Section 106 800.11(e)

Appendix F

Preliminary Field Check Plans

PROJECT	DESIGNATION
2101733	2101733
CONTRACT	BRIDGE FILE
R-44267	-

INDIANA DEPARTMENT
OF TRANSPORTATION

ROAD PLANS

PROJECT NO. 2101733 P.E., R/W, CN

TRAFFIC DATA	OLIO RD.
A.D.T. (2025)	4300 V.P.D.
A.D.T. (2045)	5300 V.P.D.
D.H.V. (2045)	530 V.P.H.
DIRECTIONAL DISTRIBUTION	52% NB / 48% SB
TRUCKS	4.4% D.H.V.
DESIGN DATA	
DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	RECONSTRUCTION (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL AGENCY COLLECTOR
RURAL/URBAN	URBAN (SUBURBAN)
TERRAIN	LEVEL
ACCESS CONTROL	NONE

THE CITY OF NOBLESVILLE

APPROVED BY CITY OF NOBLESVILLE
BOARD OF PUBLIC WORKS

JACK MARTIN, PRESIDENT

JOHN DITSLEAR, VICE PRESIDENT

LAURIE DYER, MEMBER

ROBERT ELMER, MEMBER

RICK TAYLOR, MEMBER

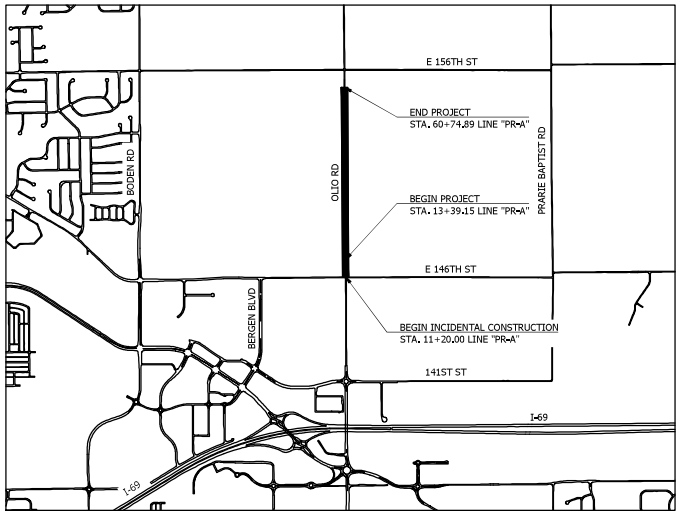
ATTEST DATE

EVELYN L. LEES, CLERK
CITY OF NOBLESVILLE, INDIANA

RECOMMENDED FOR APPROVAL DATE

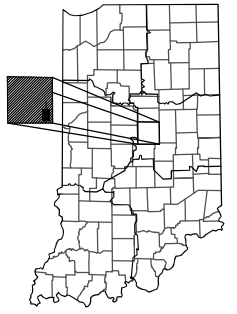
ALISON KRUPSKI, P.E., CITY ENGINEER (ERC)
CITY OF NOBLESVILLE

THIS PROJECT INCLUDES RECONSTRUCTION OF OLIO ROAD FROM 146TH STREET TO THE SOUTHERN END OF THE BRIDGE CARRYING OLIO ROAD OVER SAND CREEK. THIS PROJECT IS LOCATED IN SECTIONS 13 AND 14, T18N, R5E, IN WAYNE TOWNSHIP, HAMILTON COUNTY, INDIANA



SCALE: 1" = 1,500'

PROJECT LOCATION MAP
HAMILTON COUNTY



PROJECT LOCATION SHOWN BY

LATITUDE: 40°00'34"N LONGITUDE: 85°55'09"W

GROSS LENGTH: 0.897 MI.
NET LENGTH: 0.897 MI.
MAXIMUM GRADE: 1.47 %

HUC 05120201110040

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS

UNITED Consulting
8440 Allison Pointe Blvd.
Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

PLANS PREPARED BY: UNITED CONSULTING (317) 895-2585 PHONE NUMBER

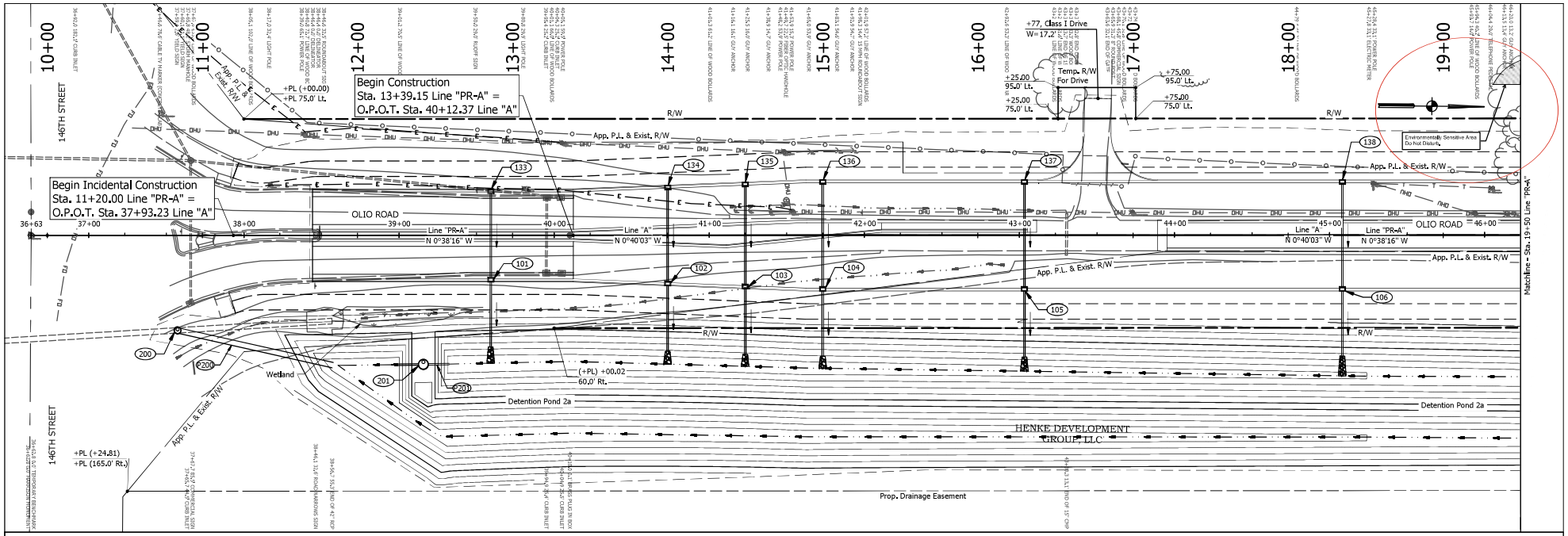
CERTIFIED BY: DATE

APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

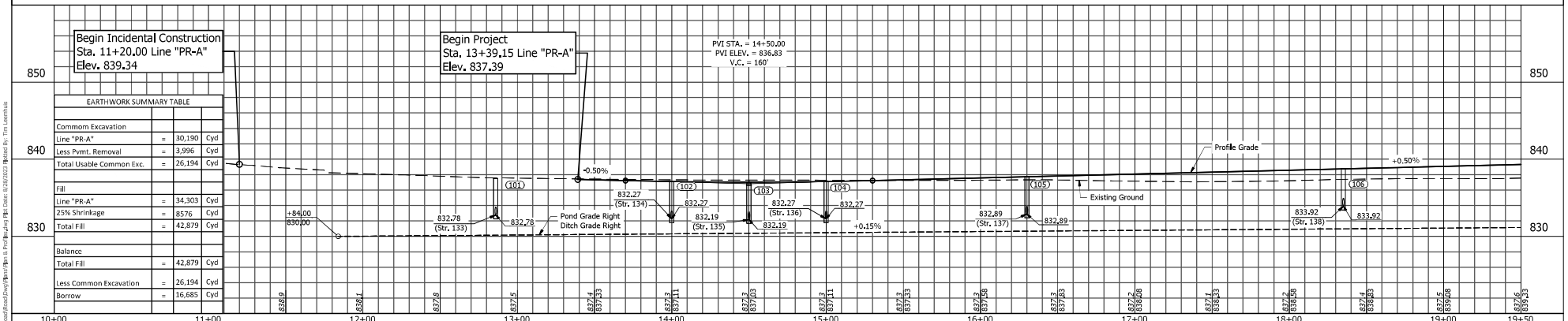
BRIDGE FILE	
-	
DESIGNATION	
2101733	

SURVEY BOOK	SHEETS
-	1 of 77
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\RD\C3D\22-422 Olio Road\Road\Dwg\Plans\Title Sheet.dwg Plot Date: 8/14/2023 Plotted By: Hunter Whitten



Note: All R/W station/offsets are described from Line "A" unless otherwise noted. All existing topography station/offsets are described from Line "A". Refer to Survey Control Sheet for benchmarks, reference ties & other information. Line "PR-A" to be constructed. All proposed construction station/offsets are described from Line "PR-A".



EARTHWORK SUMMARY TABLE

Commom Excavation			
Line "PR-A"	=	30,190	Cyd
Less Pvmt. Removal	=	3,996	Cyd
Total Usable Common Exc.	=	26,194	Cyd
Fill			
Line "PR-A"	=	34,303	Cyd
25% Shrinkage	=	8576	Cyd
Total Fill	=	42,879	Cyd
Balance			
Total Fill	=	42,879	Cyd
Less Common Excavation	=	26,194	Cyd
Borrow	=	16,685	Cyd

UNITED Consulting
8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

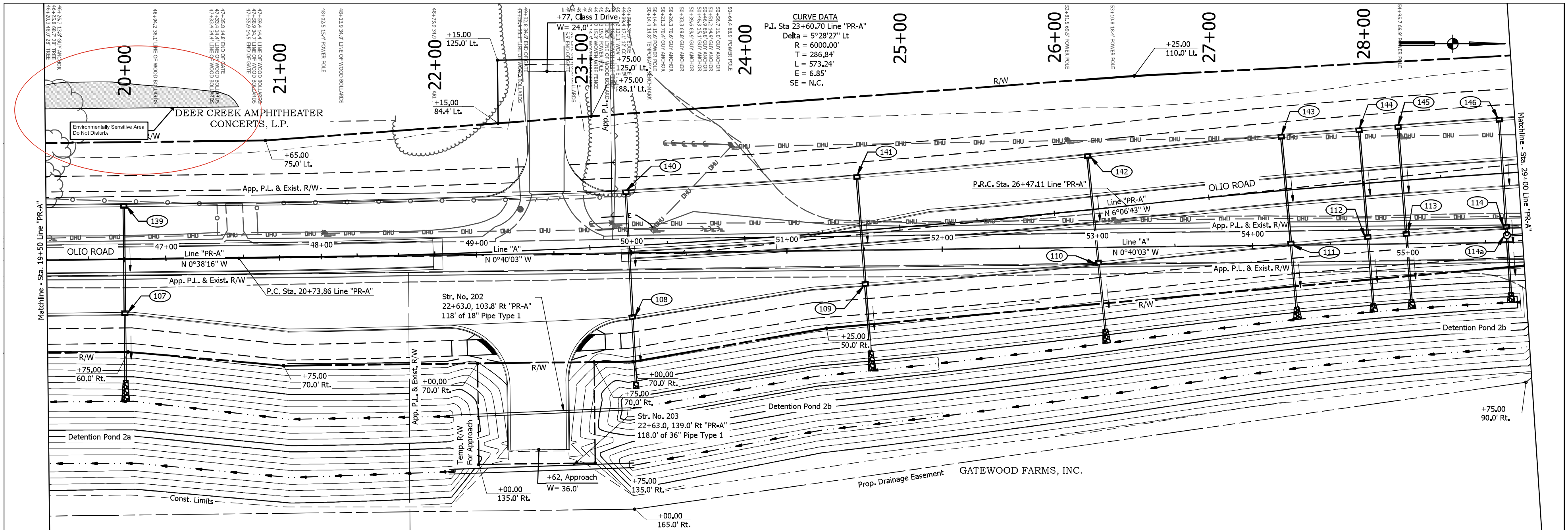
DESIGNED: TBL DRAWN: HSW

CHECKED: CCR CHECKED: CCR

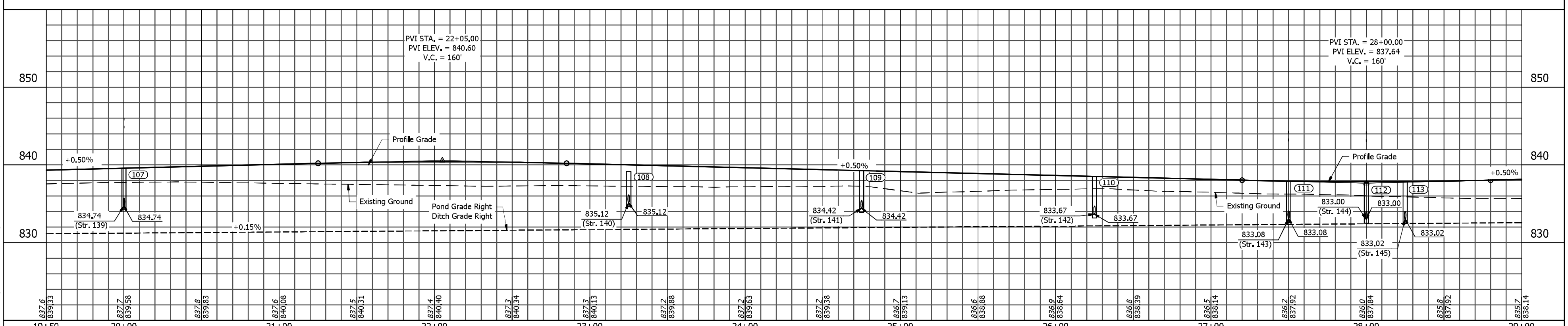
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	12 of 77
CONTRACT	PROJECT
R-44267	2101733



Note: All R/W station/offsets are described from Line "A" unless otherwise noted. All existing topography station/offsets are described from Line "A". Refer to Survey Control Sheet for benchmarks, reference ties & other information. Line "PR-A" to be constructed. All proposed construction station/offsets are described from Line "PR-A".



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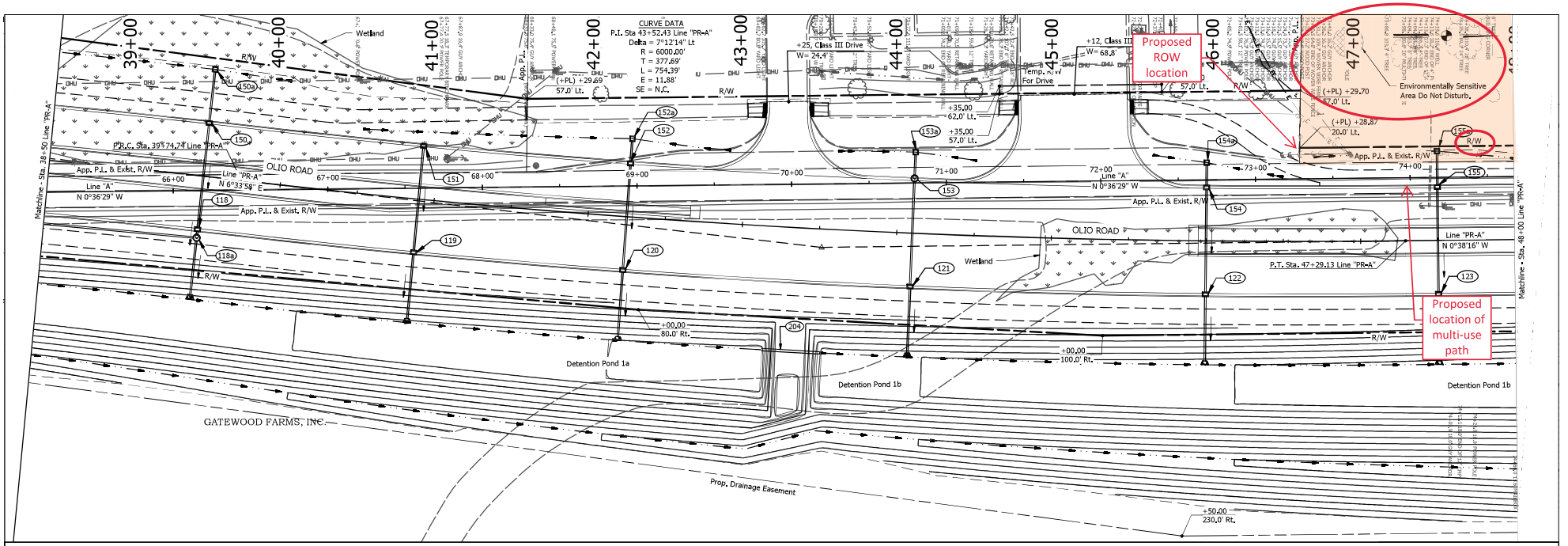
8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER		DATE
DESIGNED: TBL		DRAWN: HSW	
CHECKED: CCR		CHECKED: CCR	

INDIANA
DEPARTMENT OF TRANSPORTATION

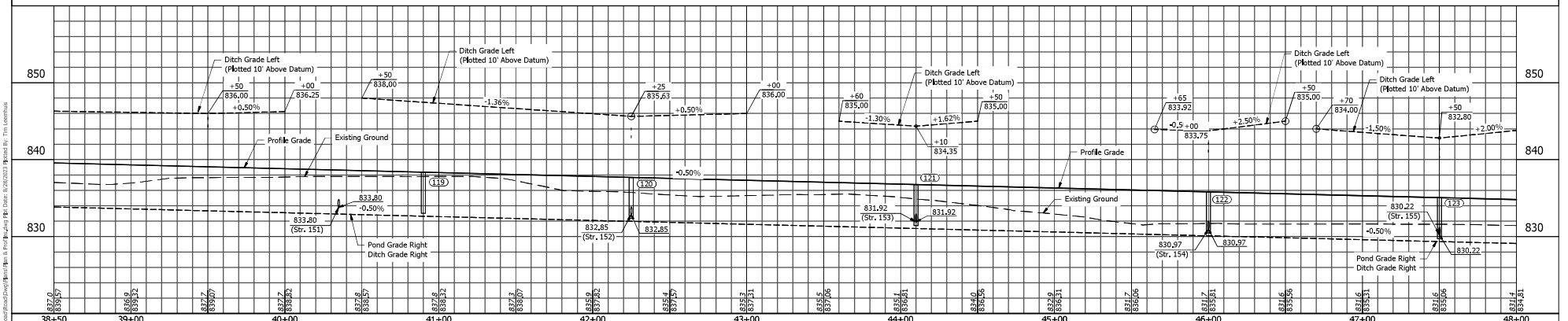
PLAN AND PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	13 of 77
CONTRACT	PROJECT
R-44267	2101733



Approximate location of recommended NRHP boundary for Wiseman Farm (IHSSI #057-541-40032)

Note: All R/W station/offsets are described from Line "A" unless otherwise noted. All existing topography station/offsets are described from Line "A". Refer to Survey Control Sheet for benchmarks, reference ties & other information. Line "PR-A" to be constructed. All proposed construction station/offsets are described from Line "PR-A".



UNITED Consulting
8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

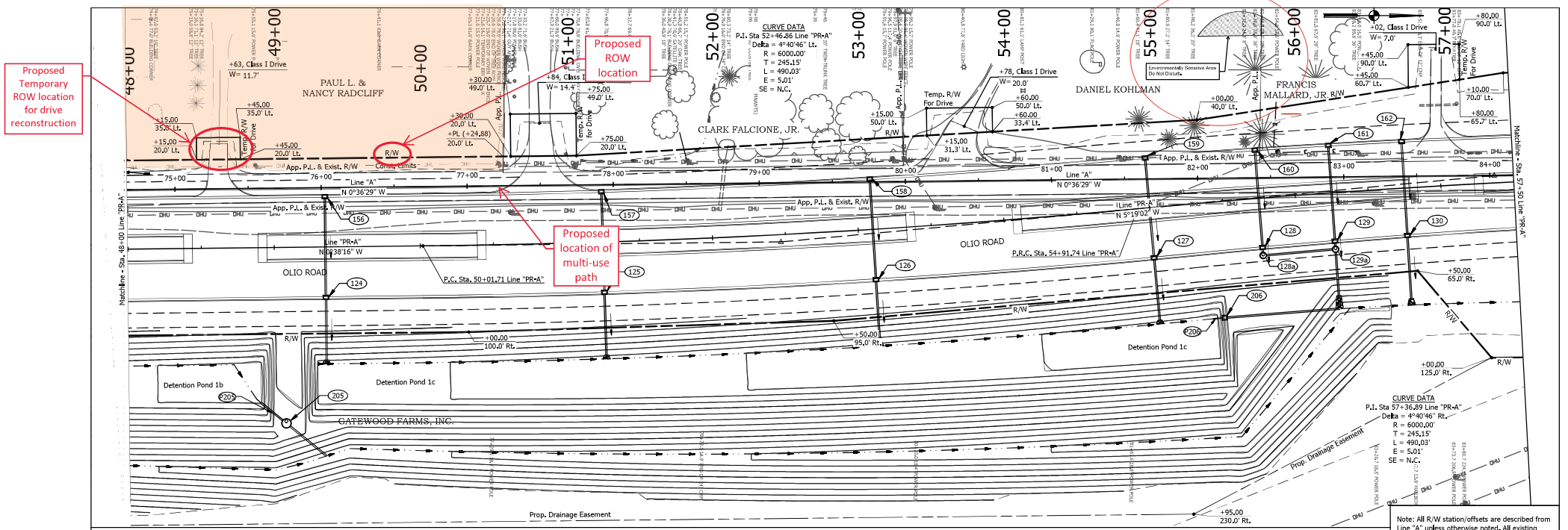
DESIGNED: TBL DRAWN: HSW

CHECKED: CCR CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	15 of 77
CONTRACT	PROJECT
R-44267	2101733



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8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER DATE
DESIGNED: TBL	DRAWN: HSW
CHECKED: CCR	CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	16 of 77
CONTRACT	PROJECT
R-44267	2101733

PROJECT	DESIGNATION
----	2101733
CONTRACT	BRIDGE FILE
EN-359	N/A

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

ROAD PLANS

INTERSECTION IMPROVEMENT
OLIO RD. & 156TH ST.
WAYNE TOWNSHIP, HAMILTON COUNTY, INDIANA

PROJECT DESCRIPTION:
INTERSECTION IMPROVEMENT AT OLIO ROAD AND EAST 156TH ROAD FROM SAND CREEK BRIDGE TO 156TH STREET IN SECTION 11, 12, 13 & 14 T-18-N, R-5-E, WAYNE TOWNSHIP, HAMILTON COUNTY, INDIANA

TRAFFIC DATA		
A.A.D.T.	(2025)	4,300 V.P.D.
A.A.D.T.	(2045)	5,300 V.P.D.
D.H.V.	(----)	530 V.P.H.
DIRECTIONAL DISTIBUTION		52%
TRUCKS		3.6% A.A.D.T.
		4.4% D.H.V.

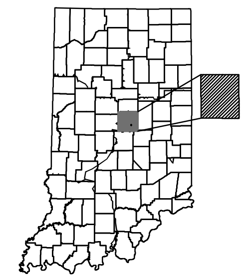
DESIGN DATA	
DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	RECONSTRUCTION (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL AGENCY COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE

APPROVED BY:
CITY OF NOBLESVILLE BOARD OF PUBLIC WORKS & SAFETY

Date: ____________________

Jack Martin	President
John Elmer	Member
Laurie Dyer	Member
Rick Taylor	Member
John Distlear	Member
Evelyn Lees	Clerk
Alison Krupski	City Engineer

VICINITY MAP
HAMILTON COUNTY



PROJECT LOCATION SHOWN BY ▬
(HAMILTON COUNTY)

LATITUDE: 40°06'32"N LONGITUDE: 85°55'09"W

BRIDGE LENGTH: 0.013 MI.
ROADWAY LENGTH: 0.195 MI.
TOTAL LENGTH: 0.208 MI.
MAX. GRADE: 1.47 %

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS

Date: Aug 28, 2023, 9:58am User Name: Ermieas.Abebe
File: X:\Production\Files\2022\122-2027\CAD\MiscDWG\Sht_RD_Title Sheet.dwg

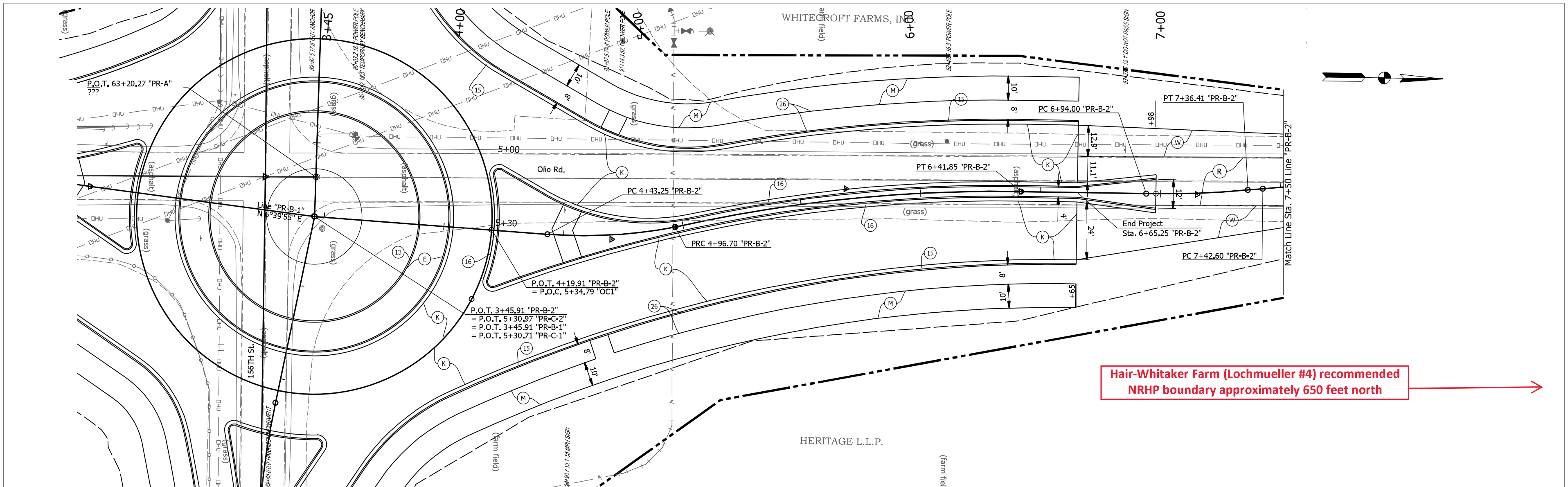
LOCHMUELLER GROUP

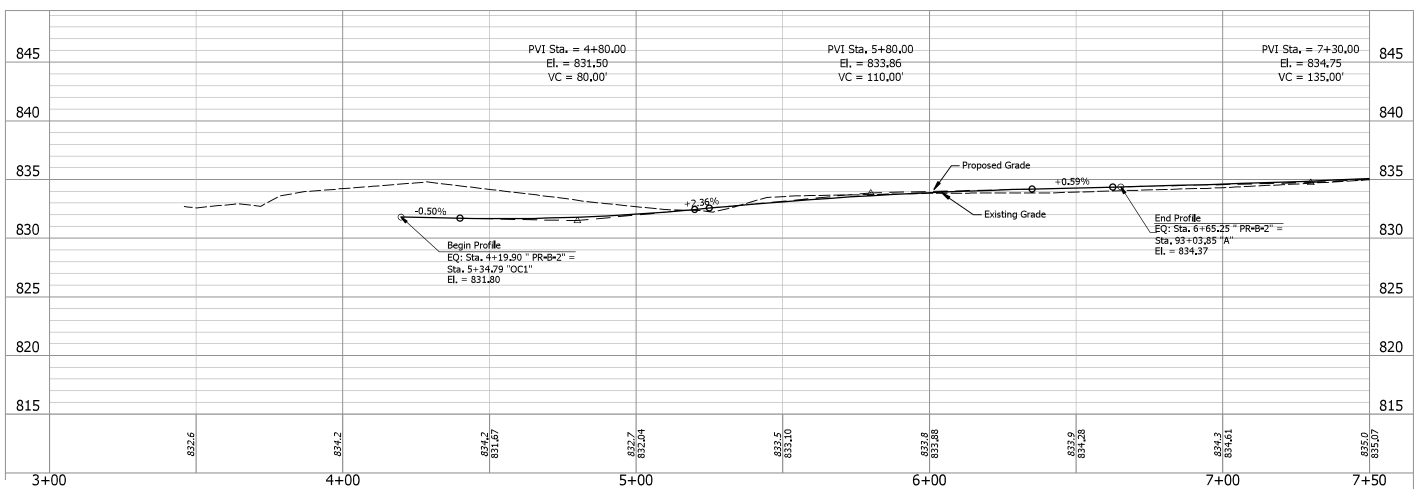
PLANS PREPARED BY: Lochmueller Group, Inc (317) 222-3880 PHONE NUMBER

CERTIFIED BY: "THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT." DATE

APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

	BRIDGE FILE		
	N/A		
	DESIGNATION		
	2101733		
SURVEY BOOK	SHEET		
ELECTRONIC BOOK	1	of	41
CONTRACT	PROJECT		
EN-359	----		





LEGEND:

- (C1) PCCP for Approaches, 6 in. on, Subgrade Treatment, Type II
- (E) Concrete Truck Apron: 10" PCCP (Decorative) on 440 LB/SYS QCQA-HMA, 3, 64, Base 25.0MM on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25.0MM
- (K) HMA Pavement 165 LB/SYS QCQA-HMA, 3,70, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 3,64, Intermediate, 19mm, on 440 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on 200 LB/SYS QCQA-HMA, 3,76, Intermediate, OG 19mm, on 660 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on Subgrade Treatment, Type IBC
- (M) HMA Trail/Path 330 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on 6 in. Compacted Aggregate for Base Type 'O' NO.53 on Subgrade Treatment, Type III
- (R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm on, Milling, Asphalt, 1½ in.
- (W) HMA Widening, Type C Consisting of 165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19.0mm on 300 LB/SYS QCQA-HMA, 2, 64, Base, 19.0mm on 6 in.Compacted Aggregate NO.53 on Subgrade Treatment, Type I
- (13) Curb, Integral, Concrete
- (15) Curb and Gutter, Concrete, Modified
- (16) Curb, Integral B, Concrete, Modified
- (26) Sodding

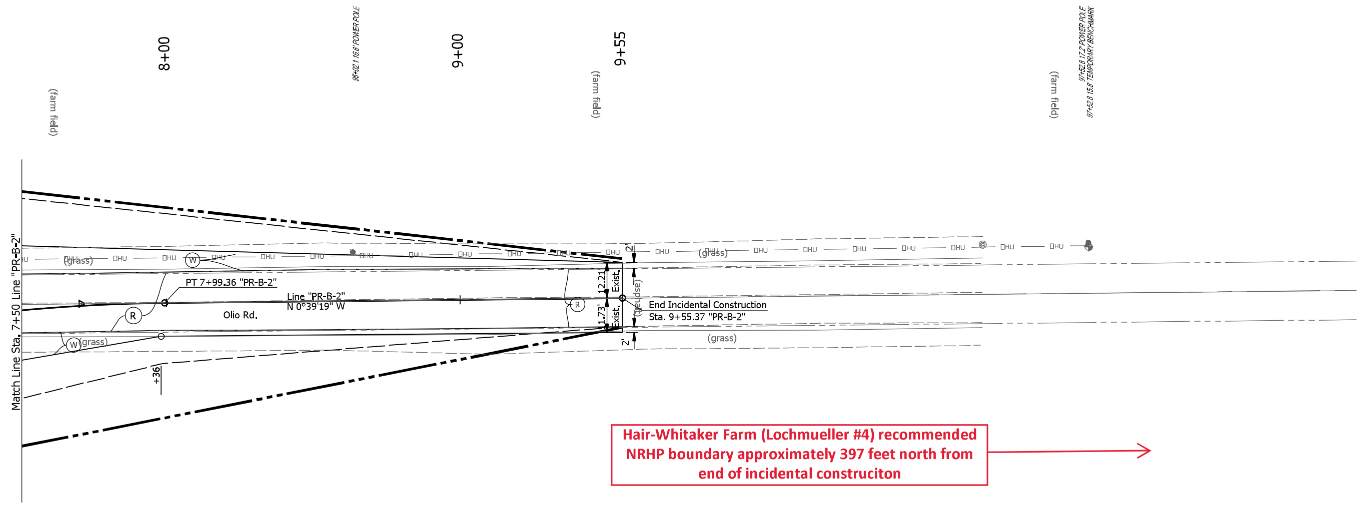
Date: Aug 29, 2023, 10:00am User Name: Ermacas-Acebe
File: X:\Production\Files\2021\22-2027\CAD\P&P\SH_RD_Plan & Profile.dwg - (PR-B-2 (1))

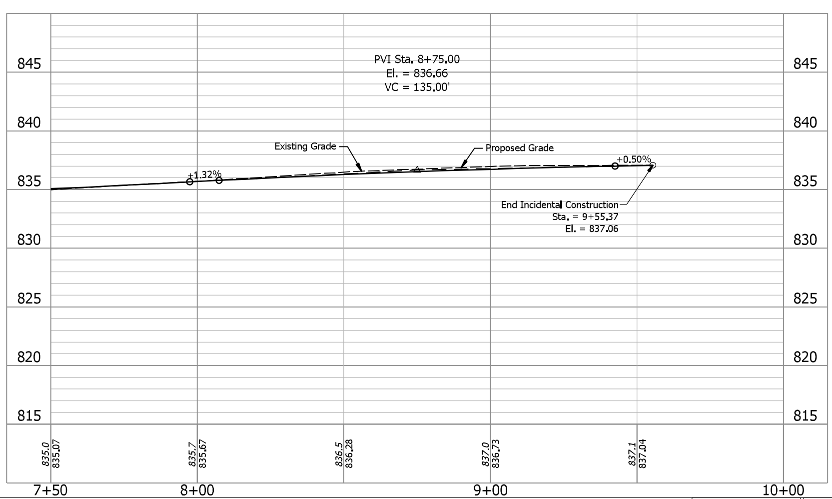
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER		DATE
DESIGNED: EWA		DRAWN: EWA	
CHECKED: JNH		CHECKED: JNH	

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

PLAN & PROFILE - LINE "PR-B-2"
STA. 3+46 TO STA. 7+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	2101733
SURVEY BOOK	SHEET
ELECTRONIC	7 of 41
CONTRACT	PROJECT
EN-359	----





LEGEND:

- (C1) PCCP for Approaches, 6 in. on, Subgrade Treatment, Type II
- (E) Concrete Truck Apron: 10" PCCP (Decorative) on 440 LB/SYS QCQA-HMA, 3, 64, Base 25.0MM on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25.0MM
- (K) HMA Pavement 165 LB/SYS QCQA-HMA, 3,70, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 3,64, Intermediate, 19mm, on 440 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on 200 LB/SYS QCQA-HMA, 3,76, Intermediate, OG 19mm, on 660 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on Subgrade Treatment, Type IBC
- (M) HMA Trail/Path 330 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on 6 in. Compacted Aggregate for Base Type 'O' NO.53 on Subgrade Treatment, Type III
- (R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm on, Milling, Asphalt, 1½ in.
- (W) HMA Widening, Type C Consisting of 165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19.0mm on 300 LB/SYS QCQA-HMA, 2, 64, Base, 19.0mm on 6 in.Compacted Aggregate NO.53 on Subgrade Treatment, Type I
- (13) Curb, Integral, Concrete
- (15) Curb and Gutter, Concrete, Modified
- (16) Curb, Integral B, Concrete, Modified
- (26) Sodding

Date: Aug 29, 2023, 10:00am User Name: Ermacas-Acebe
File: X:\Production\Files\2022\122-2027\CAD\P&P\SHt_RD_Plan & Profile.dwg - (PR-B-2 (2))

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER ______ DATE

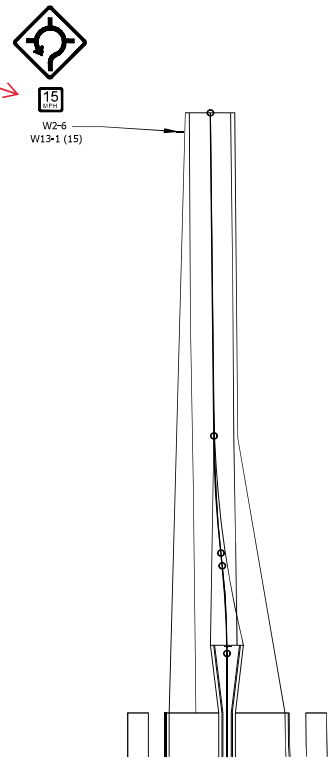
DESIGNED: EWA	DRAWN: EWA
CHECKED: JNH	CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

PLAN & PROFILE - LINE "PR-B-2"
STA. 7+50 TO STA. 9+55

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	2101733
SURVEY BOOK	SHEET
ELECTRONIC	8 of 41
CONTRACT	PROJECT
EN-359	----

Hair-Whitaker Farm (Lochmueller #4) recommended NRHP boundary approximately 390 feet north from proposed sign placement



RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: EWA
DRAWN: EWA
CHECKED: JNH
CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

PAVEMENT MARKING AND SIGNAGE PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" = 30	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEET
ELECTRONIC	21 of 41
CONTRACT	PROJECT
EN-359	---

Date: Aug 28, 2023, 10:02am User Name: Ermias Asebe
File: I:\Production\Files\2021\122.2027\CAD\SignsPvmtMark\SNL_RD_Pavement Markings.dwg

Public Notice
Des. No. 2101733

The City of Noblesville is planning to undertake a roadway improvement project, funded in part by the Federal Highway Administration (FHWA). The project is located on Olio Road from 146th Street to 156th Street in the City of Noblesville, Indiana.

Under the preferred alternative, the road will be widened from a two-lane road into a four-lane boulevard. The road will consist of four (4) 12-foot wide lanes with a 20-foot wide raised grass median. The roadway will have curb and gutter and two (2) 10-foot wide multi-use paths on each side of the road. The bridge over Sand Creek will be replaced as part of the project as well. In addition, the intersection of 156th Street and Olio Road will be converted into a roundabout. It is anticipated that 16.84 acres of permanent and 10.11 acres of temporary right-of-way will be acquired for this project along with 4.79 acres for a drainage easement.

Properties listed in or eligible for the National Register of Historic Places (NRHP) located within the Area of Potential Effects (APE) include the Wiseman Farm and the Hair-Whitaker Farm. The proposed action impacts properties listed in or eligible for the NRHP. The Indiana Department of Transportation (INDOT), on behalf of the FHWA, has issued a "No Adverse Effect" finding for the project because the project will not diminish the integrity of the characteristics that qualify the historic properties within the APE for inclusion in the NRHP. In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.4(d)(2), the documentation specified in 36 CFR 800.11(e) is available for inspection in Lochmueller Group offices. Additionally, this documentation can be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at https://erms12c.indot.in.gov/Section106Documents. This documentation serves as the basis for the "No Adverse Effect" finding. The views of the public on this effect finding are being sought. Please reply with any comments to Hannah Blad, 112 W. Jefferson Blvd., Suite 500, South Bend, IN, 46601, hblad@lochgroup.com, 574.334.5487 no later than December 25, 2024.

In accordance with the "Americans with Disabilities Act", if you have a disability for which the City of Noblesville needs to provide accessibility to the document(s) such as interpreters or readers, please contact Jim Hellmann, 317.776.6330, ext. 2602, jhellmann@noblesville.in.us.

R5292 *11/25/24*

PUBLISHER'S AFFIDAVIT

State of Indiana)
) ss:
Hamilton County)

Personally appeared before me, a notary public in and for said county and state, the undersigned Stu Clampitt who, being duly sworn, says that he is Publisher of the Hamilton County Reporter newspaper of general circulation printed and published in the English language in the city of Noblesville in state and county afore-said, and that the printed matter attached hereto is a true copy, which was duly published in said paper for 1 time(s), the date(s) of publication being as follows:

11/25/2024

Subscribed and sworn to before me this Monday, November 25, 2024.

Notary Public

My commission expires: **06/20/2026**
John Christopher Austin
Resident of Marion County

Publisher's Fee: $35.49

Des. No. 2101733 *R 5292*

Categorical Exclusion

Appendix E

Red Flag Investigation & Hazardous Materials

Date: April 10, 2023

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Samantha Beaupre
Lochmueller Group, Inc.
3502 Woodview Trace, Suite 150
Indianapolis, IN 46256
SBeaupre@lochgroup.com

Re: RED FLAG INVESTIGATION
DES # 2101733, Local Project
Added Travel Lanes Project
Olio Road, 146th Street to 156th Street
Hamilton County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The City of Noblesville, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT), proposes to proceed with a road widening project on Olio Road from 146th Street to 156th Street in Hamilton County, Indiana. The proposed project will widen Olio Road from a two-lane roadway into a four-lane boulevard, which consist of four 12-foot lanes with a 20-foot raised grass median. The roadway will have curb and gutter and two 10-foot multi-use paths on each side of the road. The bridge over Sand Creek, Bridge No. 29-00170, will be replaced as part of the project. The proposed bridge will consist of four 12-foot lanes with two 2-foot shoulders and two 10-foot multi-use paths. It is anticipated that the new bridge will be approximately 21-feet 8-inches long by 52-feet wide with an out-to-out coping width of 75 feet.

A new roundabout will also be constructed at the intersection Olio Road and 156th Street. The design of the roundabout will be determined as design progresses. A second bridge over Sand Creek, Bridge No. 29-00277, is located east of Olio Road on 156th Street at the eastern project terminus. This bridge consists of two 10-foot diameter, 22-foot long corrugated metal pipes (CMPs) and may be replaced as part of the proposed project. The design of the new structure will be determined as design progresses.

The ROW acquisition will be determined as design progresses, but greater than 0.5 acre of permanent ROW is anticipated.

Bridge Work Included in Project: Yes ☒ No ☐ Structure #(s) Bridge # 29-00170 and 29-00277
If this is a bridge project, is the bridge Historical? Yes ☐ No ☒ , Select ☐ Non-Select ☐
(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).
Culvert Work Included in Project: Yes ☐ No ☒ Structure #(s) _____
Proposed right of way: Temporary ☒ # Acres TBD, Permanent ☒ # Acres TBD, Not Applicable ☒
Type and proposed depth of excavation: The maximum depth of excavation for the project is 18 feet for the bridge replacements.

Maintenance of traffic (MOT): The MOT is anticipated to involve a closure of Olio Road and a detour. The detour route will be determined as design progresses.
Work in waterway: Yes ☒ No ☐ Below ordinary high water mark: Yes ☒ No ☐
State Project: ☐ LPA: ☒
Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	**N/A**	Recreational Facilities	**1**
Airports[1]	**1**	Pipelines	**1**
Cemeteries	**N/A**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**N/A**
Schools	**N/A**	Managed Lands	**N/A**

[1]In order to complete the required airport review, a review of public-use airports within 3.8 miles (20,000 feet) is required.

Explanation:

Airports: Although not located within the 0.5 mile search radius, one (1) public-use airport, Noblesville Airport, is located within 3.8 miles (20,000 feet) of the project area. The public use airport is located approximately 2.35 miles east of the project area; therefore, early coordination with INDOT Aviation will occur.

Recreational Facilities: One (1) recreational facility is located within the 0.5 mile search radius. The recreational facility, Ruoff Music Center, is located adjacent to the southern terminus of the project area. Coordination with Ruoff Music Center will occur.

Pipelines: One (1) pipeline segment is located within the 0.5 mile search radius. The pipeline segment, Indiana Gas Co. Inc., is located 0.37 mile southeast of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	**N/A**	Canal Routes - Historic	**N/A**
Karst Springs	**N/A**	NWI - Wetlands	**10**
Canal Structures – Historic	**N/A**	Lakes	**3**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**8**
NWI-Lines	**2**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**1**	Sinkhole Areas	**N/A**
Rivers and Streams	**4**	Sinking-Stream Basins	**N/A**

Explanation:

NWI-Lines: Two (2) NWI-Line segments are located within the 0.5 mile search radius. One segment crosses through the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

IDEM 303d Listed Streams and Lakes (Impaired): One (1) 303d Listed Stream is located within the 0.5 mile search radius. Sand Creek is located within the project area. Sand Creek is listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

Rivers and Streams: Four (4) stream segments are located within the 0.5 mile search radius. One (1) stream segment, Sand Creek, is located within the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI-Wetlands: Ten (10) NWI wetland polygons are located within the 0.5 mile search radius. One (1) NWI wetland polygon is located within the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Lakes: Three (3) lakes are located within the 0.5 mile search radius. The nearest lake is located 0.26 mile southwest of the project area. No impact is expected.

Floodplain-DFIRM: Eight (8) floodplain polygons are located within the 0.5 mile search radius. The project area is located within two (2) of the floodplain polygons. Coordination with INDOT ESD Ecology and Waterway Permitting will occur.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	**6**	Mineral Resources	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation:

Petroleum Wells: Six (6) petroleum wells are located within the 0.5 mile search radius. One (1) petroleum well is located 0.03 mile south of the southern terminus of the project area. Coordination with Indiana Department of Natural Resources (IDNR) Oil and Gas Division will occur.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	**N/A**	Manufactured Gas Plant Sites	**N/A**
RCRA Generator/ TSD	**N/A**	Open Dump Waste Sites	**N/A**
RCRA Corrective Action Sites	**N/A**	Restricted Waste Sites	**N/A**

State Cleanup Sites	**N/A**	Waste Transfer Stations	**N/A**
Septage Waste Sites	**N/A**	Tire Waste Sites	**N/A**
Underground Storage Tank (UST) Sites	**N/A**	Confined Feeding Operations (CFO)	**N/A**
Voluntary Remediation Program	**N/A**	Brownfields	**N/A**
Construction Demolition Waste	**N/A**	Institutional Controls	**N/A**
Solid Waste Landfill	**N/A**	NPDES Facilities	**4**
Infectious/Medical Waste Sites	**N/A**	NPDES Pipe Locations	**N/A**
Leaking Underground Storage (LUST) Sites	**N/A**	Notice of Contamination Sites	**N/A**

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

Explanation:

NPDES Facilities: Four (4) NPDES facilities are located within the 0.5 mile search radius. The nearest NPDES facility is located 0.17 mile southeast of the project area. This represents a permit for I-69 construction and has been terminated. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Hamilton County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is provided at (https://www.in.gov/dnr/nature-preserves/files/np_hamilton.pdf) . A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did not indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area surrounded by farm fields, residences, and commercial uses. The September 16, 2021 inspection report for Bridge #29-00170 states that no evidence of bats was seen or heard under the bridge. The September 22, 2021 inspection report for Bridge #29-00277 states that no evidence of bats was seen or heard in the bridge. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent “Using the USFWS’s IPaC System for Listed Bat Consultation for INDOT Projects”.

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE:

Airports: Although not located within the 0.5 mile search radius, one (1) public-use airport, Noblesville Airport, is located within 3.8 miles (20,000 feet) of the project area. The public use airport is located approximately 2.35 miles east of the project area; therefore, early coordination with INDOT Aviation will occur.

Recreational Facilities: One (1) recreational facility is located within the 0.5 mile search radius. The recreational facility, Ruoff Music Center, is located adjacent to the southern terminus of the project area. Coordination with Ruoff Music Center will occur.

WATER RESOURCES:

A Waters of the US Report is recommended based on the presence of mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur for the following features:

- One NWI-line segment crosses through the project area.
- One (1) stream segment, Sand Creek, flows through the project area.
- One (1) NWI wetland polygon is located within the project area.
- The project area is located within two (2) floodplain polygons (coordination only).

IDEM 303d Listed Streams and Lakes (Impaired): One (1) 303d Listed Stream, Sand Creek, is located within the project area. Sand Creek is listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

MINING/MINERAL EXPLORATION:

Petroleum Wells: One (1) petroleum well is located 0.03 mile south of the southern terminus of the project area. Coordination with Indiana Department of Natural Resources (IDNR) Oil and Gas Division will occur.

HAZARDOUS MATERIAL CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

INDOT ESD concurrence: Dariane Davis Digitally signed by Dariane Davis Date: 2023.04.10 14:33:16 -04'00' (Signature)

Prepared by:

Samantha Beaupre

Samantha Beaupre
Environmental Specialist
Lochmueller Group, Inc.

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

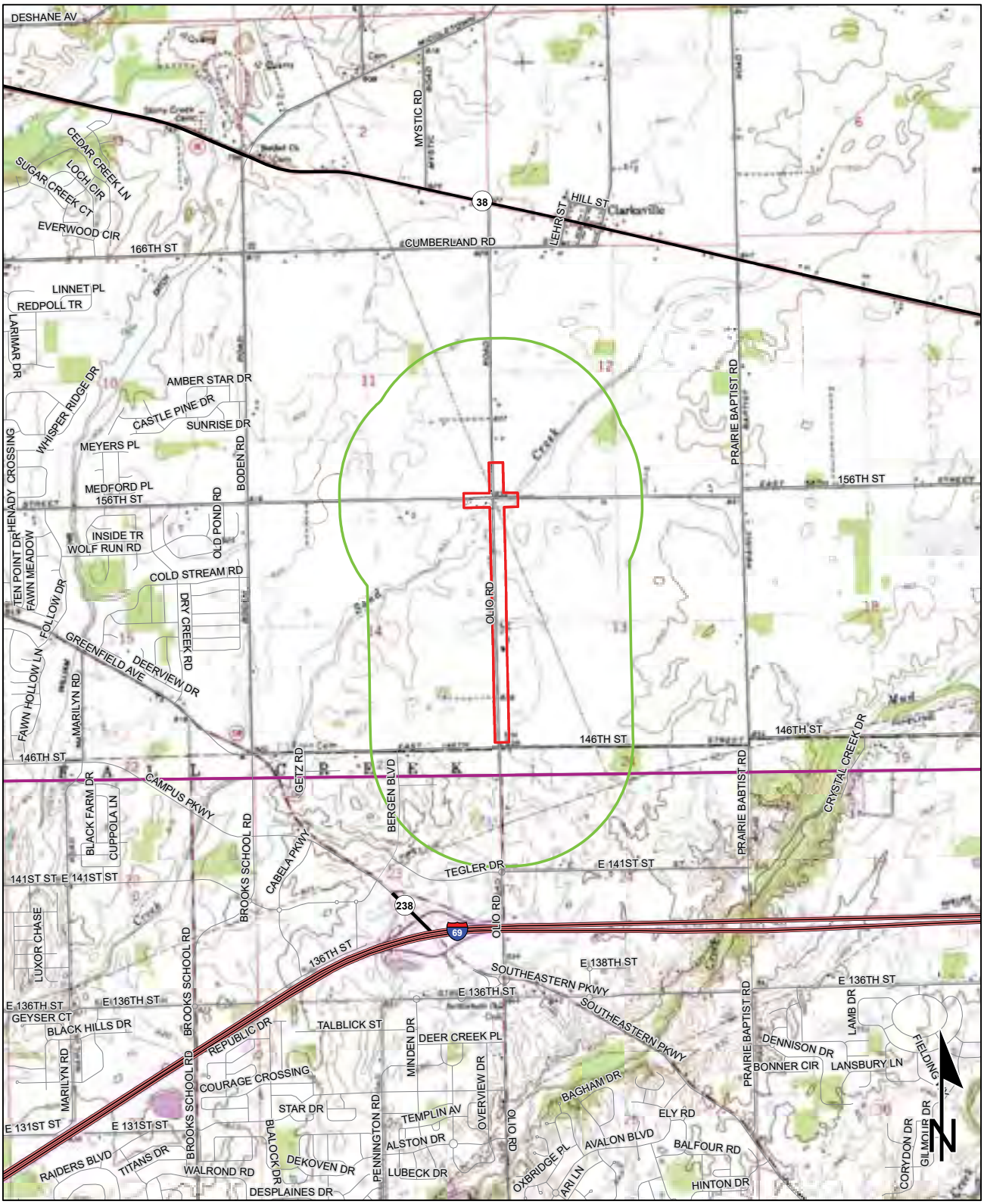
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: YES

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Site Location
Olio Road, 146th Street to 156th Street
Des. No. 2101733, Added Travel Lanes Project
Hamilton County, Indiana



Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

0.45 0.23 0 0.45 Miles

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

RIVERWOOD QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
Olio Road, 146th Street to 156th Street
Des. No. 2101733, Added Travel Lanes Project
Hamilton County, Indiana

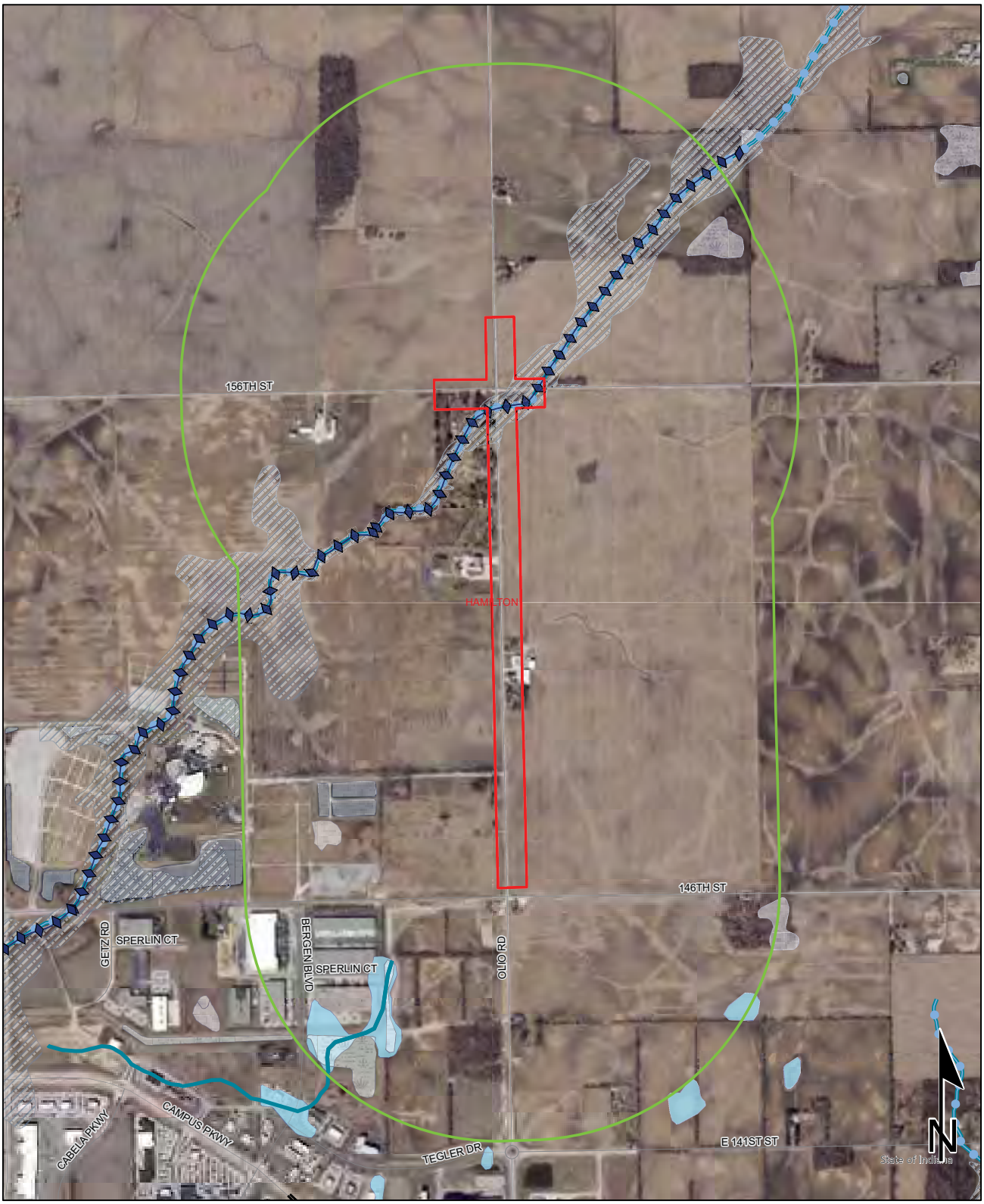
0.2 0.1 0 0.2 Miles

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

- Religious Facility
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources
Olio Road, 146th Street to 156th Street
Des. No. 2101733, Added Travel Lanes Project
Hamilton County, Indiana



0.2 0.1 0 0.2 Miles

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

- NWI - Point
- Karst Spring
- NWI- Line
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Mining and Mineral Exploration
Olio Road, 146th Street to 156th Street
Des. No. 2101733, Added Travel Lanes Project
Hamilton County, Indiana

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

- Oil and Gas Wells
- Mineral Resources
- Mine - Surface
- Mine - Underground
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Hazardous Material Concerns
Olio Road, 146th Street to 156th Street
Des. No. 2101733, Added Travel Lanes Project
Hamilton County, Indiana

- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Notice_Of_Contamination
- Construction/Demolition Site
- Infectious/Medical Waste Site
- Leaking Underground Storage Tank
- Manufactured Gas Plant
- NPDES Facilities
- NPDES Pipe Locations
- Open Dump Waste Site
- RCRA Generator/TSD
- Restricted Waste Site
- Septage Waste Site
- Solid Waste Landfill
- State Cleanup Site
- Superfund
- Tire Waste Site
- Underground Storage Tank
- Voluntary Remediation Program
- Waste Transfer Station
- Institutional Controls
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

0.25 0.13 0 0.25 Miles

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

Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Categorical Exclusion

Appendix F

Water Resources

Floodplain Analysis & Regulatory Assessment (FARA)

Indiana Department of Natural Resources

Point of Interest

Base Flood Elevation Point

Flood Elevation Points

STUDIED STREAM

Rivers and Streams at least 1 square mile

Drainage Area (sq. miles)

1 - 10

FEMA Zone AE Floodway; FEMA Administrative Floodway

FEMA Zone AE

Point of Interest Coordinates (WGS84)

Long: **-85.9187657905**

Lat: **40.0148295896**

The information provided below is based on the point of interest shown in the map above.

County: **Hamilton**

Stream Name: **Sand Creek**

Approximate Ground Elevation: **831.5 feet (NAVD88)**

Base Flood Elevation: **830.6 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **CJ Taylor, Plan Commission Director**

Community Jurisdiction: **Hamilton County, ETJ**

Phone: **(317) 776-8490**

Email: **CJ.Taylor@hmiltoncounty.in.gov**

US Army Corps of Engineers District: **Louisville**

Date Generated: 2/1/2023

OLIO ROAD ADDED TRAVEL LANES PROJECT
HAMILTON COUNTY, IN

January 17, 2024
Waters of the U.S. Report
Prepared by: Samantha Beaupre

Prepared For: Hamilton County, Indiana

Lochmueller Group, Inc.
3502 Woodview Trace #150
Indianapolis, Indiana 46268
Phone: 317.222.3880

Waters of the U.S. Determination
Olio Road Added Travel Lanes Project
Hamilton County, Indiana
Des. No. 2101733
LG # 122-2027

Date(s) of Field Reconnaissance
September 14, 2022 and October 30, 2023

Report Completion Date
January 17, 2024

Location
The project is located along Olio Road from 146th Street to 156th Street in Hamilton County, IN (Pages A1 through A3).

- Sections 11, 12, 13, and 14, Township 18 North, Range 5 East in the Riverwood 1:24,000 United States Geological Survey (USGS) Quadrangle
- Wayne Township, Hamilton County, Indiana
- Latitude: 40.0120771°; Longitude: -85.9190035°

Project Description
It is proposed that Olio Road will be widened from a two-lane road into a four-lane boulevard from 146th Street to 156th Street. The road will consist of four (4) 12-foot lanes with a 20-foot raised grass median. The roadway will have curb and gutter and two (2) 10-foot multi-use paths on each side of the road. The design speed of the new road will be 45 mph to match the existing posted speed limit. The bridge over Sand Creek (Bridge #29-00170) will be replaced as part of the project as well. The proposed bridge will consist of four (4) 12-foot lanes with two (2) 2-foot shoulders and two (2) 10-foot multi-use paths. It is anticipated that the new bridge will have an out-to-out coping of 83 feet and 2 inches. In addition, construction of a roundabout is proposed at the intersection of 156th Street and Olio Road. Bridge #29-00277 will not be impacted as a part of this project.

Two streams, Sand Creek and UNT to Sand Creek, were identified within the investigation area. Four wetlands, Wetlands 1-4, were identified within the investigation area. The investigation area is located along Olio Road from 146th Street to 156th Street in Hamilton County, Indiana. Adjacent land use is rural and consists of primarily agricultural properties, with some residences. The Indiana Floodplain Information Portal (https://dnrmaps.dnr.in.gov/appsphp/fdms/) Best Available Flood Zones data indicate that the investigation area is within a FEMA Zone AE floodway.

Soils
According to the Soil Survey Geographic (SSURGO) Database for Hamilton County, Indiana, the investigation area contains predominately nonhydric soils (Page A4).

Map Unit Name	Map Unit Symbol	NRCS Hydric Soil Category	Hydric Rating
Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes	CrA	Predominantly Nonhydric	2%
Miami silt loam, 2 to 6 percent slopes, eroded	MmB2	Predominantly Nonhydric	5%
Whitaker loam	Wh	Predominantly Nonhydric	5%

Brookston silty clay loam, 0 to 2 percent slopes	Br	Predominantly Hydric	95%
Patton silty clay loam, 0 to 2 percent slopes	Pn	Predominantly Hydric	90%
Miami silt loam, 0 to 2 percent slopes	MmA	Predominantly Nonhydric	5%

National Wetlands Inventory Information

One National Wetland Inventory (NWI) wetland was identified within the investigation area (Page A5). The U.S. Fish and Wildlife Indiana wetlands geodatabase (IN_geodatabase_wetlands.gdb) identified one feature within the investigation area, associated with Sand Creek. The feature is located in the table below. Wetland type is based on *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin *et al.* 1979).

Wetland Type	Description	Location: Lat/Long
PFO1Ax	palustrine, forested, broad-leaved deciduous, temporary flooded, excavated	40.0157437° -85.9187736°

12-Digit HUC

The investigation area is within the 12-Digit HUC: 051202010903 (Sand Creek-Mud Creek) (Pages A2 and A3). The USGS StreamStats (https://streamstats.usgs.gov/ss/) generated two watersheds within the investigation area. The Sand Creek watershed has a drainage area of 2.95 square miles (Page A6). The UNT to Sand Creek watershed has a drainage area of 0.332 square miles. The Indiana Floodplain Information Portal (https://dnrmaps.dnr.in.gov/appsphp/fdms/) Best Available Flood Zones data indicate that the investigation area is within a FEMA Zone AE floodway (Page A7).

Attached Documents

- Location Map
- USGS Quad Map (1:24,000)

Removed to avoid duplication; see Appendix B

- USGS Quad Map (1:12,000)
- USDA SSURGO Soils Map
- USFWS NWI Map
- StreamStats Watershed Map
- Best Available Flood Hazard Map
- Water Resources Map
- Photo Location Map and Project Photos
- Wetland Data Sheets
- Preliminary Jurisdictional Determination Form

Field Reconnaissance

The Waters of the U.S. (WOTUS) investigation area limits were established based on the scope of work expected for the project. Wetland determinations were conducted in accordance with the *Corps of Engineers Wetland Delineation Manual* (U.S. Army Corps of Engineers 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region Version 2.0 (*U.S. Army Corps of Engineers 2010). Midwest Region Wetland Data sheets from the U.S. Army Corps of Engineers Louisville District website (https://www.lrl.usace.army.mil/) were used to make wetland determinations.

Stream Features

The USGS Riverwood 1:24,000 topographic quadrangle identified one intermittent stream feature, Sand Creek, within the investigation area (Pages A2 and A3). Sand Creek was field identified as a perennial stream feature. The NHD GIS dataset includes one classified stream and six unclassified streams within the investigation area (Page A7). The classified NHD line was field identified as Sand Creek. One unclassified NHD line was field identified as UNT to Sand Creek. The others were not observed in the field.

Sand Creek

Sand Creek is a perennial stream that flows from northeast to southwest through the investigation area (Pages A8 to A9). Approximately 782 feet of the stream is within the investigation area. The narrow riparian corridor consisted primarily of herbaceous vegetation on the east side of Olio Road and mowed vegetation on the west side of Olio Road. The ordinary high water mark (OHWM) of Sand Creek was measured to be 6.83 feet wide and 0.67 feet deep. The drainage area of Sand Creek generated from the Streamstats website is 2.95 square miles (Page A6). The substrate within this reach of the Sand Creek consists of sand (70%), gravel (20%), and silt (10%). The morphology within this reach is riffle (10%) and run (90%). Sand Creek is a natural channel within the investigation area. This stream reach is considered to exhibit average quality based on riparian cover and available habitat.

Sand Creek is considered to be a perennial stream (Pages A8 to A9). Sand Creek connects to the White River via Mud Creek and Fall Creek. The White River is considered a traditional navigable water (TNW). Sand Creek would be subject to USACE jurisdiction under Section 404 of the Clean Water Act due to its designation as a perennial stream channel and connection to a TNW. This stream is not subject to USACE jurisdiction under Section 10 of the River and Harbors Act.

UNT to Sand Creek

UNT to Sand Creek is an ephemeral stream that flows from northeast to southwest through the investigation area (Page A8). Approximately 45 feet of the stream is within the investigation area. The OHWM of UNT to Sand Creek was measured to be 4.5 feet wide and 0.33 feet deep. The drainage area of UNT to Sand Creek generated from the Streamstats website is 0.332 square miles (Page A6). The substrate within this reach of UNT to Sand Creek consists of sand (70%), silt (10%), gravel (10%), and cobble (10%). UNT to Sand Creek is a natural channel within the investigation area. This stream reach is considered to exhibit poor quality due to available habitat.

UNT to Sand Creek is considered to be an ephemeral stream (Page A8). UNT to Sand Creek connects to the White River via Sand Creek, Mud Creek, and Fall Creek. The White River is considered a TNW. UNT to Sand Creek would be subject to USACE jurisdiction under Section 404 of the Clean Water Act due to its connection to a TNW. This stream is not subject to USACE jurisdiction under Section 10 of the River and Harbors Act.

Stream Summary Table

Water Feature Name	Photos	Lat/Long	OHW Width (ft)	OHW Depth (ft)	USGS Blue-line? Type?	Riffles? Pools?	Quality	Substrate	Likely Waters of U.S.?
Sand Creek	23-29, 35, 37-43	40.0157201° -85.9189350°	6.83	0.67	Yes Intermittent	Yes No	Average	Sand (70%), gravel (20%), silt (10%)	Yes
UNT to Sand Creek	30-31	40.0163124° -85.9175102°	4.5	0.33	No	No	Poor	sand (70%), silt (10%), gravel (10%), cobble (10%)	Yes

Wetlands

The September 14, 2022 and October 30, 2023, field investigations identified four wetland features, Wetlands 1-4, within the investigation area. One data point, DP1, was determined to be upland and not associated with a wetland.

Wetland 1:

Wetland 1 is a 0.15 acre wetland on the east side of Olio Road. This wetland receives drainage from the adjacent road and surface flow from a vegetated drainage swale. The drainage swale is mapped as an NHD line and carries drainage from the southeast to the northwest through Wetland 1. Wetland 1 has hydrologic connectivity to the White River (a TNW) via the drainage swale, Sand Creek, Mud Creek, and Fall Creek and therefore would likely be considered subject to USACE jurisdiction due to a significant nexus to the White River. As defined by *Cowardin et al*. (1979), this wetland would be classified as a palustrine, emergent, persistent (PEM1) wetland. Based on a qualitative assessment of Wetland 1, this wetland is of poor quality due to available habitat (Page A10).

Data Point (DP) 2

This data point was taken on the east side of Olio Road. Within the herbaceous stratum, dominant species consisted of fall panicgrass (*Panicum dichotomiflorum*, FACW). There are no tree, sapling/shrub, or woody vine stratum identified within the plot area. Since 100 percent of the dominant species are FACW or wetter, this point passes the rapid test for hydrophytic vegetation. The USDA NRCS Web Soil Survey indicates that this data point is within the Miami silt loam unit. This soil is considered to be a predominantly nonhydric soil. The soil profile from a pit excavated to a depth of 17 inches consisted of a 10YR 4/1 (90%) loamy/clayey layer from 0 to 5 inches with 10YR 5/8 (10%) concentrations within the matrix. From 5-17 inches, the soil consisted of a 5GY 6/1 (85%) loamy/ clayey layer with 10YR 5/8 (15%) concentrations within the matrix. The soil profile meets the Loamy Gleyed Matrix (F2) and Depleted Matrix (F3) hydric soil indicators. No primary indicators of hydrology were present. Secondary indicators of hydrology included Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and passing the FAC-Neutral Test (D5). Therefore, wetland hydrology is present. This data point meets the

requirements for hydrophytic vegetation, hydric soils, and hydrology. Therefore, this data point is considered to be wetland (Pages A93 to A95).

DP3

This point is located on the east side of Olio Road, west of DP2. Within the herbaceous stratum, the dominant species consisted of hairy crabgrass (*Digitaria sanguinalis,* FACU) and annual ragweed (*Ambrosia artemisiifolia,* FACU). There are no tree, sapling/shrub, or woody vine stratum identified within the plot area. Hydrophytic vegetation is not present since the dominant species are not FAC or wetter. The USDA NRCS Web Soil Survey indicates that this data point is within the Crosby silt loam unit, a predominantly nonhydric soil. The soil profile from a pit excavated to a depth of 18 inches consisted of a 10YR 3/2 (100%) loamy/clayey layer from 0 to 4 inches. From 4 to 8 inches, the soil consisted of a 10YR 4/1 (99%) loamy/clayey layer with 10YR 6/8 (1%) concentrations within the matrix. From 8 to 18 inches, the soil consisted of a 10YR 5/1 (78%) loamy/clayey layer with 10YR 6/8 (20%) and 10YR 3/1 (2%) concentrations within the matrix. The soil profile meets the hydric soil indicator Depleted Matrix (F3); therefore, hydric soil is present. No primary or secondary indicators of hydrology were present. Therefore, wetland hydrology is not present. This data point only meets the requirements for hydric soils. This data point does not meet the requirements for hydrophytic vegetation and hydrology. Therefore, this data point is considered to be upland (Pages A96 to A98).

<u>Wetland 2:</u>

Wetland 2 is a 0.52 acre wetland on the west side of Olio Road south of an existing multi-use path. This wetland receives drainage from the adjacent road and agricultural field. As defined by *Cowardin et al.* (1979), this wetland would be classified as a palustrine, emergent, persistent (PEM1) wetland. Based on a qualitative assessment of Wetland 2, this wetland is of poor quality due to available habitat (Page A11). Wetland 2 does not have hydrologic connectivity to a TNW and therefore would not likely be considered subject to USACE jurisdiction. Wetland 2 would likely have an exception status of Class I, isolated exempt because the wetland supports only minimal wildlife or aquatic habitat or hydrologic function because the wetland does not provide critical habitat for threatened or endangered species listed in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) and the wetland is characterized by low species diversity (IC 13-11-2-25.8(1)). However, City of Noblesville may request that the USACE take jurisdiction of Wetland 2.

DP4

This point is located on the west side of Olio Road, south of the end of an existing multi-use path. Within the herbaceous stratum, dominant species consisted of fall panicgrass (*Panicum dichotomiflorum*, FACW). There are no tree, sapling/shrub, or woody vine stratum identified within the plot area. Since 100 percent of the dominant species are FACW or wetter, the data point passes the rapid test for hydrophytic vegetation. The USDA NRCS Web Soil Survey indicates that this data point is within the Crosby silt loam unit. This soil is considered to be a predominantly nonhydric soil. The soil profile from a pit excavated to a depth of 16 inches consisted of a 10YR 4/1 (100%) loamy/clayey layer from 0 to 6 inches. From 6-16 inches, the soil consisted of a 10YR 5/1 (80%) loamy/clayey layer with 10YR 5/8 (20%) concentrations within the matrix. The soil profile meets the hydric soil indicator Depleted Matrix (F3); therefore, hydric soil is present. The primary indicators of hydrology Surface Water (A1) at 2 inches, High Water Table (A2) at 0 inches, and Saturation (A3) at 0 inches were present. Therefore, wetland hydrology is present. This data point meets the requirements for hydrophytic vegetation, hydrology, and hydric soils. Therefore, this data point is considered to be wetland (Pages A99 to A101).

DP5

This point is on the west side of Olio Road, west of DP4. Within the herbaceous stratum, the dominant species consisted of yellow foxtail (*Setaria pumila,* FAC). There are no tree, sapling/shrub or woody vine stratum identified within the plot area. Since the dominant species are all FAC or wetter; the data point passes the dominance test for hydrophytic vegetation. The USDA NRCS Web Soil Survey indicates that this data point is within the Crosby silt loam unit, a predominantly nonhydric soil. The soil profile from a pit excavated to a depth of 18 inches consisted of a 10YR 5/2 (98%) loamy/clayey layer with 10YR 3/6 (2%) concentrations within the matrix from 0 to 12 inches. From 12 to 18 inches, the soil consisted of a 10YR 6/1 (90%) loamy clayey layer with 10YR 5/8 (10%) concentrations within the matrix. The soil profile meets the hydric soil indicator Depleted Matrix (F3). No primary or secondary indicators of hydrology were present. Therefore, wetland hydrology is not present. This data point meets the requirements for hydrophytic vegetation and hydric soils. This data point does not meet the requirements for hydrology. Therefore, this data point is considered to be upland (Pages A102 to A104).

Wetland 3:

Wetland 3 is a 0.01 acre wetland located on the east side of Olio Road. This wetland receives drainage from the adjacent road. As defined by *Cowardin et al.* (1979), this wetland would be classified as a palustrine, emergent, persistent (PEM1) wetland. Based on a qualitative assessment of Wetland 3, this wetland is of poor quality due to available habitat (Page A11 to A12). Wetland 3 does not have hydrologic connectivity to a TNW and therefore would not likely be considered subject to USACE jurisdiction. Wetland 3 would likely have an exception status of Class I, isolated exempt because the wetland supports only minimal wildlife or aquatic habitat or hydrologic function because the wetland does not provide critical habitat for threatened or endangered species listed in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) and the wetland is characterized by low species diversity (IC 13-11-2-25.8(1)). However, the City of Noblesville may request that the USACE take jurisdiction of Wetland 3.

DP6

This point is located on the east side of Olio Road. Within the herbaceous stratum, dominant species consisted of lady's thumb (*Persicaria maculosa*, FACW) and hairy crabgrass (*Digitaria sanguinalis,* FACU). There are no tree, sapling/shrub, or woody vine stratum identified within the plot area. The vegetation did not pass the dominance test for hydrophytic vegetation but did pass the prevalence index. Since the data point also has hydric soil and hydrology, hydrophytic vegetation is present. The USDA NRCS Web Soil Survey indicates that this data point is within the Patton silty clay loam unit. This soil is considered to be a predominantly hydric soil. The soil profile from a pit excavated to a depth of 17 inches consisted of a 10YR 3/1 (100%) loamy/clayey layer from 0 to 5 inches. From 5-12 inches, the soil consisted of a 10YR 3/1 (95%) loamy/clayey layer with 10YR 5/6 (5%) concentrations within the matrix. From 12-17 inches, the soil consisted of a 10YR 3/1 (100%) loamy/clayey layer. The soil profile meets the Redox Dark Surface (F6) hydric soil indicator; therefore, hydric soil is present. The primary indicators of hydrology Surface Water (A1) at 4 inches, High Water Table (A2) at 0 inches, and Saturation (A3) at 0 inches were present. Therefore, wetland hydrology is present. This data point meets the requirements for hydrophytic vegetation, hydric soils, and hydrology. Therefore, this data point is considered to be wetland (Pages A105 to A107).

DP7

This point is located on the east side of Olio Road, east of DP6. Within the herbaceous stratum, the dominant species consisted of hairy crabgrass (*Digitaria sanguinalis,* FACU) and giant foxtail (*Setaria*

faberi, FACU). There are no tree, sapling/shrub, or woody vine stratum identified within the plot area. Since the dominant species are not FAC or wetter, the data point does not pass the dominance test for hydrophytic vegetation. The vegetation does not meet the conditions for hydrophytic vegetation through the Prevalence Index. The USDA NRCS Web Soil Survey indicates that this data point is within the Patton silty clay loam unit, a predominantly hydric soil. The soil profile from a pit excavated to a depth of 12 inches consisted entirely of a 10YR 3/2 (100%) loamy/clayey layer. A restrictive layer, a pipe, was encountered at 12 inches. The soil profile does not meet any of the hydric soil indicators; therefore, hydric soil is not present. No primary or secondary indicators of hydrology were present. Therefore, wetland hydrology is not present. This data point does not meet the requirements for hydrophytic vegetation, hydrology, or hydric soils. Therefore, this data point is considered to be upland (Pages A108 to A110).

Wetland 4:

Wetland 4 is a 0.02 acre wetland on the east side of Olio Road on the south end of the investigation area. This wetland receives drainage from the adjacent road. As defined by *Cowardin et al.* (1979), this wetland would be classified as a palustrine, emergent, persistent (PEM1) wetland. Based on a qualitative assessment of Wetland 4, this wetland is of poor quality due to available habitat (Page A13). Wetland 4 does not have hydrologic connectivity to a TNW and therefore would not likely be considered subject to USACE jurisdiction. Wetland 4 would likely have an exception status of Class I, isolated exempt because the wetland supports only minimal wildlife or aquatic habitat or hydrologic function because the wetland does not provide critical habitat for threatened or endangered species listed in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) and the wetland is characterized by low species diversity (IC 13-11-2-25.8(1)). However, the City of Noblesville may request that the USACE take jurisdiction of Wetland 4.

DP8

This point is located on the east side of Olio Road. Within the herbaceous stratum, dominant species consisted of lady's thumb (*Persicaria maculosa*, FACW), barnyard grass (*Echinochloa crus-galli,* FACW), and giant foxtail (*Setaria faberi*, FACU). There are no tree, sapling/shrub, or woody vine stratum identified within the plot area. Since the dominant species are more than 50 percent FAC or wetter, the data point passes the dominance test for hydrophytic vegetation. The USDA NRCS Web Soil Survey indicates that this data point is within the Brookston silty clay loam unit. This soil is considered to be a predominantly hydric soil. The soil profile from a pit excavated to a depth of 17 inches consisted of a 10YR 3/1 (98%) loamy/clayey layer from 0-8 inches with 10YR 5/6 (2%) concentrations within the matrix. From 8-17 inches, the soil consisted of a 10YR 6/1 (60%) loamy/clayey layer with 10YR 5/8 (40%) concentrations within the matrix. The soil profile meets the hydric soil indicator Depleted Matrix (F3); therefore, hydric soil is present. No primary indicators of hydrology were present. Secondary indicators of hydrology included Geomorphic Position (D2) and passing the FAC-Neutral test (D5). Therefore, wetland hydrology is present. This data point meets the requirements for hydrophytic vegetation, hydrology, and hydric soils. Therefore, this data point is considered to be wetland (Pages A111 to A113).

DP9

This point is located on the east side of Olio Road, east of DP8. Within the herbaceous stratum, the dominant species consisted of white clover (*Trifolium repens,* FACU) and tall fescue (*Schedonorus arundinaceus,* FACU). There are no tree, sapling/shrub, or woody vine stratum identified within the plot area. The data point does not pass the dominance test since the dominant species are not FAC or wetter. The vegetation also did not meet the conditions for hydrophytic vegetation through the Prevalence Index.

Therefore, hydrophytic vegetation is not present. The USDA NRCS Web Soil Survey indicates that this data point is within the Brookston silty clay loam unit, a predominantly hydric soil. The soil profile from a pit excavated to a depth of 17 inches consisted entirely of a 10YR 4/1 (100%) loamy/clayey layer. The soil profile does not meet any of the hydric soil indicators; therefore, hydric soil is not present. No primary or secondary indicators of hydrology were present. Therefore, wetland hydrology is not present. This data point does not meet the requirements for hydrophytic vegetation, hydrology, or hydric soils. Therefore, this data point is considered to be upland (Pages A114 to A116).

Wetland Summary Table

Wetland Name	Photos	Lat/Long	Type	Area (acres)	Quality	Likely Waters of U.S.?
Wetland 1	64-69	40.0115000° -85.9190280°	PEM1	0.15	Poor	Yes
Wetland 2	83-87, 89, 92-94	40.0098999° -85.9193771°	PEM1	0.52	Poor	No
Wetland 3	105-106	40.0083486° -85.9190860°	PEM1	0.01	Poor	No
Wetland 4	123-127, 129-130, 132-133	40.0023167° -85.9188858°	PEM1	0.02	Poor	No

DP 1

This point was taken on the east side of Olio Road within a corn field in a slight depression. Within the herbaceous stratum, dominant species consisted of cocklebur (*Xanthium strumarium*, FAC) and corn (*Zea mays*, UPL). There are no tree, sapling/shrub, or woody vine stratum identified within the plot area. Hydrophytic vegetation is not present. The data point does not pass the dominance test since the dominant species are less than 50 percent FAC or wetter. The USDA NRCS Web Soil Survey indicates that this data point is within the Miami silt loam unit. This soil is considered to be a predominantly nonhydric soil. The soil profile from a pit excavated to a depth of 16 inches consisted of a 10YR 3/1 (100%) sandy layer from 0 to 6 inches. From 6-16 inches, the soil consisted of a 10YR 5/3 (60%) loamy/clayey layer with 10YR 6/3 (30%) and 10YR 4/6 (10%) concentrations within the matrix. The soil profile does not meet any of the hydric soil indicators; therefore, hydric soil is not present. One primary indicator of hydrology was present. Saturation (A3) was observed in the soil at 0 inches. Due to the observation of a primary indicator, wetland hydrology is present. This data point only meets the requirements for hydrology. This data point does not meet the requirements for hydrophytic vegetation and hydric soils. Therefore, this data point is considered to be upland (Pages A90 to A92).

Data Point Summary Table

Data Point	Vegetation	Soils	Hydrology	Wetland
DP1	No	No	Yes	No
DP2	Yes	Yes	Yes	Yes
DP3	No	Yes	No	No
DP4	Yes	Yes	Yes	Yes
DP5	Yes	Yes	No	No
DP6	Yes	Yes	Yes	Yes

Data Point	Vegetation	Soils	Hydrology	Wetland
DP7	No	No	No	No
DP8	Yes	Yes	Yes	Yes
DP9	No	No	No	No

Open Water
There are no open water areas within the investigation area.

Roadside Ditches
There were no roadside ditches identified within the investigation area.

Conclusions
The September 14, 2022 and October 30, 2023 field review for the Olio Road Added Travel Lanes Project identified two streams, Sand Creek and UNT to Sand Creek, and four wetlands, Wetlands 1-4. Sand Creek and UNT to Sand Creek connect to the White River via Mud Creek and Fall Creek. The White River is considered a TNW. Sand Creek and UNT to Sand Creek would be subject to USACE jurisdiction under Section 404 of the Clean Water Act due to its designation as a perennial stream channel and connection to a TNW. Sand Creek and UNT to Sand Creek would not be subject to USACE jurisdiction under Section 10 of the River and Harbors Act. Wetland 1 has a hydrologic connectivity to the White River (a TNW) via a drainage swale, Sand Creek, Mud Creek, and Fall Creek and therefore would likely be considered subject to USACE jurisdiction due to a significant nexus to the White River. Wetlands 2-4 do not appear to have a hydrologic connectivity to any TNWs and therefore would likely not be considered subject to USACE jurisdiction. Wetlands 2-4 would likely have an exception status of Class I, isolated exempt (IC 13-11-2-25.8(1)). However, the City of Noblesville may request that the USACE take jurisdiction of Wetlands 2-4.

Every effort should be taken to avoid and minimize impacts to stream and wetland features. If impacts are necessary, then mitigation may be required. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgment based on the guidelines set forth by the Corps.

All structures within the investigation area were examined on September 14, 2022 for the presence of bat and bird species. The survey did not document direct or indirect signs of bat or bird species within any structure within the investigation area.

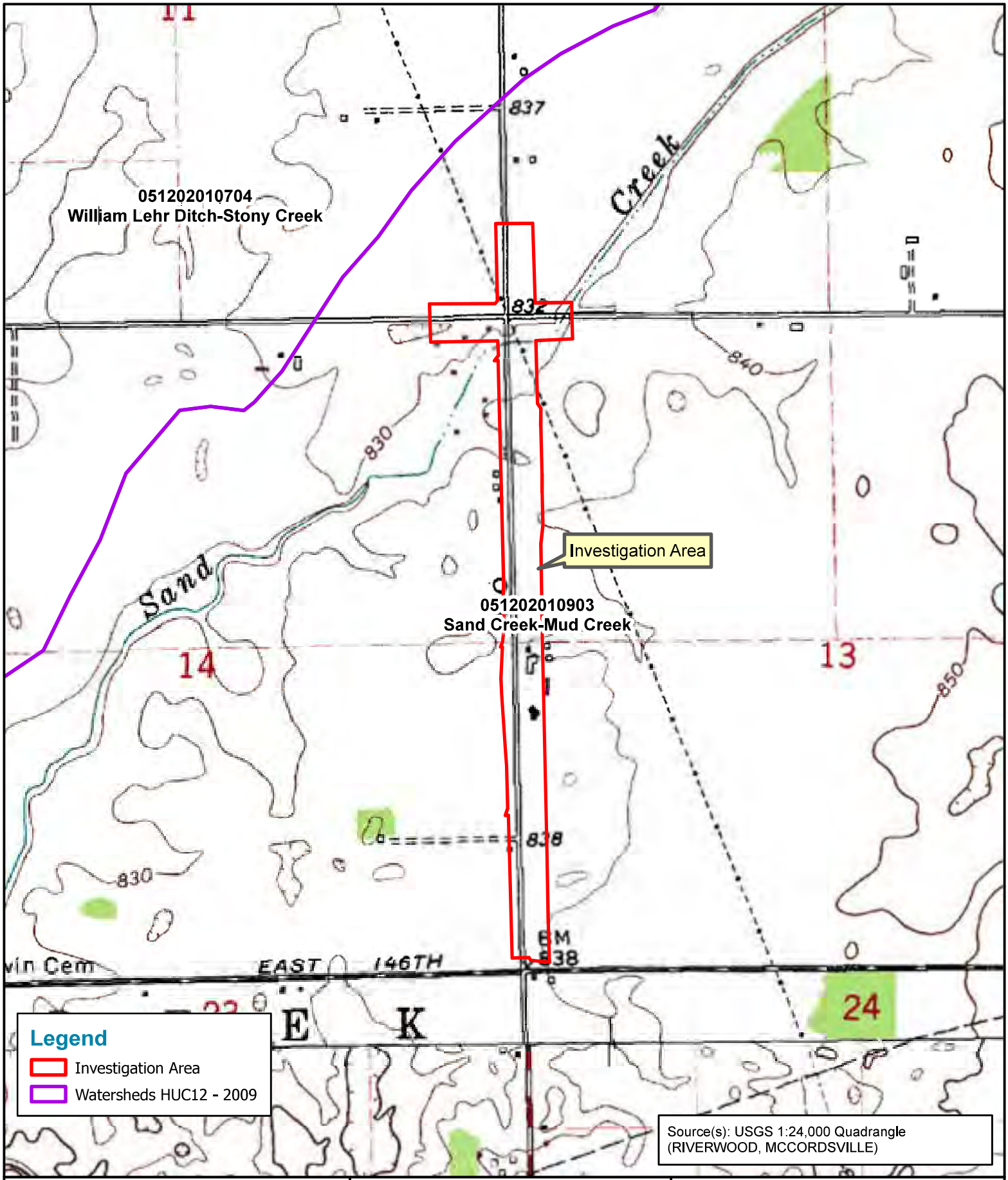
Acknowledgement
This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience, and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

Samantha Beaupre

Environmental Specialist
Lochmueller Group, Inc.

Preparers

Lochmueller Group, Inc. Staff	Position	Contributing Effort
Chris Kunkel	Environmental Specialist	Field Data Collection
Samantha Beaupre	Environmental Specialist	Field Data Collection, Report Preparation
Trevor Wieseke	Environmental Team Leader	Field Data Collection



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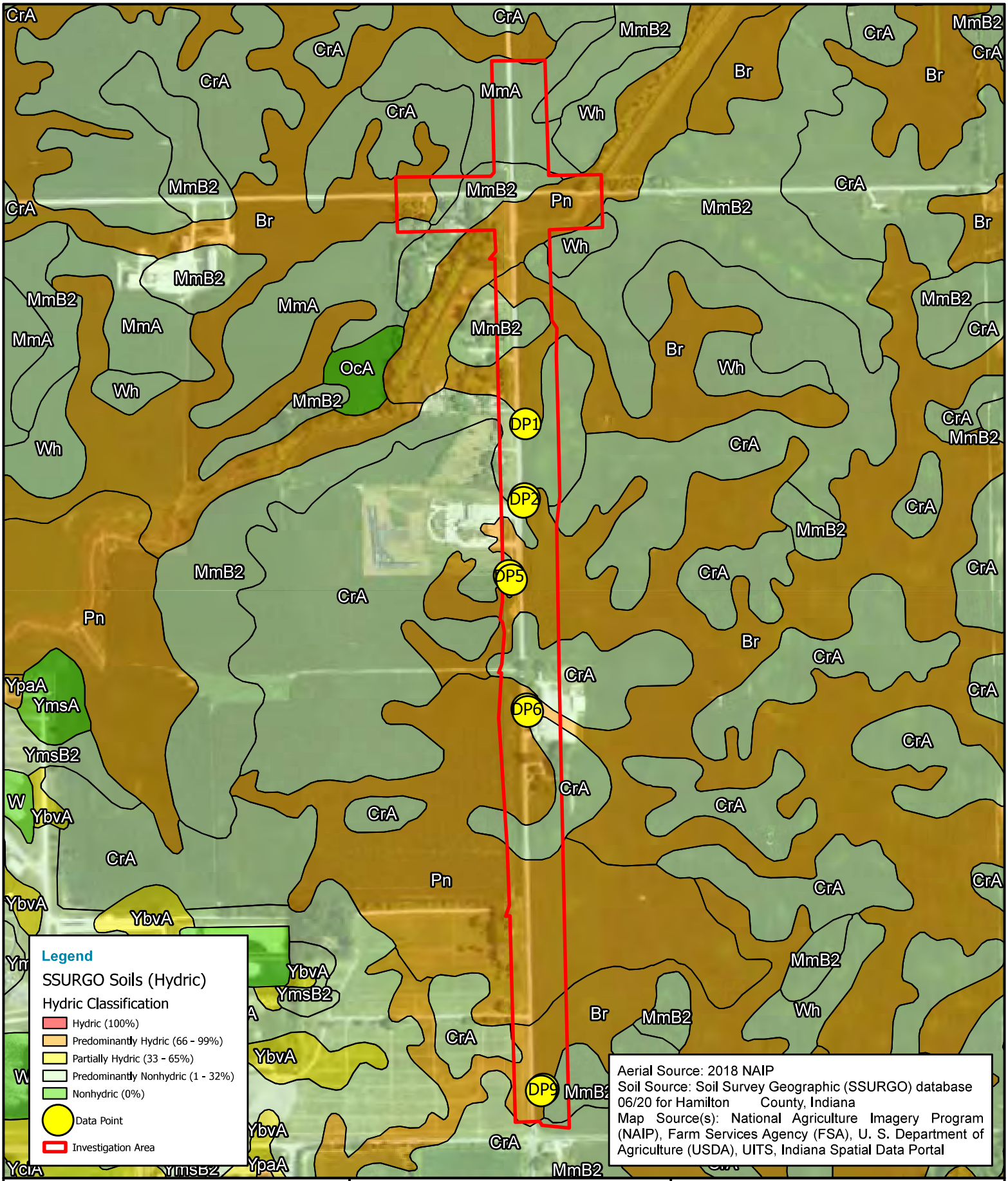
USGS Quad Map (1:12,000)
Des. No. 2101733
Waters of the U.S. Report

0 500 1,000 Feet

N

County: Hamilton
Township: Wayne
State: Indiana

Olio Road, 146th St to 156th St
Added Travel Lanes
Created: 11/15/2023, SBeaupre



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USDA SSURGO Soils Map

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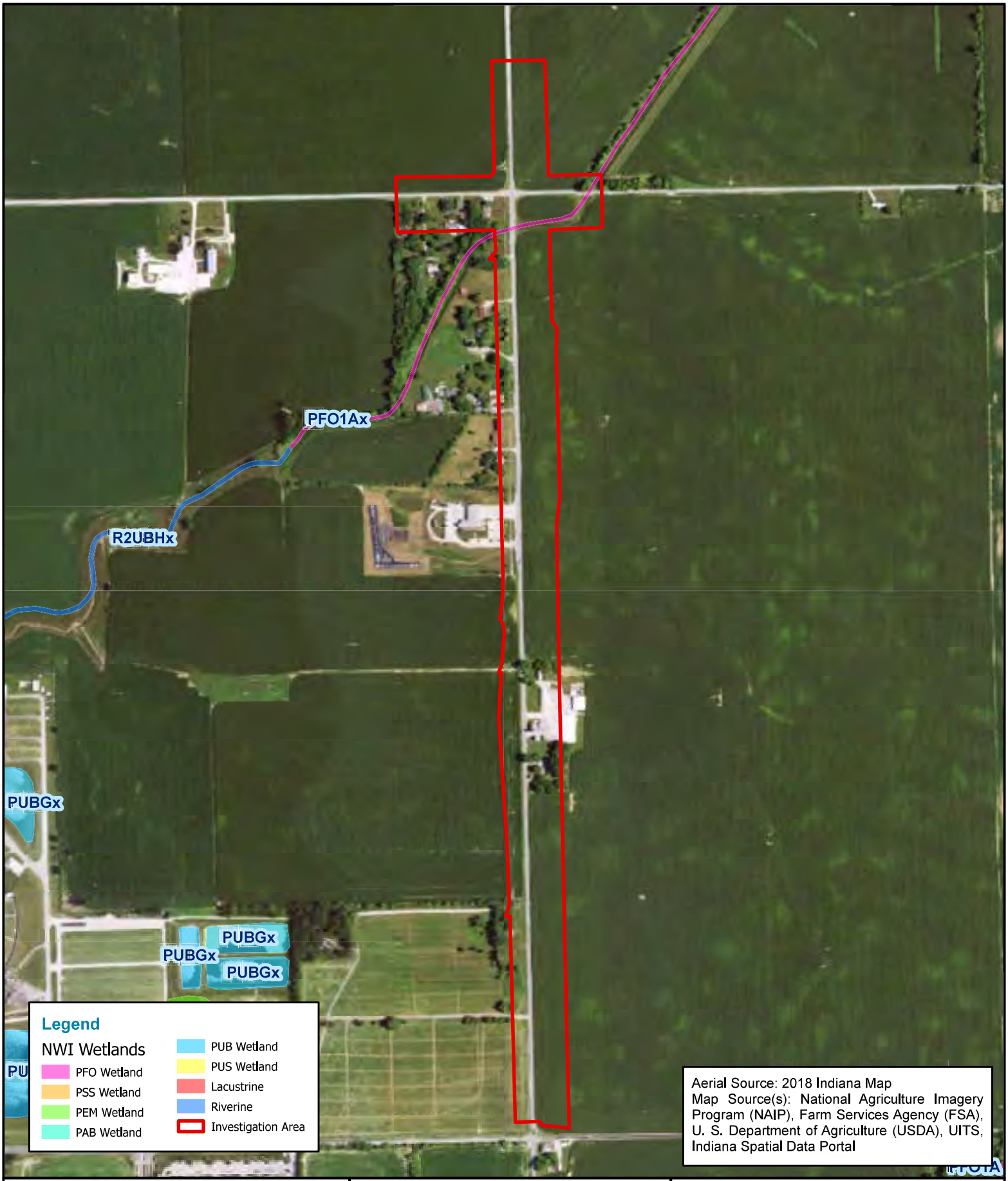

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USFWS NWI Map
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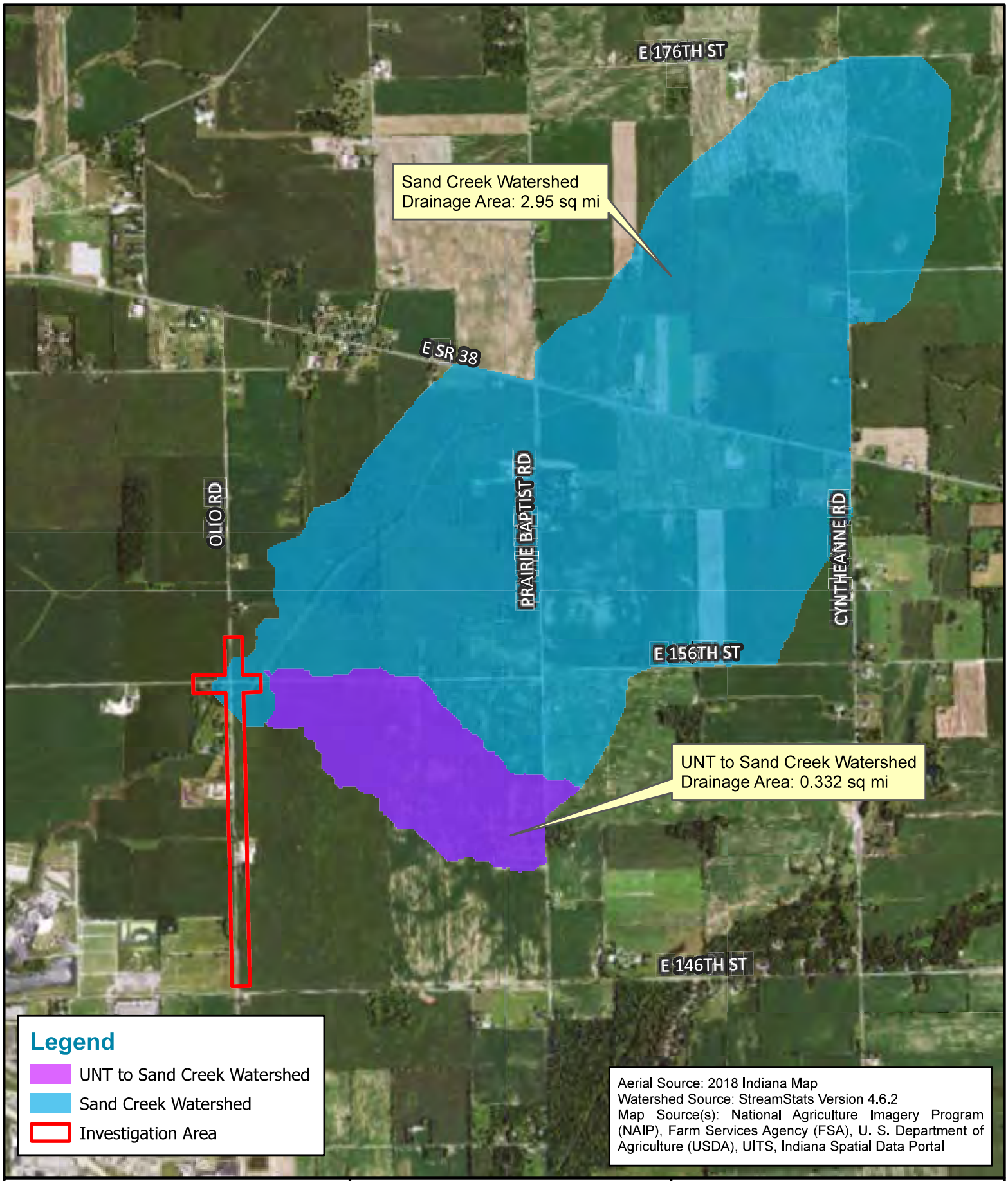
0 500 1,000 Feet

N

County: Hamilton
Township: Wayne
State: Indiana

Olio Road, 146th St to 156th St
Added Travel Lanes
Created: 11/15/2023, SBeaupre



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StreamStats Watershed Map
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0 1,250 2,500 Feet

N

County: Hamilton
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State: Indiana

Olio Road, 146th St to 156th St
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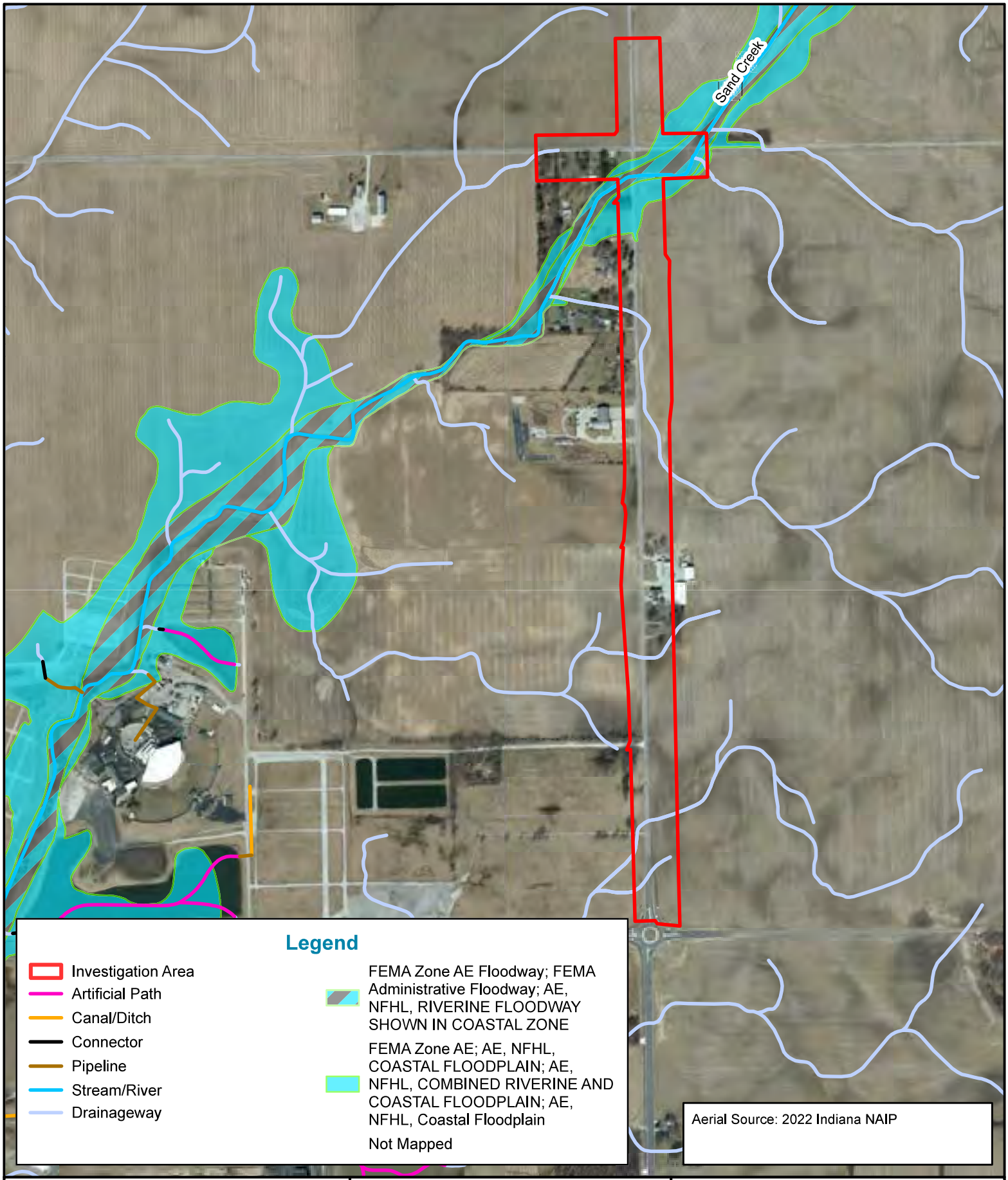

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BA Flood Hazard & NHD Line Map

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0 500 1,000 Feet

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Water Resources Map

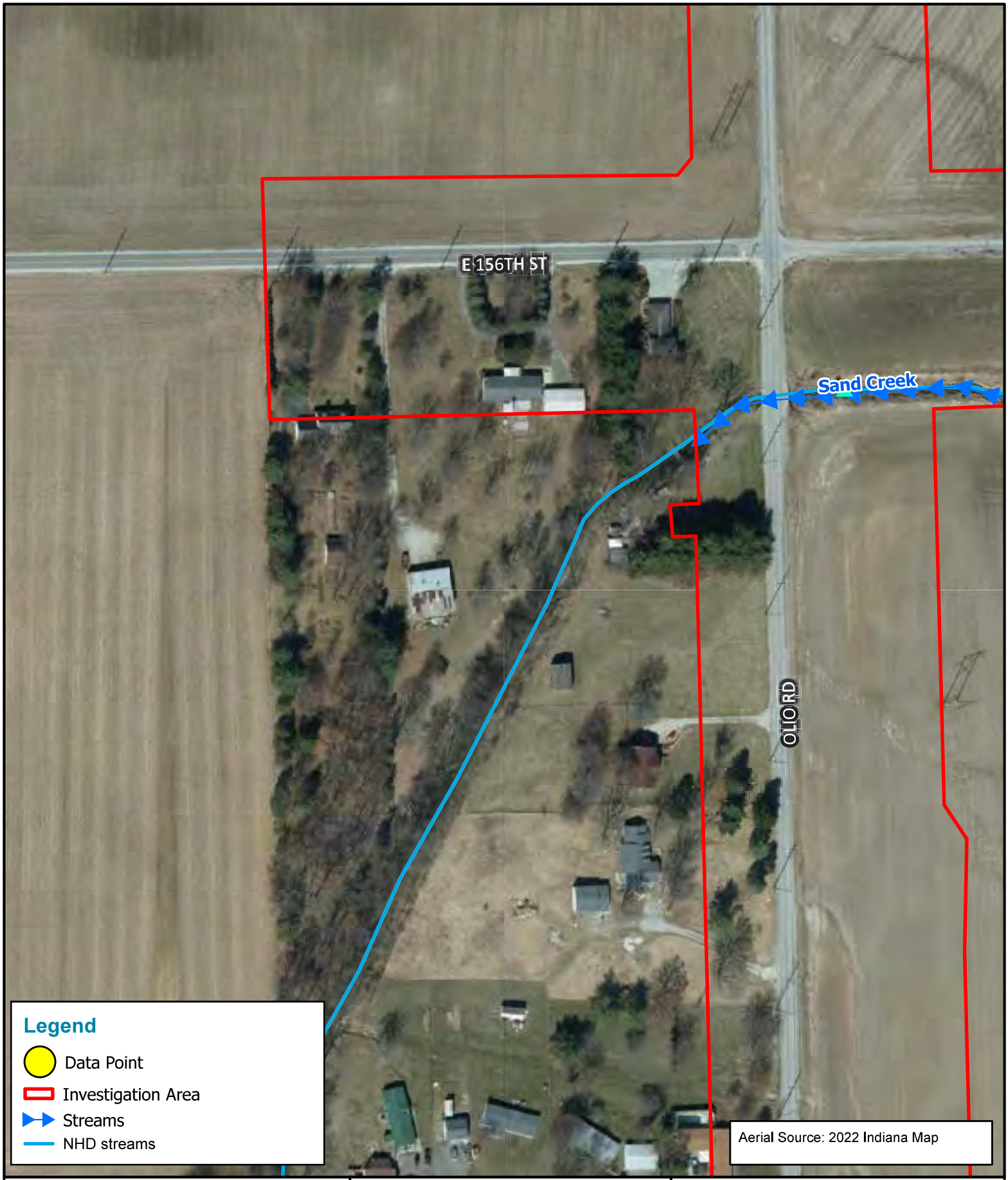
Des. No. 2101733
Waters of the U.S. Report

0 100 200 Feet

N

County: Hamilton
Township: Wayne Page Number: 1 of 6
State: Indiana

Olio Road, 146th St to 156th St
Added Travel Lanes
Created: 11/15/2023, SBeaupre



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Water Resources Map
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0 100 200 Feet

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Township: Wayne Page Number: 2 of 6
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Olio Road, 146th St to 156th St
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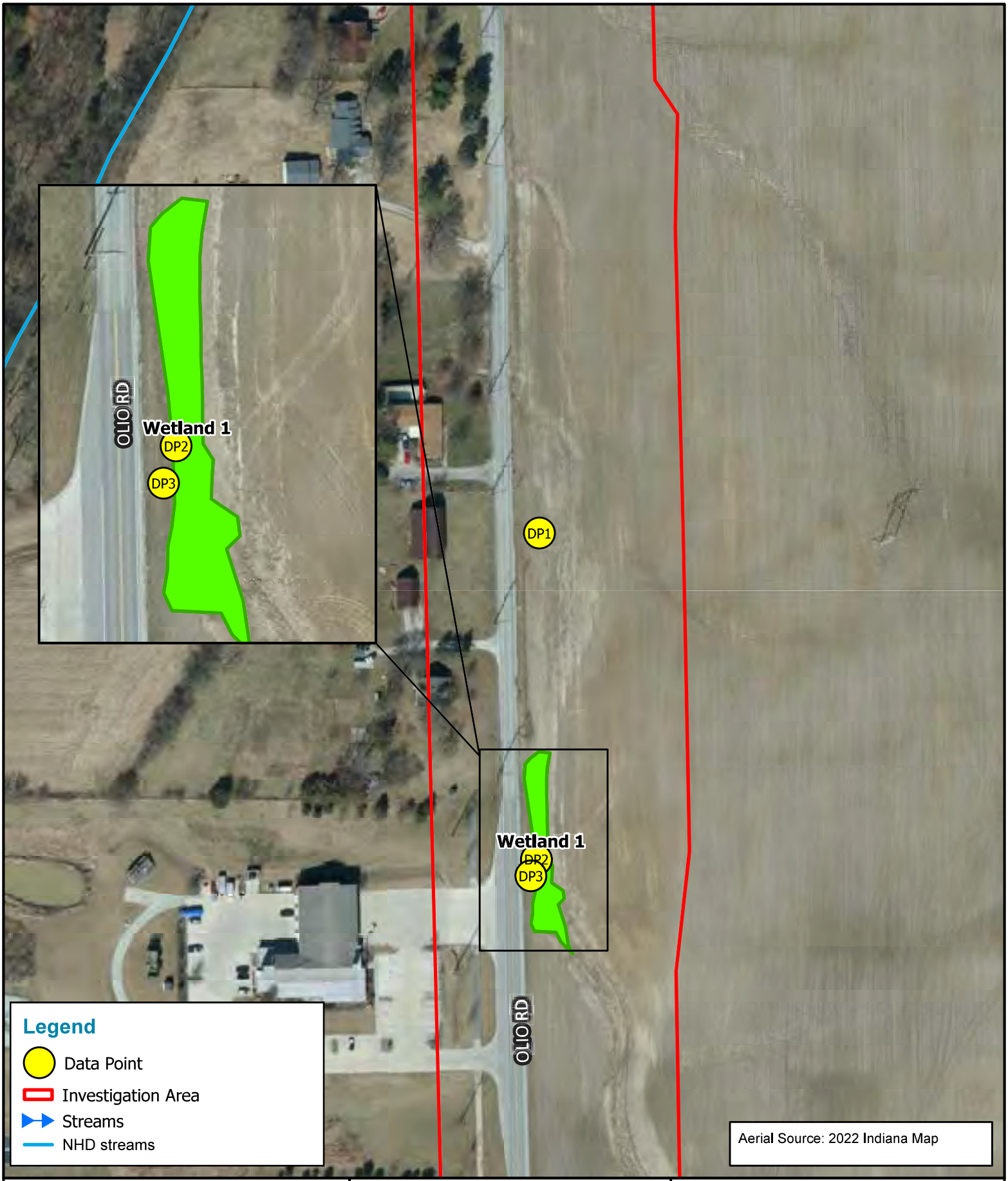

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Water Resources Map

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0 100 200 Feet

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Township: Wayne Page Number: 3 of 6
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Olio Road, 146th St to 156th St
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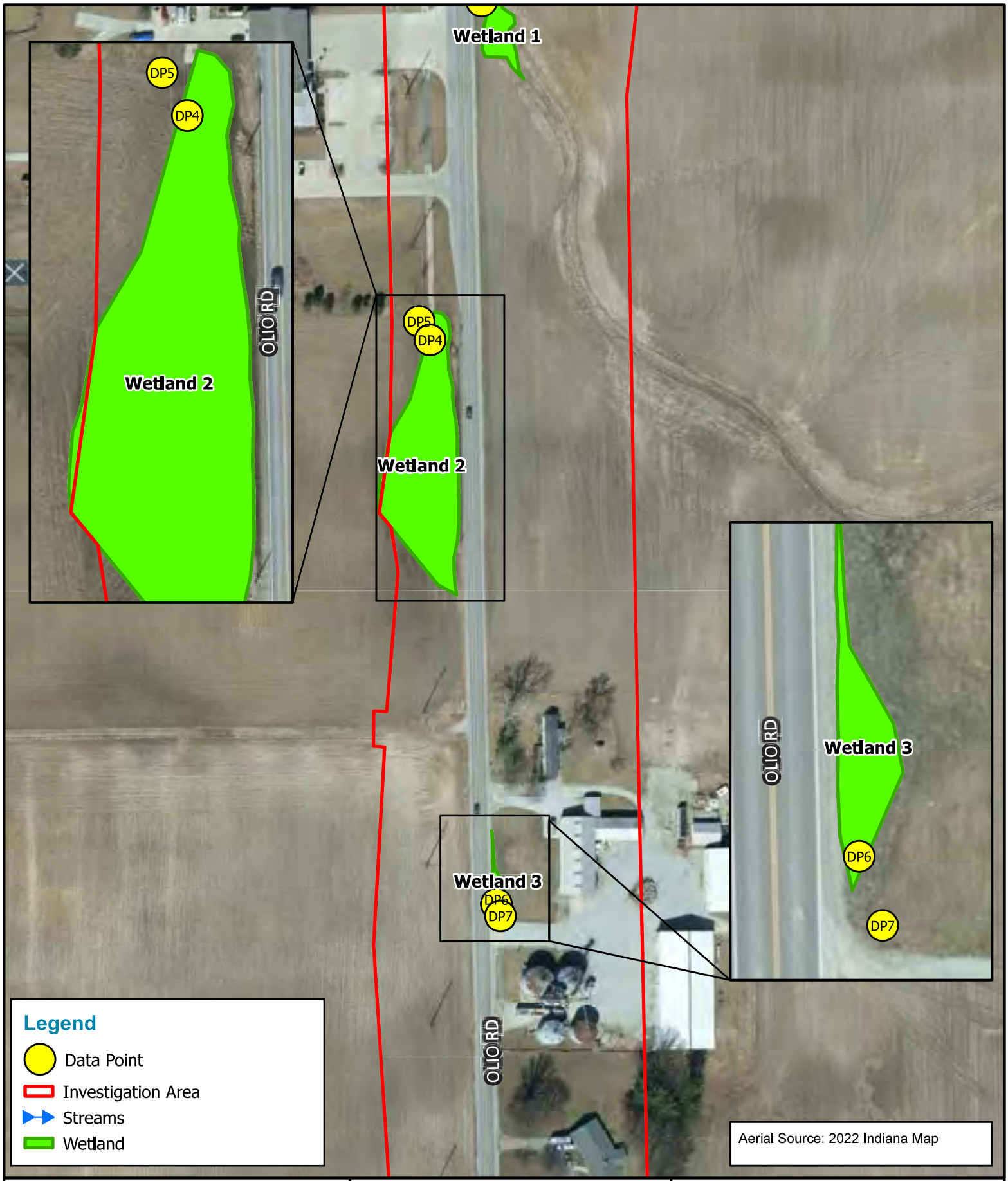

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Water Resources Map
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0 100 200 Feet

N

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Olio Road, 146th St to 156th St
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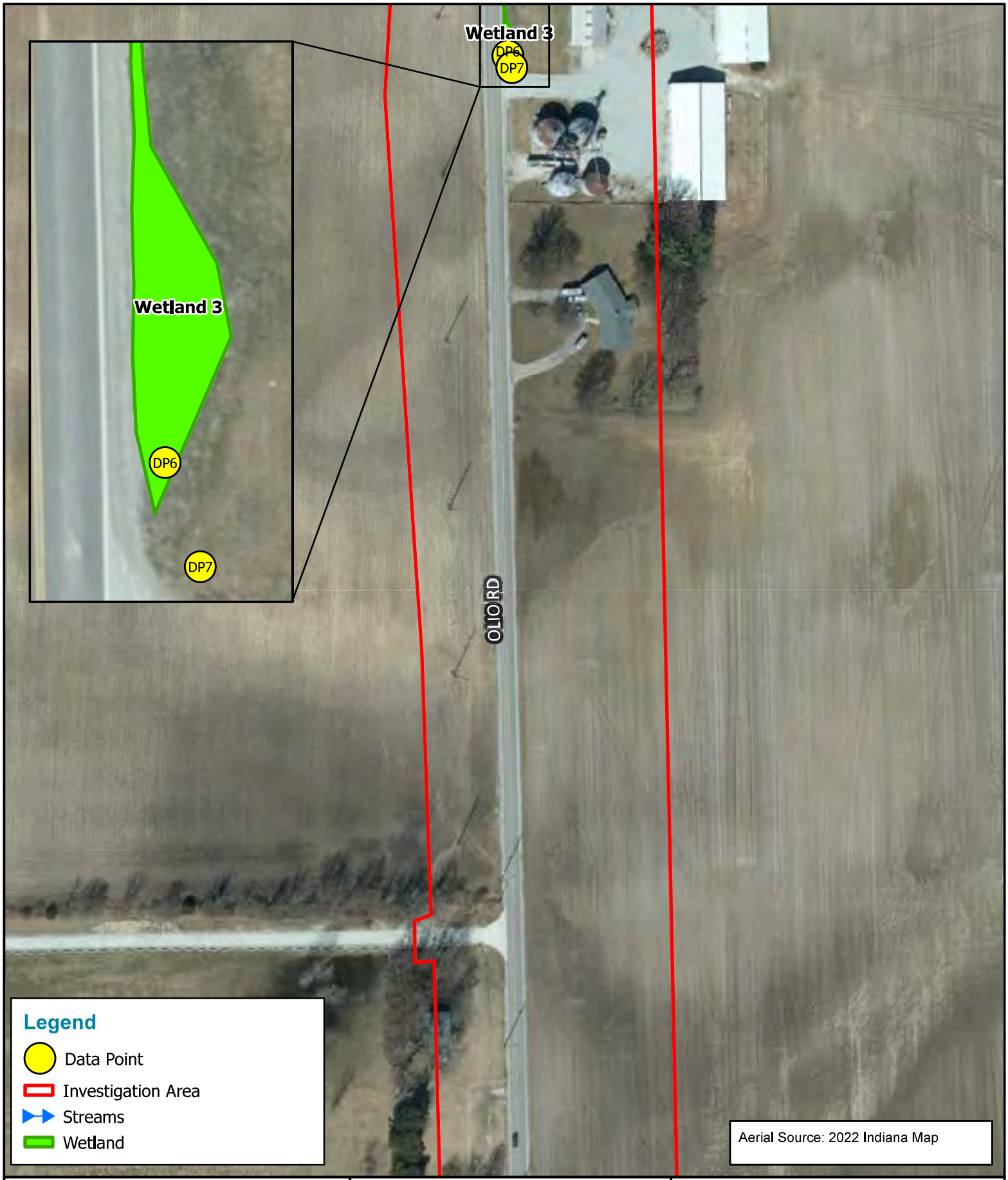

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Water Resources Map
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0 100 200 Feet

N

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Olio Road, 146th St to 156th St
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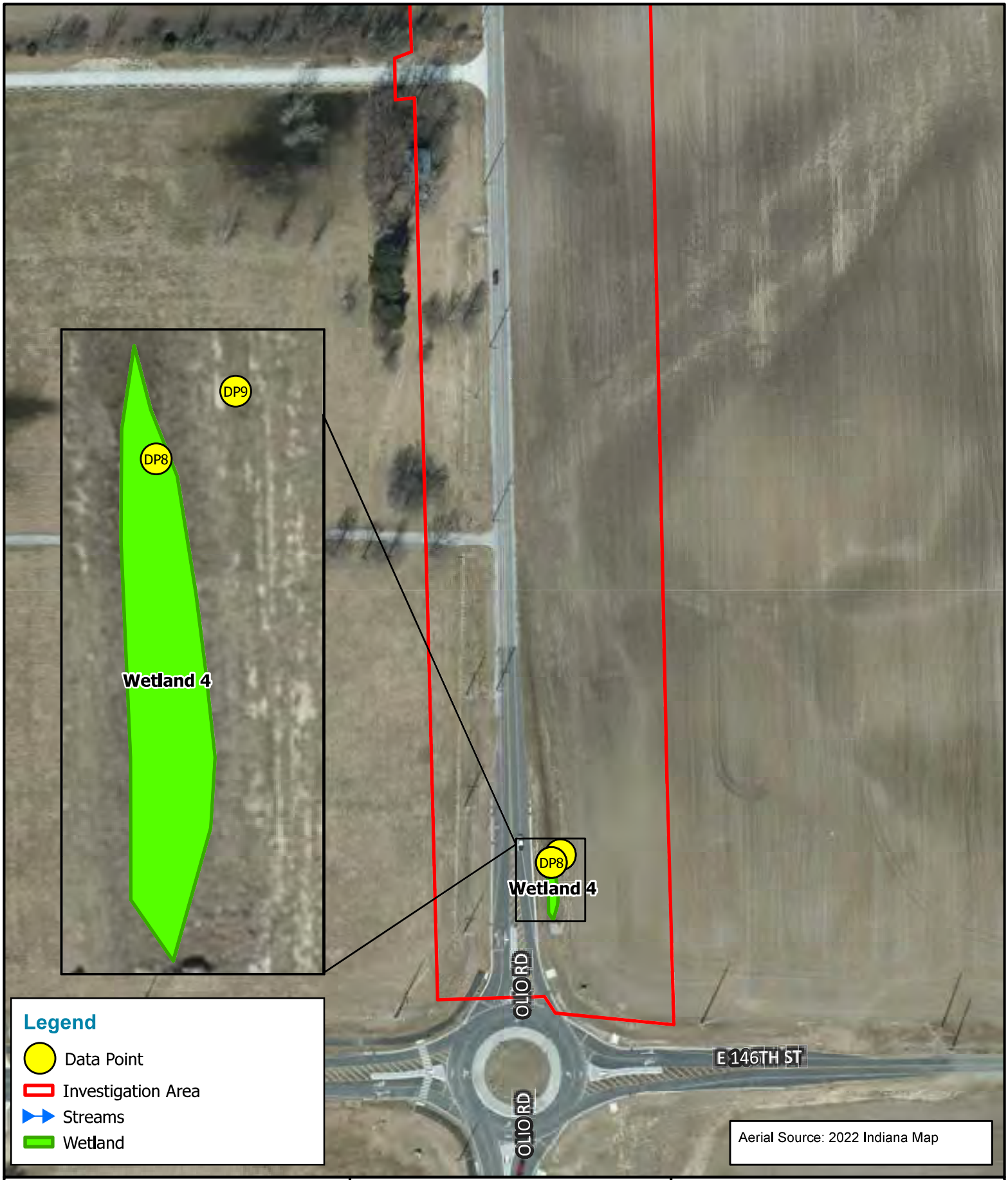
Created: 11/15/2023, SBeaupre



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Water Resources Map
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0 100 200 Feet

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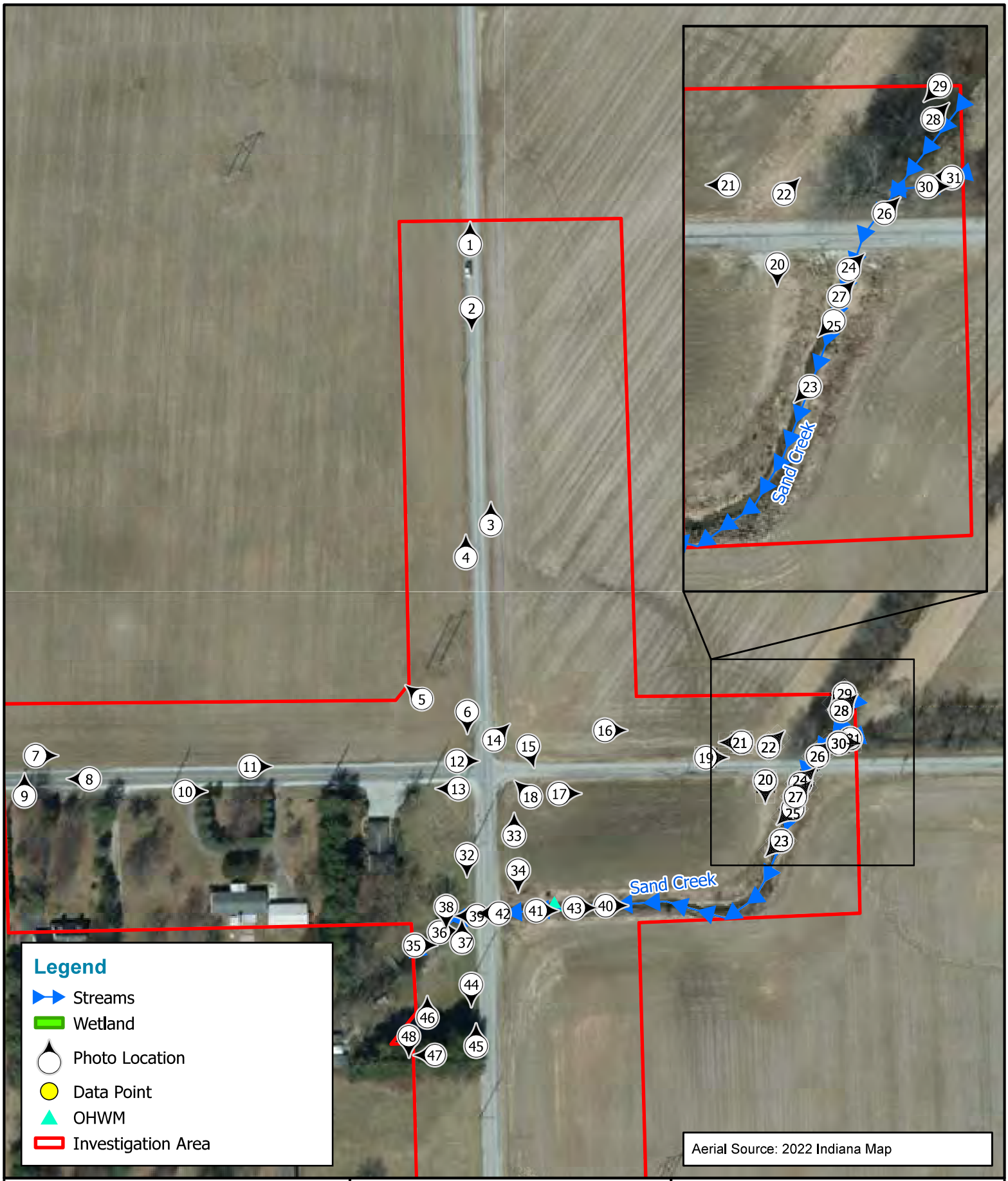

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Photo Location Map

Des. No. 2101733
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0 100 200 Feet

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County: Hamilton
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Page Number: 1 of 6

Olio Road, 146th St to 156th St
Added Travel Lanes
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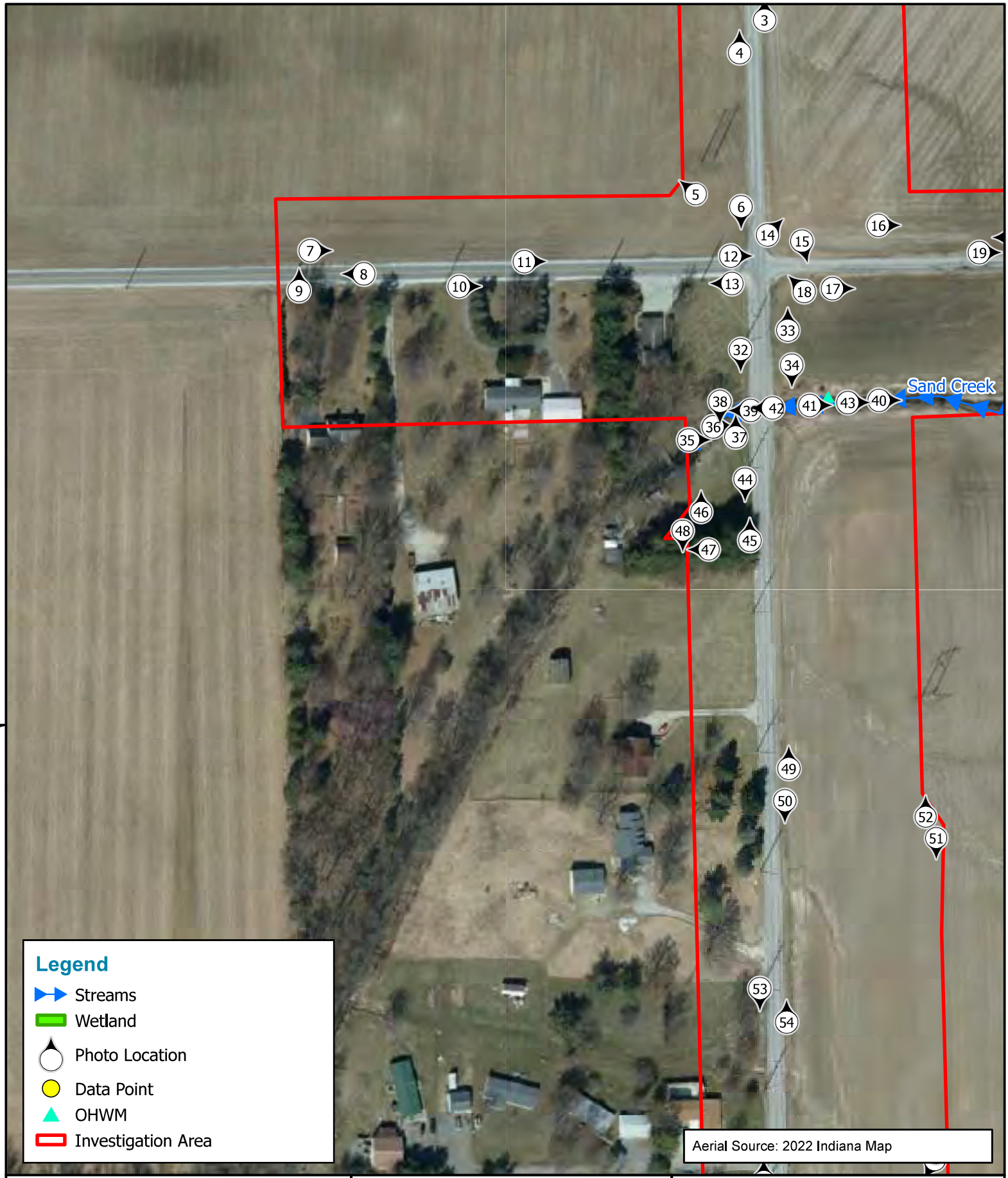

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Photo Location Map

Des. No. 2101733
Waters of the U.S. Report

0 100 200 Feet

N

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Page Number: 2 of 6

Olio Road, 146th St to 156th St
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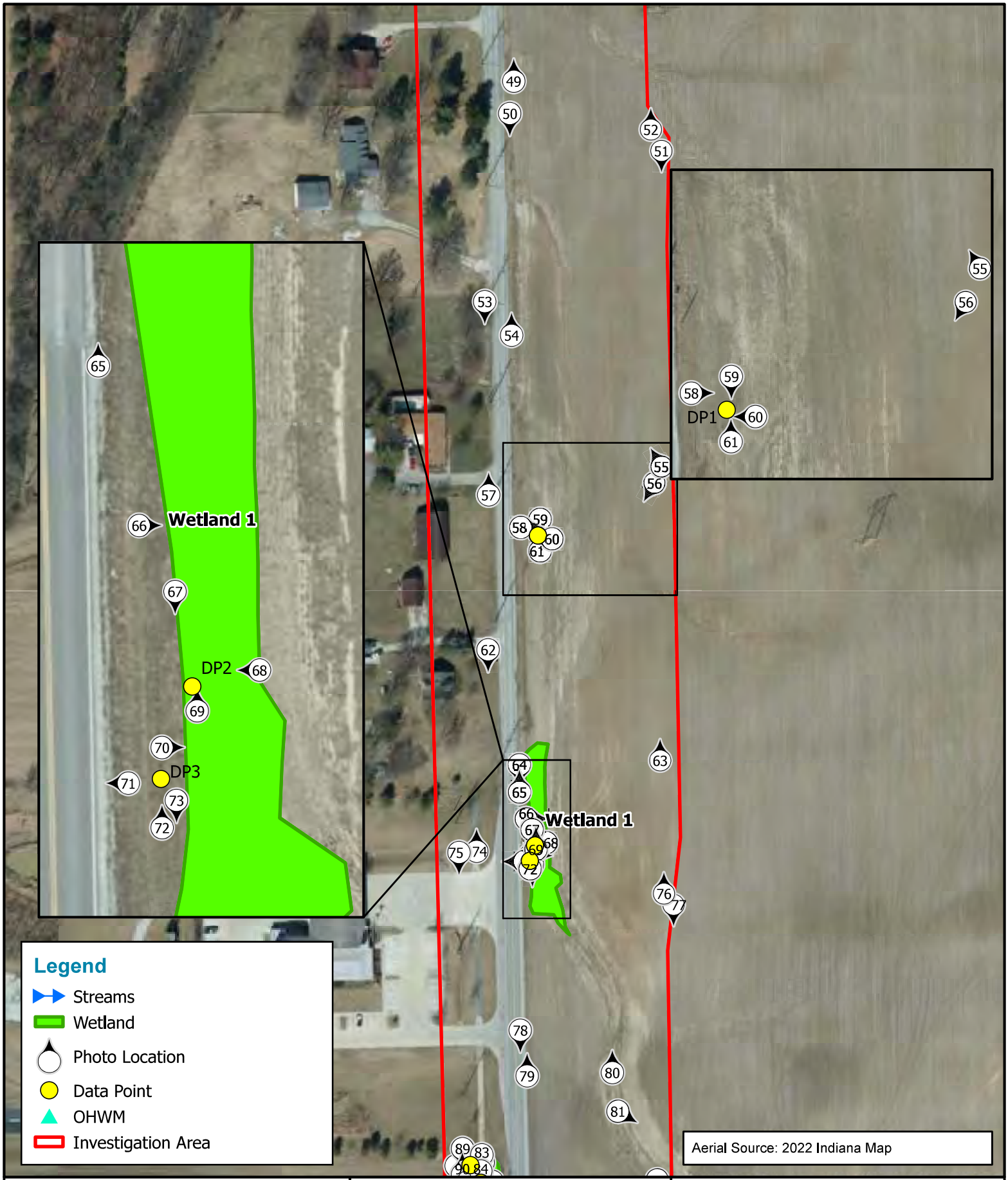

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Des. No. 2101733
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0 100 200 Feet

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County: Hamilton
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Page Number: 3 of 6

Olio Road, 146th St to 156th St
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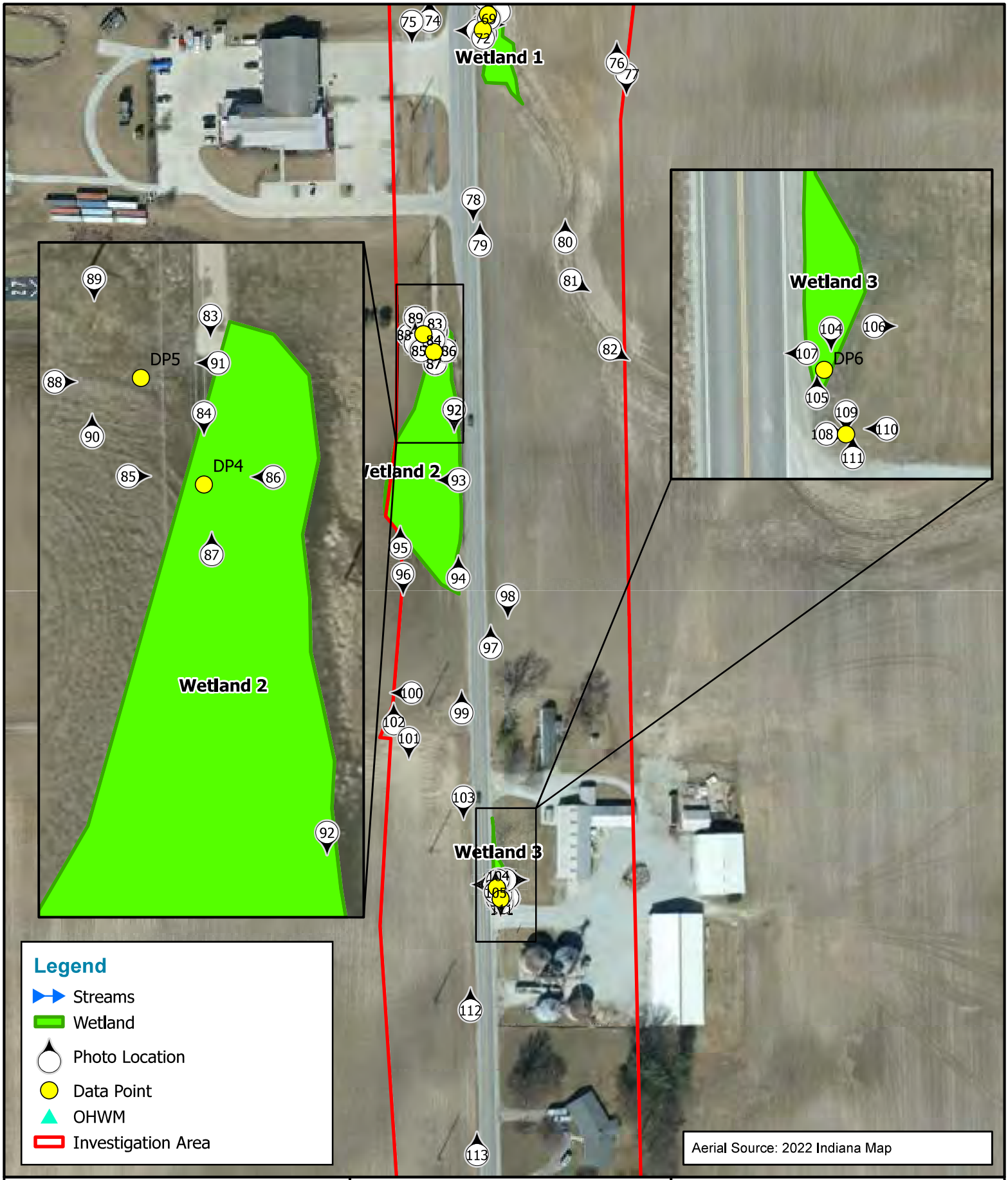

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Des. No. 2101733
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0 100 200 Feet

N

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Olio Road, 146th St to 156th St
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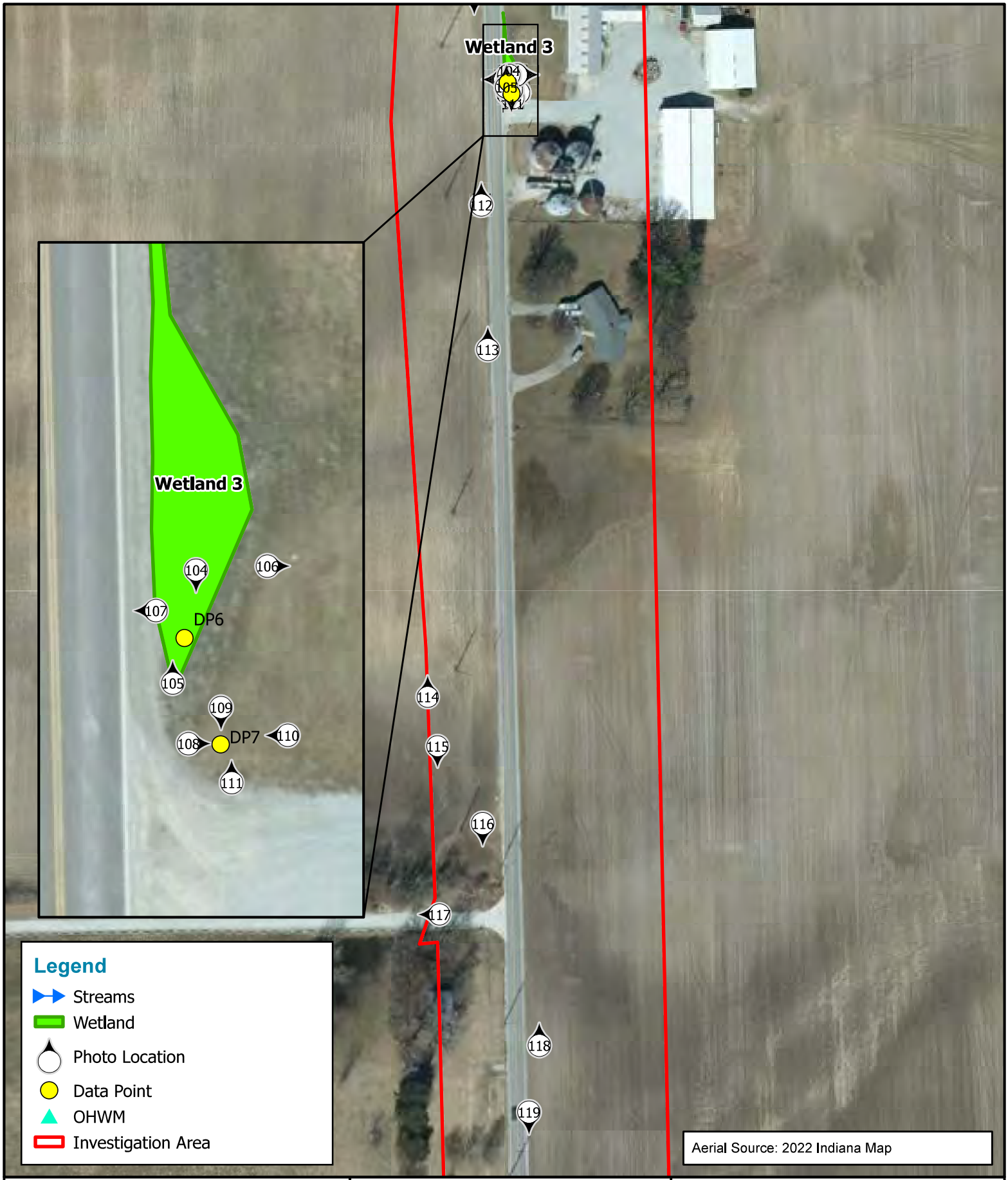

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0 100 200 Feet

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State: Indiana

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Olio Road, 146th St to 156th St
Added Travel Lanes
Created: 11/15/2023, SBeaupre

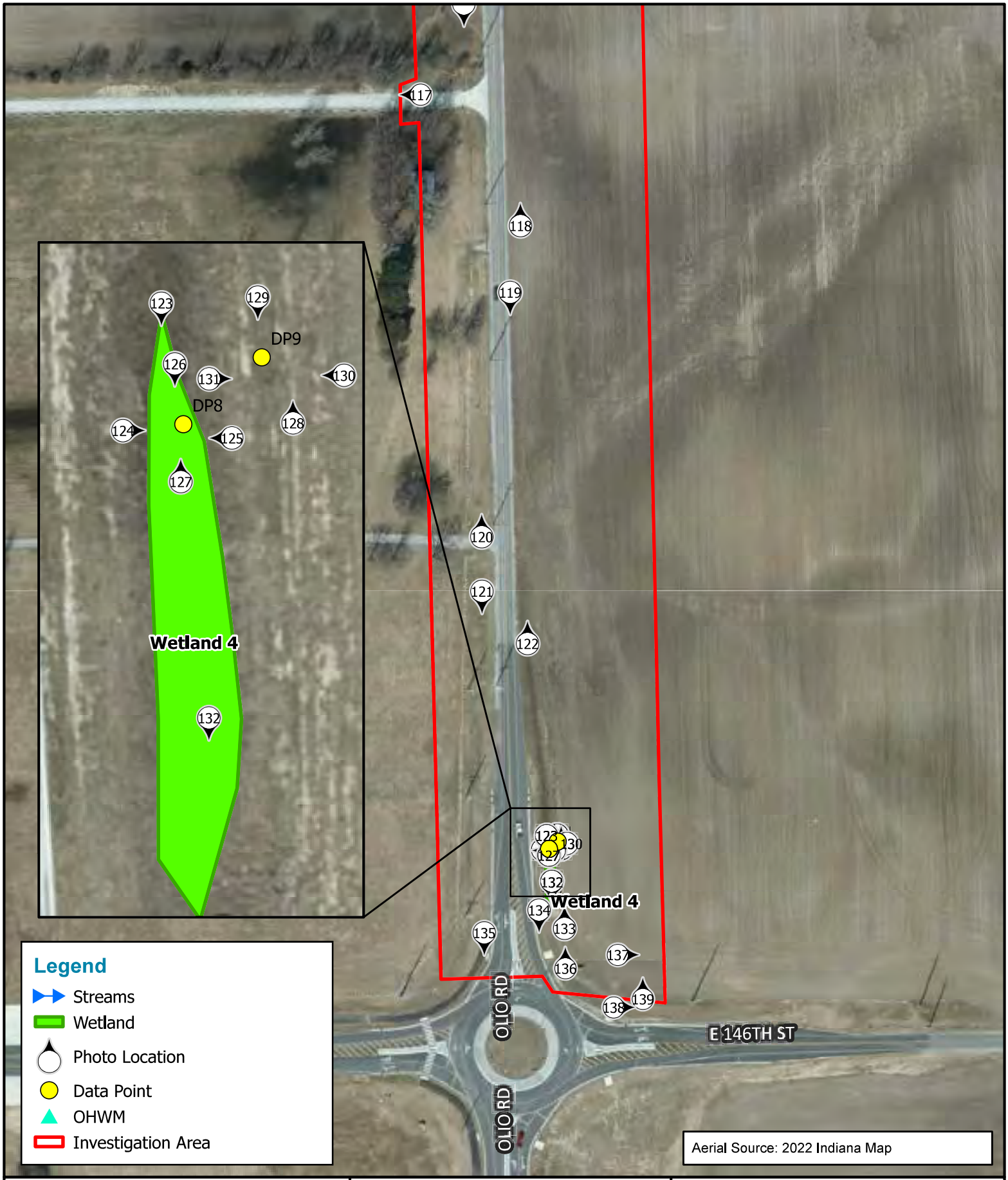

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Photo Location Map

Des. No. 2101733
Waters of the U.S. Report

0 100 200 Feet

N

County: Hamilton
Township: Wayne
State: Indiana

Page Number: 6 of 6

Olio Road, 146th St to 156th St
Added Travel Lanes
Created: 1/17/2024, SBeaupre

1. Looking north along the west side of Olio Road- 9/14/22

2. Looking south along the west side of Olio Road- 9/14/22

3. Looking north along the east side of Olio Road- 9/14/22

4. Looking north along the west side of Olio Road- 9/14/22

5.Looking northwest into agricultural field- 10/30/23

6. Looking south along the west side of Olio Road- 9/14/22

7. Looking east along the north side of 156th Street- 9/14/22

8. Looking west along the south side of 156th Street- 9/14/22

9. Looking north at culvert under 156th Street- 9/14/22

10. Looking east along the south side of 156th Street- 9/14/22

11. Looking east along the north side of 156th Street- 9/14/22

12. Looking east from the northwest corner of the Olio Road and 156th Street intersection- 9/14/22

13. Looking west along the south side of 156th Street- 9/14/22

14. Looking northeast at agricultural field in the northeast corner of the 156th Street and Olio Road intersection- 9/14/22

15. Looking southeast from the northeast corner of the 156th Street and Olio Road intersection- 9/14/22

16. Looking east along the north side of 156th Street- 9/14/22

17. Looking east along the south side of 156th Street- 9/14/22

18. Looking northwest at the intersection of 156th Street and Olio Road- 9/14/22

19. Looking east along the north side of 156th Street- 9/14/22

20. Looking south along a field entrance toward Sand Creek- 9/14/22

21. Looking west along the north side of 156th Street- 9/14/22

22. Looking northeast along tree line west of Sand Creek and north of 156th Street- 9/14/22

23. Looking southwest downstream along Sand Creek- 9/14/22

24. Looking northeast through the west culvert under 156th Street- 9/14/22

25. Looking southwest along Sand Creek from 156th Street- 9/14/22

26. Looking northeast upstream along Sand creek from 156th Street- 9/14/22

27. Looking northeast through east culvert under 156th Street- 9/14/22

28. Looking northeast upstream along Sand Creek- 9/14/22

29. Looking southwest at dual culverts under 156th Street downstream along Sand Creek- 9/14/22

30. Looking east upstream along UNT to Sand Creek from Sand Creek- 9/14/22

31. Looking west downstream along UNT to Sand Creek at OHWM location- 9/14/22

32. Looking south along Olio Road toward Sand Creek- 9/14/22

33. Looking north along the east side of Olio Road- 9/14/22

34. Looking south toward Sand Creek- 9/14/22

35. Looking east upstream Sand Creek- 9/14/22

36. Looking east under Bridge #29-00170 over Sand Creek- 9/14/22

37. Looking north at the right bank of Sand Creek- 9/14/22

38. Looking south at the left bank of Sand Creek- 9/14/22

39. Looking west along Sand Creek from Olio Road- 9/14/22

40. Looking east upstream along Sand Creek from Olio Road- 9/14/22

41. Looking east upstream Sand Creek at OHWM location- 9/14/22

42. Looking west downstream Olio Road at Bridge #29-00170- 9/14/22

43. Looking east along Sand Creek- 9/14/22

44. Looking south along the west side of Olio Road- 9/14/22

45. Looking north along the west side of Olio Road- 9/14/22

46. Looking north- 10/30/23

47. Looking west- 10/30/23

48. Looking south- 10/30/23

49. Looking north along east side of Olio Road- 9/14/22

50. Looking south along east side of Olio Road- 9/14/22

51. Looking south along the east side of Olio Road- 10/30/23

52. Looking north along the east side of Olio Road- 10/30/23

53. Looking south along west side of Olio Road- 9/14/22

54. Looking north along east side of Olio Road-9/14/22

55. Looking northwest within agricultural field- 10/30/23

56. Looking southwest within agricultural field- 10/30/23

57. Looking north along west side of Olio Road- 9/14/22

58. Looking east at DP1- 9/14/22

59. Looking south at DP1- 9/14/22

60. Looking west at DP1- 9/14/22

61. Looking north at DP1- 9/14/22

62. Looking south along the west side of Olio Road- 9/14/22

63. Looking north along agricultural field- 10/30/23

64. Looking south along east side of Olio Road along Wetland 1- 9/14/22

65. Looking north along east side of Olio Road along Wetland 1- 9/14/22

66. Looking east at DP2 within Wetland 1- 9/14/22

67. Looking south from DP2 within Wetland 1- 9/14/22

68. Looking west at DP2 within Wetland 1- 9/14/22

69. Looking north from DP2 within Wetland 1- 9/14/22

70. Looking east from DP3- 9/14/22

71. Looking west from DP3- 9/14/22

72. Looking north from DP3- 9/14/22

73. Looking south from DP3- 9/14/22

74. Looking north along multi-use path on the west side of Olio Road- 9/14/22

75. Looking south along the west side of Olio Road along multi-use path in front of fire station- 9/14/22

76. Looking north within agricultural field- 10/30/23

77. Looking south within agricultural field- 10/30/23

78. Looking south along east side of Olio Road- 9/14/22

79. Looking north along east side of Olio Road- 9/14/22

80. Looking north along vegetated drainage swale- 9/14/22

81. Looking southeast along vegetated drainage swale- 9/14/22

82. Looking southeast along vegetated drainage swale- 9/14/22

83. Looking south from the end of multi-use path at Wetland 2- 9/14/22

84. Looking south from DP4 within Wetland 2- 9/14/22

85. Looking east from DP4 within Wetland 2- 9/14/22

86. Looking west from DP4 from Wetland 2- 9/14/22

87. Looking north from DP4 from Wetland 2- 9/14/22

88. Looking east at DP5- 9/14/22

89. Looking south at DP5 toward Wetland 2- 9/14/22

90. Looking north at DP5- 9/14/22

91. Looking west at DP5- 9/14/22

92. Looking south within Wetland 2- 9/14/22

93. Looking west within Wetland 2- 9/14/22

94. Looking north along Wetland 2- 9/14/22

95. Looking north on the west side of Olio Road- 10/30/23

96. Looking south within agricultural field- 10/30/23

97. Looking north along east side of Olio Road- 9/14/22

98. Looking south along east side of Olio Road- 9/14/22

99. Looking north along the west side of Olio Road- 9/14/22

100. Looking west along drive- 10/30/23

101. Looking south from drive- 10/30/23

102. Looking north from drive- 10/30/23

103. Looking south along the west side of Olio Road- 9/14/22

104. Looking south from DP6- 9/14/22

105. Looking north from DP6 along Wetland 3- 9/14/22

106. Looking east from DP6 from Wetland 3- 9/14/22

107. Looking west from DP6-9/14/22

108. Looking east at DP7- 9/14/22

109. Looking south at DP7- 9/14/22

110. Looking west at DP7- 9/14/22

111. Looking north at DP7- 9/14/22

112. Looking north along the west side of Olio Road- 9/14/22

113. Looking north along the west side of Olio Road- 9/14/22

114. Looking north from agricultural field on the west side of Olio Road- 10/30/23

115. Looking south from agricultural field on the west side of Olio Road- 10/30/23

116. Looking south along the west side of Olio Road- 9/14/22

117. Looking west at drive- 10/30/23

118. Looking north along east side of Olio Road- 9/14/22

119. Looking south along east side of Olio Road- 9/14/22

120. Looking north along the west side of Olio Road- 9/14/22

121. Looking south along the west side of Olio Road- 9/14/22

122. Looking north along east side of Olio Road- 9/14/22

123. Looking south along Wetland 4- 9/14/22

124. Looking east from DP8 from Wetland 4- 9/14/22

125. Looking west from DP8 within Wetland 4- 9/14/22

126. Looking south from DP8 along Wetland 4- 9/14/22

127. Looking north from DP8 from Wetland 4- 9/14/22

128. Looking north from DP9- 9/14/22

129. Looking south from DP9 toward Wetland 4- 9/14/22

130. Looking west toward Wetland 4 from DP9- 9/14/22

131. Looking east from DP9- 9/14/22

132. Looking south at culvert along east side of Olio Road north of 146th Street within Wetland 4- 9/14/22

133. Looking north along east side of Olio Road at Wetland 4- 9/14/22

134. Looking south toward 146th Street and Olio Road roundabout and multi-use path- 9/14/22

135. Looking south at 146th Street and Olio Road roundabout and multi-use path- 9/14/22

136. Looking north along Olio Road from 146th Street roundabout- 10/30/23

137. Looking east along agricultural field northeast of 146th Street roundabout- 10/30/23

138. Looking east along north side of 146th Street- 10/30/23

139. Looking north into agricultural field- 10/30/23