

APPENDIX F

Water Resources

Des. No. 2100568

APPROVED: *Stephen C. Sperry*

Ecology and Waterway Permitting Office
Indiana Department of Transportation

10:14 am, Mar 31 2023

Waters of the U.S. Determination

SR 58 in Bartholomew County, Indiana
Bridge Project, 5.61 Miles West of I-65
Designation Number 2100568
Asset Name: 058-03-05882 B

Prepared by:

Kirk Roth

kroth@corradino.com

317-488-2363

Corradino, LLC

March 31, 2023

1. Project Information

Dates of Field Reconnaissance:

Field work for this report was conducted on September 23, 2022 by Corradino, LLC.

Project Location:

Waymansville Quadrangle
Section 25 and 36, Township 8 North, Range 4 East
Bartholomew County, Indiana
Coordinates: 39.095065, -86.028053

Project Description:

This project is located on SR 58, 5.61 miles west of I-65 at structure 058-03-05882 B. SR 58 crosses White Creek in the project area. The existing structure is a single span prestressed adjacent box beam bridge. The bridge is 30 feet 5 inches wide, and 67 feet long. The project area is surrounded by forested and agricultural terrain. The project will replace the existing bridge with a three-span continuous concrete slab bridge with a total structure length of 100 feet and width of 30 feet. The proposed structure will be realigned to the natural stream flow of White Creek approximately 50 feet downstream of the existing structure. Revetment riprap will be placed at the spillslopes and piers of the proposed structure. A temporary cofferdam will be used during construction.

SR 58 will be realigned to the east to accommodate the proposed bridge location. The existing 24-foot wide roadway approach will be replaced with a 26 to 30-foot paved roadway width. Due to the realignment of SR 58, the intersection with CR 700 S just east of the structure will be reconstructed and shifted approximately 40 feet northeast to meet SR 58 at a perpendicular 90 degree angle.

2. Desktop Reconnaissance

Soils

According to the Soil Survey Geographic (SSURGO) Database for Bartholomew County, Indiana, the project area does contain soil areas with nationally listed hydric soils. The soil within the investigative area is Stendal Silt Loam with 0 to 2 percent slopes (StdAV).

Soil Unit Name	Symbol	NRCS Flooding Frequency	NRCS Drainage Class	NRCS Hydric Soil Category	SSURGO Hydric Rating
Stendal Silt Loam, 0 to 2 percent slopes	StdAV	Frequent	Somewhat Poorly Drained	Predominantly Nonhydric	7% Hydric

National Wetland Inventory Information

A temporarily flooded broad-leaved deciduous palustrine forested wetland (PFO1A) occurs within the northwest, southwest, and southeast quadrants of the investigative area according to the National Wetland Inventory.

National Hydrography Dataset Information

12-digit Hydrologic Unit – 051202060404 (Headwaters White Lick Creek)

Reach Code	Flowline Type	Location
05120206000061 (White Creek)	Stream/River	Extending southeast and northwest under the project structure, then north along SR 58
05120206031572	Unclassified	Extending northwest at project structure

Attached Documents:

- Project Location Map
- USGS Topographic Maps
- Aerial Map
- Water Resources Map
- NWI and NHD Features Map
- IDNR FARA Map
- StreamStats Assessment
- Soils Map
- Photo Key and Photo Log
- Wetland Determination Data Sheets
- Preliminary Jurisdictional Determination

3. Field Reconnaissance

Site reconnaissance was conducted on September 23, 2022 by Corradino, LLC.

Stream Analysis

White Creek

The project structure is associated with the intermittent White Creek, which encounters the navigable East Fork White River. Within the project area, White Creek flows southeast and drains the surrounding wooded area. During the site inspection, shallow standing water was present, as well as an Ordinary High Water Mark (OHWM). Stream quality is considered average due to the moderate size, low flow, mix of artificial and natural substrate conditions and the presence of cover such as run/riffle complexes. The OHWM was 25 feet wide and 0.75 foot deep at a location approximately 50 feet southeast of the project structure. Although the stream is labeled as perennial with blue line mapping in topographic maps, field inspection revealed a small channel size and standing water at the SR 58 bridge and a dry channel at the north end of the investigative area. Therefore, White Creek is believed to be intermittent in this area. The StreamStats website (<https://streamstats.usgs.gov/ss/>) shows the area of the watershed including White

Creek to be 6.97 square miles at the project location. The investigative area contains 1438 linear feet of White Creek.

White Creek exhibited a well-defined bed and bank structure. White Creek is listed as stream in the USGS National Hydrography Dataset. Riprap is located on the roadside west of the SR 58 bridge (Photos 42-43), but there is no riprap in the channel. No signs of animal crossing or use of the structure was observed. Due to its significant nexus and connectivity with the navigable East Fork White River, White Creek is believed to be a Water of the U.S.

UNT1 to White Creek

An ephemeral tributary encounters White Creek northwest of and perpendicular to the project structure. For the purposes of this report, this tributary is referred to as UNT1 to White Creek. Within the project area, UNT1 to White Creek flows southeast and drains the surrounding wooded area. During the site inspection, no water was present but a clear OHWM was observed over a sparsely vegetated mud bed. Stream quality is considered poor due to the small size, low flow, uniform substrate conditions and the lack of cover such as run/riffle complexes. The OHWM was 2.0 feet wide and 0.25 foot deep at a location approximately 30 feet northwest of the junction with White Creek. The stream is believed to be ephemeral due to the dry conditions, small size, and no blue line mapping on topographic maps. The drainage is too small to be mapped using the StreamStats website but the entire watershed of UNT1 to White Creek is included in the 6.97 square mile watershed of White Creek. The investigative area contains 165 linear feet of UNT1 to White Creek.

UNT1 to White Creek exhibited a well-defined bed and bank structure. UNT1 to White Creek is listed as an unclassified drainage way in the USGS National Hydrography Dataset. No riprap is associated with UNT1 to White Creek. No sign of animal crossing was noted. Due to its significant nexus with White Creek and therefore connectivity with the navigable East Fork White River, UNT1 to White Creek is believed to be a Water of the U.S.

UNT2 to White Creek

An ephemeral tributary encounters White Creek near the northern limit of the investigative area, connected to White Creek by a corrugated metal pipe under SR 58. For the purposes of this report, this tributary is referred to as UNT2 to White Creek. Within the project area, UNT2 to White Creek flows west and drains the surrounding agricultural area. During the site inspection, shallow standing water was present, as well as an Ordinary High Water Mark (OHWM). Stream quality is considered poor due to the small size, low flow, uniform substrate conditions and the absence of cover such as run/riffle complexes. The OHWM was 1.5 feet wide and 0.25 foot deep at a location 2 feet west of the culvert as it encounters White Creek. The OHWM measurement was taken downstream of the culvert, which represents the more natural condition of the channel and avoids the ponded conditions upstream. The stream is believed to be ephemeral due to the dry conditions, small size, and no blue line mapping on topographic maps. The drainage is too small to be mapped using the StreamStats website but the entire watershed of UNT2 to White Creek is included in the 6.97 square mile watershed of White Creek. The investigative area contains 162 linear feet of UNT2 to White Creek.

UNT2 to White Creek exhibited a well-defined bed and bank structure. UNT2 to White Creek is listed as an unclassified drainage way in the USGS National Hydrography Dataset. No riprap is associated with UNT2 to White Creek. No sign of animal crossing was noted. Due to its significant nexus with White Creek and therefore connectivity with the navigable East Fork White River, UNT2 to White Creek is believed to be a Water of the U.S.

Table 1 – Stream Summary, SR 58, Bartholomew County, Indiana, Designation Number 2100568

Stream Name	Photos	Lat/Long	OHW Width (feet)	OHW Depth (feet)	USGS Blue-line?	Riffles? Pools?	Substrate	Quality	Likely Water of U.S.?
White Creek	2-18; 20-21; 40; 82-84	39.095065 -86.028053	25	0.75	Yes (Perennial)	Yes	Silt, Sand, Pebbles, Cobbles	Average	Yes
UNT1 to White Creek	22-26; 41	39.095331 -86.028335	2.0	0.25	No (Ephemeral)	No	Silt, Sand	Poor	Yes
UNT2 to White Creek	76-81	39.098452 -86.028065	1.5	0.25	No (Ephemeral)	No	Silt, Sand	Poor	Yes

Wetland Analysis

Wetland 1

The area within the site boundaries was investigated for potential wetland characteristics. The ditch area east of SR 58 exhibited wetland vegetation within the bed. This area was dominated the facultative wetland *Phalaris arundinacea* and *Echinochloa crus-galli*. Soils exhibited hydric soil indicator F6 – Redox Dark Surface. Wetland hydrology indicators were present including water-stained leaves and thin muck surface, as well as the secondary indicators geomorphic position, and FAC-Neutral Test. The data are documented in wetland delineation Sample Point 1A. These conditions were uniform in the 2-foot wide ditch extending from a pipe under SR 58 (draining into White Creek) northward to a farm entrance (just south of UNT2 to White Creek). The area directly south of the pipe was dominated with the facultative wetland *Phalaris arundinacea* and facultative upland *Setaria faberi*, in equal amounts (40% coverage). No hydric soil or wetland hydrology indicators were found in this area. These data are documented in wetland delineation Sample Point 1B. For the purposes of this report, this wetland is referred to as Wetland 1. Wetland 1 is considered a poor quality wetland due to the location next to a roadway, water derivation in part from sheet flow from the roadway and an agricultural field, small size and exotic vegetation. Wetland 1 is approximately 0.051 acre within the investigative area and is a palustrine emergent wetland. The wetland area is best defined by the bed of the ditch and clear presence of *Echinochloa crus-galli* in the herb stratum. Due to its hydraulic connection via culvert to White Creek and therefore connectivity with the navigable East Fork White River, Wetland 1 is believed to be a Water of the U.S.

Wetland 2

A low, flatwoods area also occurred west of to the south bank of UNT1 to White Creek and extends west outside the investigative area. This area was dominated by the facultative wetland *Platanus occidentalis*, *Lindera benzoin*, *Fraxinus pennsylvanica*, the facultative *Acer rubrum*, *Toxicodendron radicans* and *Smilax rotundifolia*, and the facultative upland *Botrypus virginianus* and *Lonicera japonica*. The vegetation regime meets the Dominance Test (70% hydrophytic dominant species) and the Prevalence Index (2.90) criteria for hydrophytic vegetation. Soils exhibited hydric soil indicators F6 – Redox Dark Surface. Wetland hydrology indicators were present including sparsely vegetated concave surface, water-stained leaves, oxidized rhizospheres on living roots, and thin muck surface. The data are documented in wetland delineation Sample Point 2A. The adjacent area with over 50% herb stratum coverage was dominated by upland *Eupatorium altissimum*, the facultative upland *Juniperus virginiana*, *Juglons nigra*, and *Rosa multiflora*, facultative *Acer rubrum* and *Sonicula odorata*, and the facultative wetland *Platanus*

occidentalis and *Lindera benzoin*. The vegetation regime does not meet the Dominance Test (50% hydrophytic dominant species) or the Prevalence Index (3.37) criteria for hydrophytic vegetation. No hydric soil or wetland hydrology indicators were found in this area. These data are documented in wetland delineation Sample Point 2B. For the purposes of this report, this wetland is referred to as Wetland 2. Wetland 2 is considered an average quality wetland due to its extensive size, buffer of woodland, and extensive woodland growth, but limited hydraulic capacity as indicated by dry conditions and shallow depth. Wetland 2 is approximately 0.057 acre within the investigative area and is a palustrine forested wetland. The wetland area is best defined by the low area in topography and clear sparsely vegetated concave surface. Due to its adjacency to UNT1 to White Creek and therefore connectivity with the navigable White River, Wetland 2 is believed to be a Water of the U.S.

Due to the extent of NWI mapping, other areas were investigated for wetland characteristics.

Upland Point 3A

The area between White Creek and UNT1 to White Creek was dominated with the upland *Eupatorium altissimum*, facultative upland *Juglans nigra*, *Lonicera tatarica*, and *Solidago canadensis*, and the facultative *Asimina triloba*. No hydric soil or wetland hydrology indicators were found in this area. These data are documented in wetland delineation Sample Point 3A.

Upland Point 4A

The area between White Creek and CR 700 S was dominated with the facultative upland *Gleditsia triacanthos*, *Carya ovata*, *Rosa multiflora*, *Eupatorium rugosum*, *Actaea pachypoda*, and *Lonicera japonica*, and the facultative wetland *Ulmus americana*, *Platanus occidentalis*, *Lindera benzoin*, and *Verbesina alternifolia*. The vegetation regime does not meet the Dominance Test (40% hydrophytic dominant species) or the Prevalence Index (3.36) criteria for hydrophytic vegetation. No hydric soil or wetland hydrology indicators were found in this area. These data are documented in wetland delineation Sample Point 4A.

Upland Point 5A

The area west of White Creek and south of the project structure was dominated with the upland *Rubus occidentalis*, *Celastrus orbiculatus*, and *Convolvulus arvensis*, facultative upland *Juglans nigra*, *Rosa multiflora*, and *Lonicera japonica*, and the facultative wetland *Platanus occidentalis*. No hydric soil or wetland hydrology indicators were found in this area. These data are documented in wetland delineation Sample Point 5A.

Table 2 – Wetland Point Summary, SR 58, Bartholomew County, Indiana, Designation Number 2100568

Data Point	Vegetation	Soils	Hydrology	Wetland
1A	Yes	Yes	Yes	Yes
1B	No	No	No	No
2A	Yes	Yes	Yes	Yes
2B	No	No	No	No
3A	No	No	No	No
4A	No	No	No	No
5A	No	No	No	No

Table 3 – Wetland Summary, SR 58, Bartholomew County, Indiana, Designation Number 2100568

Wetland Name	Photo Number	Coordinates	CowardIn Type	Quality	Total Acreage	Likely Water of U.S.?
Wetland 1	28-31; 69-72; 74	39.095524 -86.027918	PEM	Poor	0.051	Yes
Wetland 2	32-37	39.095315 -86.028809	PFO	Average	0.057	Yes

Roadside Ditch Analysis

The only features within the investigative area with bed and bank structure were White Creek, UNT1 to White Creek, UNT2 to White Creek, and Wetland 1. Wetland 1 exhibited uniform wetland conditions for its entire bed. All other roadside areas exhibited shallow slopes which appeared to capture sheet flow. No roadside ditches were found within the investigative area

4. Summary and Conclusions

White Creek, UNT1 to White Creek, UNT2 to White Creek, Wetland 1, and Wetland 2 are apparent Waters of the U.S due to significant nexus and connectivity with the navigable East Fork White River. The jurisdictional area within the project area would extend to the limits of the OHWM of the channel on all tributaries and to the limits of Wetland 1 and Wetland 2 as indicated by depressional topography and dominance of *Echinochloa crus-galli* in Wetland 1 and sparsely vegetated concave surface in Wetland 2.

No bat or bird use of the bridge was detected during the September 23, 2022 survey.

These waterways are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. 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.

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.

Kirk Roth

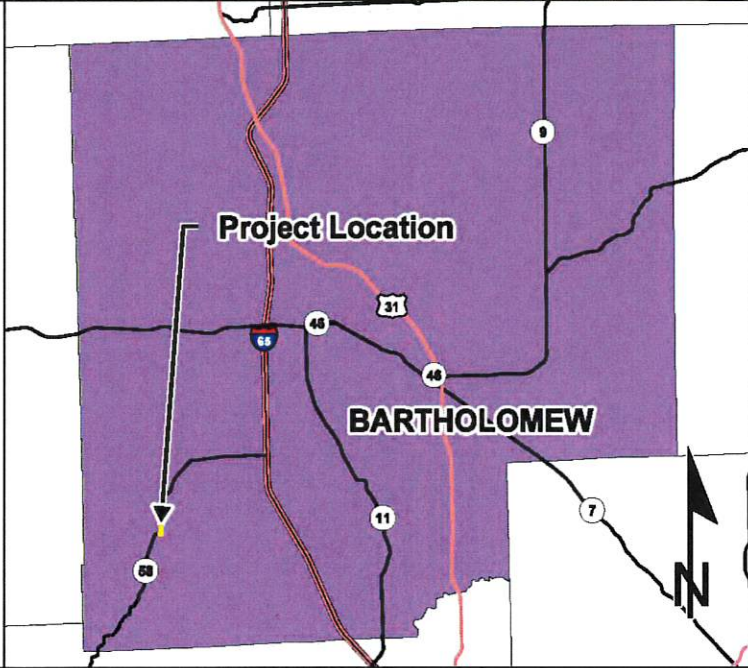
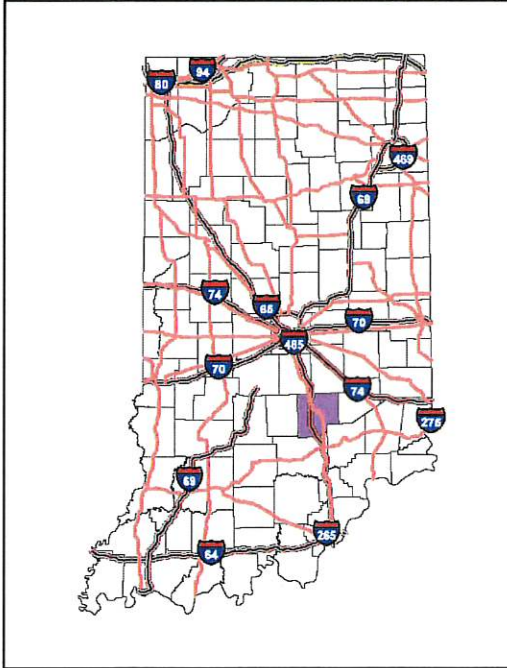
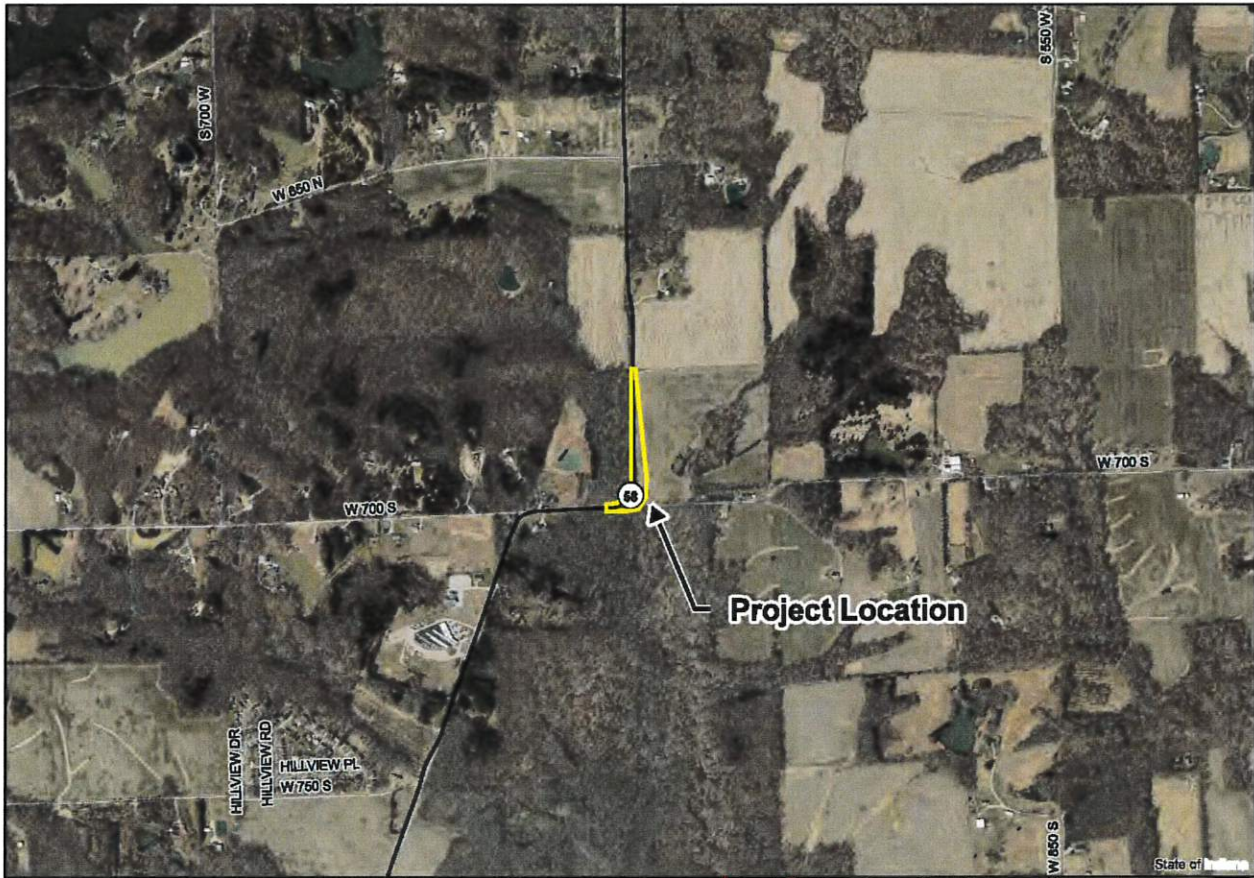


Environmental Scientist

Corradino, LLC

March 3, 2023

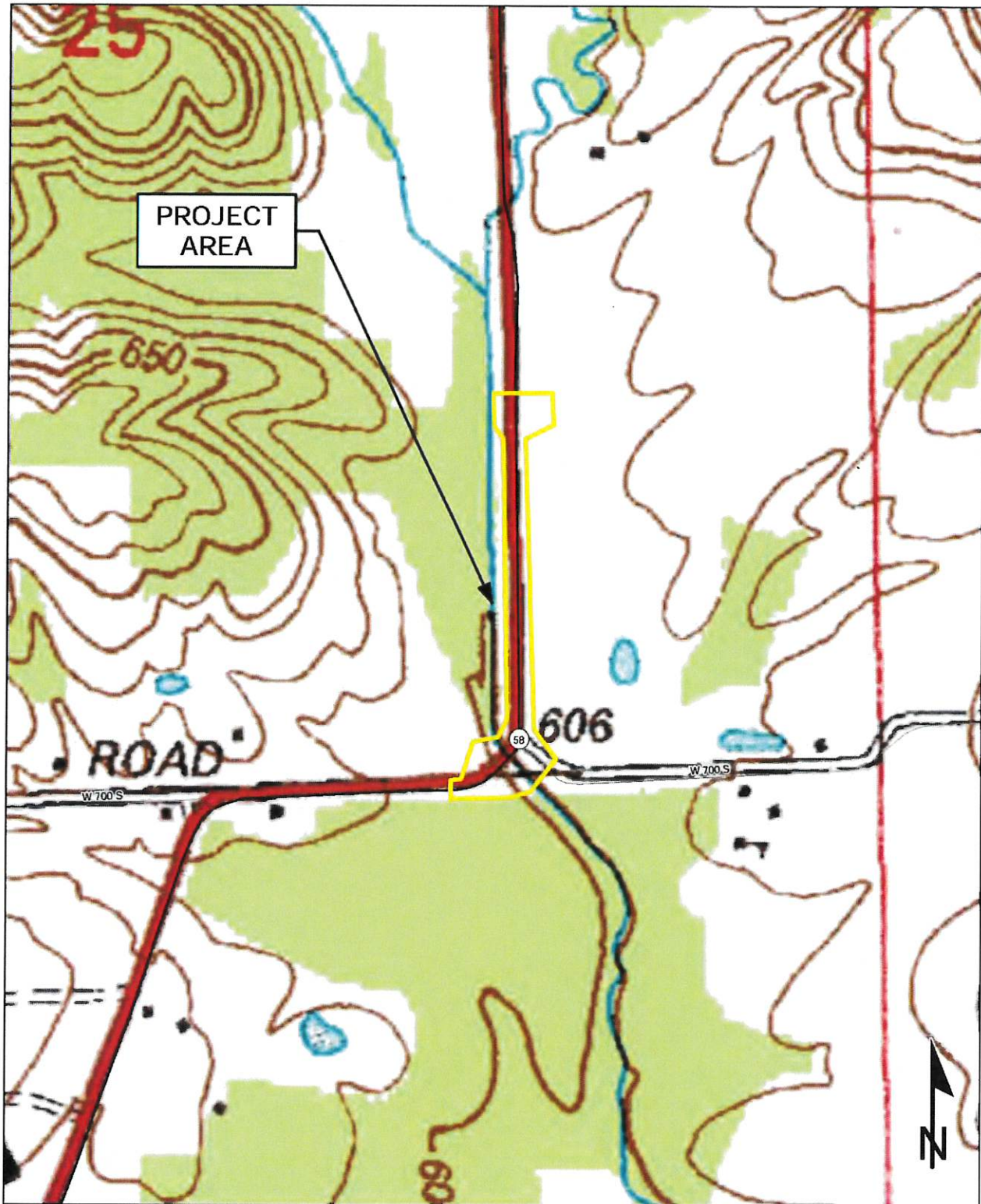
**Project Location Map
 SR58, 5.61 Miles West of I-65
 Des. No. 2100568, Bridge Replacement
 Bartholomew County, Indiana**



Sources: 0.25 0.125 0 0.25 Miles
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 18 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.

**INDIANA
 STATEWIDE
 GIS DATA**

USGS Topographic Map
SR58, 5.61 Miles West of I-65
Des. No. 2100568, Bridge Replacement
Bartholomew County, Indiana

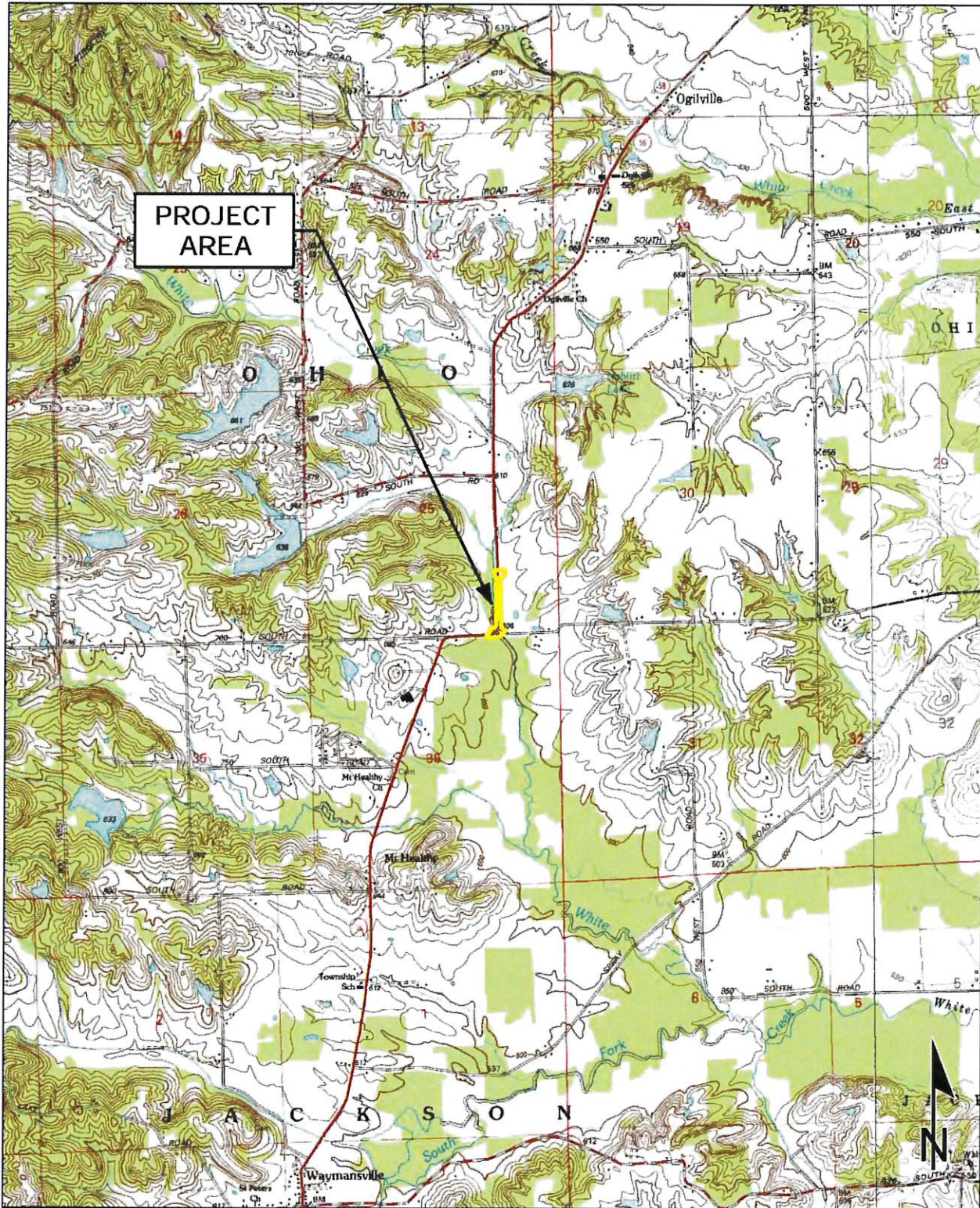


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Map Projection: UTM Zone 16 N Map Datum: NAD83
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

WAYMANSVILLE
QUADRANGLE INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Appendix P-11

**USGS Topographic Map
SR58, 5.61 Miles West of I-65
Des. No. 2100568, Bridge Replacement
Bartholomew County, Indiana**



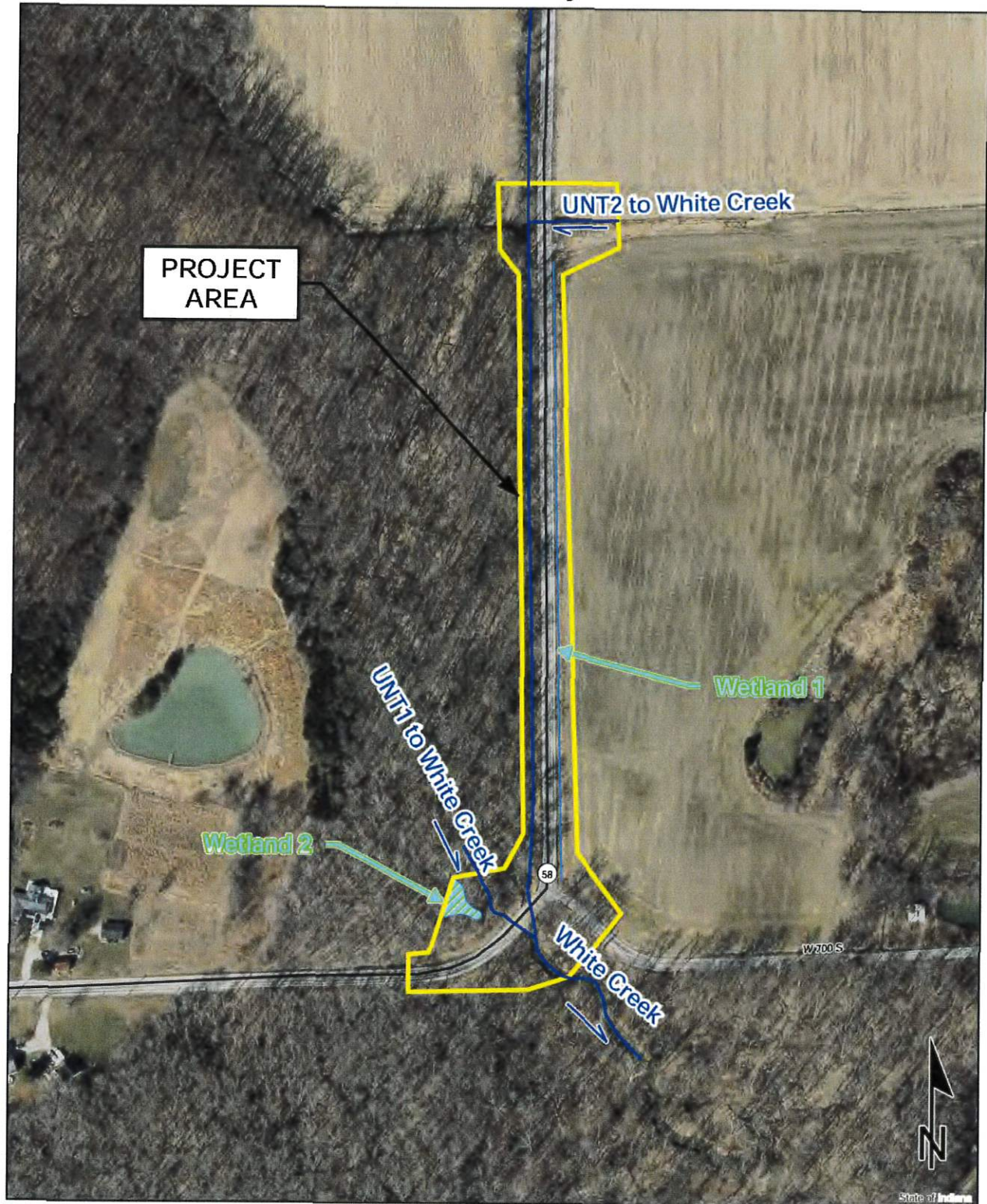
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 Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83

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**WAYMANSVILLE
QUADRANGLE INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)**

Appendix P-12

Aerial Map
 SR58, 5.61 Miles West of I-65
 Des. No. 2100568, Bridge Replacement
 Bartholomew County, Indiana



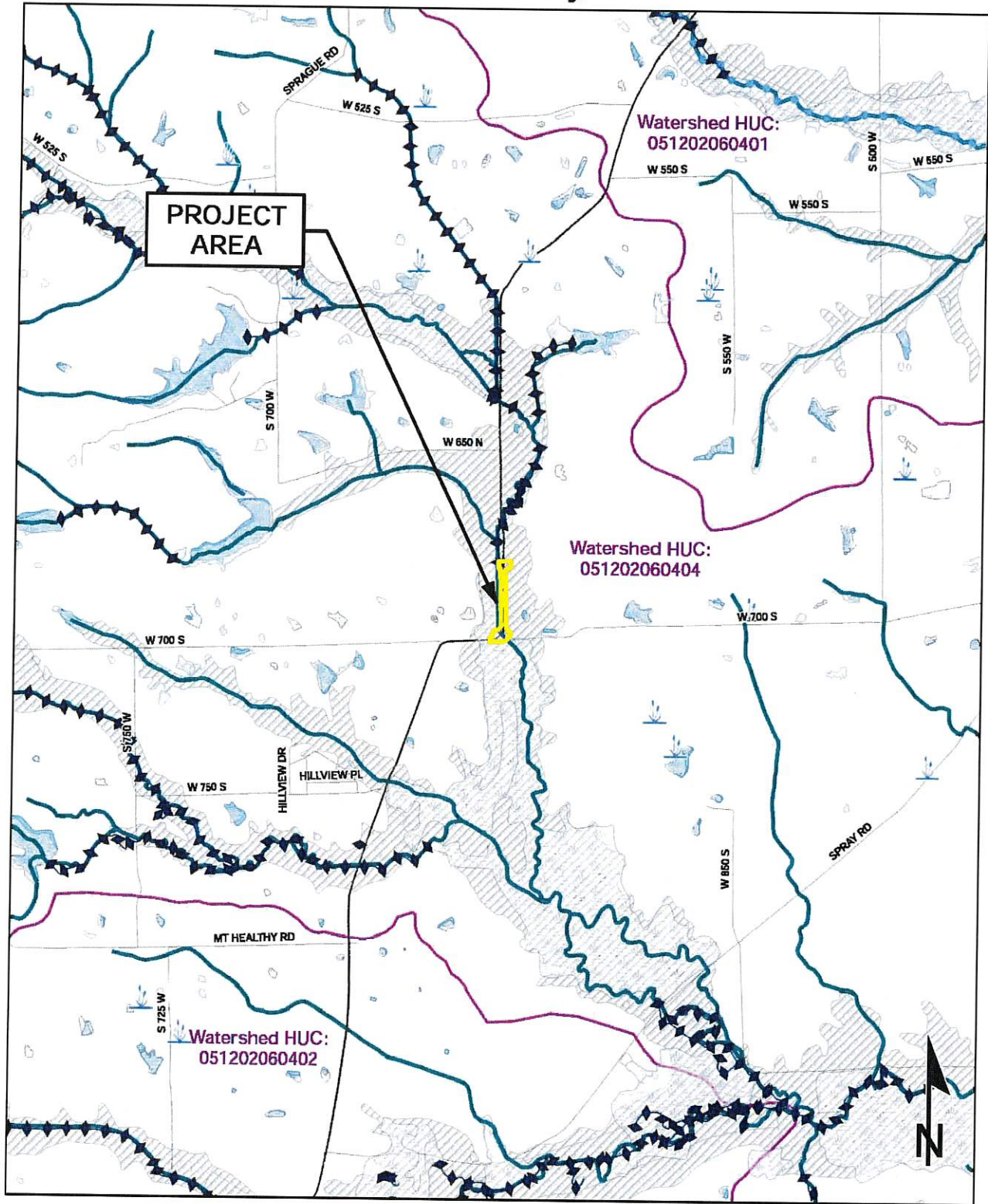
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 Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83

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

**INDIANA STATEWIDE
 AERIAL IMAGERY
 FLOWN 2018**

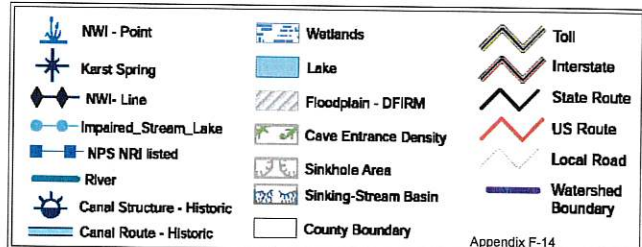
Appendix F-19

Water Resources Map
SR58, 5.61 Miles West of I-65
Des. No. 2100568, Bridge Replacement
Bartholomew County, Indiana

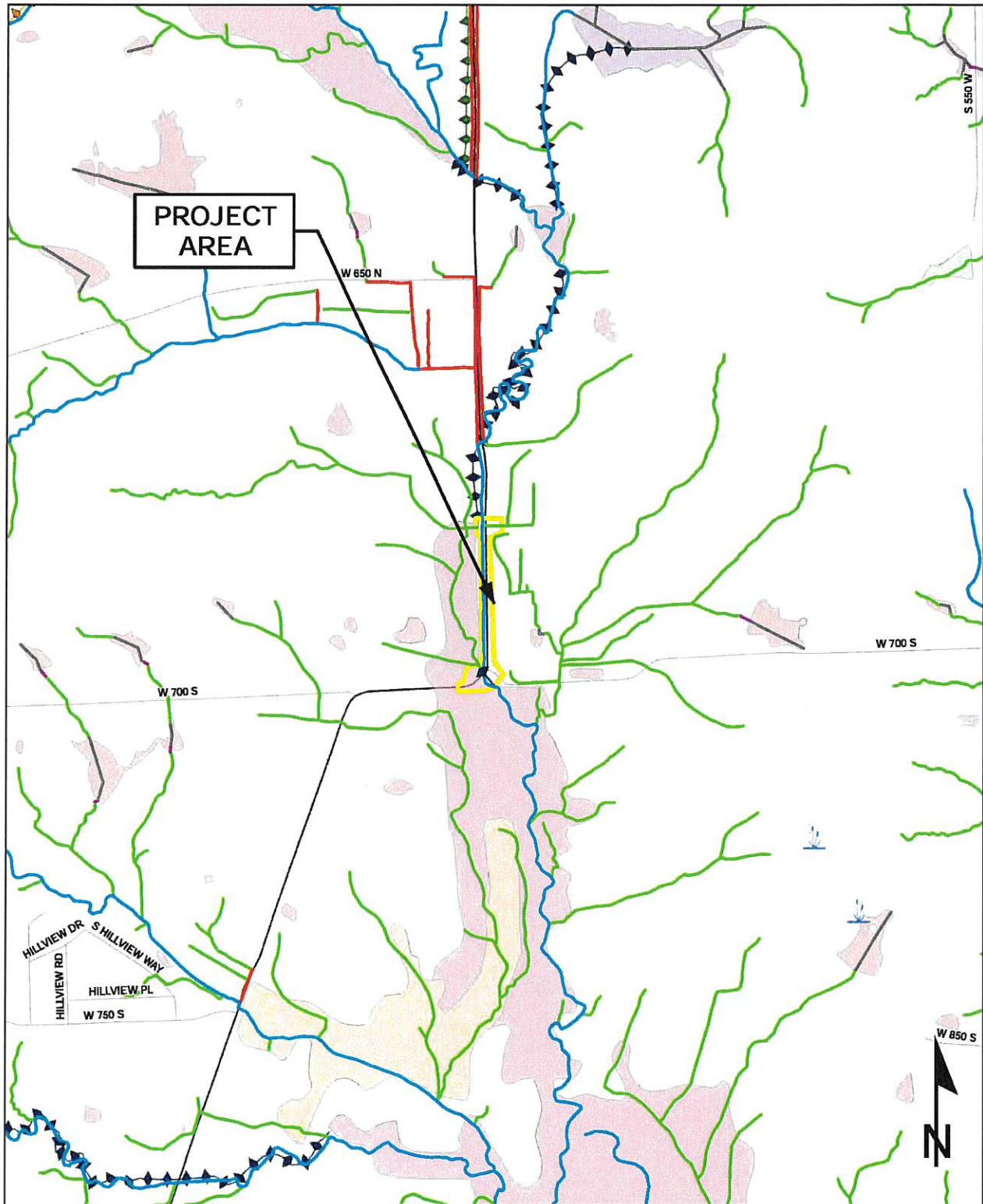


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Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
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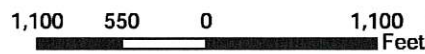
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.



NWI and NHD Features Map
SR58, 5.61 Miles West of I-65
Des. No. 2100568, Bridge Replacement
Bartholomew County, Indiana



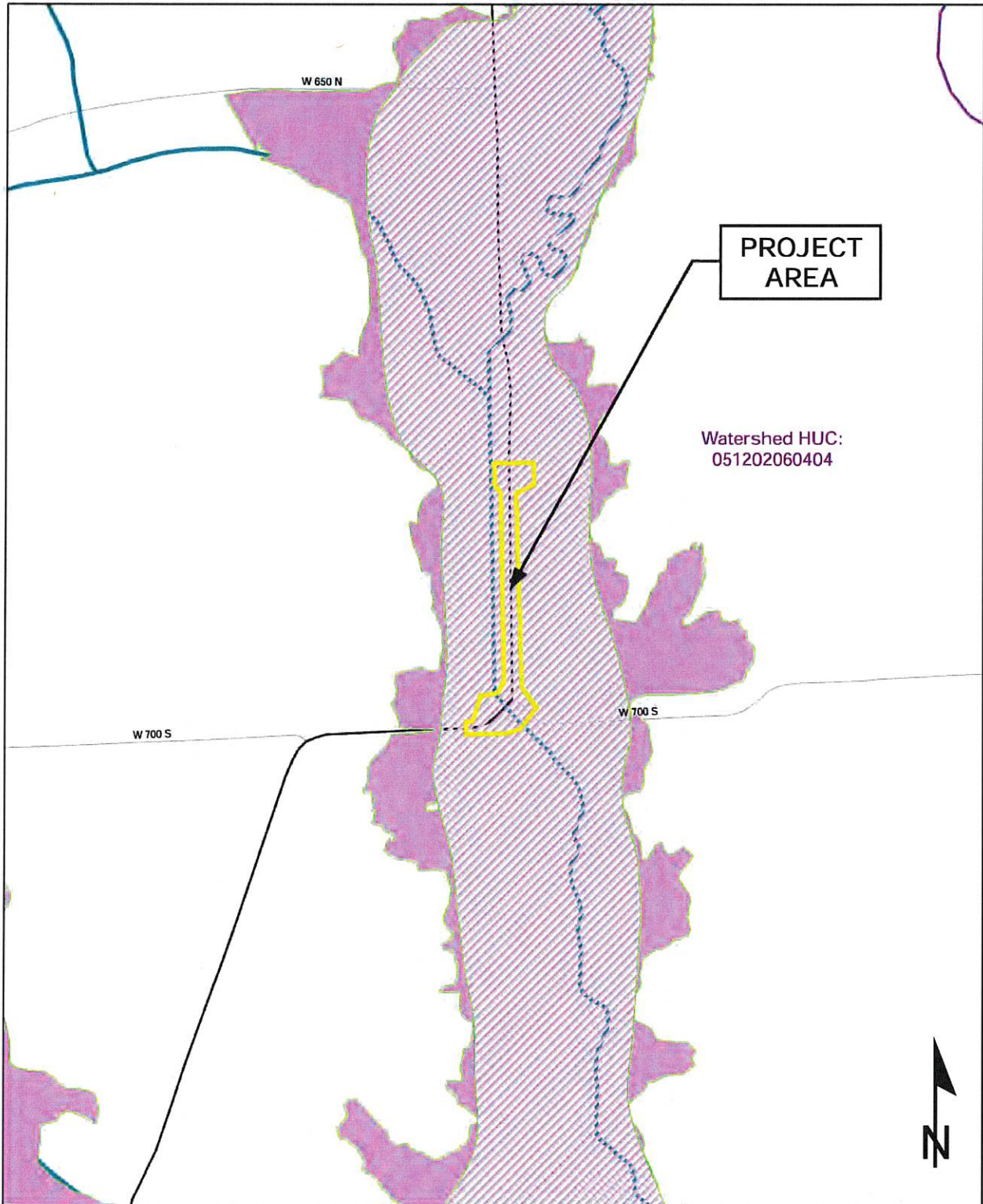
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 Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83
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Wetland - PFO1A	NWI Line - R2UBH	Toll
Wetland - PSS1/EM1A	NWI Line - R2UBHx	Interstate
Wetland - PSS1A	NWI Line - R4SBC	State Route
Wetland - PUBFh	NHD Stream/River	US Route
Wetland - PUBGh	NHD Canal Ditch	Local Road
Wetland - PUBGx	NHD Connector	
NWI - Point	NHD Artificial Ditch	
	NHD Flowline Unclassified	

Appendix F-15

FARA Map
SR58, 5.61 Miles West of I-65
Des. No. 2100568, Bridge Replacement
Bartholomew County, Indiana



PROJECT AREA

Watershed HUC:
051202060404

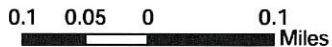
W 700 S

W 700 S

W 650 N

Sources:
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Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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Legend

Toll	DNR Approximate Floodway
Interstate	DNR Approximate Fringe
State Route	Watershed Boundary
US Route	Stream
Local Road	

Parameter Code	Parameter Description	Value	Unit
T2INDNR	Average transmissivity (ft ² /d) for the full depth of unconsolidated deposits from InDNR well database.	464	square feet per day

➤ General Flow Statistics

General Flow Statistics Parameters [Harmonic Mean Southern Region 2016 5102]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	6.969	square miles	6.95	533
LC01FOREST	Percent_Forest_from_NLCD2001	75.7	percent	7.3	91.3
LOWREG	Low Flow Region Number	1730	dimensionless		

General Flow Statistics Flow Report [Harmonic Mean Southern Region 2016 5102]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	PIu	ASEp
Harmonic Mean Streamflow	0.11	ft ³ /s	0.0408	0.296	66.7

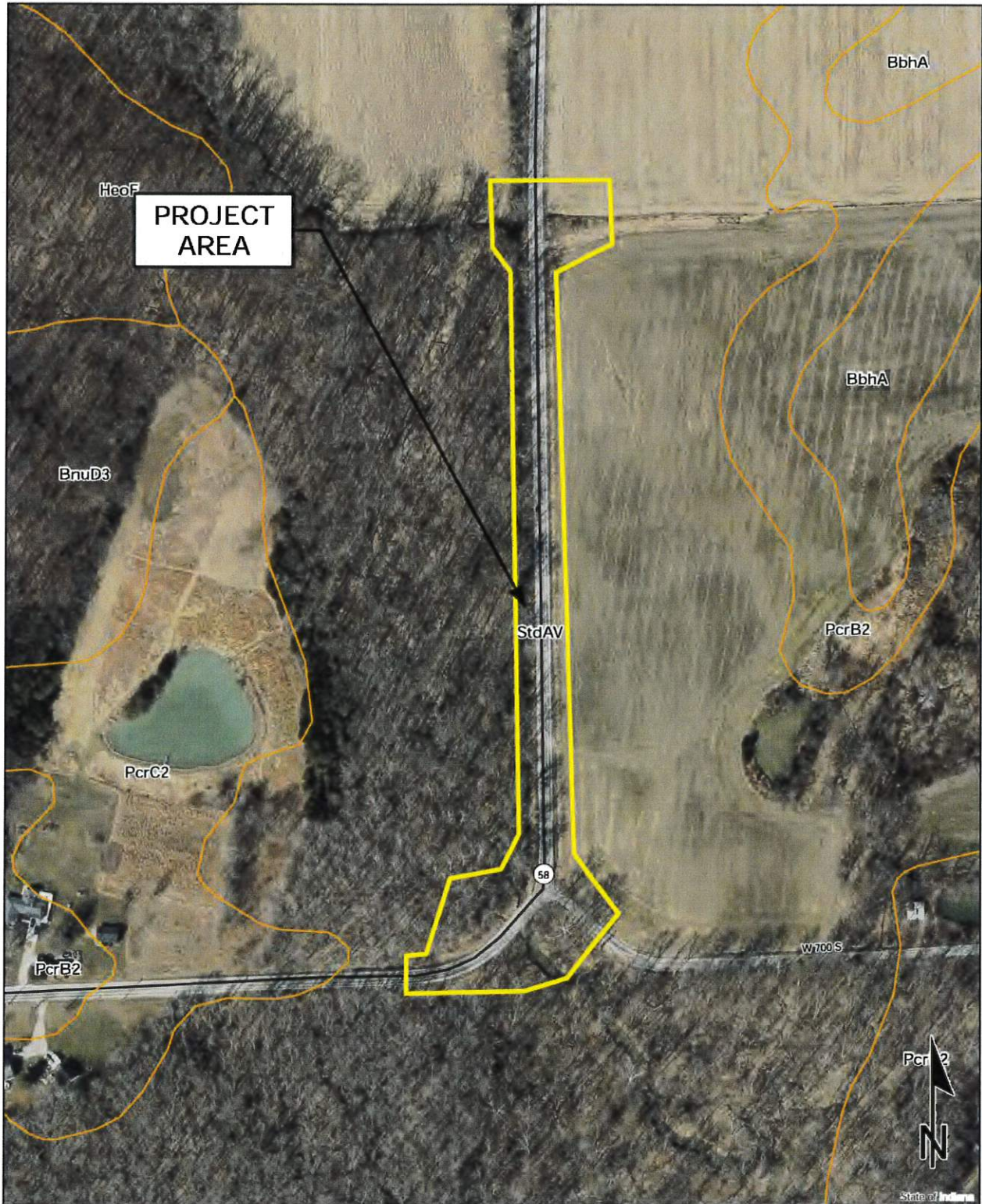
General Flow Statistics Citations

Martin, G.R., Fowler, K.K., and Arlhood, L.D., 2016, Estimating selected low-flow frequency statistics and harmonic-mean flows for ungaged, unregulated streams in Indiana (ver 1.1, October 2016): U.S. Geological Survey Scientific Investigations Report 2016-5102, 45 p. (<http://dx.doi.org/10.3133/sir20165102>)

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Soils Map
 SR58, 5.61 Miles West of I-65
 Des. No. 2100568, Bridge Replacement
 Bartholomew County, Indiana



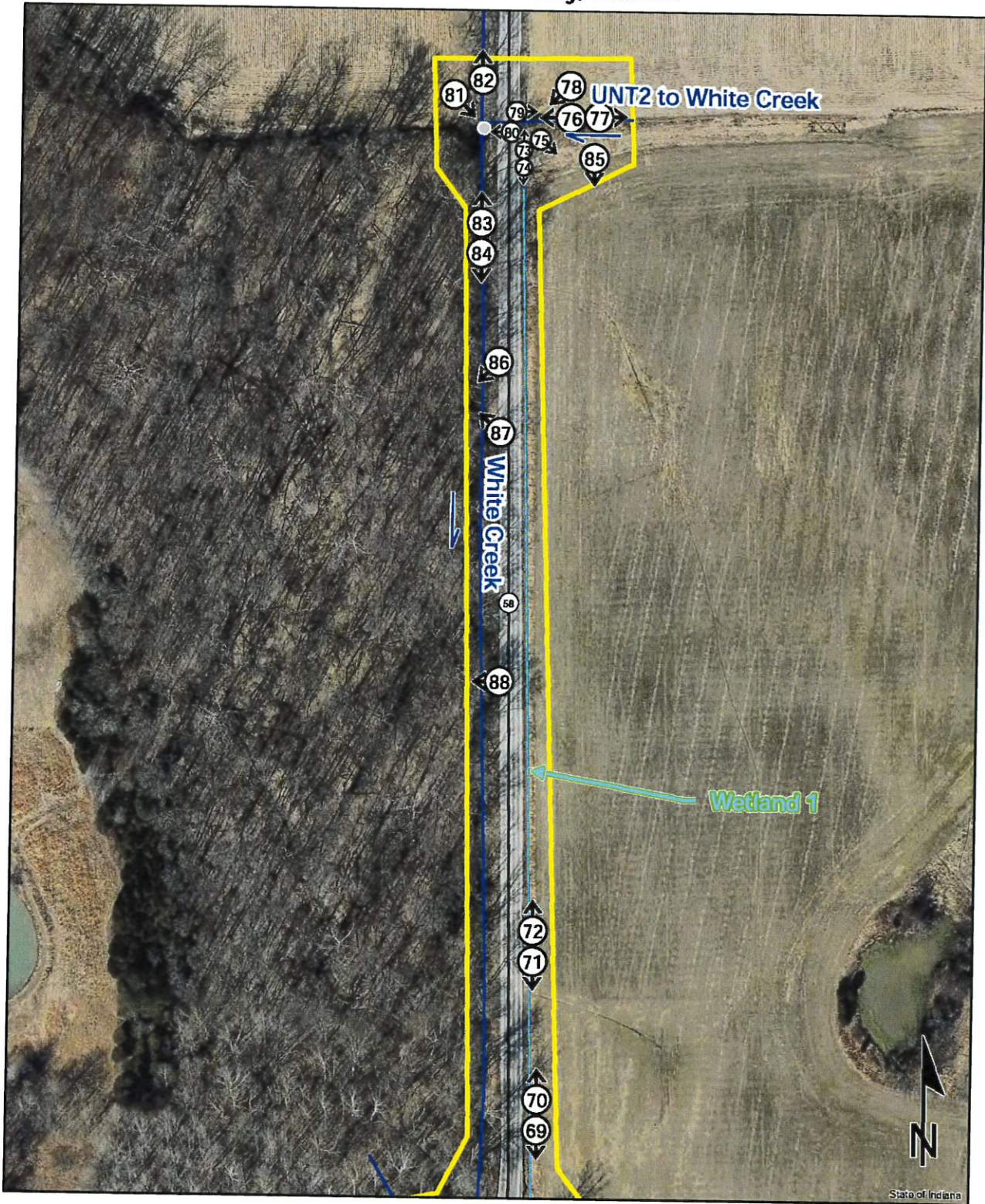
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 Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
 Map Projection: UTM Zone 16 N Map Datum: NAD83
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

**NRCS
 SOILS DATA**

Legend
 StfAV = Stendal Silt Loam, 2% hydric

Appendix P-19

Photo Key Map (1 of 2)
 SR58, 5.61 Miles West of I-65
 Des. No. 2100568, Bridge Replacement
 Bartholomew County, Indiana



Sources: 150 75 0 150 Feet
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 Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
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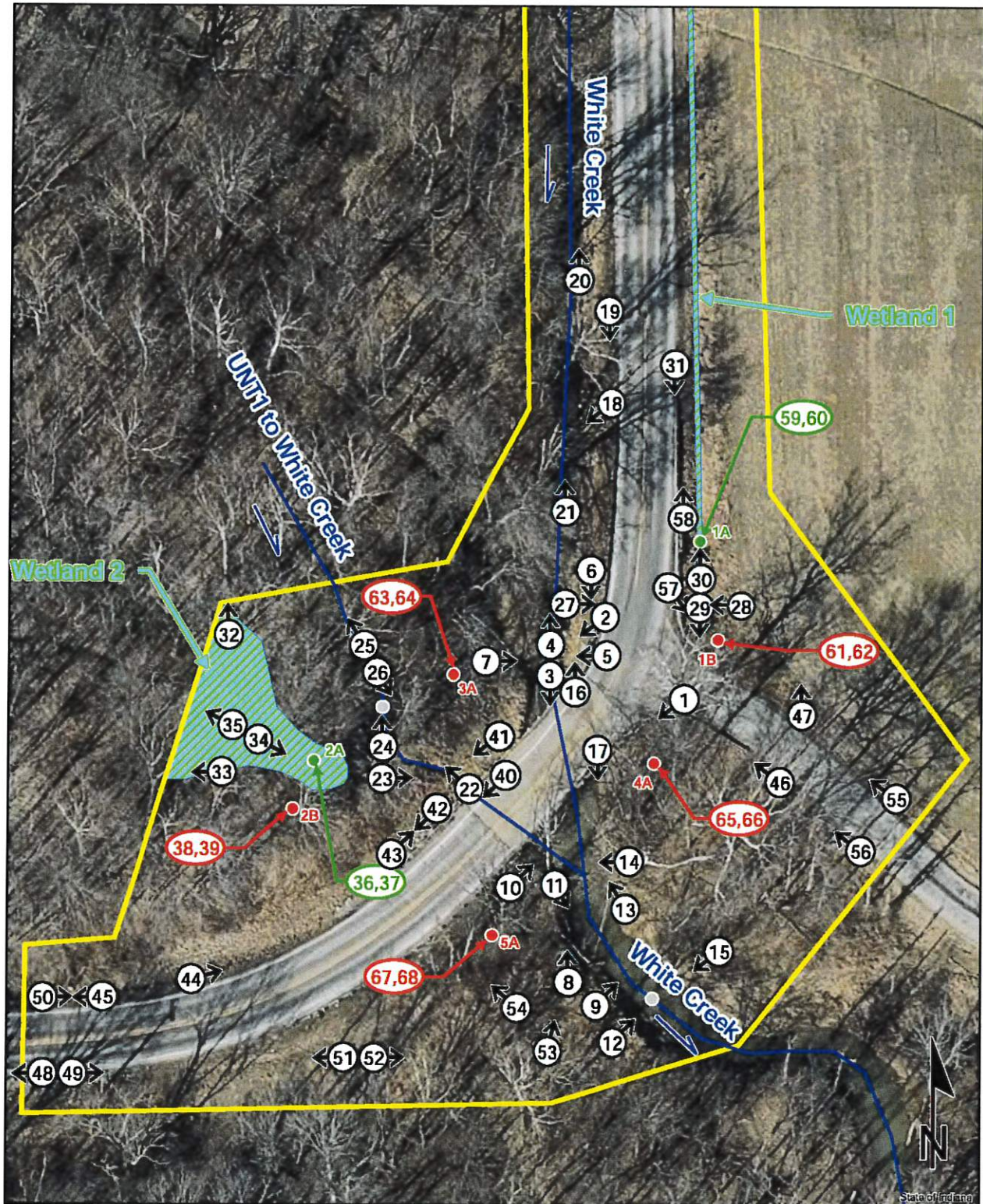
**INDIANA STATEWIDE
 AERIAL IMAGERY
 FLOWN 2018**

Legend

Flow Direction	Wetland Data Point
Stream	Upland Data Point
Investigative Area	OHWM
	Wetland

Appendix F-20

Photo Key Map (2 of 2)
 SR58, 5.61 Miles West of I-65
 Des. No. 2100568, Bridge Replacement
 Bartholomew County, Indiana



Sources: 50 25 0 50 Feet
 Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
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**INDIANA STATEWIDE
 AERIAL IMAGERY
 FLOWN 2018**

Legend

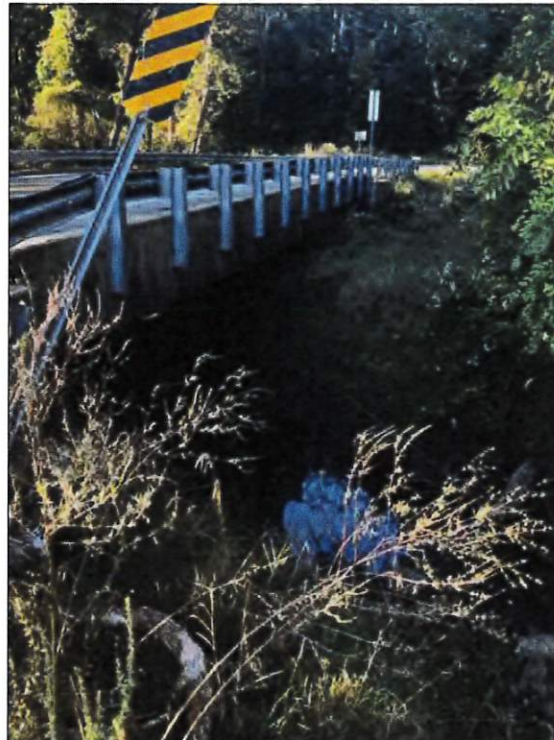
Flow Direction	Wetland Data Point
Stream	Upland Data Point
Investigative Area	OHWM
	Wetland

Appendix F-21

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 1—Project structure 058-03-05882 B, southwest view; 9-23-22.



Picture 2—White Creek bank and project structure 058-03-05882 B; southwest view; 9-23-22.



Picture 3—White Creek downstream and project structure 058-03-05882 B; south view; 9-23-22.



Picture 4—White Creek upstream; north view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 5—White Creek and bank; west view; 9-23-22.



Picture 6—White Creek downstream; south view; 9-23-22.



Picture 7—White Creek and project structure 058-03-05882 B; east view; 9-23-22.

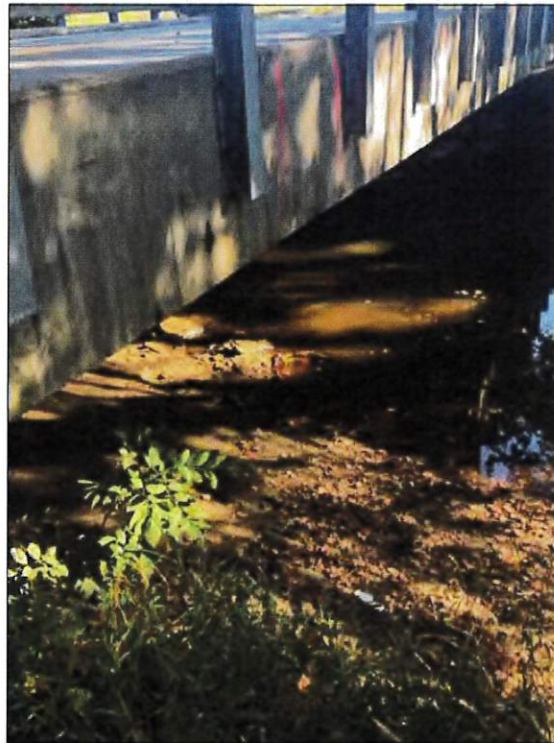


Picture 8—White Creek upstream and project structure 058-03-05882 B; north view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



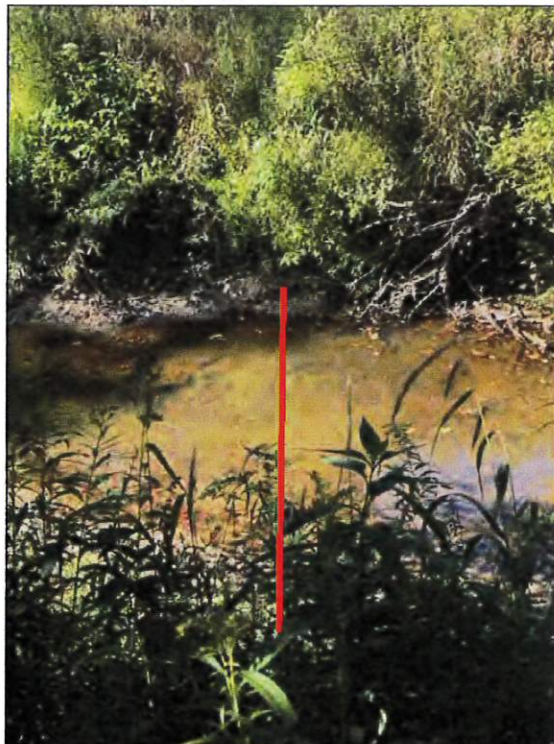
Picture 9—White Creek and bank; northeast view; 9-23-22.



Picture 10—White Creek and structure 058-03-05882 B; northeast view; 9-23-22.



Picture 11—White Creek downstream; southeast view; 9-23-22.



Picture 12— White Creek OHWM location; northeast view; 9-23-22.

OHWM: 39.095065, -86.028053

Width: 25 feet; Depth: 0.75 foot

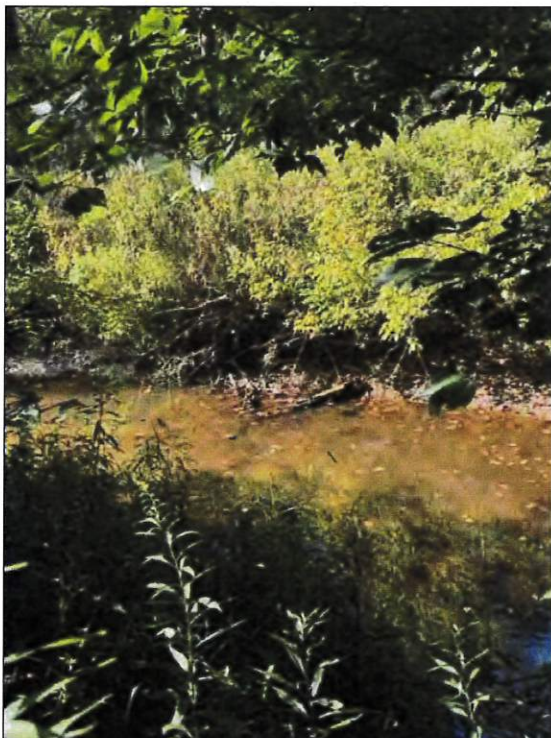
DES# 2100568 Waters of the U.S. Determination Report—Photo Log



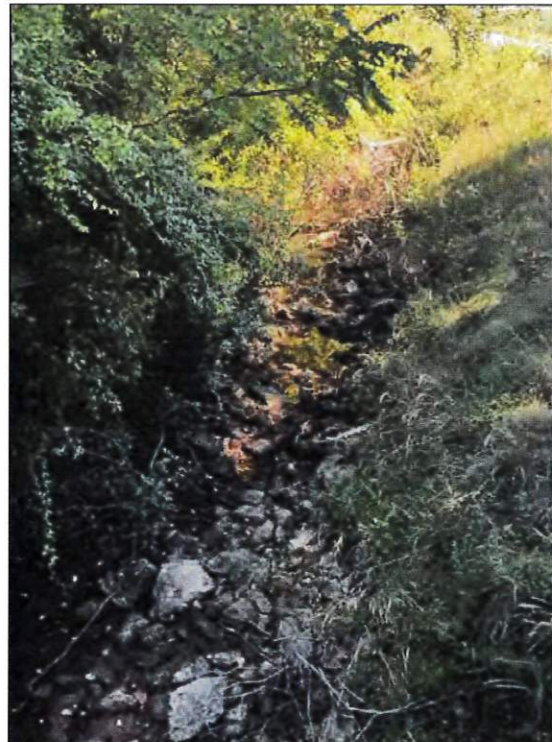
Picture 13—White Creek upstream and project structure 058-03-05882 B; northwest view; 9-23-22.



Picture 14—White Creek bed and bank; west view; 9-23-22.



Picture 15—White Creek bank; southwest view; 9-23-22.



Picture 16—White Creek upstream; north view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 17—White Creek downstream from project structure ; south view; 9-23-22.



Picture 18—White Creek downstream; southwest view; 9-23-22.



Picture 19—SR 58 roadside; south view; 9-23-22.



Picture 20—White Creek upstream; north view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 21—White Creek downstream; north view; 9-23-22.



Picture 22—UNT1 to White Creek upstream; northwest view; 9-23-22.



Picture 23—Project structure 058-03-05882 B from UNT1 to White Creek; east view; 9-23-22.



**Picture 24—UNT1 to White Creek upstream and OHWM location; north view; 9-23-22.
OHWM—39.095331 -86.028335
Width—2.0 feet; Depth—0.25 foot**

Appendix F-27

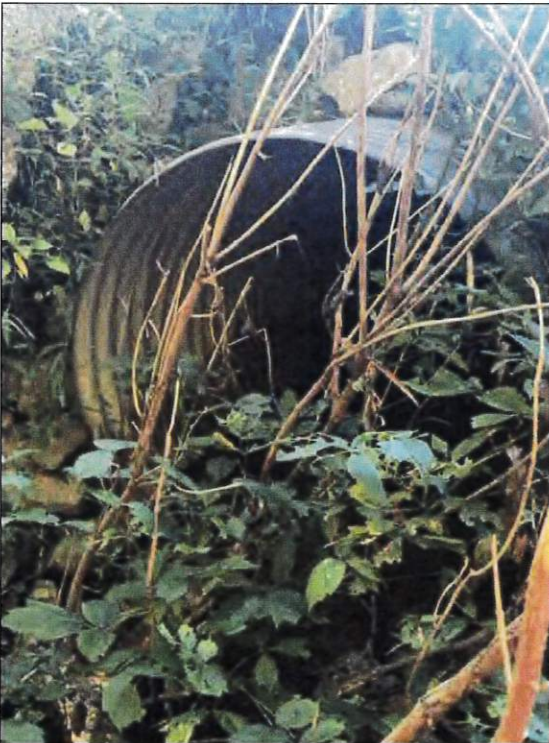
DES# 2100568 Waters of the U.S. Determination Report—Photo Log



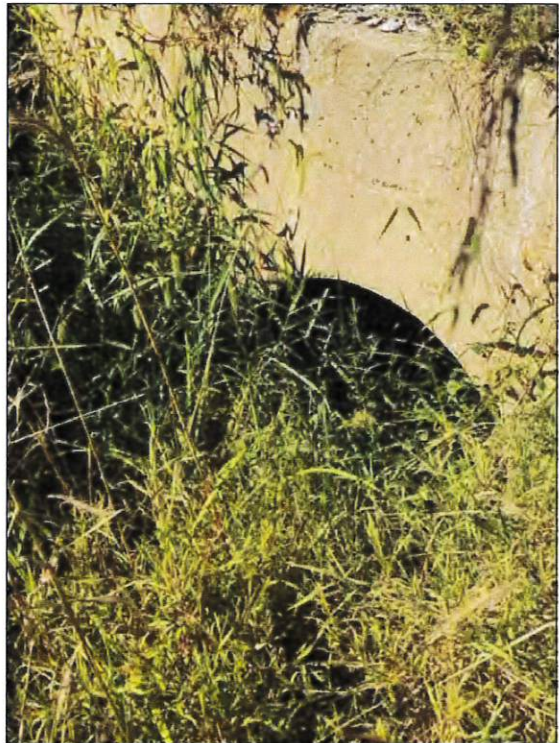
Picture 25—UNT1 to White Creek upstream; northwest view; 9-23-22.



Picture 26—UNT1 to White Creek downstream; southeast view; 9-23-22.



Picture 27—Corrugated metal pipe outlet from White Creek; east view; 9-23-22.

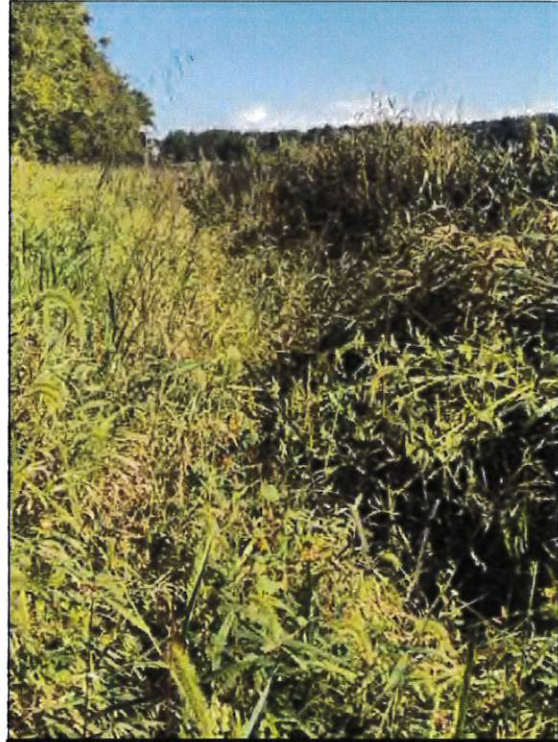


Picture 28—Corrugated metal pipe inlet and headwall from Wetland 1; west view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 29—Roadside outside of Wetland 1; south view; 9-23-22. Note facultative upland *Setaria faberi* and *Aclepias syriaca*.



Picture 30—Wetland 1 south end; north view; 9-23-22. Note facultative wetland *Echinochloa crus-galli*, *Impatiens capensis*, and *Polygonum* sp. restricted to the ditch bed.



Picture 31—Wetland 1 and SR 58 roadside; south view; 9-23-22.

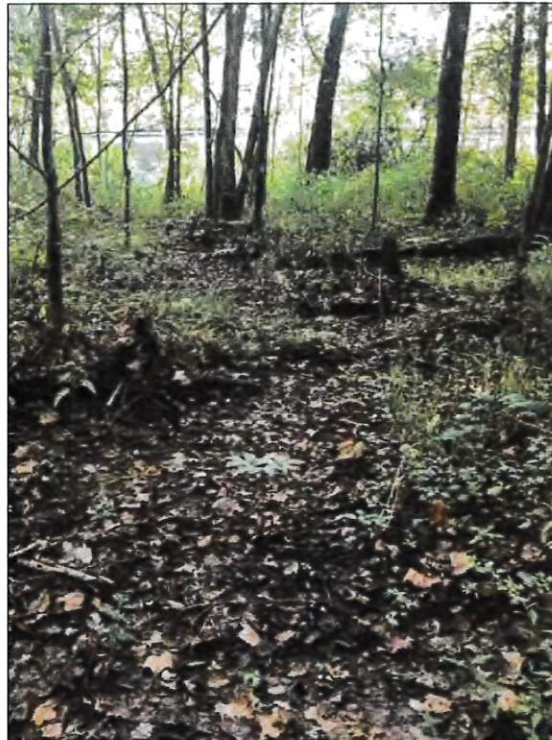


Picture 32—Wetland 2; northwest view; 9-23-22. Note sharp contrast between vegetated area and sparsely vegetated concave surface.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 33—Wetland 2; west view; 9-23-22. Note sharp contrast between vegetated area and sparsely vegetated concave surface.



Picture 34—Wetland 2; southeast view; 9-23-22.



Picture 35—Wetland 2; northwest view; 9-23-22.



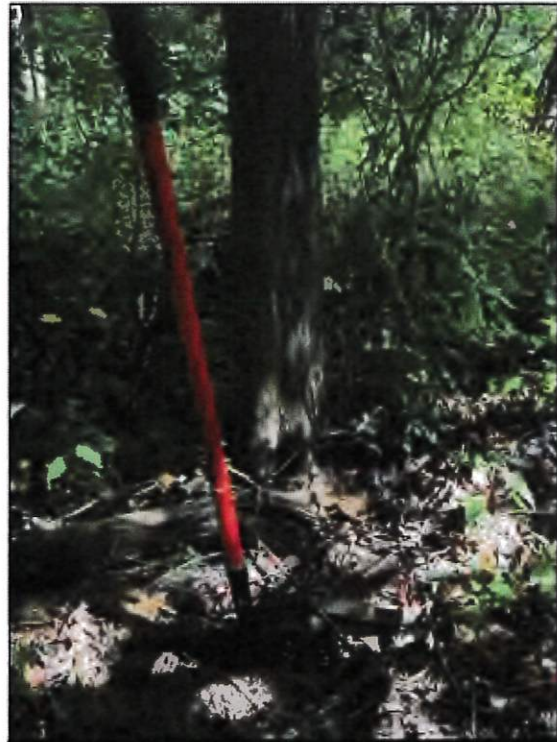
Picture 36—Wetland 2 Datapoint 2A; north view; 9-23-22.

39.095315; -86.028809

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 37—Wetland 2 Datapoint 2A soil sample; 9-23-22.

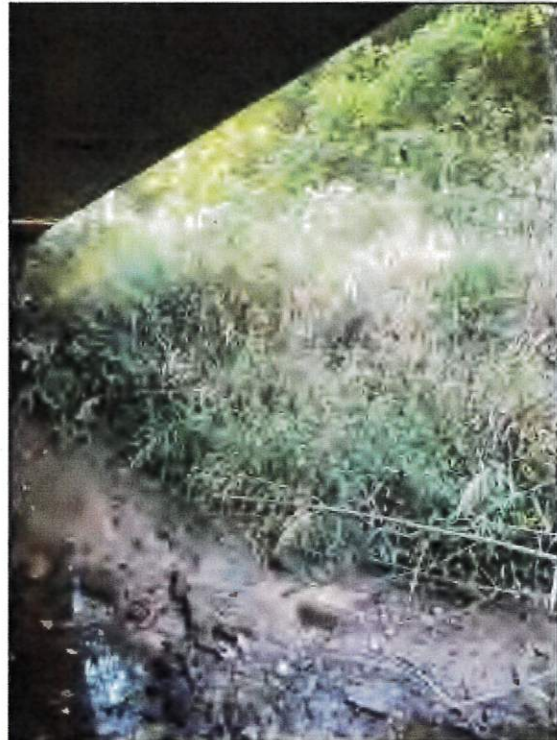


Picture 38—Upland Datapoint 2B; southeast view; 9-23-22.

39.095195; -86.028540

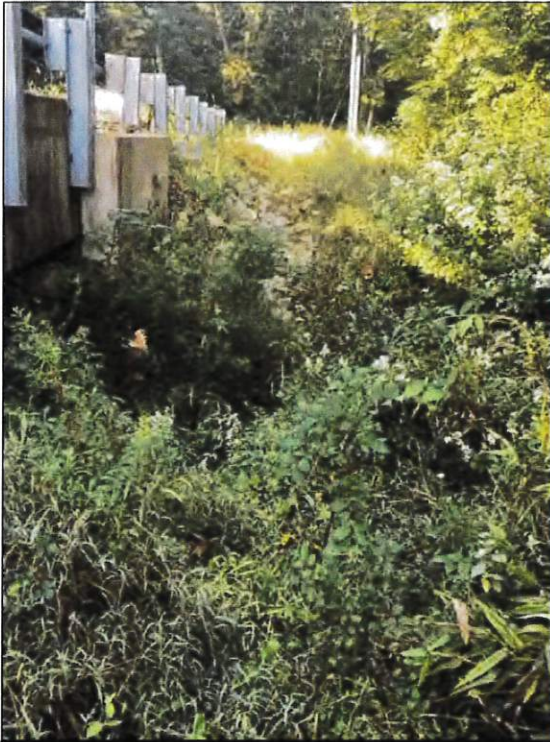


Picture 39—Upland Datapoint 2B soil sample; northwest view; 9-23-22.



Picture 40—White Creek bank; southwest view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



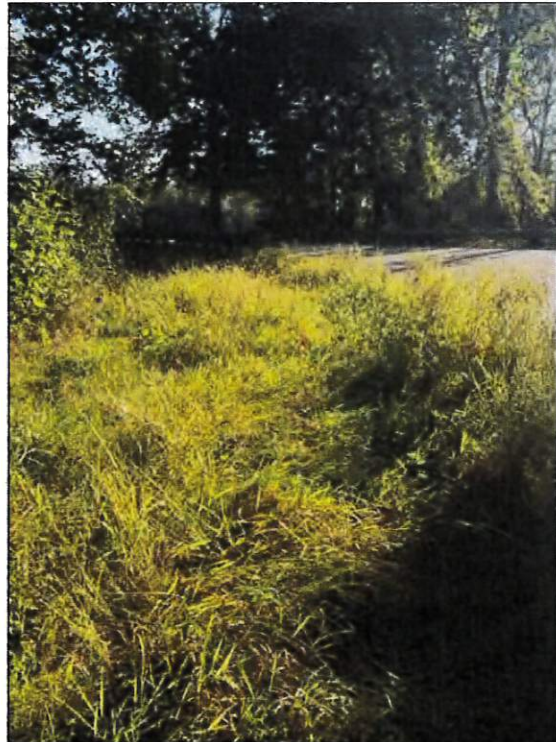
Picture 41—UNT1 to White Creek at project structure 058-03-05882 B; southwest view; 9-23-22.



Picture 42—Riprap area; southwest view; 9-23-22.



Picture 43—Riprap area; northeast view; 9-23-22.



Picture 44—SR 58 roadside; northeast view; 9-23-22.

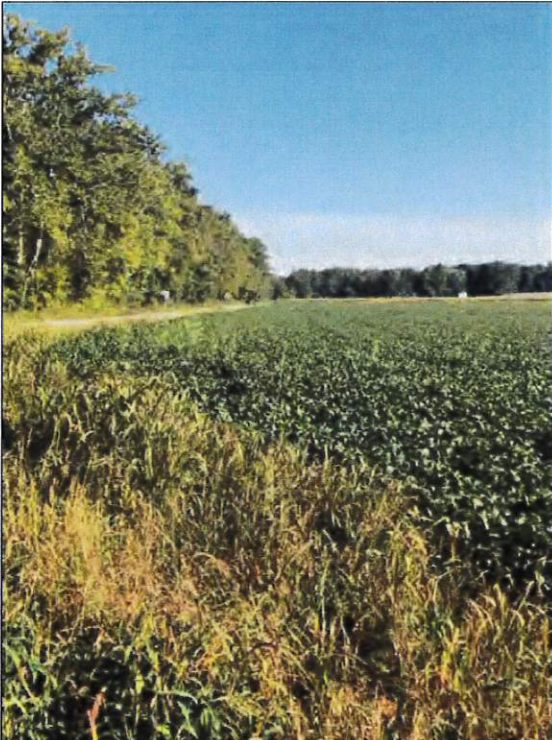
DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 45—SR 58 roadside; west view; 9-23-22.



Picture 46—CR 700S roadside; northwest view; 9-23-22.



Picture 47—Soybean field and proposed new SR 58 alignment; north view; 9-23-22.

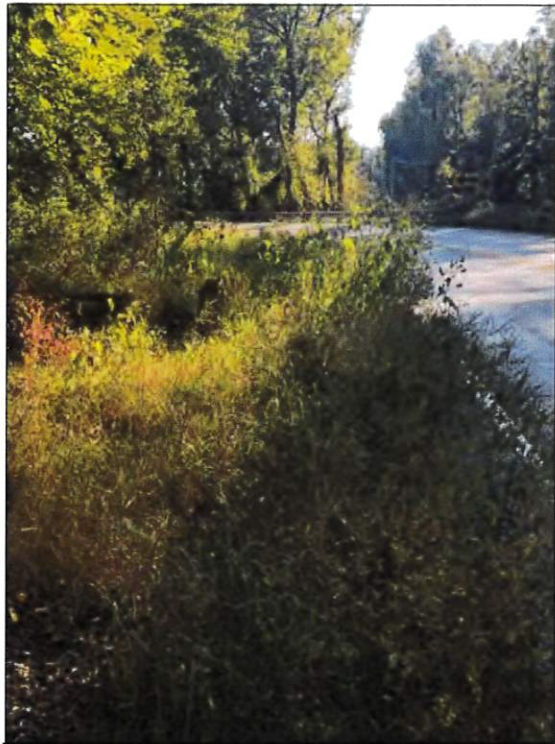


Picture 48—SR 58 roadside; west view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 49—Powerline corridor; east view; 9-23-22.



Picture 50—SR 58 roadside; east view; 9-23-22.



Picture 51—Powerline corridor; west view; 9-23-22.



Picture 52—Powerline corridor east view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 53—South quadrant toward proposed bridge and new SR 58 alignment location; northeast view; 9-23-22.



Picture 54—South quadrant at proposed bridge and new SR 58 alignment location; northwest view; 9-23-22.



Picture 55— CR 700 S roadside; northwest view; 9-23-22.

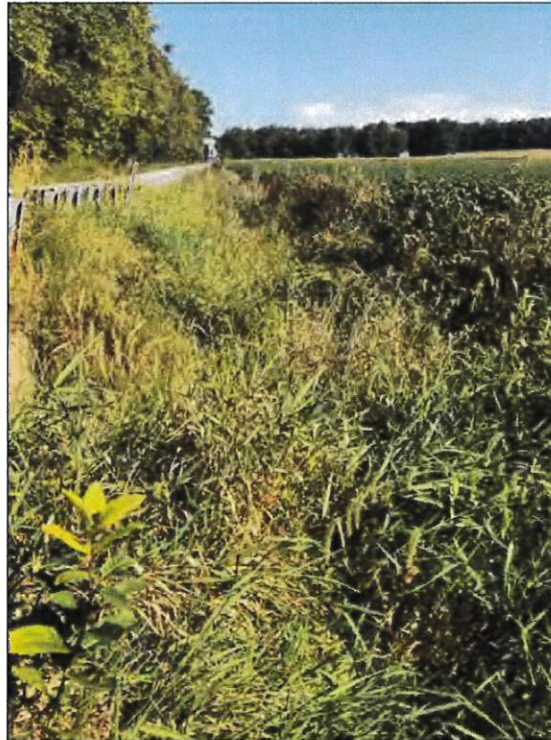


Picture 56—CR 700 S roadside; northwest view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 57—Roadside at CR 700 S and SR 58 intersection; southeast view; 9-23-22.



Picture 58—SR 58 roadside; north view; 9-23-22.



Picture 59—Wetland 1 Datapoint 1A; west view; 9-23-22.

39.095524; -86.027918



Picture 60—Wetland 1 Datapoint 1A soil sample; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 61—Upland datapoint 1B; southwest view; 9-23-22.

39.095568; -86.027887



Picture 62—Upland datapoint 1B soil sample; 9-23-22.



Picture 63—Upland Datapoint 3A; east view; 9-23-22.

39.095432; -86.028325



Picture 64—Upland Datapoint 3A soil sample; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 65—Upland Datapoint 4A; east view; 9-23-22.

39.095221; -86.027940



Picture 66—Upland Datapoint 4A soil sample; 9-23-22.



Picture 67—Upland Datapoint 5A; southeast view; 9-23-22.

39.095024; -86.028189

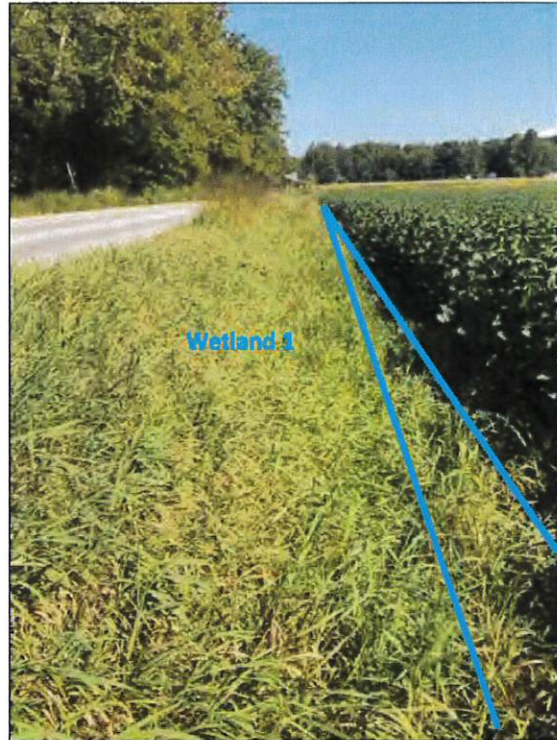


Picture 68—Upland Datapoint 5A soil sample; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



**Picture 69—SR 58 roadside and Wetland 1;
south view; 9-23-22.**



**Picture 70—SR 58 roadside and Wetland 1;
north view; 9-23-22.**



Picture 71—Wetland 1; south view; 9-23-22.

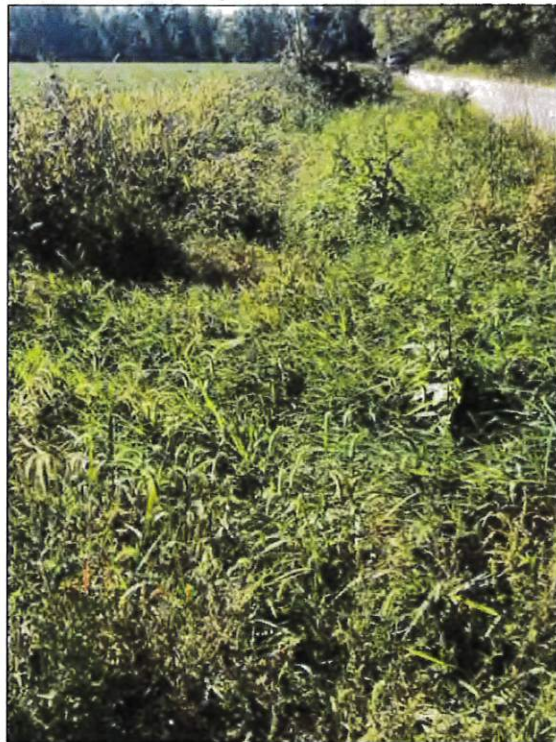


Picture 72—Wetland 1; north view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 73—SR 58 roadside and drive; north view; 9-23-22.



Picture 74—SR 58 roadside and Wetland 1 north end; south view; 9-23-22.



Picture 75—SR 58 roadside and drive; southeast view; 9-23-22.



Picture 76—UNT2 to White Creek corrugated metal pipe inlet; west view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



Picture 77—UNT2 to White Creek upstream; east view; 9-23-22.



Picture 78—UNT2 to White Creek corrugated metal pipe inlet; southwest view; 9-23-22.



Picture 79— UNT2 to White Creek corrugated metal pipe inlet; east view; 9-23-22.



Picture 80—UNT2 to White Creek corrugated metal pipe outlet and OHRM; west view; 9-23-22.

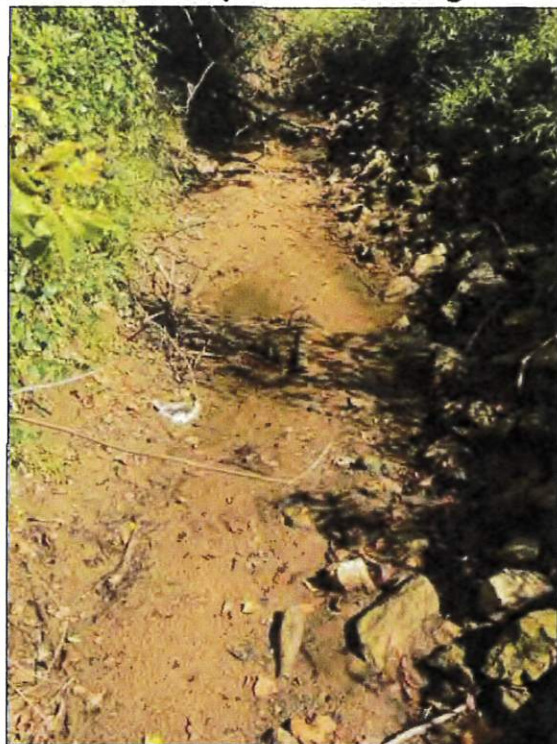
OHRM—39.098452; -86.028065

Depth: 1.5 feet, Width: 0.25 foot

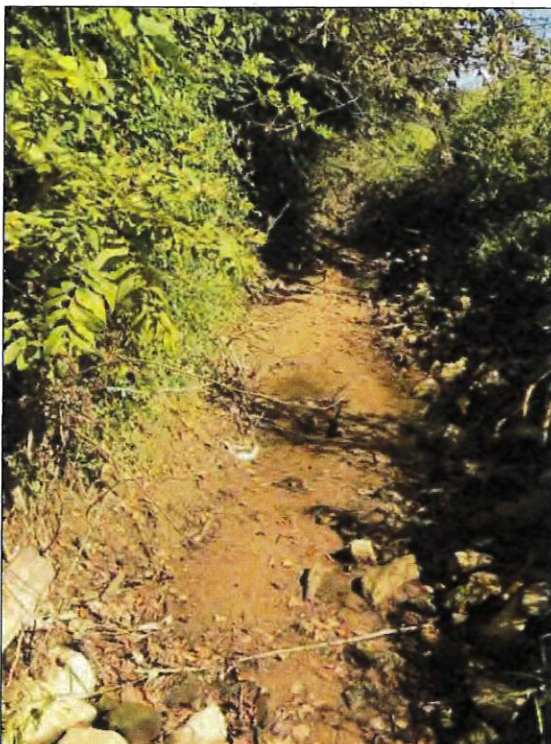
DES# 2100568 Waters of the U.S. Determination Report—Photo Log



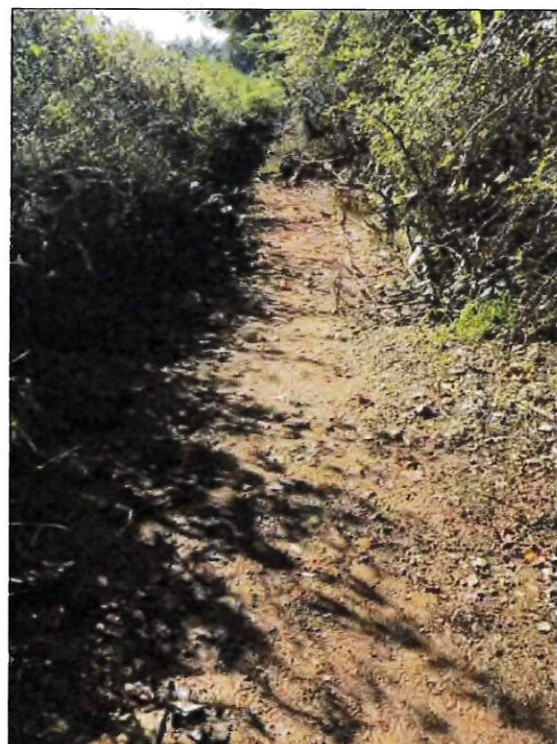
Picture 81—UNT₂ to White Creek and corrugated metal pipe outlet; southeast view; 9-23-22.



Picture 82—White Creek upstream; north view; 9-23-22.

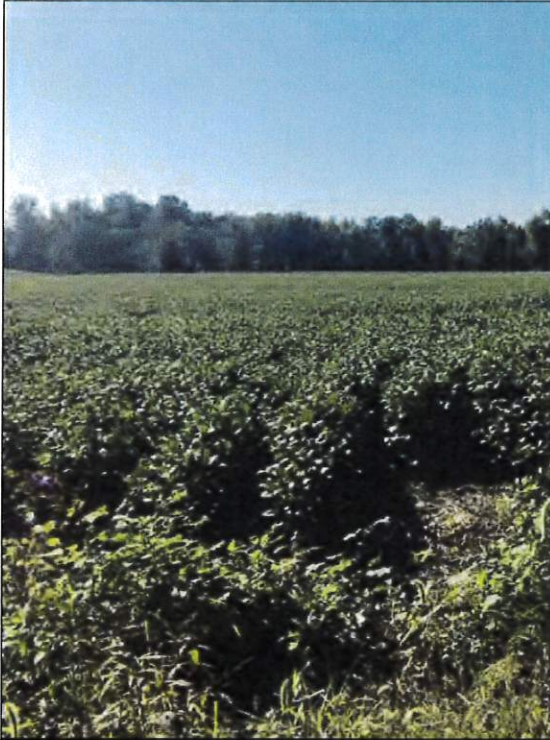


Picture 83—White Creek upstream; north view; 9-23-22.

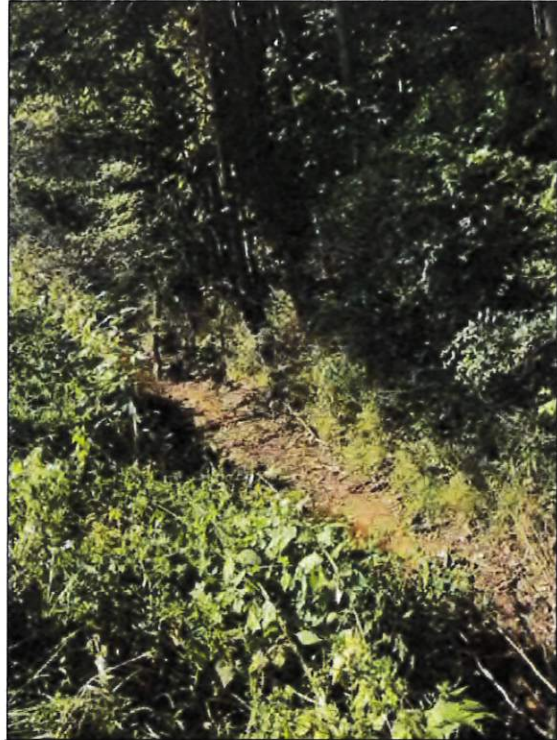


Picture 84—White Creek downstream; south view; 9-23-22.

DES# 2100568 Waters of the U.S. Determination Report—Photo Log



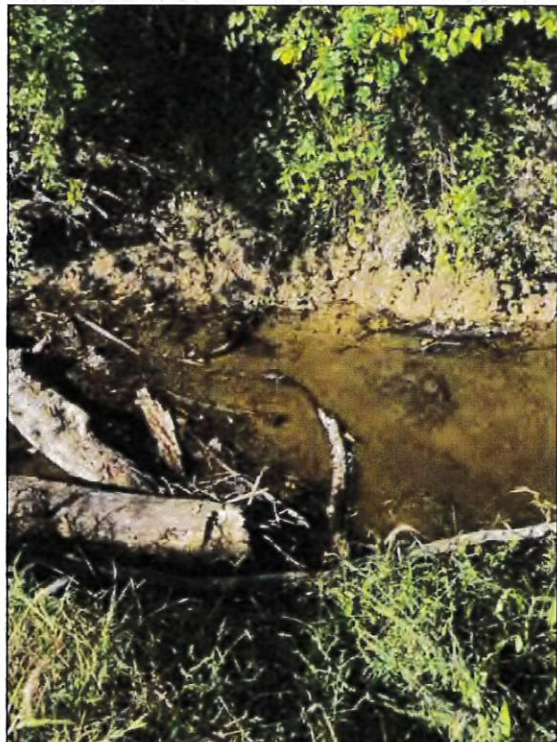
Picture 85—Soybean field and proposed new SR 58 alignment; south view; 9-23-22.



Picture 86—White Creek downstream; southwest view; 9-23-22.



Picture 87—White Creek upstream; northwest view; 9-23-22.



Picture 88—White Creek bank; west view; 9-23-22.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: DES 2100568 City/County: Bartholomew Sampling Date: 9/23/22
 Applicant/Owner: INDOT State: IN Sampling Point: 1A
 Investigator(s): Kirk Roth Section, Township, Range: Section 25, Township 8N, Range 4E
 Landform (hillside, terrace, etc.): ditch Local relief (concave, convex, none): concave
 Slope (%): 3 Lat: 39.095524 Long: -86.027918 Datum: NAD 83
 Soil Map Unit Name: Stendal silt loam (StdAV) NWI classification: N/A

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"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology 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"/>
---	---

Remarks:
 Soil characteristics do not support wetland status.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1.					Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2.																					
3.																					
4.																					
5.																					
=Total Cover																					
Sapling/Shrub Stratum	(Plot size: <u>15 feet</u>)				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>200</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>200</u> (B)	Prevalence Index = B/A = <u>2.00</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>100</u>	x 2 = <u>200</u>																				
FAC species <u>0</u>	x 3 = <u>0</u>																				
FACU species <u>0</u>	x 4 = <u>0</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>100</u> (A)	<u>200</u> (B)																				
Prevalence Index = B/A = <u>2.00</u>																					
1.																					
2.																					
3.																					
4.																					
5.																					
=Total Cover																					
Herb Stratum	(Plot size: <u>5 feet</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1.	<u><i>Phalaris arundinacea</i></u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>																	
2.	<u><i>Echinochloa crus-galli</i></u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>																	
3.	<u><i>Impatiens capensis</i></u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
4.																					
5.																					
6.																					
7.																					
8.																					
9.																					
10.																					
=Total Cover																					
Woody Vine Stratum	(Plot size: <u>30 feet</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1.																					
2.																					
=Total Cover																					

Remarks: (Include photo numbers here or on a separate sheet.)
 Dominance Test indicates hydrophytic vegetation.

SOIL

Sampling Point: 1A

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		
0-4	10YR 3/2	100					Loamy/Clayey	No redox features
4-22	10YR 3/2	55	10YR 4/1	30	D	M	Loamy/Clayey	
			10YR 4/6	10	C	M		Prominent redox concentrations
			5YR 4/6	5	C	M		Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)		

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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks:
Indicator F6 supports hydric status. This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Gauge or Well Data (D9)
	<input type="checkbox"/> Other (Explain in Remarks)

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (Inches): _____	
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (Inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (Inches): _____	
(includes capillary fringe)	

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

Remarks:
Hydrology Indicators B9, C7 and the combination of D2 and D5 support hydric status.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: DES 2100568 City/County: Bartholomew Sampling Date: 9/23/22
 Applicant/Owner: INDOT State: IN Sampling Point: 1B
 Investigator(s): Kirk Roth Section, Township, Range: Section 25, Township 8N, Range 4E
 Landform (hillside, terrace, etc.): ditch bank Local relief (concave, convex, none): concave
 Slope (%): 3 Lat: 39.095568 Long: -86.027887 Datum: NAD 83
 Soil Map Unit Name: Stendal silt loam (StdAV) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

Remarks:
 Soil characteristics do not support wetland status.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																																
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____	=Total Cover																																
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)																																				
1. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>40</u></td> <td>x 2 =</td> <td><u>80</u></td> </tr> <tr> <td>FAC species</td> <td><u>10</u></td> <td>x 3 =</td> <td><u>30</u></td> </tr> <tr> <td>FACU species</td> <td><u>45</u></td> <td>x 4 =</td> <td><u>180</u></td> </tr> <tr> <td>UPL species</td> <td><u>5</u></td> <td>x 5 =</td> <td><u>25</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>100</u> (A)</td> <td></td> <td><u>315</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> <td colspan="2"><u>3.15</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>40</u>	x 2 =	<u>80</u>	FAC species	<u>10</u>	x 3 =	<u>30</u>	FACU species	<u>45</u>	x 4 =	<u>180</u>	UPL species	<u>5</u>	x 5 =	<u>25</u>	Column Totals:	<u>100</u> (A)		<u>315</u> (B)	Prevalence Index = B/A =		<u>3.15</u>	
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>40</u>	x 2 =	<u>80</u>																																	
FAC species	<u>10</u>	x 3 =	<u>30</u>																																	
FACU species	<u>45</u>	x 4 =	<u>180</u>																																	
UPL species	<u>5</u>	x 5 =	<u>25</u>																																	
Column Totals:	<u>100</u> (A)		<u>315</u> (B)																																	
Prevalence Index = B/A =		<u>3.15</u>																																		
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____	=Total Cover																																
Herb Stratum (Plot size: <u>5 feet</u>)																																				
1. <i>Phalaris arundinacea</i>	<u>40</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
2. <i>Setaria faberi</i>	<u>40</u>	<u>Yes</u>	<u>FACU</u>																																	
3. <i>Muhlenbergia schreberi</i>	<u>10</u>	<u>No</u>	<u>FAC</u>																																	
4. <i>Convolvulus arvensis</i>	<u>5</u>	<u>No</u>	<u>UPL</u>																																	
5. <i>Asclepias syriaca</i>	<u>5</u>	<u>No</u>	<u>FACU</u>																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____		=Total Cover																															
Woody Vine Stratum (Plot size: <u>30 feet</u>)																																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																																
2. _____	_____	_____	_____		=Total Cover																															

Remarks: (Include photo numbers here or on a separate sheet.)
 No hydrophytic vegetation indicator criteria were met.

SOIL

Sampling Point: 1B

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		
0-20	10YR 3/4	100					Loamy/Clayey	No redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (F22) <input type="checkbox"/> Other (Explain in Remarks)
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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 <u>X</u>
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Remarks:
 Soil characteristics do not support hydric soil status. This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Gauge or Well Data (D9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)
		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 No hydrology indicators were found.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: DES 2100588 City/County: Bartholomew Sampling Date: 9/23/22
 Applicant/Owner: INDOT State: IN Sampling Point: 2A
 Investigator(s): Kirk Roth Section, Township, Range: Section 25, Township 8N, Range 4E
 Landform (hillside, terrace, etc.): flatwoods Local relief (concave, convex, none): concave
 Slope (%): 0 Lat: 39.095315 Long: -86.028809 Datum: NAD 83
 Soil Map Unit Name: Stendal silt loam (StdAV) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

Remarks:
 Soil characteristics do not support wetland status.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>10</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>70.0%</u> (A/B)																
1. <u>Acer rubrum</u>	<u>60</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>Platanus occidentalis</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Nyssa sylvatica</u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Carya ovalis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
5. <u>Sassafras albidum</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	Prevalence Index worksheet: <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>95</u></td> <td>x 3 = <u>285</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>195</u> (A)</td> <td><u>585</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.90</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>95</u>	x 3 = <u>285</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>195</u> (A)	<u>585</u> (B)	Prevalence Index = B/A = <u>2.90</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>60</u>	x 2 = <u>120</u>																			
FAC species <u>95</u>	x 3 = <u>285</u>																			
FACU species <u>40</u>	x 4 = <u>160</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>195</u> (A)	<u>585</u> (B)																			
Prevalence Index = B/A = <u>2.90</u>																				
<u>100</u> =Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Lindera benzoin</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Smlax rotundifolia</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
4. <u>Rosa multiflora</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u>60</u> =Total Cover																				
Herb Stratum (Plot size: <u>5 feet</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
1. <u>Botrypus virginianus</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>Clematis virginiana</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </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>20</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 feet</u>)																				
1. <u>Lonicera japonica</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>Toxicodendron radicans</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>																	
<u>15</u> =Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 Dominance Test and Prevalence Index indicate hydrophytic vegetation.

SOIL

Sampling Point: 2A

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		
0-2	10YR 3/1	100					Mucky Loam/Clay	No redox features
2-20	10YR 3/1	65	10YR 4/1	20	D	M	Loamy/Clayey	
			10YR 5/1	10	C	M		Faint redox concentrations
			5YR 5/8	5	C	M		Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- Dark Surface (S7)
- 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)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- 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:

Indicator F6 supports hydric status. This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

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)
- X Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- X 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)
- X 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): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Hydrology Indicators B8, B9, C3, and C7 support hydric status.

SOIL

Sampling Point: 2B

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		
0-20	10YR 4/3	100					Loamy/Clayey	No redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Coast Prairie Redox (A16)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12)</p> <p><input type="checkbox"/> Red Parent Material (F21)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (F22)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if observed):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes _____ No <u>X</u></p>
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Remarks:
Soil characteristics do not support hydric soil status. This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one is required: check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p>	<p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input type="checkbox"/> Geomorphic Position (D2)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
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<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <u>X</u> Depth (Inches): _____</p> <p>Water Table Present? Yes _____ No <u>X</u> Depth (Inches): _____</p> <p>Saturation Present? Yes _____ No <u>X</u> Depth (Inches): _____</p> <p>(includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <u>X</u></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators were found.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: DES 2100568 City/County: Bartholomew Sampling Date: 9/23/22
 Applicant/Owner: INDOT State: IN Sampling Point: 3A
 Investigator(s): Kirk Roth Section, Township, Range: Section 25, Township 8N, Range 4E
 Landform (hillside, terrace, etc.): flatwoods Local relief (concave, convex, none): none
 Slope (%): 0 Lat: 39.095432 Long: -86.028325 Datum: NAD 83
 Soil Map Unit Name: Stendal silt loam (StdAV) NWI classification: N/A

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 type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
 Soil characteristics do not support wetland status.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>33.3%</u> (A/B)																
1. <u>Quercus palustris</u>	40	Yes	FACW																	
2. <u>Juglans nigra</u>	30	Yes	FACU																	
3. <u>Ulmus americana</u>	5	No	FACW																	
4. _____																				
5. _____																				
<u>75</u> =Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td style="text-align: center;">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>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>25</u></td> <td>x 5 = <u>125</u></td> </tr> <tr> <td>Column Totals: <u>160</u> (A)</td> <td><u>560</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3.50</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>25</u>	x 5 = <u>125</u>	Column Totals: <u>160</u> (A)	<u>560</u> (B)	Prevalence Index = B/A = <u>3.50</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>50</u>	x 2 = <u>100</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>80</u>	x 4 = <u>320</u>																			
UPL species <u>25</u>	x 5 = <u>125</u>																			
Column Totals: <u>160</u> (A)	<u>560</u> (B)																			
Prevalence Index = B/A = <u>3.50</u>																				
1. <u>Lonicera tatarica</u>	10	Yes	FACU																	
2. <u>Asimina triloba</u>	5	Yes	FAC																	
3. _____																				
4. _____																				
5. _____																				
<u>15</u> =Total Cover																				
Herb Stratum (Plot size: <u>5 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Solidago canadensis</u>	40	Yes	FACU																	
2. <u>Eupatorium altissimum</u>	25	Yes	UPL																	
3. <u>Verbesina alternifolia</u>	5	No	FACW																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
<u>70</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
1. _____																				
2. _____																				
=Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 No hydrophytic vegetation indicator criteria were met.

SOIL

Sampling Point: 3A

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		
0-20	10YR 4/3	100					Loamy/Clayey	No redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- Dark Surface (S7)
- 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)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- 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:

Soil characteristics do not support hydric soil status. This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

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:

Remarks:

No hydrology indicators were found.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: DES 2100568 City/County: Bartholomew Sampling Date: 9/23/22
 Applicant/Owner: INDOT State: IN Sampling Point: 4A
 Investigator(s): Kirk Roth Section, Township, Range: Section 25, Township 8N, Range 4E
 Landform (hillside, terrace, etc.): flatwoods Local relief (concave, convex, none): none
 Slope (%): 0 Lat: 39.095221 Long: -86.027940 Datum: NAD 83
 Soil Map Unit Name: Stendal silt loam (StdAV) NWI classification: N/A

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 type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
 Soil characteristics do not support wetland status.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u><i>Ulmus americana</i></u>	30	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)	
2. <u><i>Gleditsia triacanthos</i></u>	20	Yes	FACU	Total Number of Dominant Species Across All Strata: <u>10</u> (B)	
3. <u><i>Carya ovata</i></u>	20	Yes	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40.0%</u> (A/B)	
4. <u><i>Platanus occidentalis</i></u>	20	Yes	FACW		
5. <u><i>Cercis canadensis</i></u>	5	No	FACU		
	95 =Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)				Prevalence Index worksheet:	
1. <u><i>Rosa multiflora</i></u>	20	Yes	FACU	Total % Cover of: <u>0</u> Multiply by: <u>x 1 = 0</u>	
2. <u><i>Lindera benzoin</i></u>	10	Yes	FACW	FACW species <u>66</u> x 2 = <u>132</u>	
3. <u><i>Asimina triloba</i></u>	5	No	FAC	FAC species <u>15</u> x 3 = <u>45</u>	
4. <u><i>Lonicera tatarica</i></u>	5	No	FACU	FACU species <u>150</u> x 4 = <u>600</u>	
5. <u><i>Fraxinus pennsylvanica</i></u>	1	No	FACW	UPL species <u>0</u> x 5 = <u>0</u>	
	41 =Total Cover			Column Totals: <u>231</u> (A) <u>777</u> (B)	
				Prevalence Index = B/A = <u>3.36</u>	
Herb Stratum (Plot size: <u>5 feet</u>)				Hydrophytic Vegetation Indicators:	
1. <u><i>Eupatorium rugosum</i></u>	10	Yes	FACU	<u>1</u> - Rapid Test for Hydrophytic Vegetation	
2. <u><i>Actaea pachypoda</i></u>	10	Yes	FACU	<u>2</u> - Dominance Test is >50%	
3. <u><i>Verbesina alternifolia</i></u>	5	Yes	FACW	<u>3</u> - Prevalence Index is ≤3.0 ¹	
4. _____				<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____				Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
	25 =Total Cover				
Woody Vine Stratum (Plot size: <u>30 feet</u>)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
1. <u><i>Lonicera japonica</i></u>	60	Yes	FACU		
2. <u><i>Toxicodendron radicans</i></u>	10	No	FAC		
	70 =Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)
 No hydrophytic vegetation indicator criteria were met.

SOIL

Sampling Point: 4A

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		
0-22	10YR 5/4	100					Loamy/Clayey	No redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Coast Prairie Redox (A16)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12)</p> <p><input type="checkbox"/> Red Parent Material (F21)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (F22)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if observed):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes _____ No <u>X</u></p>
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Remarks:
Soil characteristics do not support hydric soil status. This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p>		<p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	
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<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____</p> <p>(includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <u>X</u></p>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators were found.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: DES 2100588 City/County: Bartholomew Sampling Date: 9/23/22
 Applicant/Owner: INDOT State: IN Sampling Point: 5A
 Investigator(s): Kirk Roth Section, Township, Range: Section 25, Township 8N, Range 4E
 Landform (hillside, terrace, etc.): flatwoods Local relief (concave, convex, none): none
 Slope (%): 0 Lat: 39.095024 Long: -86.028189 Datum: NAD 83
 Soil Map Unit Name: Stendal silt loam (StdAV) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X 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 <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
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Remarks:
 Soil characteristics do not support wetland status.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. <u>Juglans nigra</u>	25	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>14.3%</u> (A/B)																																								
2. <u>Platanus occidentalis</u>	25	Yes	FACW																																									
3. <u> </u>																																												
4. <u> </u>																																												
5. <u> </u>																																												
50 =Total Cover																																												
Sapling/Shrub Stratum (Plot size: <u>15 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. <u>Rosa multiflora</u>	10	Yes	FACU	Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 10%;"></th> <th style="width: 10%;">Multiply by:</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;">0</td> <td>x 1 =</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">40</td> <td>x 2 =</td> <td style="text-align: center;">80</td> <td></td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">5</td> <td>x 3 =</td> <td style="text-align: center;">15</td> <td></td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">85</td> <td>x 4 =</td> <td style="text-align: center;">260</td> <td></td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">105</td> <td>x 5 =</td> <td style="text-align: center;">525</td> <td></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">215</td> <td>(A)</td> <td style="text-align: center;">880</td> <td>(B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> <td colspan="3" style="text-align: center;"><u>4.09</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:			OBL species	0	x 1 =	0		FACW species	40	x 2 =	80		FAC species	5	x 3 =	15		FACU species	85	x 4 =	260		UPL species	105	x 5 =	525		Column Totals:	215	(A)	880	(B)	Prevalence Index = B/A =		<u>4.09</u>		
Total % Cover of:		Multiply by:																																										
OBL species	0	x 1 =	0																																									
FACW species	40	x 2 =	80																																									
FAC species	5	x 3 =	15																																									
FACU species	85	x 4 =	260																																									
UPL species	105	x 5 =	525																																									
Column Totals:	215	(A)	880	(B)																																								
Prevalence Index = B/A =		<u>4.09</u>																																										
2. <u>Rubus occidentalis</u>	10	Yes	UPL																																									
3. <u>Smilax rotundifolia</u>	5	No	FAC																																									
4. <u>Juglans nigra</u>	5	No	FACU																																									
5. <u> </u>																																												
30 =Total Cover																																												
Herb Stratum (Plot size: <u>5 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. <u>Convolvulus arvensis</u>	50	Yes	UPL	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																								
2. <u>Eupatorium altissimum</u>	15	No	UPL																																									
3. <u>Phalaris arundinacea</u>	10	No	FACW																																									
4. <u>Verbesina alternifolia</u>	5	No	FACW																																									
5. <u>Solidago canadensis</u>	5	No	FACU																																									
6. <u> </u>																																												
7. <u> </u>																																												
8. <u> </u>																																												
9. <u> </u>																																												
10. <u> </u>																																												
85 =Total Cover																																												
Woody Vine Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status																																									
1. <u>Celastrus orbiculatus</u>	30	Yes	UPL	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																																								
2. <u>Lonicera japonica</u>	20	Yes	FACU																																									
50 =Total Cover																																												

Remarks: (Include photo numbers here or on a separate sheet.)
 No hydrophytic vegetation indicator criteria were met.

SOIL

Sampling Point: 5A

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		
0-20	10YR 5/4	100					Loamy/Clayey	No redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- Dark Surface (S7)
- 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)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- 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:

Soil characteristics do not support hydric soil status. This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

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:

Remarks:

No hydrology indicators were found.

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 03/31/23

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Kirk Roth

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The project (Des. No. 2100568) is on SR 58, 5.61 miles west of I-65 at structure 058-03-05882 B which crosses White Creek. The project will replace the existing bridge with a a three-span continuous concrete slab bridge measuring 100 feet long and 30 feet wide. The proposed structure will be realigned to the natural stream flow approximately 50 feet downstream of the existing structure. Revetment riprap will be placed at the spillslopes and piers of the structure. A temporary cofferdam will be used during construction. SR 58 will be realigned to the east to match the new bridge location and CR 700 S will be shifted northeast. Construction is expected to begin in 2025 and last approximately 6 months. Water that passes through bridges and culverts will be maintained during construction with appropriate erosion and sediment control techniques.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: Indiana County/parish/borough: Bartholomew City: Mt. Healthy

Center coordinates of site (lat/long in degree decimal format):

Lat.: 39.095065 Long.: -86.028053

Universal Transverse Mercator: 16S 584050 m E 4327775 m N

Name of nearest waterbody: White Creek

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

Office (Desk) Determination. Date:

Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
White Creek	39.095065	-86.028053	1438 l.f.	non-wetland waters	Section 404
UNT1 to White Creek	39.095331 ₊	-86.028335	165 l.f.	non-wetland waters	Section 404
UNT2 to White Creek	39.098452	-86.028065	162 l.f.	non-wetland waters	Section 404
Wetland 1	39.095524 ₊	-86.027918	0.051	Wetland	Section 404
Wetland 2	39.095315	-86.028809	0.057	Wetland	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: Corradino, LLC
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report. Rationale: _____
- Data sheets prepared by the Corps: _____
- Corps navigable waters' study: _____
- U.S. Geological Survey Hydrologic Atlas: _____
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:20,000 Waymansville
- Natural Resources Conservation Service Soil Survey. Citation: NRCS Soil Survey - Bartholomew County
- National wetlands inventory map(s). Cite name: USFWS-NWI V2 Wetland Mapping for SR 58, 5.61 miles west of I-65
- State/local wetland inventory map(s): _____
- FEMA/FIRM maps: Bartholomew County, Indiana
- 100-year Floodplain Elevation is: _____ (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Indiana Statewide Aerial Imagery, 2018
or Other (Name & Date): Corradino, LLC - September 23, 2022
- Previous determination(s). File no. and date of response letter: _____
- Other information (please specify): _____

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

Signature and date of
Regulatory staff member
completing PJD

Kirk Roth Digitally signed by Kirk Roth
Date: 2023.01.24 11:11:22 -05'00'

Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Appendix G

Public Involvement

Des. No. 2100568

August 1, 2022

[REDACTED]
[REDACTED]
[REDACTED]

Re: Bartholomew County Tax Parcel - [REDACTED]

NOTICE OF SURVEY

Dear Property Owner:

Corradino, on behalf of The Indiana Department of Transportation (INDOT), will perform a survey for the bridge replacement and associated work on SR 58, located in Bartholomew County, Indiana, Des No. 2100568. A portion of this survey work may be performed on your property in order to provide design engineers information for project design. The survey work will include mapping the location of features such as trees, buildings, fences, drives, ground elevations, etc. The survey is needed for the proper planning and design of this highway project.

At this stage we generally do not know what effect, if any, our project may eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

Indiana Code 8-23-7-26 allows Corradino, as the authorized employees of INDOT, *Right of Entry* to the project site (including private property) upon proper notification. A copy of a Notice of Survey discussion sheet, as found on INDOT's website (<http://www.in.gov/indot/2888.htm>), is attached to this letter. Pursuant to Indiana Code 8-23-7-27, this letter serves as written notification that we will be performing the above noted survey in the vicinity of your property on or after September 20, 2020.

Corradino employees will show you their identification, if you are available, before coming onto your property.

If you own but are not the tenant of this property (i.e. rental, sharecrop), please inform us so that we may also contact the actual tenant of the property prior to commencement of our work. If you have any questions or concerns regarding our proposed survey work or schedule, please contact the Corradino Project Manager. This contact information is as follows:

Zed Hott
200 S. Meridian St., Suite 330
Indianapolis, IN 46225
(317) 488-2363

Under Indiana Code 8-23-7-28, you have a right to compensation for any damage that occurs to your land or water as a result of the entry or work performed during the entry. To obtain such compensation, you should contact the Greenfield District Real Estate Manager; contact information is below. The District Real Estate Manager can provide you with a form to request compensation for damages. Once you fill out this form, you can return it to the District Real Estate Manager for consideration. If you are not satisfied with the compensation that INDOT determines is owed to you, Indiana Code 8-23-7-28 provides the following:

The amount of damages shall be assessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of damages shall be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

If you have questions regarding the rights and procedures outlined in this letter, please contact the Indiana Department of Transportation Central Office. This contact information is as follows:

1-855-INDOT4U (463-6848)
www.INDOT4U.com

Thank you in advance for your cooperation in this matter.

Sincerely,

Corradino, LLC



Zed Hott