendix C**. Based on the USACE APT tool, the on-site field investigations were conducted in "Drier than Normal" precipitation conditions with a 30-day rolling total.

Indicators of wetland hydrology are largely absent in upland areas.

7.0 WETLAND DELINEATION CONCLUSION

Two (2) wetland features and two (2) stream features were delineated within the Project Study Area by CED on November 10th, 2022 and December 6th, 2022. A total of 0.88 acres of palustrine forested (PFO) wetland, 0.18 acres of palustrine emergent (PEM) wetland, 132 linear feet of perennial (R3) stream, and 1,170 linear of intermittent (R4) stream were delineated.

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8.0 REFERENCE

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

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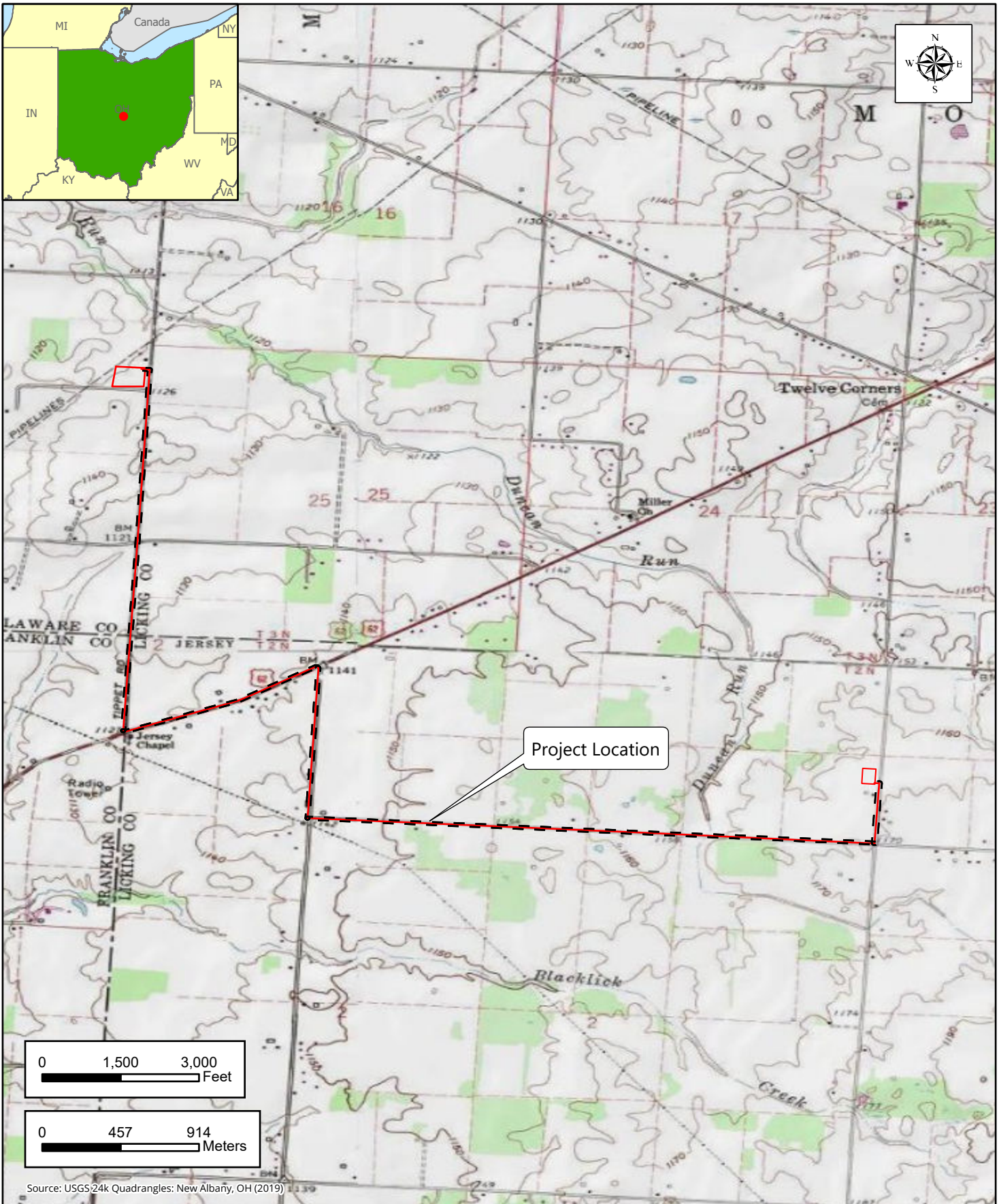
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<http://www.fws.gov/nwi/Overview.html>

USDA, NRCS. 2003. Field Indicators of Hydric Soils in the United States, Version 5.01, G.W. Hurt, P.M. Whited, and R.F. Pringle (eds.). USDA, NRCS in cooperation with the National technical Committee for Hydric Soils, Fort Worth, TX.

APPENDIX A FIGURES



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**Engineering
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Project Location Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

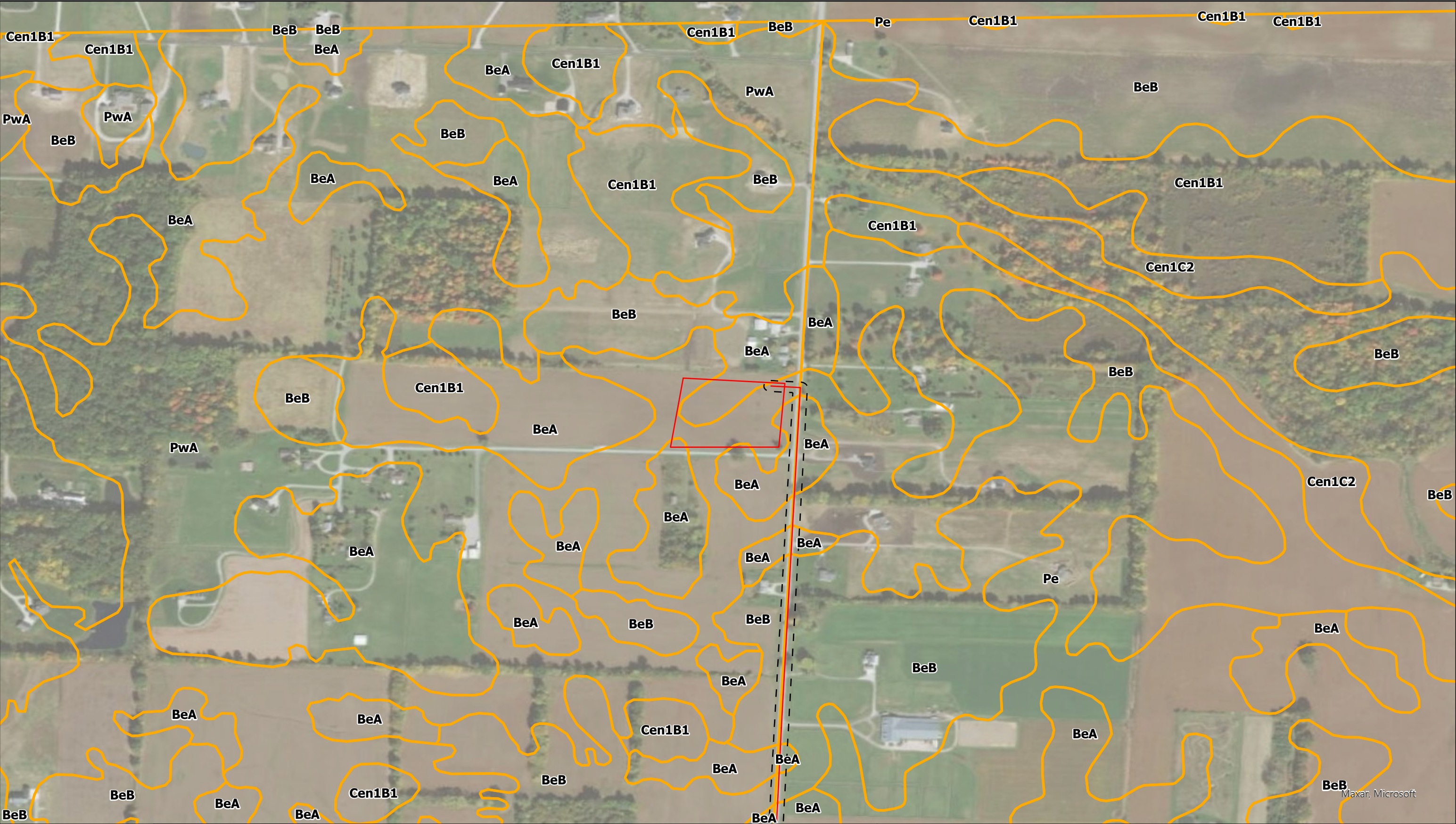
Date:
12/12/2022

Project #:
22011510A

Drawn By:
AW

Figure 1

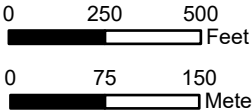
Project Area
 Project Location



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Source: USDA NRCS



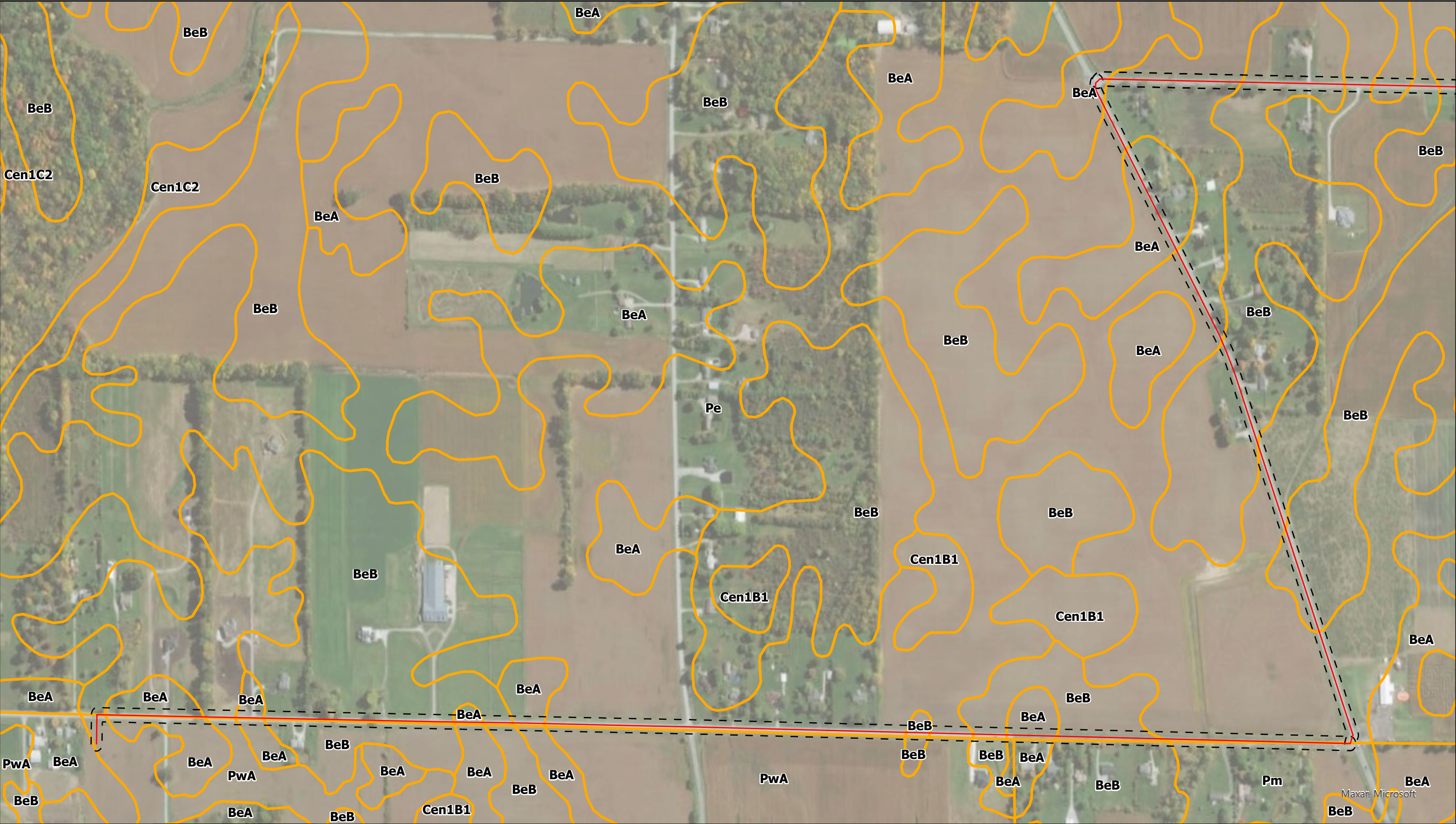
Soil Map		
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Franklin, Delaware & Licking County, Ohio		
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Project Location

Project Area


Soil Map Unit (SSURGO)


Figure 2.1



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Source: USDA NRCS

Soil Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

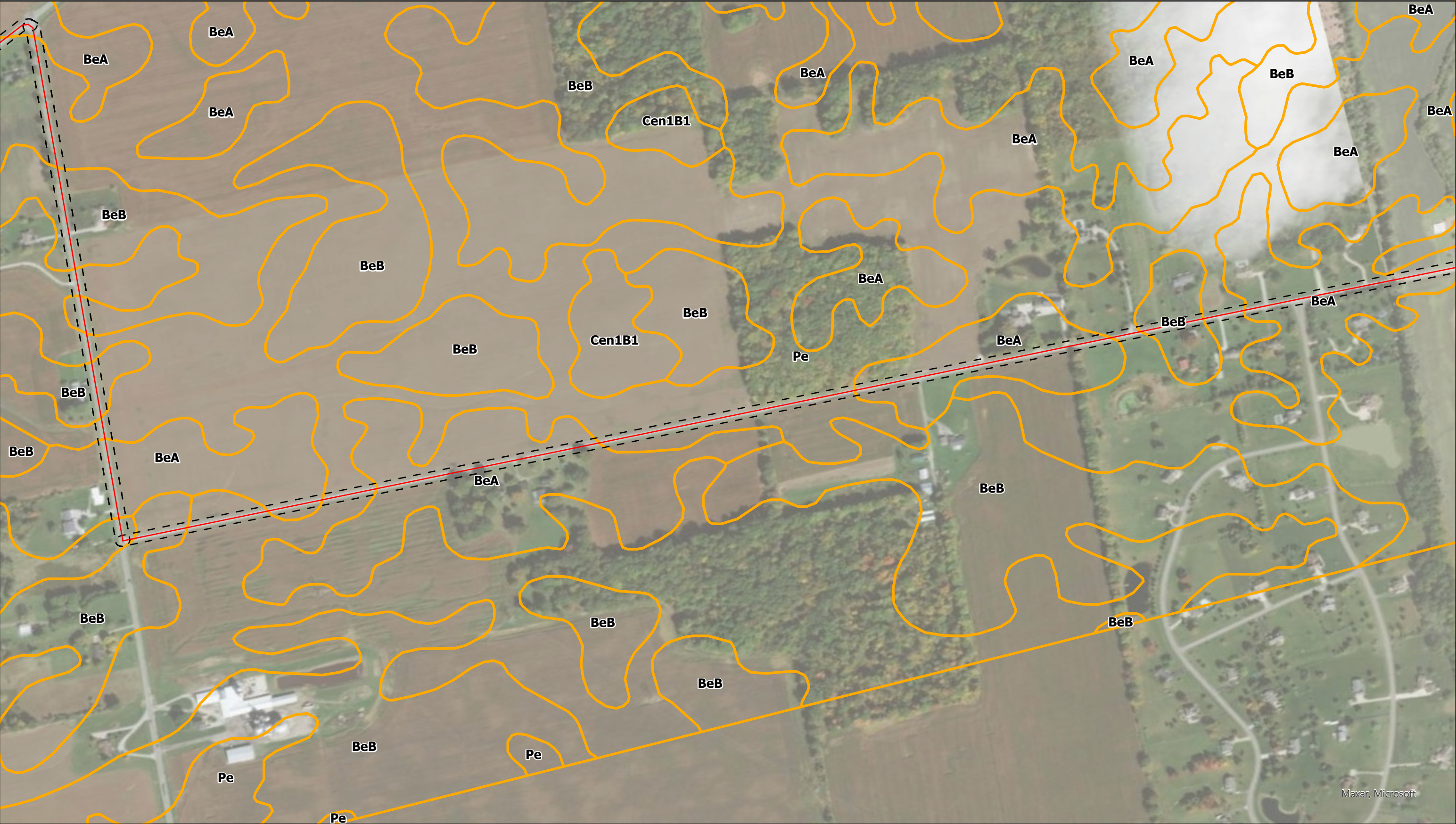
Date:	Project #:	Drawn By:
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— Project Location

--- Project Area

○ Soil Map Unit (SSURGO)

Figure 2.2



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MI Canada NY PA WV KY VA

0 250 500 Feet

0 75 150 Meters

Source: USDA NRCS

Soil Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

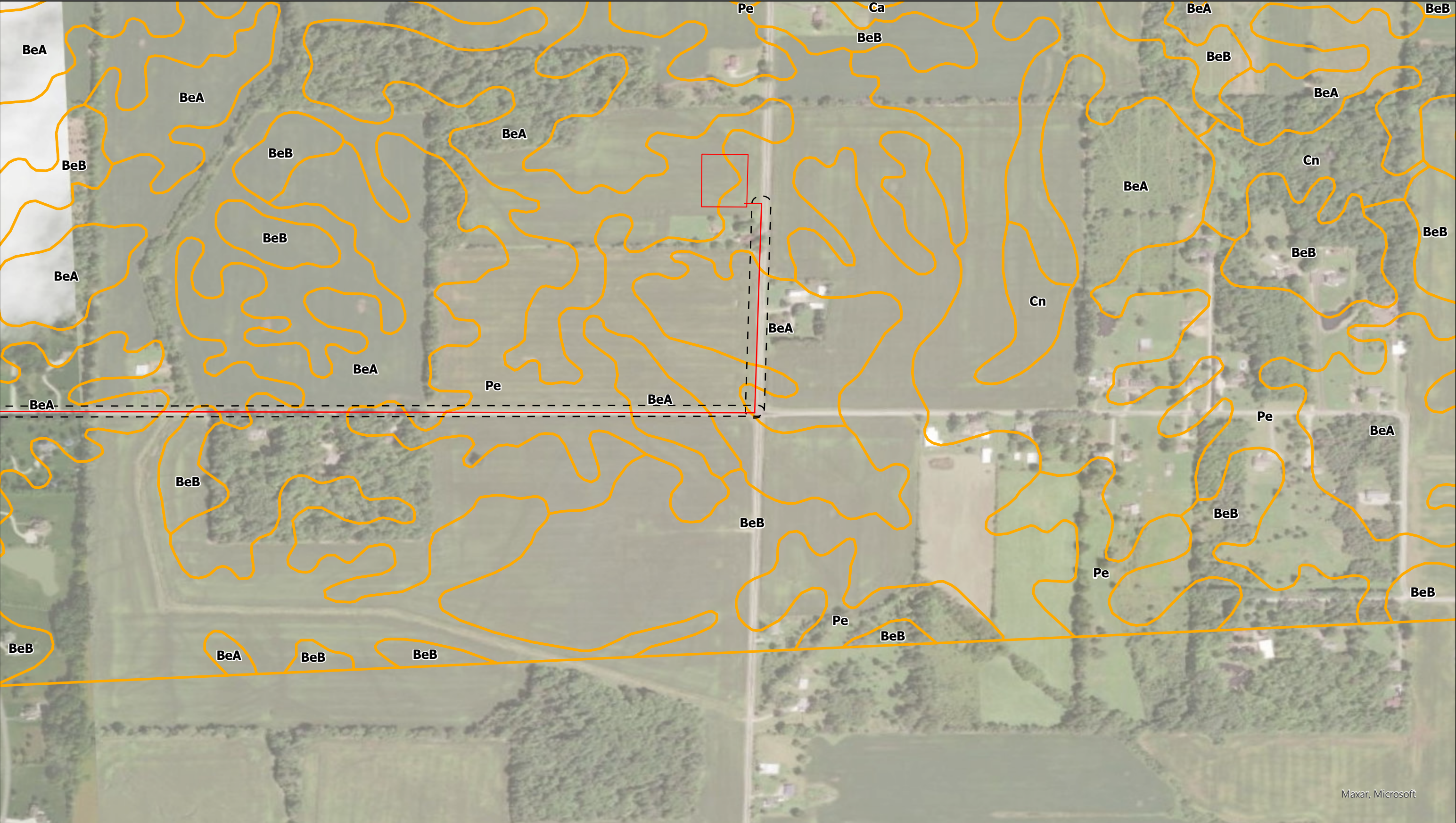
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— Project Location

--- Project Area

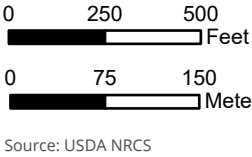
○ Soil Map Unit (SSURGO)

Figure 2.3



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Soil Map		
NiSource Intel Project		
Franklin, Delaware & Licking County, Ohio		
Date:	Project #:	Drawn By:
12/12/2022	22011510A	AW

- Project Location
- Project Area
- Soil Map Unit (SSURGO)

Figure 2.4



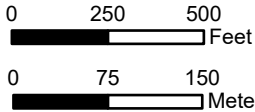
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Source: NHD & NWI
HUC 8 #: 05060001



NWI & NHD Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
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- Project Location
- Project Area
- Stream (NHD)

- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Figure 3.1



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Source: NHD & NWI
HUC 8 #: 05060001

NWI & NHD Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
12/12/2022	22011510A	AW

- Project Location
- Project Area
- Stream (NHD)
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine

Figure 3.2



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MI
IN
KY
PA
WV
VA
MD
Canada

0 250 500 Feet
0 75 150 Meters

Source: NHD & NWI
HUC 8 #: 05060001

NWI & NHD Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
12/12/2022	22011510A	AW

- Project Location
- Project Area
- Stream (NHD)
- Waterbody (NHD)


- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine


Figure 3.3




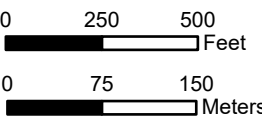
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Source: NHD & NWI
HUC 8 #: 05060001



NWI & NHD Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
12/12/2022	22011510A	AW

- Project Location
- Project Area
- Stream (NHD)

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Figure 3.4



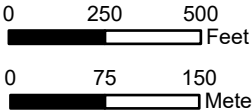
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Source: NHD, FEMA



Floodplain Map		
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Franklin, Delaware & Licking County, Ohio		
Date:	Project #:	Drawn By:
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—	Project Location
- - -	Project Area
▨	100 Year Floodzone
—	Streams (NHD)

Figure 4.1



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Source: NHD, FEMA

Floodplain Map
NiSource Intel Project
Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
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— Project Location
- - - Project Area
▨ 100 Year Floodzone
— Streams (NHD)


Figure 4.2




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0 250 500 Feet
0 75 150 Meters

Source: NHD, FEMA



Floodplain Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
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- Project Location
- Project Area
- 100 Year Floodzone
- Streams (NHD)
- Waterbody (NHD)

Figure 4.3



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0 250 500 Feet
0 75 150 Meters

Source: NHD, FEMA

Floodplain Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
12/12/2022	22011510A	AW

— Project Location
- - - Project Area
100 Year Floodzone
— Streams (NHD)

Figure 4.4



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Wetland Delineation Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
12/12/2022	22011510A	AW

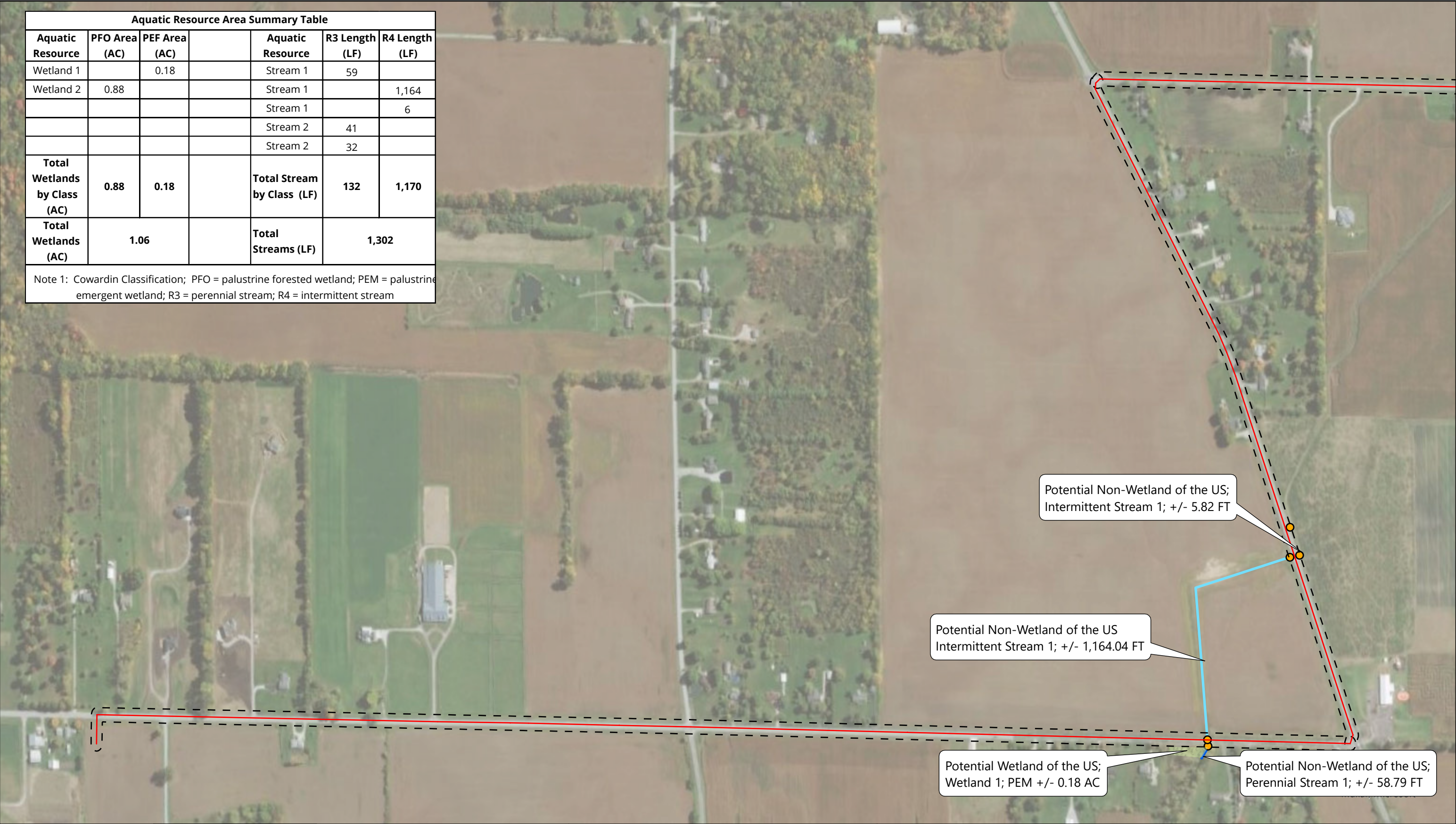
— Project Location

--- Project Area

Figure 5.1

Aquatic Resource Area Summary Table						
Aquatic Resource	PFO Area (AC)	PEF Area (AC)		Aquatic Resource	R3 Length (LF)	R4 Length (LF)
Wetland 1		0.18		Stream 1	59	
Wetland 2	0.88			Stream 1		1,164
				Stream 1		6
				Stream 2	41	
				Stream 2	32	
Total Wetlands by Class (AC)	0.88	0.18		Total Stream by Class (LF)	132	1,170
Total Wetlands (AC)	1.06			Total Streams (LF)	1,302	

Note 1: Cowardin Classification; PFO = palustrine forested wetland; PEM = palustrine emergent wetland; R3 = perennial stream; R4 = intermittent stream



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T: 412 618 5390
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MI Canada NY PA WV KY VA

0250500
Feet

075150
Meters

Wetland Delineation Map

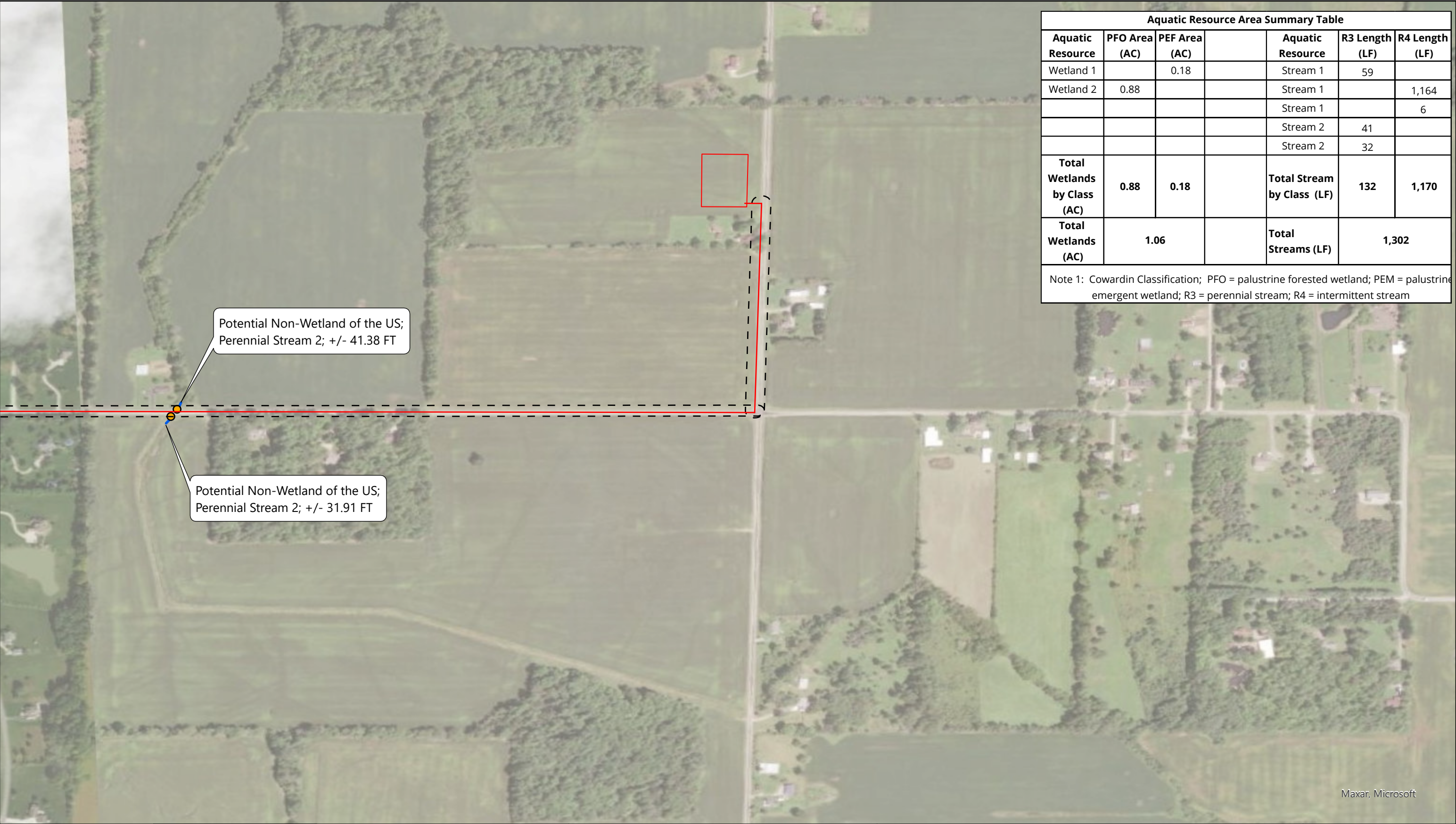
NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
12/12/2022	22011510A	AW

- Project Location
- Project Area
- Culverts
- Intermittent
- Perennial
- PEM

Figure 5.2



Aquatic Resource Area Summary Table						
Aquatic Resource	PFO Area (AC)	PEF Area (AC)		Aquatic Resource	R3 Length (LF)	R4 Length (LF)
Wetland 1		0.18		Stream 1	59	
Wetland 2	0.88			Stream 1		1,164
				Stream 1		6
				Stream 2	41	
				Stream 2	32	
Total Wetlands by Class (AC)	0.88	0.18		Total Stream by Class (LF)	132	1,170
Total Wetlands (AC)	1.06			Total Streams (LF)	1,302	
Note 1: Cowardin Classification; PFO = palustrine forested wetland; PEM = palustrine emergent wetland; R3 = perennial stream; R4 = intermittent stream						

Prepared For:

NiSource Inc.
801 E. 86th Avenue
Merrillville, IN 46410

Prepared By:

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Colliers

Engineering & Design

0250500
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Wetland Delineation Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:	Project #:	Drawn By:
12/12/2022	22011510A	AW

— Project Location

- - - Project Area

● Culverts

— Perennial

Figure 5.4

APPENDIX B DATA FORMS

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Intel Project Slice

City/County: Licking

Sampling Date: 11/10/22

Applicant/Owner: Campos EPC

State: OH

Sampling Point: W-1

Investigator(s): TD & AY

Section, Township, Range: Johnstown

Landform (hillslope, terrace, etc.): Depression

Local relief (concave, convex, none): Concave

Slope (%): 5%

Lat: 40.123627

Long: -82.762073

Datum: NAD 83

Soil Map Unit Name: BeB

NWI or WWI classification: PFO1

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 <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			
PEM Wetland			

VEGETATION – Use scientific names of plants.

<div>Tree Stratum (Plot size: 30x30)</div> <div> <div>1. <i>Populus tremuloides</i></div> <div>2. </div> <div>3. </div> <div>4. </div> <div>5. </div> </div> <div>30 = Total Cover</div>	<div>Sapling/Shrub Stratum (Plot size: 13x15)</div> <div> <div>1. <i>Ilex verticillata</i></div> <div>2. </div> <div>3. </div> <div>4. </div> <div>5. </div> </div> <div>65 = Total Cover</div>	<div>Herb Stratum (Plot size: 5x5)</div> <div> <div>1. </div> <div>2. <i>Epilobium hirsutum</i></div> <div>3. <i>Verbena hastata</i></div> <div>4. <i>Phalaris arundinacea</i></div> <div>5. </div> <div>6. </div> <div>7. </div> <div>8. </div> <div>9. </div> <div>10. </div> </div> <div>65 = Total Cover</div>	<div>Woody Vine Stratum (Plot size: 30x30)</div> <div> <div>1. </div> <div>2. </div> </div> <div>= Total Cover</div>	<div> <div>Dominance Test worksheet:</div> <div>Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)</div> <div>Total Number of Dominant Species Across All Strata: 8 (B)</div> <div>Percent of Dominant Species That Are OBL, FACW, or FAC: 87.50 (A/B)</div> </div> <div> <div>Prevalence Index worksheet:</div> <table> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species 5</td> <td>x 1 = 5</td> </tr> <tr> <td>FACW species 80</td> <td>x 2 = 160</td> </tr> <tr> <td>FAC species 60</td> <td>x 3 = 180</td> </tr> <tr> <td>FACU species 15</td> <td>x 4 = 60</td> </tr> <tr> <td>UPL species 0</td> <td>x 5 = 0</td> </tr> <tr> <td>Column Totals: 160 (A)</td> <td>405 (B)</td> </tr> </table> <div>Prevalence Index = B/A = 2.53</div> </div> <div> <div>Hydrophytic Vegetation Indicators:</div> <div> <div><input checked="" type="checkbox"/> Dominance Test is >50%</div> <div><input checked="" type="checkbox"/> Prevalence Index is ≤3.0¹</div> <div><input type="checkbox"/> Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</div> <div><input type="checkbox"/> Problematic Hydrophytic Vegetation¹ (Explain)</div> </div> <div>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</div> </div>	Total % Cover of:	Multiply by:	OBL species 5	x 1 = 5	FACW species 80	x 2 = 160	FAC species 60	x 3 = 180	FACU species 15	x 4 = 60	UPL species 0	x 5 = 0	Column Totals: 160 (A)	405 (B)
Total % Cover of:	Multiply by:																	
OBL species 5	x 1 = 5																	
FACW species 80	x 2 = 160																	
FAC species 60	x 3 = 180																	
FACU species 15	x 4 = 60																	
UPL species 0	x 5 = 0																	
Column Totals: 160 (A)	405 (B)																	
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: W-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 2/1	90	7.5YR 5/6	10	C	M	Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Iron-Manganese Masses (F12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Meets F3

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☒ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): _____
 Saturation Present? Yes ☒ No ☐ Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Intel Project Slice City/County: Licking Sampling Date: 11/10/22
 Applicant/Owner: Campos EPC State: OH Sampling Point: W-2
 Investigator(s): TD & AY Section, Township, Range: Johnstown
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 5% Lat: 40.116139 Long: -82.742746 Datum: NAD 83
 Soil Map Unit Name: Pe NWI or WWI classification: PFO1

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 <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Remarks:				
PFO Wetland				

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30x30</u>) 1. <u>Acer rubrum</u> Absolute % Cover <u>60</u> Dominant Species? <u>Y</u> Indicator Status <u>FAC</u> 2. <u>Populus tremuloides</u> <u>20</u> <u>Y</u> <u>FAC</u> 3. <u>Ulmus americana</u> <u>20</u> <u>Y</u> <u>FACW</u> 4. <u></u> <u></u> <u></u> <u>NI</u> 5. <u></u> <u></u> <u></u> <u></u> <u>100</u> = Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>88.89</u> (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>80</u> x 2 = <u>160</u> FAC species <u>90</u> x 3 = <u>270</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>170</u> (A) <u>430</u> (B) Prevalence Index = B/A = <u>2.53</u> Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>13x15</u>) 1. <u></u> <u>10</u> <u>Y</u> <u>FACW</u> 2. <u>Ulmus americana</u> <u>10</u> <u>Y</u> <u>FACW</u> 3. <u>Cornus mas</u> <u>10</u> <u>Y</u> <u>FAC</u> 4. <u>Carex intumescens</u> <u>10</u> <u>Y</u> <u>FACW</u> 5. <u></u> <u></u> <u></u> <u></u> <u>40</u> = Total Cover		
<u>Herb Stratum</u> (Plot size: <u>5x5</u>) 1. <u>Phalaris arundinacea</u> <u>30</u> <u>Y</u> <u>FACW</u> 2. <u>sedge spp</u> <u>10</u> <u>Y</u> <u>NI</u> 3. <u></u> <u></u> <u></u> <u>NI</u> 4. <u></u> <u></u> <u></u> <u>NI</u> 5. <u></u> <u></u> <u></u> <u></u> 6. <u></u> <u></u> <u></u> <u></u> 7. <u></u> <u></u> <u></u> <u></u> 8. <u></u> <u></u> <u></u> <u></u> 9. <u></u> <u></u> <u></u> <u></u> 10. <u></u> <u></u> <u></u> <u></u> <u>40</u> = Total Cover		
<u>Woody Vine Stratum</u> (Plot size: <u>30x30</u>) 1. <u></u> <u></u> <u></u> <u></u> 2. <u></u> <u></u> <u></u> <u></u> <u></u> = Total Cover		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)		

SOIL

Sampling Point: W-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 2/1	90	7.5YR 5/6	10	C	M	Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Meets F3

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
Water Table Present? Yes ☐ No ☒ Depth (inches): _____
Saturation Present? Yes ☒ No ☐ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Intel Project Slice City/County: Gahannah/Franklin Sampling Date: 3/2/22
 Applicant/Owner: Campos EPC State: OH Sampling Point: UP1
 Investigator(s): REK Section, Township, Range: T/N R116W
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 5% Lat: _____ Long: _____ Datum: NAD 83
 Soil Map Unit Name: CrcLIC2 NWI or WWI 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"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30x30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)														
1. <u>Acer rubrum</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Fragus grandifolia</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Acer saccharum</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>															
4. _____	_____	_____	<u>NI</u>															
5. _____	_____	_____	_____															
<u>25</u> = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>55</u> (A)</td> <td><u>185</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.36</u>	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>35</u>	x 3 = <u>105</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>55</u> (A)	<u>185</u> (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>35</u>	x 3 = <u>105</u>																	
FACU species <u>20</u>	x 4 = <u>80</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>55</u> (A)	<u>185</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>13x15</u>)																		
1. <u>Acer rubrum</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Rosa multiflora</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	<u>NI</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>25</u> = Total Cover																		
Herb Stratum (Plot size: <u>5x5</u>)																		
1. _____	_____	_____	<u>NI</u>															
2. _____	_____	_____	<u>NI</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30x30</u>)																		
1. <u>Smilax rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>															
2. _____	_____	_____	_____															
<u>5</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: UP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 6/4	100					Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): _____
Saturation Present? Yes _____ No X Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

N/A

Remarks:

Wetland #1

Site: <i>NiSource Intel Project</i>	Rater(s): <i>TD & AY</i>	Date: <i>11/10/22</i>
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<i>2</i>	<i>2</i>
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6 pts)
- ☐ 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3 pts)
- ☒ 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- ☐ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (0.04ha) (0 pts)

<i>5</i>	<i>7</i>
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- ☒ NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

<i>20</i>	<i>27</i>
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☒ Other groundwater (3)
- ☒ Precipitation (1)
- ☐ Seasonal/Intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☒ <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☒ None or none apparent (12)
- ☐ Recovered (7)
- ☐ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed

- ☐ ditch
- ☐ tile
- ☐ dike
- ☐ weir
- ☐ stormwater input

3b. Connectivity. Score all that apply.

- ☐ 100 year floodplain (1)
- ☐ Between stream/lake and other human use (1)
- ☐ Part of wetland/upland (e.g. forest), complex (1)
- ☒ Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☒ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☐ Seasonally saturated in upper 30cm (12in) (1)

<i>17</i>	<i>44</i>
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- ☒ None or none apparent (4)
- ☐ Recovered (3)
- ☐ Recovering (2)
- ☐ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7)
- ☐ Very good (6)
- ☐ Good (5)
- ☒ Moderately good (4)
- ☐ Fair (3)
- ☐ Poor to fair (2)
- ☐ Poor (1)

4c. Habitat alteration. Score one or double check and average.

- ☒ None or none apparent (9)
- ☐ Recovered (6)
- ☐ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed

- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment |
|--|--|

<i>49</i>
subtotal this page

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Site:	Rater(s):	Date:
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44

subtotal first page

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max 10 pts.	subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☐ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

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max 20 pts.	subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☒ Emergent 3
- ☒ Shrub 2
- ☐ Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high(4)
- ☐ Moderate (3)
- ☒ Moderately low (2)
- ☐ Low (1)
- ☐ None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- ☐ Extensive >75% cover (-5)
- ☐ Moderate 25-75% cover (-3)
- ☒ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ Vegetated hummocks/tussocks
- ☐ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

51

End of Quantitative Rating. Complete Categorization Worksheets.

Site: W-2	Rater(s): TD & AY	Date: 11/10/22
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2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6 pts)
- ☐ 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3 pts)
- ☒ 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- ☐ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (0.04ha) (0 pts)

1	3
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- ☐ NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

19	22
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☒ Other groundwater (3)
- ☒ Precipitation (1)
- ☐ Seasonal/intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☒ <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☒ None or none apparent (12)
- ☐ Recovered (7)
- ☐ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed

- ☐ ditch
- ☐ tile
- ☐ dike
- ☐ weir
- ☐ stormwater input

3b. Connectivity. Score all that apply.

- ☐ 100 year floodplain (1)
- ☐ Between stream/lake and other human use (1)
- ☐ Part of wetland/upland (e.g. forest), complex (1)
- ☒ Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☒ Seasonally saturated in upper 30cm (12in) (1)

19	41
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- ☒ None or none apparent (4)
- ☐ Recovered (3)
- ☐ Recovering (2)
- ☐ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7)
- ☒ Very good (6)
- ☐ Good (5)
- ☐ Moderately good (4)
- ☐ Fair (3)
- ☐ Poor to fair (2)
- ☐ Poor (1)

4c. Habitat alteration. Score one or double check and average.

- ☒ None or none apparent (9)
- ☐ Recovered (6)
- ☐ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed

- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment |
|--|--|

41
subtotal this page

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Site:	Rater(s):	Date:
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21

subtotal first page

0	41
max 10 pts.	subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☒ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

12	53
max 20 pts.	subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- 5

 - ☐ Aquatic bed
 - ☐ Emergent
 - ☒ Shrub
 - ☒ Forest
 - ☐ Mudflats
 - ☐ Open water
 - ☐ Other

6b. horizontal (plan view) Interspersion.

Select only one.

- 3

 - ☐ High (5)
 - ☐ Moderately high (4)
 - ☒ Moderate (3)
 - ☐ Moderately low (2)
 - ☐ Low (1)
 - ☐ None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- 2

 - ☐ Extensive >75% cover (-5)
 - ☒ Moderate 25-75% cover (-3)
 - ☐ Sparse 5-25% cover (-1)
 - ☐ Nearly absent <5% cover (0)
 - ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- 2

 - ☐ Vegetated hummocks/tussocks
 - ☒ Coarse woody debris >15cm (6in)
 - ☐ Standing dead >25cm (10in) dbh
 - ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
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Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

53

End of Quantitative Rating. Complete Categorization Worksheets.

SITE NAME/LOCATION NiSource Intel Project
 SITE NUMBER S-1 RIVER BASIN 0504006 RIVER CODE _____ DRAINAGE AREA (mi²) _____
 LENGTH OF STREAM REACH (ft) _____ LAT 40.123143 LONG -82.762267 RIVER MILE _____
 DATE 11/10/22 SCORER TD+AY COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

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

1. SUBSTRATE (Estimate percent of every type 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"/> BLDR SLABS [16 pts]	_____	<input checked="" type="checkbox"/> SILT [3 pt]	_____
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	_____
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input checked="" type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<u>6.0</u>	<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]	_____
<input checked="" type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<u>4.0</u>	<input type="checkbox"/> MUCK [0 pts]	_____
<input checked="" type="checkbox"/> SAND (<2 mm) [6 pts]	<u>6.0</u>	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _____ (A) 21 (B) 9

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 TOTAL NUMBER OF SUBSTRATE TYPES: 9

HHEI Metric Points

Substrate Max = 40

30

A + B

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

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

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): 11

Pool Depth

Max = 30

20

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

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters) 10.1

Bankfull Width

Max=30

30

This information must also be completed

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

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 checked="" 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 checked="" 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 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)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

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): Y Date of last precipitation: _____ Quantity: _____

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): _____ Canopy (% open): _____

Were samples collected for water chemistry? (Y/N): _____ Lab Sample # or ID (attach results): _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____

Is the sampling reach representative of the stream (Y/N) _____ If not, explain: _____

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) Y Species observed (if known): _____

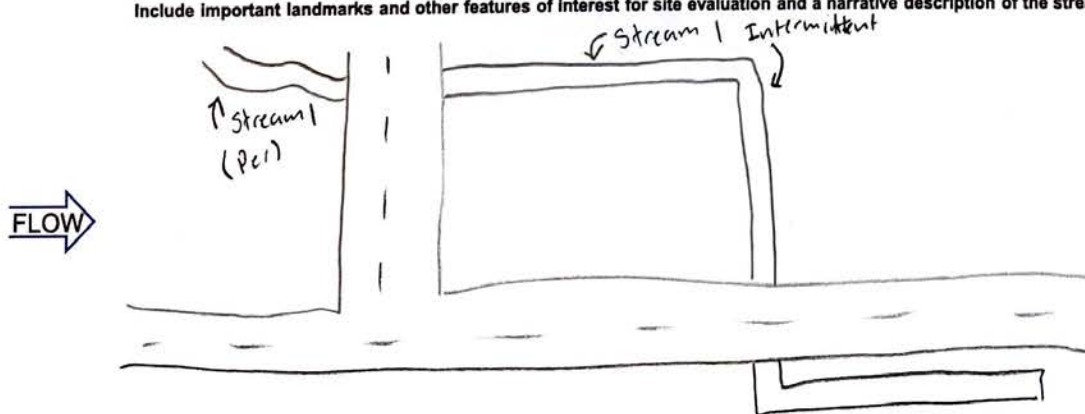
Salamanders Observed? (Y/N) N Species observed (if known): _____

Aquatic Macroinvertebrates Observed? (Y/N) Y Species observed (if known): _____

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



SITE NAME/LOCATION S-1 Hg Field two crossings
 SITE NUMBER _____ RIVER BASIN 0504006 RIVER CODE _____ DRAINAGE AREA (mi²) _____
 LENGTH OF STREAM REACH (ft) _____ LAT 40.121499 LONG -82.759259 RIVER MILE _____
 DATE 1/10/22 SCORER _____ COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

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

1. **SUBSTRATE** (Estimate percent of every type 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"/> BLDR SLABS [16 pts]	_____	<input checked="" type="checkbox"/> SILT [3 pt]	_____
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	_____
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]	_____
<input checked="" type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<u>30</u>	<input type="checkbox"/> MUCK [0 pts]	_____
<input checked="" type="checkbox"/> SAND (<2 mm) [6 pts]	<u>70</u>	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _____

(A)

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15

TOTAL NUMBER OF SUBSTRATE TYPES: 4

HHEI Metric Points

Substrate Max = 40

18

A + B

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

- ☐ > 30 centimeters [20 pts] ☐ 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts] ☐ < 5 cm [5pts]
☐ > 10 - 22.5 cm [25 pts] ☒ NO WATER OR MOIST CHANNEL [0pts]

Pool Depth Max = 30

0

COMMENTS _____

MAXIMUM POOL DEPTH (centimeters): _____

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

- ☐ > 4.0 meters (> 13') [30 pts] ☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]

Bankfull Width Max=30

15

COMMENTS _____

AVERAGE BANKFULL WIDTH (meters) 3.5

This information must also be completed

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

RIPARIAN WIDTH (Per Bank)

- L R
☐ ☐ Wide >10m
☐ ☐ Moderate 5-10m
☒ ☒ Narrow <5m
☐ ☐ None

FLOODPLAIN QUALITY (Most Predominant per Bank)

- L R
☐ ☐ Mature Forest, Wetland
☐ ☐ Immature Forest, Shrub or Old Field
☐ ☐ Residential, Park, New Field
☐ ☐ Fenced Pasture
☐ ☐ Conservation Tillage
☐ ☐ Urban or Industrial
☒ ☒ Open Pasture, Row Crop
☐ ☐ Mining or Construction

COMMENTS _____

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

- ☐ Stream Flowing ☐ Moist Channel, isolated pools, no flow (intermittent)
☐ Subsurface flow with isolated pools (interstitial) ☒ Dry channel, no water (ephemeral)

COMMENTS _____

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

- ☒ None ☐ 1.0 ☐ 2.0 ☐ 3.0
☐ 0.5 ☐ 1.5 ☐ 2.5 ☐ >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)

This is for Ag Ditch
"Int"

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)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

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

USGS Quadrangle Name: New Albany NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____
County: Licking Township/City: Johnstown

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 11/10/22 Quantity: _____

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 100% open

Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____

Is the sampling reach representative of the stream (Y/N) _____ If not, explain: _____

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____

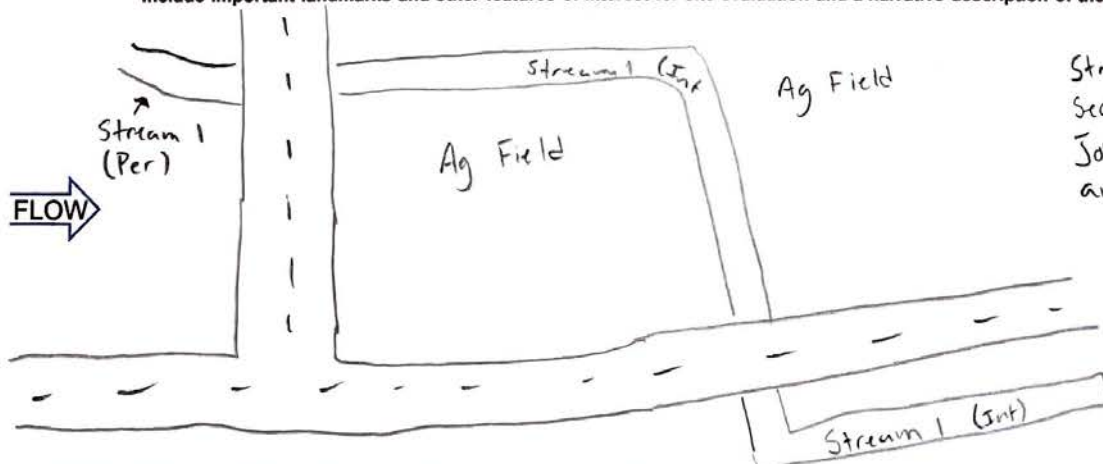
Salamanders Observed? (Y/N) N Species observed (if known): _____

Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____

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



Stream 1 intermittent
Section is bisected by
Johnstown Utica Rd
and Tippet Rd.
⊗ No flow observed

Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3)

33

SITE NAME/LOCATION Nisource Intel Project
 SITE NUMBER 1 RIVER BASIN 0504006 RIVER CODE _____ DRAINAGE AREA (mi²) _____
 LENGTH OF STREAM REACH (ft) _____ LAT 40.115514 LONG -82.731462 RIVER MILE _____
 DATE 11/10/22 SCORER ID & AY COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

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

1. SUBSTRATE (Estimate percent of every type 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				HHEI Metric Points Substrate Max = 40 <div style="border: 1px solid black; padding: 5px; text-align: center;">3</div> A + B
TYPE	PERCENT	TYPE	PERCENT	
<input type="checkbox"/> BLDR SLABS [16 pts] <input type="checkbox"/> BOULDER (>256 mm) [16 pts] <input type="checkbox"/> BEDROCK [16 pts] <input type="checkbox"/> COBBLE (65-256 mm) [12 pts] <input checked="" type="checkbox"/> GRAVEL (2-64 mm) [9 pts] <input checked="" type="checkbox"/> SAND (<2 mm) [6 pts]	<input type="checkbox"/> SILT [3 pts] <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts] <input type="checkbox"/> FINE DETRITUS [3 pts] <input type="checkbox"/> CLAY or HARDPAN [0 pts] <input type="checkbox"/> MUCK [0 pts] <input type="checkbox"/> ARTIFICIAL [3 pts]	<u>60</u> <u>40</u>		
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _____ (A) <div style="border: 1px solid black; padding: 2px;">3</div>		(B) <div style="border: 1px solid black; padding: 2px;">4</div>		
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: _____ TOTAL NUMBER OF SUBSTRATE TYPES: _____				
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):				Pool Depth Max = 30 <div style="border: 1px solid black; padding: 5px; text-align: center;">15</div>
<input type="checkbox"/> > 30 centimeters [20 pts] <input type="checkbox"/> > 22.5 - 30 cm [30 pts] <input type="checkbox"/> > 10 - 22.5 cm [25 pts] <input checked="" type="checkbox"/> 5 cm - 10 cm [15 pts] <input type="checkbox"/> < 5 cm [5pts] <input type="checkbox"/> NO WATER OR MOIST CHANNEL [0pts]				
COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): <div style="border: 1px solid black; padding: 2px;">31</div>				
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):				Bankfull Width Max=30 <div style="border: 1px solid black; padding: 5px; text-align: center;">15</div>
<input type="checkbox"/> > 4.0 meters (> 13') [30 pts] <input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] <input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] <input checked="" type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] <input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]				
COMMENTS _____ AVERAGE BANKFULL WIDTH (meters) <div style="border: 1px solid black; padding: 2px;">4.4</div>				

This information must also be completed

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

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

STREAM GRADIENT ESTIMATE

<input checked="" type="checkbox"/> Flat (0.5 ft/100 ft)	<input type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input type="checkbox"/> 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)

☐ WWH Name: _____ Distance from Evaluated Stream _____
☐ CWH Name: _____ Distance from Evaluated Stream _____
☐ EWH Name: _____ Distance from Evaluated Stream _____

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

USGS Quadrangle Name: Jersey NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____
County: Licking Township/City: Johnstown

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 11/10/22 Quantity: _____

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 100% / 65%

Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____

Field Measures: Temp (°C) 46 Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____

Is the sampling reach representative of the stream (Y/N) ~ If not, explain: _____

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____

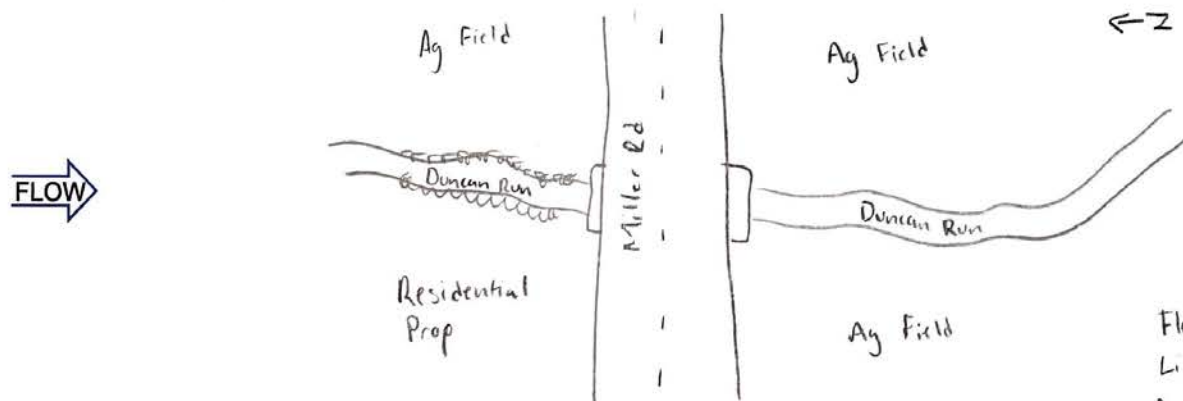
Salamanders Observed? (Y/N) N Species observed (if known): _____

Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____

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

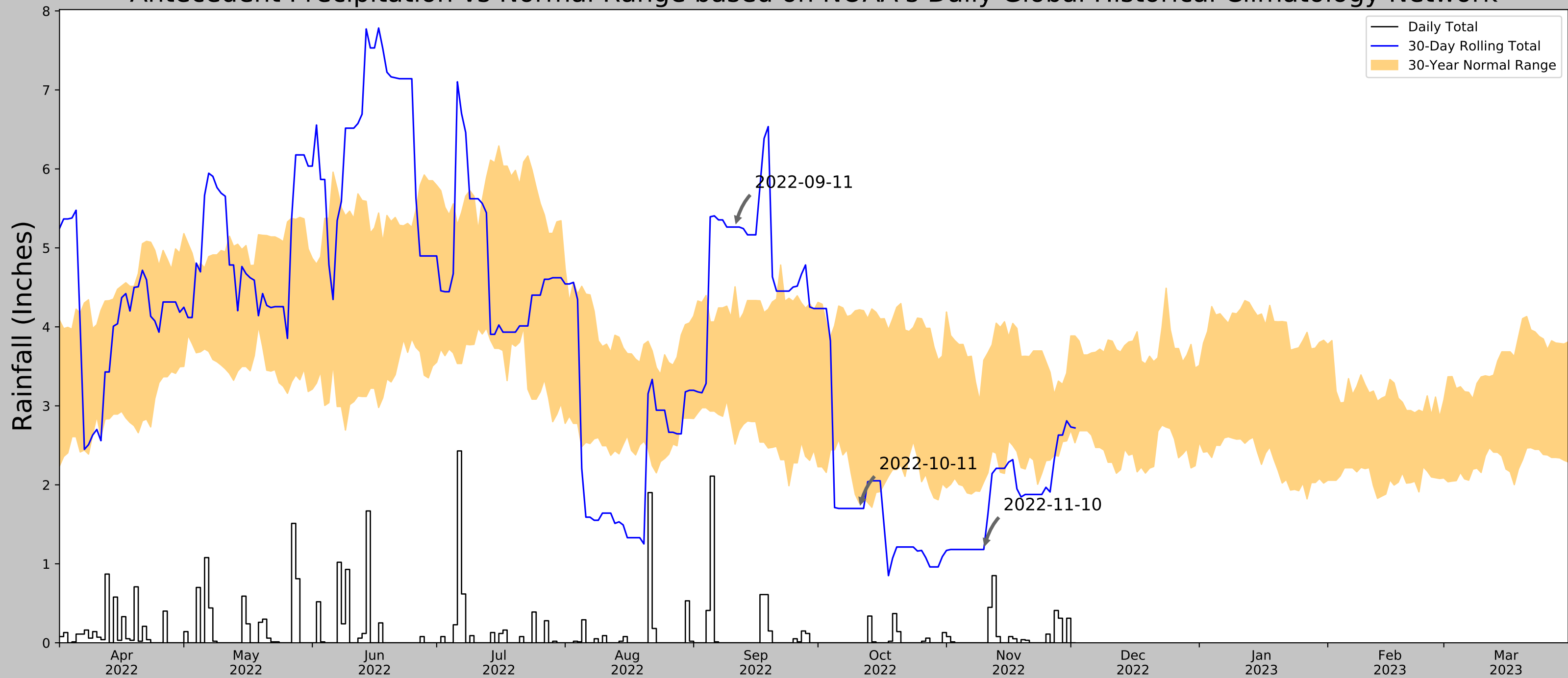


Flow of stream: N
Like flow
Ag Field side of stream
has 0% cover (100% open)
Other side of stream has
roughly 65%

APPENDIX C

USACE ANTECEDENT PRECIPITATION TOOL

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	40.139550, -82.760981
Observation Date	2022-11-10
Elevation (ft)	1122.65
Drought Index (PDSI)	Moderate wetness (2022-10)
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-11-10	2.037795	3.578347	1.181102	Dry	1	3	3
2022-10-11	1.766929	4.216142	1.700787	Dry	1	2	2
2022-09-11	2.514961	4.50748	5.26378	Wet	3	1	3
Result							Drier than Normal - 8

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
CENTERBURG 2 SE	40.2914, -82.6547	1205.053	11.896	82.403	6.334	10803	90
NEW ALBANY 4.0 NE	40.1265, -82.7629	1118.11	0.907	4.54	0.412	4	0
SUNBURY 5.7 ESE	40.2001, -82.7732	1089.895	4.233	32.755	2.044	79	0
ALEXANDRIA 2.1 NNW	40.1182, -82.6265	1080.053	7.256	42.597	3.574	268	0
NEW ALBANY 2.8 SSE	40.0403, -82.798	1032.152	7.131	90.498	3.854	33	0
UTICA 4 WSW	40.2061, -82.52	1134.843	13.528	12.193	6.252	95	0
COLUMBUS-HAP CREMEAN WP	40.0603, -82.8942	831.037	8.919	291.613	6.615	61	0
WESTERVILLE	40.1267, -82.9442	801.837	9.719	320.813	7.492	10	0



Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

APPENDIX D PHOTOGRAPHS



Photograph #1: View of Perennial Stream 1.



Photograph #2: View of Intermittent Stream 1.



Photograph #3: View of PFO Wetland 2.



Photograph #4: View of Perennial Stream 2.



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*Civil/Site • Traffic/Transportation • Governmental • Survey/Geospatial
Infrastructure • Geotechnical/Environmental • Telecommunications • Utilities/Energy*

Attachment D

List of Landowners and Easements

Appendix D:
Right-of-Way Contact List / Affected Property Owners

Franklin County	
Erica C. Crawley	Kevin L. Boyce
Franklin County Commissioner	Franklin County Commissioner
President	373 S. High Street
373 S. High Street	Columbus, Ohio 43215
Columbus, Ohio 43215	
John O'Grady	Kenneth N. Wilson
Franklin County Commissioner	Franklin County Administrator
373 S. High Street	373 S. High Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Jennifer Fish	Cornell R. Robertson, P.E., P.S.
Franklin County Soil and Water	Franklin County Engineer
Conservation District	970 Dublin Road
1404 Goodale Boulevard, Suite 100	Columbus, Ohio 43215
Columbus, Ohio 43212	

City of Columbus	
Hon. Andrew Ginther	Shannon G. Hardin
City of Columbus Mayor	City of Columbus Council President
90 W. Broad Street	90 W. Broad Street
Columbus, Ohio 43215	Columbus, Ohio 43215
Elizabeth Brown	Emmanuel V. Remy
City of Columbus, Council President	Columbus City Council
Pro Tempore	90 W. Broad Street
90 W. Broad Street	Columbus, Ohio 43215
Columbus, Ohio 43215	
Scott Messer	Jennifer Gallagher
City of Columbus Director	City of Columbus Director
Department of Building and Zoning	Department of Public Service
Services	111 N. Front Street
111 N. Front Street	Columbus, Ohio 43215
Columbus, Ohio 43215	

Plain Township	
Benn Collins	Mary Fee
Plain Township Administrator	Plain Township
45 Second Street	Administrative Coordinator
P.O. Box 273	45 Second Street
New Albany, OH 43054-0273	P.O. Box 273
	New Albany, OH 43054-0273
Bud Zappitelli	Courtney Rodgers
Plain Township Fiscal Officer	Plain Township Finance Officer
45 Second Street	45 Second Street
P.O. Box 273	P.O. Box 273
New Albany, OH 43054-0273	New Albany, OH 43054-0273
Dave Ferguson	Keri Mollard
Plain Township Trustee	Plain Township Trustee
45 Second Street	45 Second Street
P.O. Box 273	P.O. Box 273
New Albany, OH 43054-0273	New Albany, OH 43054-0273
Jill Beckett-Hill	
Plain Township Trustee	
45 Second Street	
P.O. Box 273	
New Albany, OH 43054-0273	

Licking County	
Rick Black	Timothy E. Bubb
Licking County Commissioner	Licking County Commissioner
President	Vice President
20 South Second Street	20 South Second Street
Newark, Ohio 43055	Newark, Ohio 43055
Duane H. Flowers	
Licking County Commissioner	
20 South Second Street	
Newark, Ohio 43055	

Jersey Township	
Jeff Fry	Dan Wetzel
Jersey Township Trustee	Jersey Township Trustee
10910 Jug Street	10910 Jug Street
Johnstown, OH 43031	Johnstown, OH 43031
Ben Pieper	Marko Jesenko
Jersey Township Trustee	Jersey Township Fiscal Officer
10910 Jug Street	10910 Jug Street
Johnstown, OH 43031	Johnstown, OH 43031
Rob Platte	
Jersey Township Administrator	
10910 Jug Street	
Johnstown, OH 43031	

City of New Albany	
Scott McAfee	Josh Poland
New Albany Communications and	New Albany
Marketing Director	Public Information Officer
99 W. Main St.	99 W. Main St.
New Albany, OH 43054	New Albany, OH 43054
Sloan Spalding	Marlene Brisk
Mayor of New Albany	New Albany City Council Member
99 W. Main St.	President Pro Tempore
New Albany, OH 43054	99 W. Main St.
	New Albany, OH 43054
Mike Durik	Chip Fellows
New Albany City Council Member	New Albany City Council Member
99 W. Main St.	99 W. Main St.
New Albany, OH 43054	New Albany, OH 43054
Kasey Kist	Matt Shull
New Albany City Council Member	New Albany City Council Member
99 W. Main St.	99 W. Main St.
New Albany, OH 43054	New Albany, OH 43054
Andrea Wiltrout	
New Albany City Council Member	
99 W. Main St.	
New Albany, OH 43054	

Appendix D:

Right-of-Way Contact List / Affected Property Owners

Delaware County	
Jeff Benton	Barb Lewis
Delaware County Commissioner	Delaware County Commissioner
91 N. Sandusky St.	91 N. Sandusky St.
Delaware, OH 43015	Delaware, OH 43015
Gary Merrell	Tracie Davies
Delaware County Commissioner	Delaware County Administrator
91 N. Sandusky St.	91 N. Sandusky St.
Delaware, OH 43015	Delaware, OH 43015
Jane Hawes	Jennifer Walraven
Delaware County	Delaware County
Communications Director	Clerk of the Board
91 N. Sandusky St.	91 N. Sandusky St.
Delaware, OH 43015	Delaware, OH 43015
Harlem Township	
Jerry Paul	Carl Richison
Harlem County Trustee	Harlem County Trustee
3883 S. St. Rt. 605	3883 S. St. Rt. 605
Galena, Ohio 43021	Galena, Ohio 43021
David Jackson	Lisa Hursey
Harlem County Trustee	Harlem County Fiscal Officer
Chairperson	Chairperson
3883 S. St. Rt. 605	3883 S. St. Rt. 605
Galena, Ohio 43021	Galena, Ohio 43021

City of Johnstown	
Donald Barnard	Jon Merriman
Mayor of Johnstown	Johnstown City Council President
599 South Main Street	599 South Main Street
Johnstown, OH 43031	Johnstown, OH 43031
Sharon Hendren	Ryan Green
Johnstown City Council	Johnstown City Council
Acting President	599 South Main Street
599 South Main Street	Johnstown, OH 43031
Johnstown, OH 43031	
Charlie Campbell	Nicole Shook
Johnstown City Council	Johnstown City Council
599 South Main Street	599 South Main Street
Johnstown, OH 43031	Johnstown, OH 43031
Bob Orsini	
Johnstown City Council	
599 South Main Street	
Johnstown, OH 43031	

Attachment E

Threatened and Endangered Memorandum

Memorandum

To: NiSource Inc.

From: Jacqueline M. McCort

Date: December 10th, 2022

Subject: Threatened and Endangered Species Review
Intel Project Slice

Project No.: 22011510A

On behalf of NiSource Inc., Colliers Engineering & Design (CED) conducted a Threatened and Endangered Species Desktop Review for the NiSource Intel Project located north of Columbus, Ohio within Delaware, Licking, and Franklin Counties (hereinafter referred to as "Project Study Area"). The proposed Project will be approximately 21,891 feet (4.15 miles) in length and consist of construction of a Point of Delivery (POD) Station with launcher/receiver facilities, a 12-inch diameter high pressure gas distribution pipeline, a district regulator station (DS), and one new customer regulator/meter station (GMB) at the Intel (customer) plant. The Project will allow NiSource Inc. to provide required natural gas for Intel's Dragonfly Project.

The Project Study Area is comprised of a 100-foot wide survey corridor centered on the proposed pipeline alignment for 4.15 miles. The Project Study Area begins at latitudinal coordinates 40.139550 N and longitudinal coordinates -82.760981 W and ends at latitudinal 40.118155 N and longitudinal coordinates -82.722537 W. Access to the Project Study Area can be achieved from Tippet Road, Johnstown Utica Road, Beech Road NW, and Miller Road NW. The Project Study Area is located in Johnstown, Ohio (Figure 1, **Appendix A**). Based on a review of the *Jersey, New Albany, and Sunbury Ohio* Quadrangle USGS Map and historical aerial photographs, the Project Study Area appears to be mainly residential properties and agricultural land. The Project Study Area is relatively flat with elevations that range from 1150 to 1200 feet above mean sea level (MSL). The Project Study Area is located in the Eastern Corn Belt Plains ecoregion.

Some populations of plants and animals are declining because of natural forces or their inability to coexist with human activity. Plants and animals with Endangered or Threatened status are protected under the Endangered Species Act (ESA) of 1973 (16 US 1531 et seq.). Federal Species of Concern (FSC) are species not legally protected under the ESA and are not subject to any of its provisions, including Section 7, until they are formally proposed or listed as Endangered or Threatened.

CED conducted a threatened and endangered species review to become aware of the potential presence of Endangered or Threatened listed species that are located within the Project Study Area

or within the vicinity. The Ohio Department of Natural Resources (ODNR) web page was reviewed to determine species that have State protection in Delaware, Licking, and Franklin Counties, within the state of Ohio. Tables 1, 2, and 3 list species that, as of November 21st, 2022, have State protection in Delaware, Licking, and Franklin Counties, in the state of Ohio. In addition to the review of online county species lists, CED submitted a request on November 14th, 2022, to the ODNR requesting an environmental review of the potential State-listed species that could occur within the project limits (**Appendix B**). This memo will be updated once comments are received from ODNR. In addition, a refined search, using the USFWS Information for Planning and Consultation (IPaC) database, was also reviewed to provide a more detailed list of species and critical habitat under USFWS jurisdiction that are known or expected to occur within the Project Study Area. Table 4 provides the USFWS IPaC Species List for Project Study Area. The USFWS IPaC Species List is provided in **Appendix C**.

Table 1. ODNR Delaware County Species List as of November 21st, 2022

Common Name	Scientific Name	State Status	Federal Status
Mammals			
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	T	T
Big Brown Bat	<i>Eptesicus fuscus</i>	SC	-
Red Bat	<i>Lasiurus borealis</i>	SC	-
Prairie Vole	<i>Microtus ochrogaster</i>	SC	-
Little Brown Bat	<i>Myotis lucifugus</i>	SC	-
Tri-colored Bat	<i>Perimyotis subflavus</i>	SC	-
Deer Mouse	<i>Peromyscus maniculatus</i>	SC	-
Badger	<i>Taxidea taxus</i>	SC	-
Birds			
American Bittern	<i>Botaurus lentiginosus</i>	E	-
Lark Sparrow	<i>Chondestes grammacus</i>	E	-
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	T	-
Sharp-shinned Hawk	<i>Accipiter striatus</i>	SC	-
Henslow's Sparrow	<i>Ammodramus henslowii</i>	SC	-
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	SC	-
Common Nighthawk	<i>Chordeiles minor</i>	SC	-
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	SC	-
Northern Bobwhite	<i>Colinus virginianus</i>	SC	-
Bobolink	<i>Dolichonyx oryzivorus</i>	SC	-
American Coot	<i>Fulica americana</i>	SC	-
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	SC	-
Vesper Sparrow	<i>Pooecetes gramineus</i>	SC	-
Sora Rail	<i>Porzana carolina</i>	SC	-
Prothonotary Warbler	<i>Protonotaria citrea</i>	SC	-
Virginia Rail	<i>Rallus limicola</i>	SC	-
Cerulean Warbler	<i>Setophaga cerulea</i>	SC	-

Canada Warbler	<i>Cardellina canadensis</i>	SI	-
Veery	<i>Catharus fuscescens</i>	SI	-
Hermit Thrush	<i>Catharus guttatus</i>	SI	-
Brown Creeper	<i>Certhia americana</i>	SI	-
Least Flycatcher	<i>Empidonax minimus</i>	SI	-
Dark-eyed Junco	<i>Junco hyemalis</i>	SI	-
Yellow-crowned Night-heron	<i>Nyctanassa violacea</i>	SI	-
Golden-crowned Kinglet	<i>Regulus satrapa</i>	SI	-
Magnolia Warbler	<i>Setophaga magnolia</i>	SI	-
Red-breasted Nuthatch	<i>Sitta canadensis</i>	SI	-
Insects			
Marsh Bluet	<i>Enallagma ebrium</i>	T	-
Fish			
Western Creek Chubsucker	<i>Erimyzon claviformis</i>	SC	-
Muskellunge	<i>Esox masquinongy</i>	SC	-
Least Darter	<i>Etheostoma microperca</i>	SC	-
Blue Catfish	<i>Ictalurus furcatus</i>	SC	-
Clams/Mollusk			
Snuffbox	<i>Epioblasma triquetra</i>	E	E
Clubshell	<i>Pleurobema clava</i>	E	E
Ohio Pigtoe	<i>Pleurobema cordatum</i>	E	-
Rabbitsfoot	<i>Theliderma cylindrica</i>	E	T
Rayed Bean	<i>Villosa fabalis</i>	E	E
Black Sandshell	<i>Ligumia recta</i>	T	-
Pondhorn	<i>Unio merus tetralasmus</i>	T	-
Elktoe	<i>Alasmidonta marginata</i>	SC	-
Purple Wartyback	<i>Cyclonaias tuberculata</i>	SC	-
Wavy-rayed Lampmussel	<i>Lampsilis fasciola</i>	SC	-
Round Pigtoe	<i>Pleurobema sintoxia</i>	SC	-
Kidneyshell	<i>Ptychobranhus fasciolaris</i>	SC	-
Salamander Mussel	<i>Simpsonaias ambigua</i>	SC	-
Reptiles/Amphibians			
Eastern Cricket Frog	<i>Acris crepitans</i>	SC	-
Four-toed Salamander	<i>Hemidactylum scutatum</i>	SC	-
Queensnake	<i>Regina septemvittata</i>	SI	-
Flowering Plants			
Gattinger's-foxtglove	<i>Agalinis gattingeri</i>	T	-
Narrow-leaved Toothwort	<i>Cardamine dissecta</i>	P	-
Tufted Fescue Sedge	<i>Carex brevior</i>	P	-
False Hop Sedge	<i>Carex lupuliformis</i>	P	-

Timid Sedge	<i>Carex timida</i>	T	-
Spotted Coral-root	<i>Corallorhiza maculata</i>	P	-
Tennessee Bladder Fern	<i>Cystopteris tennesseensis</i>	P	-
Grove Sandwort	<i>Moehringia lateriflora</i>	P	-
Showy Goldenrod	<i>Solidago speciosa</i>	P	-
Shining Ladies' tresses	<i>Spiranthes lucida</i>	P	-
Arbor Vitae	<i>Thuja occidentalis</i>	P	-

Notes: E – Endangered.; T – Threatened.; X – Extirpated.; P – Proposed Threatened.; C – Candidate Species.; SC – Species of Concern.; SI – Special Interest

Table 2. ODNR Licking County Species List as of November 21st, 2022

Common Name	Scientific Name	State Status	Federal Status
Mammals			
Black Bear	<i>Ursus americanus</i>	E	-
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	T	T
Big Brown Bat	<i>Eptesicus fuscus</i>	SC	-
Red Bat	<i>Lasiurus borealis</i>	SC	-
Hoary Bat	<i>Lasiurus cinereus</i>	SC	-
Little Brown Bat	<i>Myotis lucifugus</i>	SC	-
Tri-colored Bat	<i>Perimyotis subflavus</i>	SC	-
Deer Mouse	<i>Peromyscus maniculatus</i>	SC	-
Badger	<i>Taxidea taxus</i>	SC	-
Common Gray Fox	<i>Urocyon cinereoargenteus</i>	SC	-
Birds			
Upland Sandpiper	<i>Bartramia longicauda</i>	E	-
Northern Harrier	<i>Circus hudsonius</i>	E	-
Least Bittern	<i>Ixobrychus exilis</i>	T	-
Barn Owl	<i>Tyto alba</i>	T	-
Sharp-shinned Hawk	<i>Accipiter striatus</i>	SC	-
Henslow's Sparrow	<i>Ammodramus henslowii</i>	SC	-
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	SC	-
Great Egret	<i>Ardea alba</i>	SC	-
Common Nighthawk	<i>Chordeiles minor</i>	SC	-
Sedge Wren	<i>Cistothorus platensis</i>	SC	-
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	SC	-
Northern Bobwhite	<i>Colinus virginianus</i>	SC	-
Bobolink	<i>Dolichonyx oryzivorus</i>	SC	-
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	SC	-
Vesper Sparrow	<i>Pooecetes gramineus</i>	SC	-
Sora Rail	<i>Porzana carolina</i>	SC	-
Prothonotary Warbler	<i>Protonotaria citrea</i>	SC	-

Cerulean Warbler	<i>Setophaga cerulea</i>	SC	-
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	SI	-
Veery	<i>Catharus fuscescens</i>	SI	-
Brown Creeper	<i>Certhia americana</i>	SI	-
Magnolia Warbler	<i>Setophaga magnolia</i>	SI	-
Insects			
Green-faced Clubtail	<i>Gomphus viridifrons</i>	T	-
Tiger Spiketail	<i>Cordulegaster erronea</i>	SC	-
Fish			
Lake Chubsucker	<i>Erimyzon sucetta</i>	T	-
Muskellunge	<i>Esox masquinongy</i>	SC	-
Invertebrates			
Fawnsfoot	<i>Truncilla donaciformis</i>	T	-
Clams/Mollusk			
Longsolid	<i>Fusconaia subrotunda</i>	E	-
Sheepnose	<i>Plethobasus cyphus</i>	E	E
Pondhorn	<i>Uniomereus tetralasmus</i>	T	-
Reptiles/Amphibians			
Eastern Hellbender	<i>Cryptobranchus alleganiensis</i>	E	-
Eastern Massasauga	<i>Sistrurus catenatus</i>	E	T
Spotted Turtle	<i>Clemmys guttata</i>	T	-
Four-toed Salamander	<i>Hemidactylium scutatum</i>	SC	-
Eastern Cricket Frog	<i>Acris crepitans</i>	SC	-
Eastern Box Turtle	<i>Terrapene carolina</i>	SC	-
Flowering Plants			
Grass-pink	<i>Calopogon tuberosus</i>	P	-
Howe's Sedge	<i>Carex atlantica ssp. capillacea</i>	P	-
Cypress-knee Sedge	<i>Carex decomposita</i>	E	-
Mud Sedge	<i>Carex limosa</i>	T	-
Lined Sedge	<i>Carex striatula</i>	E	-
Low Umbrella-sedge	<i>Cyperus diandrus</i>	P	-
Tennessee Bladder Fern	<i>Cystopteris tennesseensis</i>	P	-
Slender Spike-rush	<i>Eleocharis tenuis</i>	T	-
Tawny Cotton-grass	<i>Eriophorum virginicum</i>	T	-
Green Cotton-grass	<i>Eriophorum viridicarinarum</i>	P	-
Appalachian Club-moss	<i>Huperzia appalachiana</i>	X	-
Buckbean	<i>Menyanthes trifoliata</i>	T	-
Grove Sandwort	<i>Moehringia lateriflora</i>	P	-
American Water-milfoil	<i>Myriophyllum sibiricum</i>	E	-
Rose Pogonia	<i>Pogonia ophioglossoides</i>	T	-
Tall Cinquefoil	<i>Potentilla arguta</i>	E	-

White Beak-rush	<i>Rhynchospora alba</i>	P	-
Smooth Rose	<i>Rosa blanda</i>	P	-
Scheuchzeria	<i>Scheuchzeria palustris</i>	E	-
Rock Spike-moss	<i>Selaginella rupestris</i>	X	-
Three Birds Orchid	<i>Triphora trianthophora</i>	P	-
Lesser Bladderwort	<i>Utricularia minor</i>	T	-

Notes: E – Endangered.; T – Threatened.; X – Extirpated.; P – Proposed Threatened.; C – Candidate Species.; SC – Species of Concern.; SI – Special Interest

Table 3. ODNr Franklin County Species List as of November 21st, 2022

Common Name	Scientific Name	State Status	Federal Status
Mammals			
Indiana Myotis	<i>Myotis sodalis</i>	E	E
Black Bear	<i>Ursus americanus</i>	E	-
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	T	T
Star-nosed Mole	<i>Condylura cristata</i>	SC	-
Big Brown Bat	<i>Eptesicus fuscus</i>	SC	-
Red Bat	<i>Lasiurus borealis</i>	SC	-
Hoary Bat	<i>Lasiurus cinereus</i>	SC	-
Snowshoe Hare	<i>Lepus americanus</i>	SC	-
Woodland Vole	<i>Microtus pinetorum</i>	SC	-
Ermine	<i>Mustela erminea</i>	SC	-
Little Brown Bat	<i>Myotis lucifugus</i>	SC	-
Tri-colored Bat	<i>Perimyotis subflavus</i>	SC	-
Deer Mouse	<i>Peromyscus maniculatus</i>	SC	-
Smoky Shrew	<i>Sorex fumeus</i>	SC	-
Southern Bog Lemming	<i>Synaptomys cooperi</i>	SC	-
Badger	<i>Taxidea taxus</i>	SC	-
Common Gray Fox	<i>Urocyon cinereoargenteus</i>	SC	-
Evening Bat	<i>Nycticeius humeralis</i>	SI	-
American Bison	<i>Bison</i>	X	-
Birds			
Upland Sandpiper	<i>Bartramia longicauda</i>	E	-
American Bittern	<i>Botaurus lentiginosus</i>	E	-
Cattle Egret	<i>Bubulcus ibis</i>	E	-
Lark Sparrow	<i>Chondestes grammacus</i>	E	-
Northern Harrier	<i>Circus hudsonius</i>	E	-
Sandhill Crane	<i>Grus canadensis</i>	T	-
Least Bittern	<i>Ixobrychus exilis</i>	T	-
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>	T	-
Barn Owl	<i>Tyto alba</i>	T	-

Sharp-shinned Hawk	<i>Accipiter striatus</i>	SC	-
Henslow's Sparrow	<i>Ammodramus henslowii</i>	SC	-
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	SC	-
Great Egret	<i>Ardea alba</i>	SC	-
Common Nighthawk	<i>Chordeiles minor</i>	SC	-
Sedge Wren	<i>Cistothorus platensis</i>	SC	-
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	SC	-
Northern Bobwhite	<i>Colinus virginianus</i>	SC	-
Bobolink	<i>Dolichonyx oryzivorus</i>	SC	-
American Coot	<i>Fulica americana</i>	SC	-
Common Gallinule	<i>Gallinula galeata</i>	SC	-
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	SC	-
Vesper Sparrow	<i>Pooecetes gramineus</i>	SC	-
Sora Rail	<i>Porzana carolina</i>	SC	-
Prothonotary Warbler	<i>Protonotaria citrea</i>	SC	-
Virginia Rail	<i>Rallus limicola</i>	SC	-
Cerulean Warbler	<i>Setophaga cerulea</i>	SC	-
Northern Shoveler	<i>Anas clypeata</i>	SI	-
Green-Winged Teal	<i>Anas crecca</i>	SI	-
American Black Duck	<i>Anas rubripes</i>	SI	-
Veery	<i>Catharus fuscescens</i>	SI	-
Hermit Thrush	<i>Catharus guttatus</i>	SI	-
Brown Creeper	<i>Certhia americana</i>	SI	-
Least Flycatcher	<i>Empidonax minimus</i>	SI	-
Wilson's Snipe	<i>Gallinago delicata</i>	SI	-
Dark-eyed Junco	<i>Junco hyemalis</i>	SI	-
Yellow-crowned Night-Heron	<i>Nyctanassa violacea</i>	SI	-
Nashville Warbler	<i>Oreothlypis ruficapilla</i>	SI	-
Northern Waterthrush	<i>Parkesia noveboracensis</i>	SI	-
Golden-crowned Kinglet	<i>Regulus satrapa</i>	SI	-
Blackburnian Warbler	<i>Setophaga fusca</i>	SI	-
Magnolia Warbler	<i>Setophaga magnolia</i>	SI	-
Red-breasted Nuthatch	<i>Sitta canadensis</i>	SI	-
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	SI	-
Winter Wren	<i>Troglodytes hiemalis</i>	SI	-
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	SI	-
Bell's Vireo	<i>Vireo bellii</i>	SI	-
Insects			
-	<i>Chimarra socia</i>	E	-
Two-spotted Skipper	<i>Euphyes bimacla</i>	SC	-

-	<i>Agroperina lutosa</i>	SC	-
Precious Underwing	<i>Catocala pretiosa</i>	SC	-
Slender Clearwing	<i>Hemaris gracilis</i>	SI	-
Fish			
Iowa Darter	<i>Etheostoma exile</i>	E	-
Spotted Darter	<i>Etheostoma maculatum</i>	E	-
Tonguetied Minnow	<i>Exoglossum laurae</i>	E	-
Goldeye	<i>Hiodon alosoides</i>	E	-
Northern Brook Lamprey	<i>Ichthyomyzon fossor</i>	E	-
Shortnose Gar	<i>Lepisosteus platostomus</i>	E	-
Popeye Shiner	<i>Notropis ariommus</i>	E	-
Lake Chubsucker	<i>Erimyzon sucetta</i>	T	-
Tippecanoe Darter	<i>Etheostoma tippecanoe</i>	T	-
Paddlefish	<i>Polyodon spathula</i>	T	-
Muskellunge	<i>Esox masquinongy</i>	SC	-
Blue catfish	<i>Ictalurus furcatus</i>	SC	-
Blacknose Shiner	<i>Notropis heterolepis</i>	X	-
Longhead Darter	<i>Percina macrocephala</i>	X	-
Clams/Mollusk			
Butterfly	<i>Ellipsaria lineolata</i>	E	-
Elephant-ear	<i>Elliptio crassidens</i>	E	-
Purple Cat's paw	<i>Epioblasma obliquata</i>	E	E
Snuffbox	<i>Epioblasma triquetra</i>	E	E
Longsolid	<i>Fusconaia subrotunda</i>	E	-
Pink Mucket	<i>Lampsilis abrupta</i>	E	E
Pocketbook	<i>Lampsilis ovata</i>	E	-
Washboard	<i>Megalonaias nervosa</i>	E	-
Clubshell	<i>Pleurobema clava</i>	E	E
Ohio Pigtoe	<i>Pleurobema cordatum</i>	E	-
Rabbitsfoot	<i>Theliderma cylindrica</i>	E	T
Rayed Bean	<i>Villosa fabalis</i>	E	E
Black Sandshell	<i>Ligumia recta</i>	T	-
Threehorn Wartyback	<i>Obliquaria reflexa</i>	T	-
Fawnsfoot	<i>Truncilla donaciformis</i>	T	-
Pondhorn	<i>Unio merus tetralasmus</i>	T	-
Elktoe	<i>Alasmodonta marginata</i>	SC	-
Purple Wartyback	<i>Cyclonaias tuberculata</i>	SC	-
Wavy-rayed Lampmussel	<i>Lampsilis fasciola</i>	SC	-
Creek Heelsplitter	<i>Lasmigona compressa</i>	SC	-
Round Pigtoe	<i>Pleurobema sintoxia</i>	SC	-
Kidneyshell	<i>Ptychobranhus fasciolaris</i>	SC	-

Deertoe	<i>Truncilla truncata</i>	SC	-
Mucket	<i>Actinonaias ligamentina ligamentina</i>	X	-
Rough Pigtoe	<i>Pleurobema plenum</i>	X	-
Reptiles/Amphibians			
Smooth Greensnake	<i>Opheodrys vernalis</i>	E	-
Eastern Cricket Frog	<i>Acris crepitans crepitans</i>	SC	-
Four-toed Salamander	<i>Hemidactylium scutatum</i>	SC	-
Flowering Plants			
American Sweet-flag	<i>Acorus americanus</i>	P	-
Gattinger's-foxtail	<i>Agalinis gattingeri</i>	T	-
Spreading Rock Cress	<i>Arabis patens</i>	E	-
Prairie False Indigo	<i>Baptisia lacteal</i>	P	-
Prairie Brome	<i>Bromus kalmii</i>	P	-
Pale Umbrella-sedge	<i>Carex acuminatus</i>	E	-
Cypress-knee Sedge	<i>Carex decomposita</i>	P	-
Tall Larkspur	<i>Delphinium exaltatum</i>	P	-
One-sided Rush	<i>Juncus secundus</i>	P	-
Scaly Blazing-star	<i>Liatris squarrosa</i>	P	-
Weak Spear Grass	<i>Poa saltuensis ssp. languida</i>	P	-
Abor Vitae	<i>Thuja occidentalis</i>	P	-
Three Birds Orchid	<i>Triphora trianthophora</i>	P	-
Rock Elm	<i>Ulmus thomasi</i>	P	-

Notes: E – Endangered.; T – Threatened.; X – Extirpated.; P – Proposed Threatened.; C – Candidate Species.; SC – Species of Concern.; SI – Special Interest

Table 4. USFWS IPaC Species List for Project Study Area

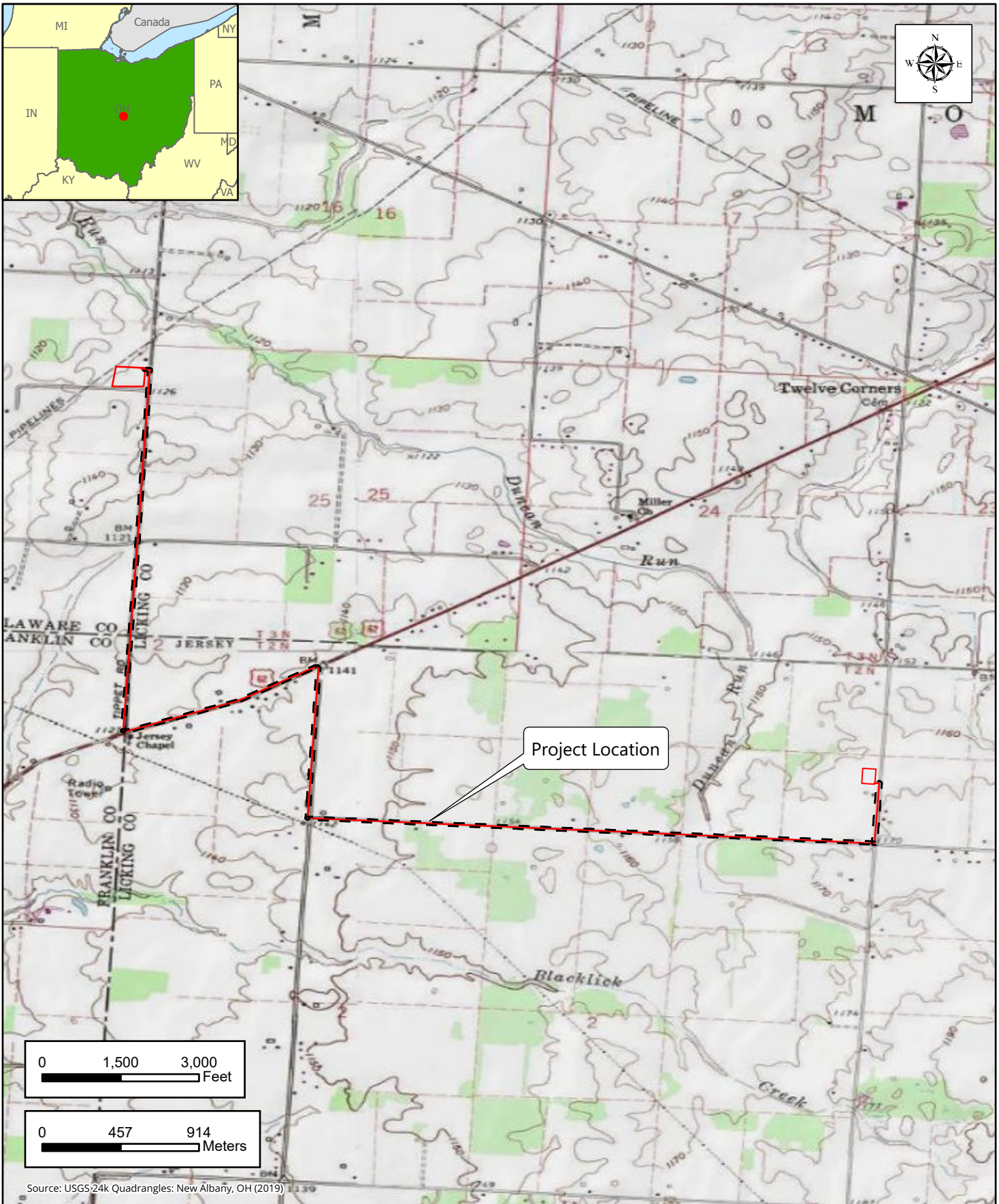
Common Name	Scientific Name	Status
Insects		
Monarch Butterfly	<i>Danaus plexippus</i>	C
Mammals		
Indiana Bat	<i>Myotis sodalis</i>	E
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	T
Tricolored Bat	<i>Perimyotis subflavus</i>	PE

Notes: E – Federally Endangered.; T – Federally Threatened.; PE – Proposed Endangered.; PT – Proposed Threatened.; C – Candidate Species.

A Threatened and Endangered Species Desktop Review was conducted for the Intel Project Slice. The Project Study Area is generally within agricultural and residential developed land uses. All construction activities, with the exception of the Point of Delivery (POD) Station with launcher/receiver facilities, and new customer regulator/meter station (GMB) at the Intel (customer) plant, will be located

in the existing roadway. The POD location is presently under agricultural use and the GMB location is under agricultural use. In summary, the comprehensive database search determined there is the potential for two (2) species with current federal protection to occur within the Project Study Area.

APPENDIX A



Prepared For:
 NiSource Inc.
 801 E. 86th Avenue
 Merrillville, IN 46410

Prepared By:
 Pittsburgh Office
 1501 Reedsdale St Ste 302
 Pittsburgh, PA, 15233
 T: 412 618 5390
www.colliersengineering.com



**Engineering
& Design**

Project Location Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:
12/12/2022

Project #:
22011510A

Drawn By:
AW

Figure 1

Project Area
 Project Location

APPENDIX B

1501 Reedsdale Street
Suite 302
Pittsburgh, PA 15233
Main: 877 627 3772



Via Email

November 14th, 2022

Mike Pettegrew
Environmental Review Coordinator
Ohio Department of Natural Resources
2045 Morse Rd., Bldg. E-2
Columbus, OH 43229

Request for Environmental Review
NiSource Intel Project
Franklin, Delaware, and Licking Counties, Ohio
Colliers Engineering & Design Project No.: 22011510A

Dear Mr. Pettegrew:

Colliers Engineering & Design, Inc. (DBA Maser Consulting) is submitting this letter for Environmental Review of the NiSource Intel Project located northeast of New Albany within Franklin, Delaware, and Licking Counties, Ohio. The NiSource Intel Project includes the installation of a Point-of-Delivery facility (POD) and 4-miles of pipeline with alternate routes. The Project Study Area is within existing DOT right-of-ways along Tippet Road, Johnstown Utica Road, Beech Road NW, and Miller Road NW. The Project Study Area or "Survey Corridor" begins at latitudinal coordinates 40.139550 N and longitudinal coordinates -82.760981 W and end at coordinates 40.114770 N and longitudinal coordinates -82.722806 W. The Project Study Area or "Survey Corridor" is situated within an area characterized by mainly residential properties, agricultural land, and small forested areas. The Project Study Area is located in the Eastern Corn Belt Plains ecoregion.

Very truly yours,

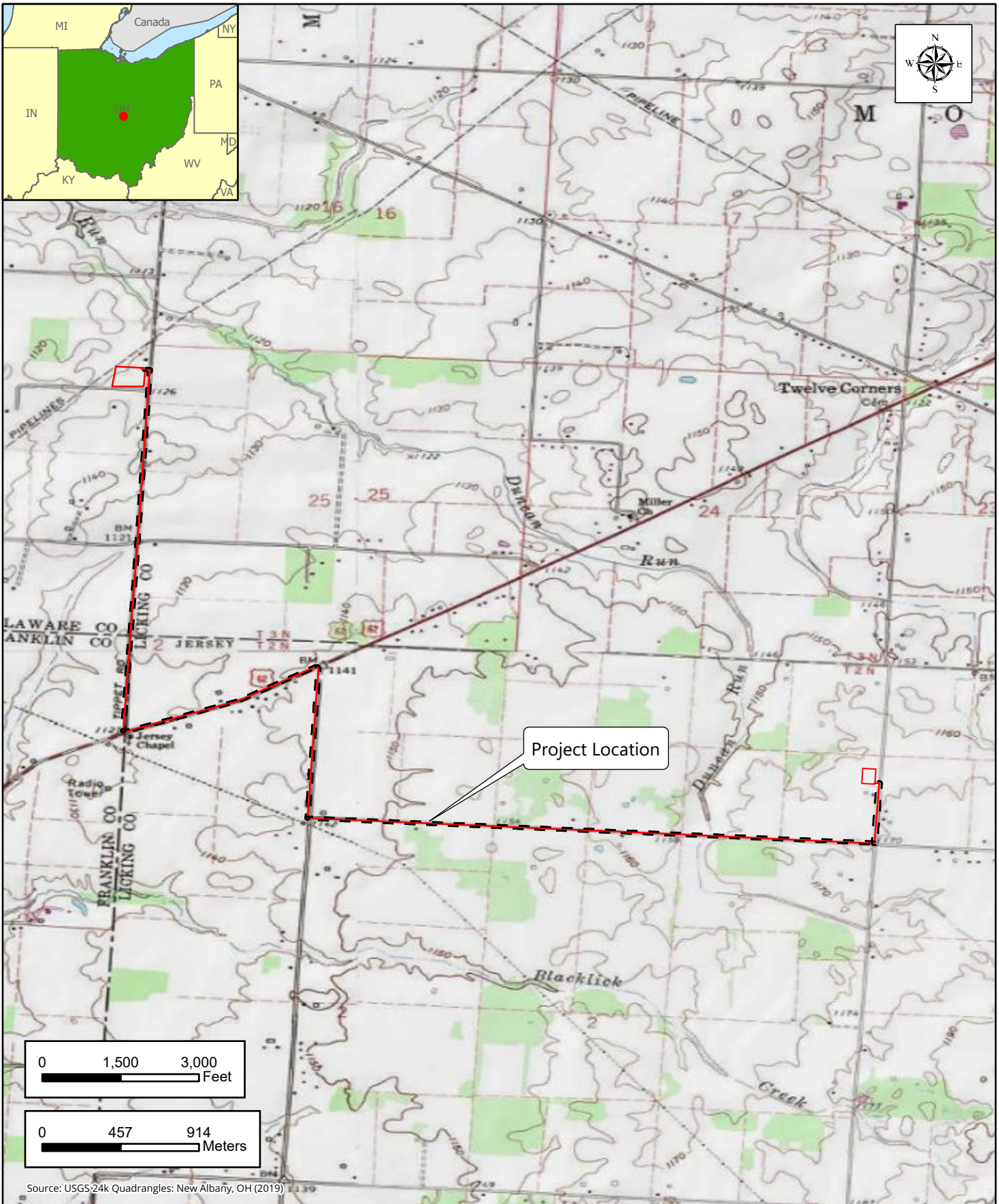
COLLIERS ENGINEERING & DESIGN, INC. (DBA MASER CONSULTING)

A handwritten signature in blue ink, appearing to read "Tanner Dickson", with a long horizontal flourish extending to the right.

Tanner Dickson
Environmental Specialist, Natural Resources

Enclosures

R:\Projects\2022\22011510A\Reports\Ecological\T&E\Ohio DNR



Prepared For:
 NiSource Inc.
 801 E. 86th Avenue
 Merrillville, IN 46410

Prepared By:
 Pittsburgh Office
 1501 Reedsdale St Ste 302
 Pittsburgh, PA, 15233
 T: 412 618 5390
www.colliersengineering.com



**Engineering
& Design**

Project Location Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:
12/12/2022

Project #:
22011510A

Drawn By:
AW

Figure 1

Project Area
 Project Location

APPENDIX C



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

Phone: (614) 416-8993 Fax: (614) 416-8994



In Reply Refer To:
Project Code: 2023-0023879
Project Name: Intel Project Slice

December 10, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

(614) 416-8993

Project Summary

Project Code: 2023-0023879

Project Name: Intel Project Slice

Project Type: Natural Gas Distribution

Project Description: POD station, 4.15 miles of natural gas pipeline, GMB station

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.12834525,-82.76174606876853,14z>



Counties: Delaware , Franklin , and Licking counties, Ohio

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Colliers Engineering & Design
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Phone: 9808903019

Attachment F

Maintenance of Traffic Plan

Cultural Resource Desktop Review

Intel Project Slice

Colliers Engineering & Design Project Number: 22011510A

December 12, 2022

Prepared for:

NiSource Inc.
801 E. 86th Avenue
Merrillville, IN 46410

Prepared by:

Colliers Engineering & Design, Inc. (DBA Maser Consulting)
1501 Reedsdale St Suite 302, Pittsburgh, PA 15233
Main: (412) 618-5390
Colliersengineering.com

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APPENDICES

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1.0 PURPOSE OF DOCUMENT

Colliers Engineering & Design (CED) was contracted by NiSource Inc. (NiSource) to perform a cultural resource background review for the Intel Project Slice (Project) north of Columbus, within Delaware, Licking, and Franklin Counties, Ohio. This background review and desktop assessment has been prepared in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966. This regulation requires project proponents to consider a project's effects on historic properties depending on potential permitting requirements and/or funding sources. The purpose of the document is to outline any previously recorded cultural resources that may be impacted by the proposed Project in support of NiSource's compliance with Section 106 of the NHPA. The goal is also to provide information for project planning and development, as well as estimates on possible future work that may be required for regulatory compliance. A cultural resources survey was not conducted as an element of this research.

2.0 INTRODUCTION

2.1 PROJECT DESCRIPTION

The proposed Project will be approximately 4.15 miles (6.68 kilometers [km]) in length and will consist of the construction of a Point of Delivery (POD) Station with launcher/receiver facilities, a 12-inch diameter high pressure gas distribution pipeline, a district regulator station (DS), and one new customer regulator/meter station (GMB) at the Intel (customer) plant. The Project will allow NiSource to provide required natural gas for Intel's Dragonfly Project. The Project area is comprised of a 100-foot-wide survey corridor centered on the proposed pipeline alignment for 4.15 miles.

2.2 PROJECT LOCATION

The Project area begins at latitudinal coordinates 40.139550 N and longitudinal coordinates -82.760981 W and ends at latitudinal coordinates 40.118155 N and longitudinal coordinates -82.722537 W. Access to the Project area can be achieved from Tippet Road, Johnstown Utica Road, Beech Road NW, and Miller Road NW. The Project is depicted on the *Jersey, New Albany, and Sunbury*, Ohio US Geological Survey (USGS) 7.5-minute topographic quadrangle maps.

2.3 EXISTING CONDITIONS AND VICINITY CHARACTERISTICS

The Project area consists mostly of residential properties and agricultural land. The Project area is bordered on all sides by further residential development and agricultural land and has been heavily disturbed by road construction throughout the years.

3.0 ENVIRONMENTAL BACKGROUND

3.1 PHYSIOGRAPHY AND GEOLOGY

The Project area is in the Loamy, High Lime Till Plains ecoregion of the Eastern Corn Belt Plains physiographic province of Ohio. The Loamy, High Lime Till Plains ecoregion covers most of southwestern Ohio all the way through central Indiana. This ecoregion is flat to rolling and has outwash plains and terminal moraines glacial features. Soils are loamy on lime-rich glacial till. The Project area is underlain by Wisconsin glacial deposits consisting of mostly loam. Most of the forests have been cleared for agriculture and now the area is utilized mostly for soybean, corn, and livestock production (Woods, et al. 1998).

The Project is underlain by the Sunbury shale, Maxville limestone, Logan formation, and Cuyahoga formations Undivided geological formations. The Sunbury shale consists of carbonaceous shale of the Mississippian age. The Maxville limestone, Logan formation, and Cuyahoga formations consists of “limestone overlying interbedded shale and sandstone” of the Mississippian age (ONDR 2022).

3.2 TOPOGRAPHY AND SOILS

The Natural Resources Conservation Service (NRCS) Soil Survey for Delaware, Licking, and Franklin Counties, Ohio available on the Web Soil Survey, identifies three (3) soil types underlying the Project area (**Table 1**). Soils range from very poorly drained to somewhat poorly drained (NRCS 2022).

Table 1. Soil Types in the Project area

Soil Symbol	Soil Name	Slope %	Drainage	Landform
BeA	Bennington silt loam	0-2	Somewhat poorly drained	loamy till of medium lime content
BeB	Bennington silt loam	2-6	Somewhat poorly drained	loamy till of medium lime content
PE	Pewamo silty clay loam	0-2	Very poorly drained	Till on moraines

4.0 CULTURAL RESOURCE DESKTOP REVIEW

The following information was gathered as part of the desktop review to identify previously recorded cultural resources within a 1-mile (1.6-km) radius of the Project area. The background review consisted of a cultural resources and literature review of the Project area. A CED archaeologist reviewed the online database hosted by the Ohio History Connection (OHC), the State Historic Preservation Office (SHPO) of Ohio, for any previously recorded surveys, historic or prehistoric sites, and cemeteries located in or near the Project. Site files, relevant maps, and National Register of Historic Places (NRHP) locations were also examined. Aerial photographs, topographic maps, and the NRCS Web Soil Survey were also examined for historical and environmental information related to the Project area.

4.1 PREVIOUSLY CONDUCTED CULTURAL RESOURCE SURVEYS

The background review revealed that one (1) previous archaeological survey intersects the Project area at the end of the driveway at 13757 Miller Road in Johnstown. "Phase I Archaeological Investigations for the Approximately 86.7 km (53.9 mi) Conesville 345kV Transmission Line Widening Project in Franklin, Licking, Muskingum, and Coshocton Counties, Ohio" was conducted in 2020 by Weller & Associates, Inc. Several other surveys have also been conducted within 1-mile (1.6-km) radius of the Project area. They are summarized below (Table 2).

Table 2. Previously conducted cultural resource surveys within 1-mile (1.6-km) of the Project area.

Report Name	Investigating Firm	Date of Survey	Distance to Project Area
Phase I Archaeological Investigations for the Approximately 86.7 km (53.9 mi) Conesville 345kV Transmission Line Widening Project in Franklin, Licking, Muskingum, and Coshocton Counties, Ohio	Weller & Associates, Inc.	2020	Intersects
Phase I Archaeological Investigations for the Approximately 9.7 km (6.0 mi) Jug Corridor 345 kV Line Rebuild Project in Plain Township, Franklin County and Jersey Township, Licking County, Ohio	Weller & Associates, Inc.	2017	0.51 mile (0.82 km)
Phase I Cultural Resources Management Investigations for the 484.5 ac. Project Jug Street in the City of New Albany, Licking County, Ohio	EMH&T, Inc.	2019	0.51 mile (0.82 km)
Phase I History/Architecture Survey for the S.R. 161/37 Improvement Project (FRA/LIC-161/37-23.15/0.00 [11.75]; PID 12139) Addendum Examining the Extension of the Project Area	ASC Group, Inc.	2002	0.65 mile (1.04 km)
Phase II Evaluative Testing for Archaeological Sites 33-LI-2466, 2475, 2491 and 2509 located in the 484.5 ac. Project Jug Street in the City of New Albany, Licking County, Ohio	EMH&T, Inc.	2020	0.65 mile (1.04 km)

Report Name	Investigating Firm	Date of Survey	Distance to Project Area
Phase I History/Architecture Survey for the S.R. 161/37 Improvement Project (FRA/LIC-161/37-23.15/0.00 [11.75]; PID 12139)	ASC Group, Inc.	2001	0.64 mile (1.03 km)
Phase I Cultural Resource Management Survey of a Proposed 4.2 ha (10.3 a.) Wetland Restoration Project in Plain Township, Franklin County, Ohio	Professional Archaeological Services Team	2009	0.94 mile (1.51 km)

4.2 PREVIOUSLY RECORDED CULTURAL RESOURCES

Based on the review, there are no archaeological sites nor above-ground historic resources documented within the Project area; however, there are multiple cultural resources documented within a 1-mile (1.6-km) radius of Project area. These resources are summarized below (**Table 3**).

Table 3. Previously recorded cultural resources within 1-mile (1.6 km) of the Project area.

OHI/OAI Number	Name of Resource	Date of Significance / Temporal	Address	Distance to Project Area
2916	Hanover-Snipetown Cemetery	Historic	0.2 mile east of TR 29 (Green-Cooke Road). 40 feet south of CR 20 (Fancher Road)	0.81-Mile (1.3 km)
FRA0232705	Tippet House	1860	11681 Johnstown Rd	0.30-Mile (0.48 km)
FR3075	Archaeological Site	Unknown Prehistoric	N/A	0.48-Mile (0.77 km)
FR3074	Archaeological Site	Unknown Prehistoric	N/A	0.95-Mile (1.53 km)
LI2243	Archaeological Site	Unknown Prehistoric	N/A	0.49-Mile (0.79 km)
LI2512	Archaeological Site	Unknown Prehistoric	N/A	0.55-Mile (0.89 km)
LI2513	Archaeological Site	Unknown Prehistoric	N/A	0.56-Mile (0.9 km)
LI2514	Archaeological Site	Unknown Prehistoric	N/A	0.54-Mile (0.87 km)
LI2515	Archaeological Site	Unknown Prehistoric	N/A	0.55-Mile (0.89 km)
LI2516	Archaeological Site	Unknown Prehistoric	N/A	0.57-Mile (0.92 km)
LI2517	Archaeological Site	Unknown Prehistoric	N/A	0.56-Mile (0.9 km)

OHI/OAI Number	Name of Resource	Date of Significance / Temporal	Address	Distance to Project Area
LI2518	Archaeological Site	Unknown Prehistoric	N/A	0.62-Mile (1 km)
LI2519	Archaeological Site	Unknown Prehistoric	N/A	0.61-Mile (0.98 km)
LI2499	Archaeological Site	Unknown Prehistoric	N/A	0.66-Mile (1.06 km)
LI2511	Archaeological Site	Unknown Prehistoric	N/A	0.90-Mile (1.44 km)
LI2457	Archaeological Site	Unknown Prehistoric	N/A	0.88-Mile (1.42 km)
LI2456	Archaeological Site	Unknown Prehistoric	N/A	0.88-Mile (1.42 km)
LI2455	Archaeological Site	Unknown Prehistoric	N/A	0.88-Mile (1.42 km)
LI2453	Archaeological Site	Unknown Prehistoric	N/A	0.88-Mile (1.42 km)
LI2452	Archaeological Site	Unknown Prehistoric	N/A	0.88-Mile (1.42 km)
LI2458	Archaeological Site	Unknown Prehistoric	N/A	0.95-Mile (1.53 km)
LI2459	Archaeological Site	Unknown Prehistoric	N/A	0.95-Mile (1.53 km)
LI2481	Archaeological Site	Unknown Prehistoric	N/A	0.93-Mile (1.5 km)
LI2482	Archaeological Site	Unknown Prehistoric	N/A	0.82-Mile (1.32 km)
LI2504	Archaeological Site	Unknown Prehistoric	N/A	0.96-Mile (1.54 km)
LI2473	Archaeological Site	Unknown Prehistoric	N/A	0.96-Mile (1.54 km)
LI2486	Archaeological Site	Unknown Prehistoric	N/A	1 Mile (1.6 km)
LI2483	Archaeological Site	Unknown Prehistoric	N/A	0.99-Mile (1.6 km)
LI2469	Archaeological Site	Early Archaic	N/A	0.98-Mile (1.58 km)
LI2473	Archaeological Site	Unknown Prehistoric	N/A	0.96-Mile (1.54 km)
LI2464	Archaeological Site	Early Archaic	N/A	0.96-Mile (1.54 km)
LI2474	Archaeological Site	Unknown Prehistoric	N/A	0.96-Mile (1.54 km)

OHI/OAI Number	Name of Resource	Date of Significance / Temporal	Address	Distance to Project Area
LI2478	Archaeological Site	Unknown Prehistoric	N/A	0.95-Mile (1.53 km)
LI2485	Archaeological Site	Unknown Prehistoric	N/A	0.95-Mile (1.53 km)
LI2504	Archaeological Site	Unknown Prehistoric	N/A	0.96-Mile (1.54 km)
LI2498	Archaeological Site	Unknown Prehistoric	N/A	0.96-Mile (1.54 km)
LI2465	Archaeological Site	Unknown Prehistoric	N/A	0.88-Mile (1.42 km)
LI2477	Archaeological Site	Unknown Prehistoric	N/A	0.84-Mile (1.35 km)
LI2475	Archaeological Site	Late Archaic	N/A	0.81-Mile (1.3 km)
LI2468	Archaeological Site	Unknown Prehistoric	N/A	0.79-Mile (1.27 km)
LI2502	Archaeological Site	Unknown Prehistoric	N/A	0.78-Mile (1.26 km)
LI2476	Archaeological Site	Unknown Prehistoric	N/A	0.76-Mile (1.22 km)
LI2466	Archaeological Site	Unknown Prehistoric	N/A	0.76-Mile (1.22 km)
LI2467	Archaeological Site	Unknown Prehistoric	N/A	0.76-Mile (1.22 km)
LI2484	Archaeological Site	Unknown Prehistoric	N/A	0.71-Mile (1.14 km)
LI2500	Archaeological Site	Early Archaic	N/A	0.73-Mile (1.17 km)
LI2505	Archaeological Site	Late Archaic	N/A	0.73-Mile (1.17 km)
LI2499	Archaeological Site	Unknown Prehistoric	N/A	0.66-Mile (1.06 km)
LI2454	Archaeological Site	Unknown Prehistoric	N/A	0.88-Mile (1.42 km)
LIC0160813	Foster Farmstead	c. 1880	3356 Clover Valley Road	0.74-Mile (1.19 km)
LIC0160913	MBJ Holdings House	1930	3445 Clover Valley Road	0.65-Mile (1.05 km)
LIC0160713	MCVGCM Holdings Farmstead	c. 1870	3704 Clover Valley Road	0.41-Mile (0.66 km)
LIC0160613	Klamfoth Farmstead	1870	4170 Clover Valley Road	36.9 meters (121 ft)

OHI/OAI Number	Name of Resource	Date of Significance / Temporal	Address	Distance to Project Area
LIC0160513	Juliana Charles House (Recently demolished)	c. 1900	4255 Clover Valley Road	0.18-Mile (0.29 km)
LIC0020713	Bevelhymer Russell Farm	1853	SWC Miller Rd & Mink St	0.99-Mile (1.6 km)

4.3 HISTORIC TOPOGRAPHIC MAPS AND AERIAL IMAGERY

Historical topographic maps and aerial photography revealed that the southern portion of the Project area has consistently been utilized for agriculture since the early twentieth century to present day (USGS 1902; USGS 1908; USGS 1955a; USGS 1955b; Nationwide Environmental title research [NETR] 2022a-d). In 1908, there are at least three residential compounds and the Meyers School located on either side of Miller Road NW (USGS 1908). Aerial photograph from the 1950's revealed a large farmstead consisting of one residence and at least five ancillary structures likely used for agricultural activities surrounded by farmland located south of Miller Road NW adjacent to the southernmost portion of the Project area (NETR 2022a). Another farmstead is located approximately 0.87-mile (1.39 km) east of the intersection of Beech Road NW and Miller Road NW. In the 1950's, this parcel of land was utilized for agricultural purposes with one rectangular residence and at least three rectangular storage facilities (NETR 2022a). A final farmstead consisting of at least three rectangular structures were located on the northeast corner of Miller Road NW and Beech Road NW (NETR 2022a). This facility was decommissioned by 1995 (NETR 2022d). Presently, the southern portion of the Project area is a mixture of agricultural fields and residential complexes.

The central portion of the Project area encompasses all structures adjacent to Beech Road NW and Johnstown Utica Road NW. The 1902 topographic maps revealed there were at least three structures located adjacent to Beach Road NW and four structures located Johnstown Utica Road (USGS 1902). By 1958, there was one farmstead consisting of two rectangular structures located west of the intersection of Beech Road NW and Miller Road NW, another farmstead consisting of at least three rectangular structures located approximately 494 feet (150.5 meters) north of the first farmstead, and at least seven residential facilities located adjacent to Johnstown Utica Road NW (NETR 2022b). Presently, the central portion of the Project area remains mostly agricultural fields with some residential development that has continued to the present day.

The northern portion of the Project area has remained mostly agricultural fields with some farmsteads and residences located throughout the area. In 1902, there were two structures and a church located adjacent to South County Line Road (USGS 1902). Topographic maps also revealed that there was a structure located in the POD. By 1955, the number of structures was reduced to two and the structure located in the laydown yard was dismantled (USGS 1995b). By 1965, at least six residential structures were erected on the northern portion of the line, east of South County Road. Presently, there are numerous farmsteads and residential complexes located on either side of Tippet Road and South County Road.

5.0 SUMMARY AND RECOMMENDATIONS

The proposed Project is located just north of Columbus, within Delaware, Licking, and Franklin Counties, Ohio and will be approximately 4.15 miles (6.68 km) in length and will consist of the construction of a Point of Delivery (POD) Station with launcher/receiver facilities, a 12-inch diameter high pressure gas distribution pipeline, a district regulator station (DS), and one new customer regulator/meter station (GMB) at the Intel (customer) plant. The Project will allow NiSource to provide required natural gas for Intel's Dragonfly Project. The Project area is comprised of a 100-foot-wide survey corridor centered on the proposed pipeline alignment for 4.15 miles. The Project Study Area is comprised of a 100-foot-wide survey corridor centered on the proposed pipeline alignment for 4.15 miles. The Project is depicted on the *Jersey, New Albany, and Sunbury*, Ohio US Geological Survey (USGS) 7.5-minute topographic quadrangle maps.

A Cultural Resource Review was conducted for the referenced project. A desktop review, consisting of a compilation of known above-ground historic resources, archaeological sites, and previously conducted cultural resources surveys, was conducted. There are no above-ground historic structures and no archaeological sites within the Project area; however, there are fifty-five (55) additional previously recorded cultural resources within a 1-mile (1.6-km) radius. These results are depicted in **Appendix B**.

Based on the information provided and the results of this desktop assessment, it is CED's opinion that, due to ongoing road activities since at least the early 1990s, finding intact cultural deposits is at low probability within the majority of the Project area. However, due to previously recorded historic structures near the eastern workspace, there is a probability for intact cultural features within the workspace. CED respectfully submits these findings to NiSource for their information. This background review and assessment was conducted in support of NiSource's compliance with Section 106 of the NHPA.

6.0 REFERENCES

ODNR Division of Geological Survey (ONDR)

2022 ODNR Map Viewer. <https://gis.ohiodnr.gov/website/dgs/geologyviewer/#>, accessed November 2022.

Nationwide Environmental Title Research (NETR)

2022a 1953 Aerial Imagery. Available online: <https://www.historicaerials.com/viewer>, accessed November 2022.

2022b 1958 Aerial Imagery. Available online: <https://www.historicaerials.com/viewer>, accessed November 2022.

2022c 1965 Aerial Imagery. Available online: <https://www.historicaerials.com/viewer>, accessed November 2022.

2022d 1995 Aerial Imagery. Available online: <https://www.historicaerials.com/viewer>, accessed November 2022.

Natural Resources Conservation Service (NRCS)

2022 US Department of Agriculture, Natural Resources Conservation Services. Electronic document, <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>, accessed November 2022.

US Geological Survey (USGS)

1902 Topographic Map of Westerville, Ohio 1:62500. Available online: <https://ngmdb.usgs.gov/topoview/>, accessed November 2022.

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1955a Topographic Map of New Albany, Ohio 1:24000. Available online: <https://ngmdb.usgs.gov/topoview/>, accessed November 2022.

1955b Topographic Map of Sunbury, Ohio 1:24000. Available online: <https://ngmdb.usgs.gov/topoview/>, accessed November 2022.

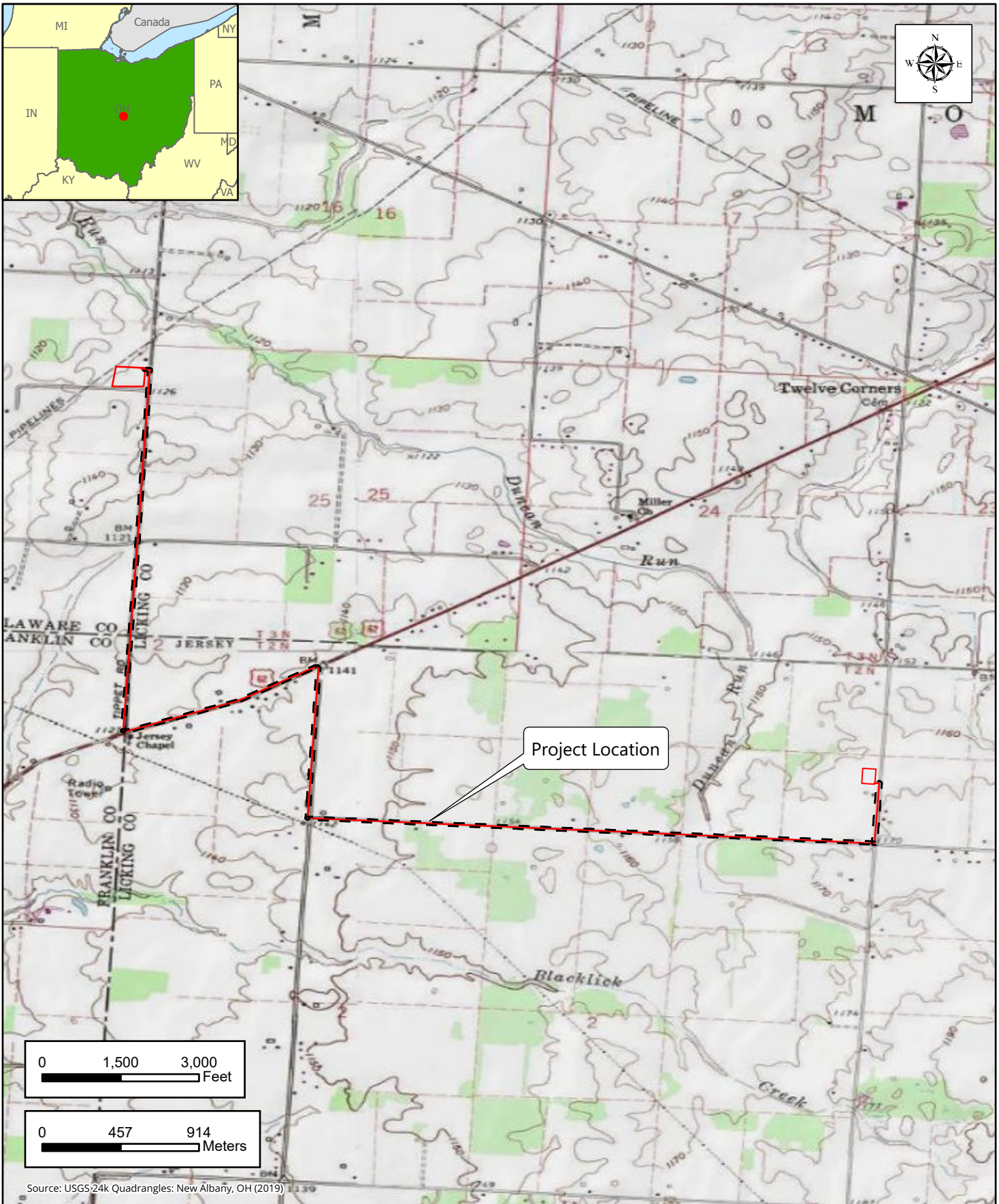
Woods, Alan J., James M. Omernik, C. Scott Brockman, Timothy D. Gerber, William D. Hosteter, and Sandra H. Azevedo

1998 Ecoregions of Indiana and Ohio. (Poster)

https://store.usgs.gov/assets/MOD/StoreFiles/Ecoregion/21631_in_oh_front.pdf. accessed November 2022.

Appendix

Appendix A | Project Location Map



Prepared For:
 NiSource Inc.
 801 E. 86th Avenue
 Merrillville, IN 46410

Prepared By:
 Pittsburgh Office
 1501 Reedsdale St Ste 302
 Pittsburgh, PA, 15233
 T: 412 618 5390
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**Engineering
& Design**

Project Location Map

NiSource Intel Project

Franklin, Delaware & Licking County, Ohio

Date:
12/12/2022

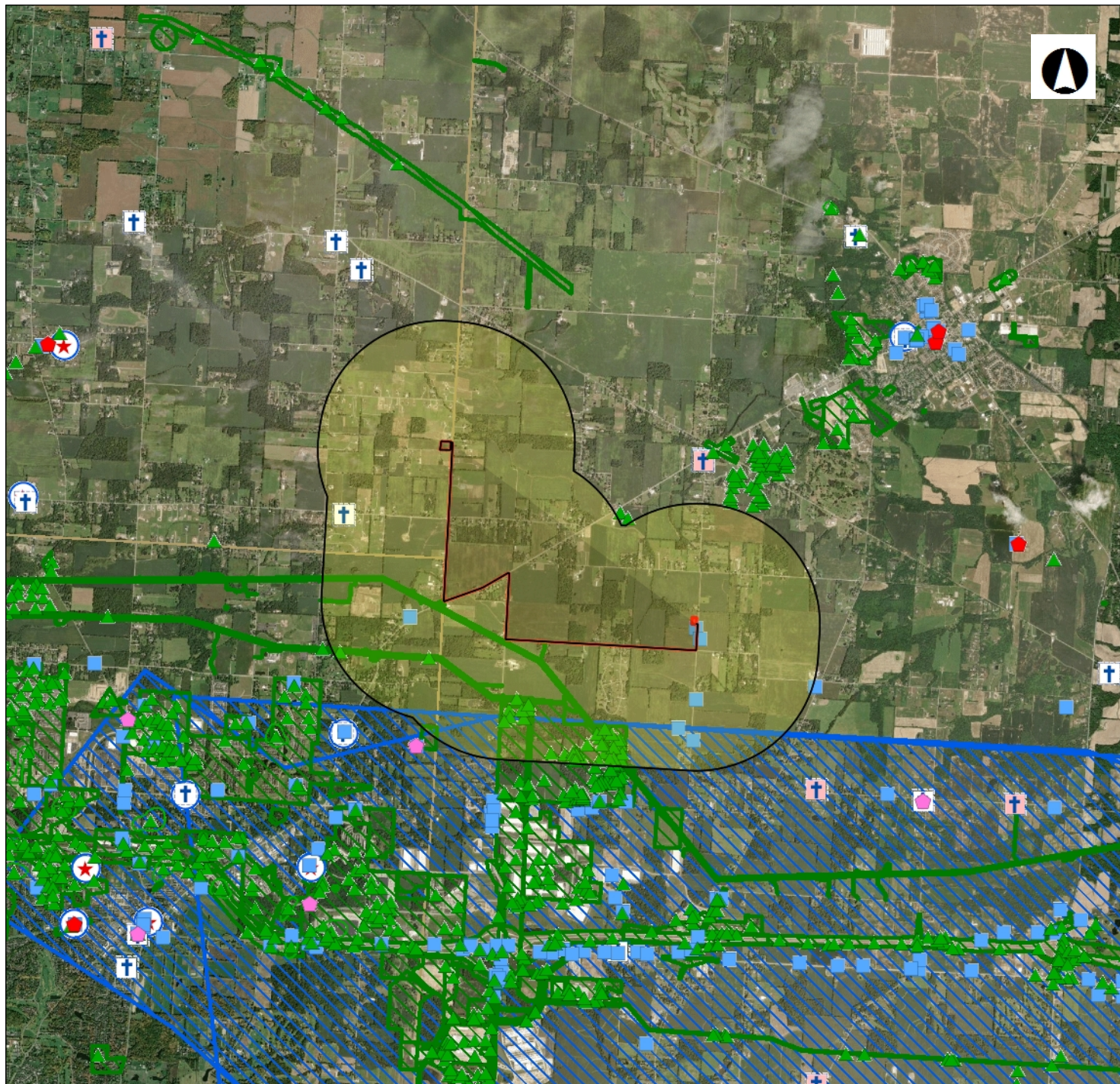
Project #:
22011510A

Drawn By:
AW

Figure 1

Project Area
 Project Location

Appendix B | Cultural Resources Background Map



State Historic
Preservation Office

Legend

NR Listings

- Listed
- ⊙ National Historic Landmark
- ✕ Delisted

Determinations of Eligibility

- ◆ DOE
- ✕ Demolished
- ▲ Archaeological Sites
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- ◆ Local Designations

OGS Cemeteries

- † Confident
- † Not Confident

Historic Markers

- ★ Dams

UTM Zone Split

0 1.26 2.53 Miles

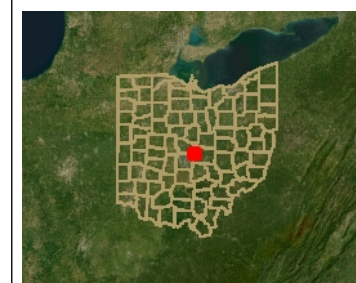
1: 100,000

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Datum: [Datum]

Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere





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