2-8-23 Entered into wetsite-jwr

SECTION 401 WQC REGIONAL GENERAL PERMIT NOTIFICATION

State Form 51937 (R5 / 7-18)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (IDEM) and U.S. ARMY CORPS OF ENGINEERS (USACE)

Authorities: Section 401 Water Quality Certification, Section 404 of the Clean Water Act, and Section 10 of the Rivers and Harbor Act

INSTRUCTIONS: *1. Familiarize yourself with the terms and conditions of this permit.*
2. Read the instructions before filling out this form.
3. All applicable sections of this two (2) page form must be completed.

AGENCY USE ONLY
Date Received *(mm/dd/yyyy)* 2-3-23
IDEM ID 2023-114-82-JWR-X
Processing Date *(mm/dd/yyyy)* 2-8-23

APPLICANT INFORMATION

Name of Project: Morley #11938: Sheffer Commercial Development	Designation Number:
Applicant: Sheffer Construction & Development, LLC	Agent *(Name of Company)*: Meristem, LLC
Contact Person: Randy Sheffer	Contact Person: Marc Woernle
Address *(number and street)*: 1425 N ROYAL AVE City: Evansville State: IN ZIP Code: 47715	Address *(number and street)* : 877 Port Drive City: Avon State: IN ZIP Code: 46123
Telephone Number: (812) 402-3680	Telephone Number: (317) 324-8542
E-mail Address: randy@shefferconstruction.com	E-mail Address: marc.woernle@meristem.life

PROJECT LOCATION

County: Vanderburgh		Nearest Town: Evansville	
Quad Name: Daylight	Section: 11	Township: 6 South	Range: 10 West
Latitude: 38.0136770		Longitude: -87.4935310	

Project Address and Driving Directions:
NW of Lynch RD & N Green River RD: Beginning at Goebel Field, turn right off of Goebel DR onto N Green River RD. The proposed project location will be on the right in approximately 1.8 miles.

EXISTING CONDITIONS ON THE PROJECT SITE

Lake: ☐ Yes ☒ No	Name of Lake:
Stream: ☒ Yes ☐ No	Name of Stream: Stream 1, Stream 2, & Pigeon Creek Stream Type: ☒ Perennial ☒ Intermittent ☐ Ephemeral
Wetlands: ☒ Yes ☐ No	Acreage on the site by Wetland Type(s): _____ Emergent 0.104 Scrub-Shrub 0.376 Forested
	Date *(mm/dd/yyyy)* of Wetland Delineation: 04/19/2022 Date *(mm/dd/yyyy)* of the U.S. Army Corps of Engineers Jurisdiction Correspondence: 10/27/2022

PROJECT IMPACTS

Activity Description:
Installation of 10'x16' riprap apron and 105LF of 48" reinforced concrete pipe impacting a total of 125 LF of stream.

Purpose of Project:
Construction of a building, parking area, and driveway.

For Lake Impact *(Acceptable fill is defined in the instructions)*:

(1) Linear feet of shoreline impact *(Example – Seawall)*: N/A

(2) Type of fill below the Ordinary High Water Mark: _____ Volume *(Cubic Yards)*: _____ Acres: _____

(3) Does the shoreline or open water area have vegetation present? ☐ Yes ☐ No
If Yes, are you proposing natural shoreline stabilization? ☐ Yes ☐ No Description:

(4) Open water fill beyond shoreline *(Examples – Boat Well, Underwater Beach)*: Type of Fill: _____ Acres: _____

For Stream Impact *(Acceptable fill is defined in instructions)*:

(1) Total linear feet of stream impact *(Examples - bank stabilization, bridge construction or culvert placement, seawall work)*: 125 (Pipe plus Riprap)

(2) Total acre(s) of stream impact: 0.011

(3) Type of fill below the Ordinary High Water Mark: Pipe/ Riprap Volume *(Cubic Yards)*: 8.0

(4) Proposed start date of work in the stream *(mm/dd/yyyy)*: 02/01/2023 Proposed end date of work in the stream *(mm/dd/yyyy)*: 10/01/2023

(5) Channel width in feet *(See instructions)*: 4 Channel depth in feet *(See instructions)*: 0.4

(6) Cross-sectional area below the Ordinary High Water Mark: 1.6 sq ft

(7) For stream crossings, type of structure proposed to be Installed *(Examples: three-sided or four-sided culvert, bridge, pipe)*: Reinforced concrete pipe

(8) For stream crossings, width of culvert structure/diameter of pipe to be Installed *(feet)*: 4 Length of culvert structure/pipe *(feet)*: 105

(9) For stream crossings, substrate type (i.e. sand, soil or unconsolidated till, bedrock or consolidated till):

(10) Open water fill that projects beyond the stream bank: Type of fill: _____ Acre(s) of open water impact: _____

For Wetland Impact *(Acceptable fill is defined in instructions)*:

(1) Type of fill: _____

(2) Acre(s) of Impact: _____ Emergent _____ Scrub-Shrub _____ Forested

SIGNATURE OF APPLICANT – STATEMENT OF AFFIRMATION

I swear or affirm, under penalty of perjury as specified by IC 35-44.1-2-1 and other penalties specified by IC 13-30-10, that the statements and representations in this notification are true, accurate, and complete.

I certify that I have the authority to undertake and will undertake the activities exactly as described in this notification form. I am aware that there are penalties for submitting false information. I understand that any changes in project design subsequent to IDEM's and the USACE's granting of authorization to discharge to a water of the U.S. are not authorized, and that I may be subject to civil and criminal penalties for proceeding without proper authorization. I agree to allow representatives of IDEM and the USACE to enter and inspect the project site. I understand that the granting of other permits by local, state, or federal agencies does not release me from the requirement of obtaining the authorization requested herein before commencing the project.

Signature of Applicant: Randy Sheffer Date *(mm/dd/yyyy)*: 12/12/22

Printed Name of Applicant: RANDY SHEFFER Title: PRES

Enclose copies of the following documents *(all enclosures must be on 8.5" by 11" paper)*. Failure to provide all applicable documents and information may result in a determination that the proposed project is out of scope.

(1) ☒ Location Map

(2) ☒ Drawings of existing site and proposed project

(3) ☐ Cross sections of proposed activities showing extent of fill waterward *(for seawall, shoreline, and stream bank stabilization impacts)*

(4) ☒ Cross sections of proposed activities showing the bankfull width or Ordinary High Water Mark of the stream

(5) ☒ At least three photos of the site, labeled

(6) ☒ Copy of wetland delineation report *(for projects with wetland impacts)*

(7) ☒ Copies of all correspondence from the USACE *(for projects with wetland impacts)*

(8) ☒ Copies of all correspondence from the Indiana Department of Natural Resources, Division of Nature Preserves *(required)*

Please Note:

(1) It is recommended that you send this form and the attachments **via certified mail.** The agencies will **not** notify you when this form is received.

(2) IDEM and the USACE will review this form and all attachments for completeness and accuracy. You will not be contacted during the application process unless deficiencies are identified at which time the agencies may require additional information to verify that the project meets all conditions of the Regional General Permit and the Section 401 Water Quality Certification (WQC). If you are not contacted by IDEM within thirty (30) days of the date IDEM receives this notification form, your project is authorized, subject to the terms and conditions of the Section 401 Water Quality Certification and its conditions. You will not receive a written confirmation of authorization from IDEM, however the USACE will issue written authorization.

(3) Read all the terms and conditions of the IDEM Regional General Permit, including all USACE and IDEM conditions. The terms and conditions of this general permit as instituted by IDEM can be found at: http://www.in.gov/idem/wetlands/2353.htm . Do not submit this notification form or commence work on the proposed project until you understand and are familiar with the limitations and restrictions of the IDEM Regional General Permit Notification Form.

(4) Consult this webpage for more information: http://www.in.gov/idem/wetlands/index.htm

Upon completion of the application, mail this form and all enclosures to:

Indiana Department of Environmental Management
Office of Water Quality, Wetlands and Stormwater Section
Section 401 WQC/Isolated Wetlands Program
100 North Senate Avenue, IGCN, Room 1255
Indianapolis, Indiana 46204-2251

U.S. Army Corps of Engineers
Regulatory Branch

For office locations serving Indiana, please visit:
http://www.usace.army.mil/Locations.aspx

MERISTEM
Where New Growth Happens

877 Port Drive
Avon, Indiana 46123
317-324-8542

December 22, 2022

Jason Randolph
Project Manager
Indiana Department of Environmental Management
100 N Senate Ave
Indianapolis, IN 46204

Regional General Permit (RGP) Notification
Morley #11938: Sheffer Commercial Development
NW of Lynch RD & N Green River RD
Vanderburgh County, Indiana

Dear Mr. Randolph,

Meristem, LLC (Meristem) is submitting a Regional General Permit (RGP) notification on behalf of Morley and Associates Inc. (Morley) for stream impacts on a property located northwest of the intersection of Lynch Road and N Green River Road in Section 11, Township 6 South, Range 10 West, Vanderburgh County, Indiana (see Attachment 1). A map showing the location of the water resources identified within the Study Area is included in Attachment 2.

Water resources will be impacted as a result of the construction of a building and parking area within the Study Area. Impacts will occur within intermittent Stream 1 (Culvert plus Riprap). Design plans for the proposed impacts are included in Attachment 4. Photographs of the stream are included in Attachment 5. The proposed impacts are outlined in Table 1 below.

Table 1: Proposed Impacts to Water Resources

Impact Type	Linear Feet	Latitude	Longitude
Culvert Riprap Apron	16	38.013811	-87.492855
Reinforced Concrete Pipe	109	38.0137887	-87.492821
Total:	125	-	-

The Culvert Riprap Apron is intended to prevent erosion at the reinforced concrete pipe installation site. The apron will be installed flush with existing grade and will not change the morphology of the existing stream.

The Reinforced Concrete Pipe will serve as a stormwater pipe accounting for overflow from Stream 1. The pipe will connect to an existing 48" RCP, which currently flows under N Green River Road and empties into a swale within the property.

Best management practices for erosion and sediment control will be utilized to prevent additional impacts to the streams.

Wetlands A and D appear to have resulted from land disturbance allowing water to pond for longer than normal and currently meet Class II wetland criteria. Because of this, they should both be considered exempt. If you have any questions or need any additional information, please do not hesitate to contact me at (317) 617-4796 or marc.woernle@meristem.life.

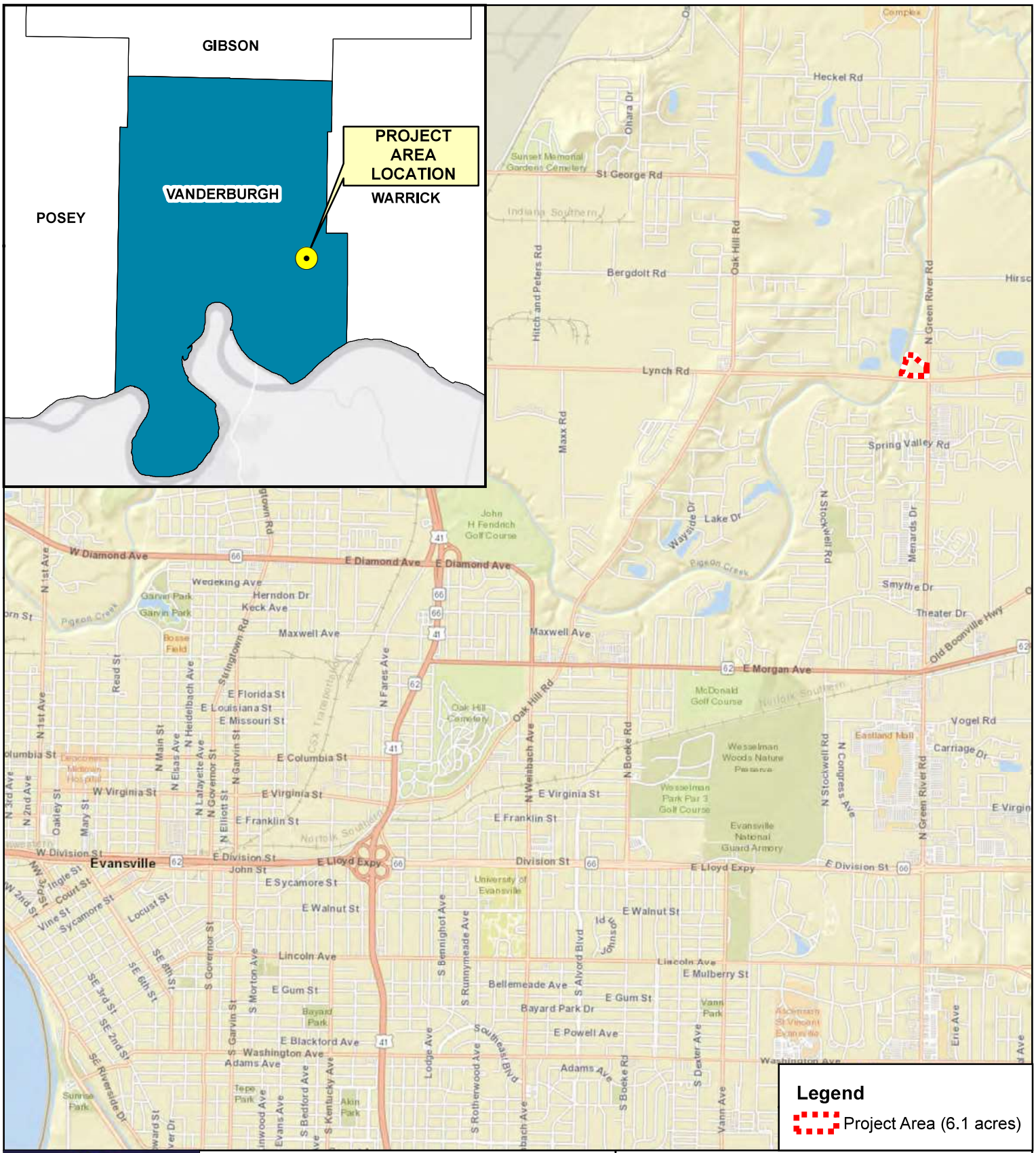
Sincerely,

Marc Woernle, PWS, LEED AP
Principal Ecologist
Meristem, LLC

CC:
Darrin Parrent, USACE
Jim Morley, Morley
Bailey Duncan, Meristem LLC

Enclosed:
Attachment 1: Project Area Location Map
Attachment 2: Delineated Water Resources Map
Attachment 3: Section 401 WQC Regional General Permit Notification
Attachment 4: Engineering Design Plans
Attachment 5: Water Resources Delineation Report
Attachment 6: Indiana DNR Natural Heritage Data Center Correspondence
Attachment 7: USACE AJD Correspondence

Attachment 1: Project Area Location Map

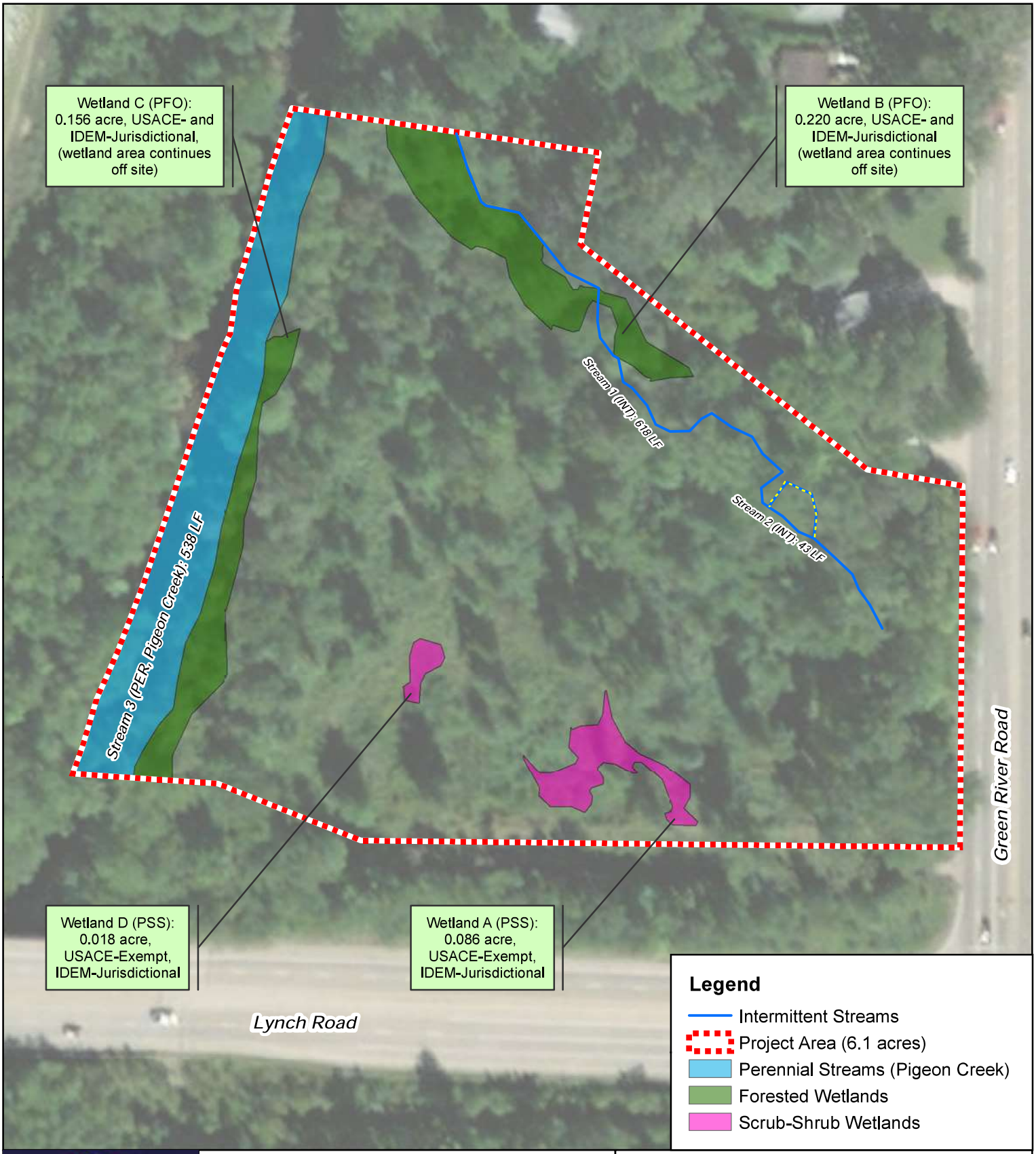


Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Attachment 1:
Project Area Location Map

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana

Attachment 2: Delineated Water Resources Map



N

0 50 100 200 Feet

1 in = 100 feet

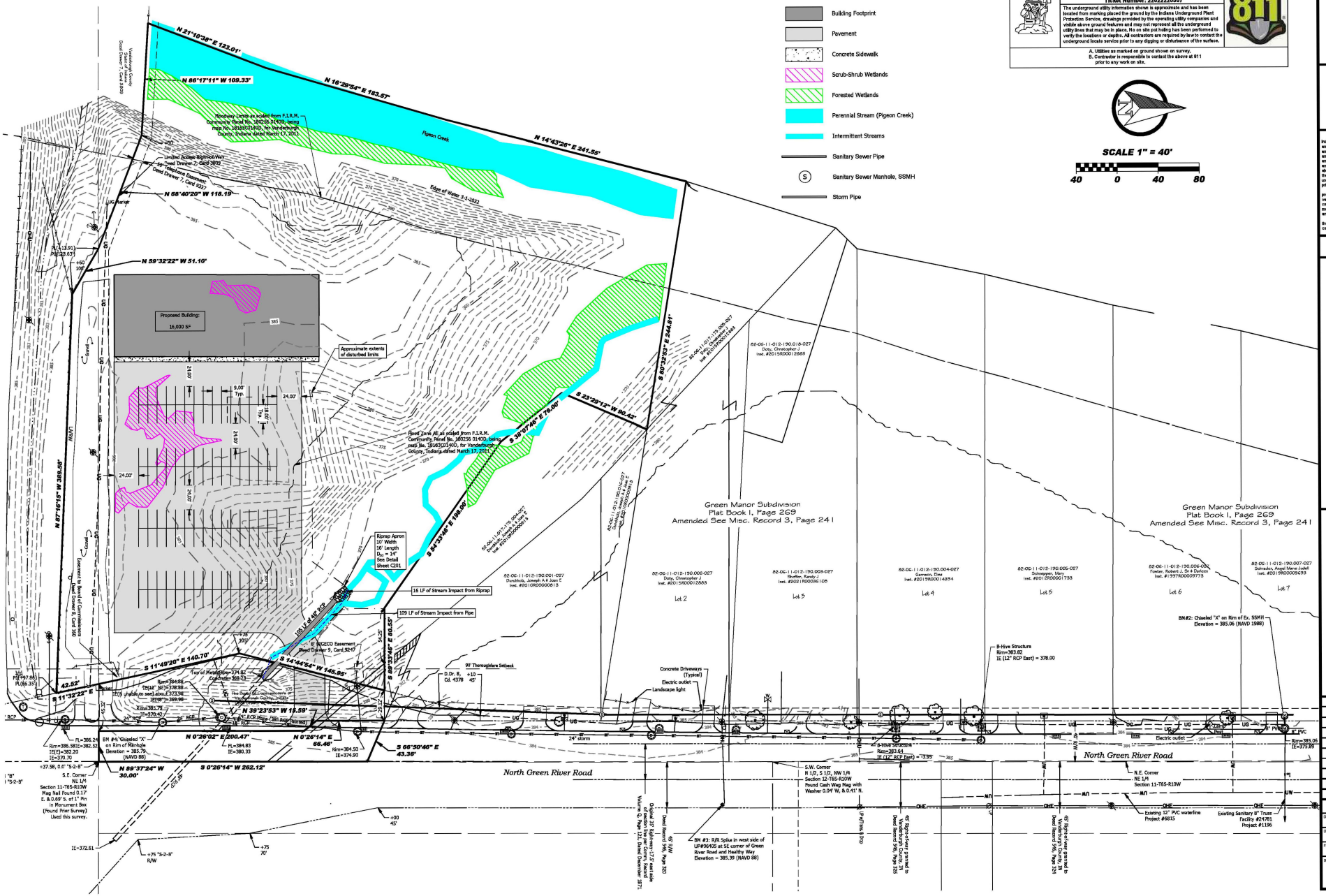
Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert, Inc.
Imagery Date: 2017

Attachment 2:
Delineated Water Resources

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana

Attachment 3: Section 401 WQC Regional General Permit Notification

Attachment 4: Engineering Design Plans



MORLEY
ARCHITECTS | ENGINEERS | SURVEYORS

4800 Rosebud Ln., Newburgh, IN 47630
812.464.2080 Voice 812.464.2574 Fax
morleycorp.com

Green River / Lynch

Civil
Permitting Exhibit

No.	By	Date

Revisions

Scale: 1" = 40'

Designed By:	Job Number:
JEM	11938.1.001-B
Drawn By:	Date:
CRS	11.23.2022

Filename: 11938 Permitting Exhibit

Sheet Number:

C100

Attachment 5: Water Resources Delineation Report

Meristem

Where New Growth Happens

NW of Lynch Road and Green River Road

±6.1 Acres

Vanderburgh County, Indiana

Water Resources Delineation Report

April 29th, 2022

Prepared for:

MORLEY

ARCHITECTS | ENGINEERS | SURVEYORS

MORLEY
Newburgh, Indiana

Prepared by:

Meristem, LLC
Avon, Indiana

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1.0 INTRODUCTION

1.1 Introduction

The Study Area is located within the City of Evansville in Section 11; Township 6 South; and Range 10 West in Knight Township, Vanderburgh County, Indiana (Appendix A, Figure 1). The Study Area was delineated by Meristem on April 19th, 2022. Two forested floodplain wetlands (totaling 0.376 acre) and two scrub-shrub wetlands (totaling 0.104 acre) were identified and delineated within the Study Area. Additionally, two intermittent stream channels totaling 661 linear feet (LF), and one 538-LF (0.498-acre) perennial stream were identified within the Study Area. The streams and forested wetlands were considered to be connected to "waters of the United States," and thus under the jurisdiction of the U.S. Army Corps of Engineers (USACE). Conversely, the two scrub-shrub wetlands were deemed to be isolated from "waters of the U.S." and were considered isolated and outside of the jurisdictional scope of USACE.

1.2 Project Area Description

1.2.1 General Land Use

The land use within and adjacent to the Study Area is predominantly comprised of forested and some formerly-residential land. According to historical aerials from Google Earth, there were two houses or residential structures in the southwestern corner of the Study Area as of March 2012, but these structures were demolished entirely as of March 2014, and any traces or remnant structures of either property were not observed during the site visit. Surrounding land use to the north, south, and east is predominantly commercial/developed, with some forested land use. The site is abutted by Lynch Road to the south, Green River Road to the east, and Pigeon Creek to the west.

1.2.2 National Wetland Inventory Mapped Wetlands

The U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) map was reviewed to determine the presence of any NWI polygons within or adjacent to the site. There is one riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) polygon depicted running along the western boundary, partially within the Study Area (Appendix A, Figure 2). The stream indicated by the NWI corresponds with the perennial Stream 3, identified as Pigeon Creek.

NWI maps are published by the United States Fish and Wildlife Service (USFWS) to identify potential wetlands and their characteristics. Wetlands published through this service are not always confirmed through field sampling and are not always accurate in identifying water resources.

1.2.3 Topography and Drainage

There is significant microtopography within the Study Area, particularly along its northern and western boundaries. The site slopes at a steep angle towards the drainage of intermittent Stream 1 along the northern boundary, and toward the perennial Stream 3 (Pigeon Creek) along its western boundary, with relatively flat floodplain areas in the westernmost and northernmost areas of the site. Relief within the Study Area ranges from

358 feet to 387 feet, with the lowest areas of the site located in the floodway of Pigeon Creek and the highest areas located in the southwestern corner of the Study Area, close to the former location of the residential structures on site.

1.2.4 Soil Associations and Series Types

The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey identifies three Soil Mapping Unit types within the Study Area. The site is predominantly a mosaic of the Wilbur soil series in the lowest floodway and floodplain areas of the site, the Markland soil series along the hillslopes above the streams and floodplains, and the Uniontown and Henshaw soil series in the relatively-flatter upland areas. Table 1 lists each of the soil series and indicates if it is considered hydric (Appendix A, Figure 4).

Hydric soils are soils that have formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper layer of the soil.

Table 1: Soil Mapping Units Within the Study Area

Symbol	*Description*	*Hydric*
He	Henshaw silt loam	NO
MkC2	Markland silt loam, 6 to 18 percent slopes, eroded	NO
MIC3	Markland silty clay loam, 6 to 18 percent slopes, severely eroded	NO
UnB2	Uniontown silt loam, 2 to 6 percent slopes, eroded	NO
Wm	Wilbur silt loam	NO

1.2.5 Environmental Protection Agency Level IV Ecoregion

The Study Area is located within the Wabash-Ohio Bottomlands (72a) Level IV Ecoregion designated by the U.S Environmental Protection Agency (EPA). This ecoregion historically contained swaths of seasonally inundated forested bottomlands, mesic prairie, and low gradient streams. Much of the original land use has been converted to agriculture.

2.0 REGULATORY BACKGROUND

2.1 Regulatory Agencies

Agencies that regulate impacts to the nation's surface water resources within Indiana include USACE and the Indiana Department of Environmental Management (IDEM). Jurisdictional waters of the U.S. are protected under Sections 401 and 404 of the Clean Water Act (CWA) and Executive Order 11990 (Protection of Wetlands). USACE has the primary regulatory authority for enforcing Section 404 requirements for waters of the U.S., including wetlands. The Indiana Department of Natural Resources (IDNR) also requires permits for impacts to wetlands and waterways within regulated floodways.

2.2 Definitions

2.2.1 Federal

Waters of the U.S. are defined by the USACE, 33 Code of Federal Regulations (CFR) 328.3

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) which are used or could be used for industrial purpose by industries in interstate commerce;
- All impoundments of waters otherwise defined as waters of the U.S. under the definition;
- Tributaries of waters of the U.S. identified above;
- The territorial seas;
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified above. The term adjacent means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by manmade dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

Wetlands are a category of waters of the U.S. and are defined by the USACE as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3, USACE; Section 8b). Typical wetlands include bogs, marshes, swamps, and other similar areas. However, temporarily or seasonally flooded depressions that receive overland storm water runoff or overbank floodwaters can meet the criteria for wetlands. This is often due to the prevalence of clay soils that hold water or have a high water table that causes soils to remain saturated for long periods.

Based upon current guidance by the Environmental Protection Agency (EPA), only those wetlands that are adjacent to traditional navigable waters or wetlands that directly abut to non-navigable tributaries having a seasonal (3-month minimum) flow are now considered jurisdictional under the CWA (June 5, 2007 EPA Memo regarding Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States) Following are key points from the EPA memo and are at times referred to as "Rapanos Guidance".

"The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters

- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)
- Wetlands that directly abut such tributaries

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors"

2.2.2 State

"Waters" within the State of Indiana are defined as surface and underground waterbodies; natural and artificial; public or private, which are partially or wholly within, flow through or border upon Indiana. The term includes all waters of the United States, as defined in Section 502(7) of the federal Clean Water Act (33 U.S.C. 1362(7)), that are located in Indiana. (*As added by P.L.1-1996, SEC.1. Amended by P.L.183-2002, SEC.1; P.L.282-2003, SEC.31; P.L.52-2004, SEC.4.)*

Although not specifically mentioned within the Indiana Code's definition of state "waters", Indiana "waters" do include and are not limited to streams and wetlands (both isolated and non-isolated). State of Indiana "waters" do not include exempt isolated wetlands, private ponds, or off-stream ponds, reservoirs, wetlands, or other facilities ***built for*** reduction or control of pollution or cooling of water before discharge. (IC 13-11-2-265). The State of Indiana also excludes isolated ephemeral streams from their jurisdiction (SEA No. 389: Sect. 7. IC 13-18-22-1, as amended by P.L.166-2020).

The State of Indiana relies on the Corps' (USACE) decision regarding wetland determinations and delineations including whether or not a wetland is isolated or non-isolated.

3.0 DETERMINATION OF WATERS OF THE U.S.

3.1 Methods

3.1.1 Wetlands

The water resources delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the appropriate regional supplement. The presence of potentially jurisdictional wetlands is determined by the positive indication of three criteria: the dominance of hydrophytic (wetland) vegetation, one positive hydric soil indicator, and a minimum of one primary or two secondary indicators for hydrology. A "Wetland Determination Form" was completed for each survey point to record the presence or absence of each criterion.

Wetlands were delineated using a Trimble TDC-600 and/or Trimble R1, and mapped using ArcMap 10.8.2. The final determination on the presence of and jurisdiction of wetlands and "waters of the U.S." is determined by the USACE.

3.1.1.1 Hydrophytic Vegetation

Areal coverage of individual herb, shrub, tree, and vine species were assessed and recorded at each survey point to determine dominance. Plant species are assigned an indicator status based on probability of occurring in wetland conditions regionally. The indicator status of each plant is determined by USACE and is published on the National Wetland Plant List (2020). Definitions of indicator status are:

Obligate (OBL): Occur almost always under natural conditions in wetlands (99% probability of occurrence).

Facultative Wetland (FACW): Usually occur in wetlands but occasionally found in non-wetlands (67-99% probability of occurrence).

Facultative (FAC). Equally likely to occur in wetlands and non-wetlands (34-66% probability of occurrence).

Upland (UPL). Occur almost always under natural conditions in non-wetlands in the region specified. (1% probability of occurrence).

3.1.1.2 Hydric Soil

Soil samples were taken in areas believed to be potential wetlands such as areas that are indicated as wetlands on the National Wetland Inventory maps; areas that exhibited wetland flora or had signs of hydrology. These soil samples were taken to determine the presence of hydric soils by examining the hue, value, and chroma of the soil using a Munsell color chart. An upland soil sample was also taken near the edge of the wetlands to determine the boundary and surrounding conditions for the wetland.

3.1.1.3 Wetland Hydrology

Evidence of hydrology can often be associated when the soil sample is dug. Saturated soils within the upper 12 inches is documented in addition to the presence of the water table within 12 inches of the surface. Other signs of hydrology may include but are not limited to drainage patterns, surface water, rafted debris, and crayfish chimneys.

3.1.2 Streams

Potential boundaries for streams were delineated in the field at the ordinary high water mark (OHWM). The OHWM is the line on the shore or bank established by flowing and/or standing water, marked by characteristics such as a clear, natural line impressed on the bank, erosion shelving, changes in the character of soil, destruction of terrestrial vegetation, presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas [(33 CFR Part 328.3 (e)].

All waterways with an OHWM were identified as perennial, intermittent, or ephemeral. Determination was made based off field observations, the antecedent precipitation tool (APT) developed by USACE, National Hydrography Dataset (NHD), and other available resources.

3.1.3 Ponds

Water bodies such as lakes, ponds, damned streams, retention ponds, borrow pits, and similar open water systems are defined by the OHWM near the shoreline or the edge of its littoral fringe.

Ponds lacking vegetation were considered open water systems during the delineation. Ponds that are human made are not considered jurisdictional by USACE.

3.2 Delineation Results

Table 2 summarizes the characteristics of the water resources delineated.

Table 2. Waterbodies Located Within the Study Area

Field Name	Alternative Name(s)	Water Resource Type[1]	Area (acres) within Study Area	Length (linear feet) within Study Area	Average Width at OHWM (ft)	Average Depth at OHWM (in)	USACE-Jurisdictional	IDEM-Jurisdictional
Wetland A	N/A	PSS	0.086	N/A	N/A	N/A	NO	YES
Wetland B	N/A	PFO	0.220	N/A	N/A	N/A	YES	YES
Wetland C	N/A	PFO	0.156	N/A	N/A	N/A	YES	YES
Wetland D	N/A	PSS	0.018	N/A	N/A	N/A	NO	YES
Stream 1	N/A	INT	N/A	618	6	8	YES	YES
Stream 2	N/A	INT	N/A	43	4	5	YES	YES
Stream 3	Pigeon Creek	PER	0.498	538	25	72	YES	YES

3.2.1 Wetlands

Aerial images of the Study Area are included in Appendix A, Figures 5.1 and 5.2. There were four wetlands identified and delineated within the Study Area during the

investigation (Appendix A, Figure 6). Multiple, representative data points were taken in areas most likely to contain wetland hydrology, soils, and vegetation (Appendix B).

Forested Wetlands:

The forested Wetlands B (0.220 acre) and C (0.156 acre) were located entirely within the floodplains immediately adjacent to the onsite Streams 1 and 3. Wetland B is immediately adjacent to the intermittent Stream 1, while Wetland C is immediately adjacent to the perennial Stream 3. Both Wetlands B and C continue off the northern and southeastern boundaries of the site, respectively.

Vegetation

The forested wetlands contained dominant tree species including silver maple (*Acer saccharinum*, FACW), American sycamore (*Platanus occidentalis,* FACW), and American elm (*Ulmus americana,* FACW). Dominant shrub and sapling species observed included boxelder maple (*Acer negundo,* FAC), and dominant herbaceous species included white-panicled American-aster (*Symphyotrichum lanceolatum,* FAC) and giant cane (*Arundinaria gigantea,* FACW).

Upland areas adjacent to the two wetland contained dominant tree species including common hackberry (*Celtis occidentalis,* FAC), eastern redbud (*Cercis canadensis,* FACU), and boxelder maple (*Acer negundo,* FAC); dominant shrubs and saplings including common hackberry (*Celtis occidentalis,* FAC) and eastern redbud (*Cercis canadensis,* FACU); and dominant herbaceous species including purple wintercreeper (*Euonymus fortunei,* UPL), Canada goldenrod (*Solidago canadensis,* FACU), ground-ivy (*Glechoma hederacea,* FACU), Japanese honeysuckle (*Lonicera japonica,* FACU), and Kentucky bluegrass (*Poa pratensis,* FAC).

Soil

The forested floodplain wetlands met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) hydric soil criteria and were located predominantly within a Wilbur silt loam (Wm) soil polygon, with some smaller amounts of Henshaw (He), Markland (MkC2), and Uniontown (UnB2) soil series. While all of the soil series within the site are considered non-hydric, the Henshaw series in particular does contain small inclusions of Evansville (Ev) silt loams, which are considered hydric, and may account for the hydric characteristics observed in the floodplain and other on-site wetlands.

Hydrology

The primary hydrology sources for the emergent wetland appear to be precipitation, groundwater, and overland flow from the intermittent Streams 1 and 2 and perennial Stream 3. Primary hydrology indicators met within the forested wetlands included Surface Water (A1), High Water Table (A2), and Saturation (A3). Secondary indicators met included FAC-Neutral Test (D5).

Scrub-Shrub Wetlands:

The scrub-shrub Wetlands A (0.086 acre) and D (0.018 acre) were located within the upland, higher-elevation areas along the south-central boundary of the Study Area. Wetland D is located in the vicinity of one of the houses/residential structures that used to be present on the site, while Wetland A is located partially within the footprint of the former gravel entry road to the residences within the site.

Vegetation

The forested wetlands contained dominant shrub and sapling species including eastern cottonwood (*Populus deltoides,* FAC), black willow (*Salix nigra,* OBL), and green ash (*Fraxinus pennsylvanica,* FACW), and dominant herbaceous species including late boneset (*Eupatorium serotinum,* FAC), Kentucky bluegrass (*Poa pratensis,* FAC), swamp agrimony (*Agrimonia parviflora,* FACW), and curly-dock (*Rumex crispus,* FAC).

Upland areas adjacent to the two wetland contained dominant tree species including common shagbark hickory (*Carya ovata,* FACU) and boxelder maple (*Acer negundo,* FAC); dominant shrubs and saplings including autumn olive (*Elaeagnus umbellata,* UPL), Pennsylvania blackberry (*Rubus pensilvanicus,* UPL), and eastern redbud (*Cercis canadensis,* FACU); and dominant herbaceous species including Canada goldenrod (*Solidago canadensis,* FACU), ground-ivy (*Glechoma hederacea,* FACU), Japanese honeysuckle (*Lonicera japonica,* FACU), and Kentucky bluegrass (*Poa pratensis,* FAC).

Soil

The forested floodplain wetlands met Depleted Matrix (F3) hydric soil criteria and were located predominantly within Markland (MkC2) and Uniontown (UnC2) soil polygons, with some smaller amounts of Henshaw (He) soil series. While all of the soil series within the site are considered non-hydric, the Henshaw series in particular does contain small inclusions of Evansville (Ev) silt loams, which are considered hydric, and may account for the hydric characteristics observed in the floodplain and other on-site wetlands.

Hydrology

The primary hydrology sources for the emergent wetland appear to be precipitation and groundwater. The wetlands appeared to lack any significant nexus with traditionally-navigable waters (TNWs), and were thus considered to be isolated wetlands exempt from the jurisdiction of USACE. Primary hydrology indicators met within the forested wetlands included Surface Water (A1), High Water Table (A2), and Saturation (A3). Secondary indicators met included Geomorphic Position (D2) and FAC-Neutral Test (D5).

3.2.2 Streams

Two intermittent streams (Streams 1 and 2) and one perennial stream (Stream 3) were identified within the Study Area during the investigation. Stream 3 was identified as the perennial Pigeon Creek, a direct tributary to the Ohio River, and considered a “Water of the U.S.” The intermittent streams have a downstream connection to the USACE-jurisdictional Stream 3 (Pigeon Creek) and should thus be considered “Waters of the U.S.” and USACE-jurisdictional water bodies as well.

Intermittent Streams:

Intermittent Streams 1 and 2 appears to flow northwestward through the forested sections of the Study Area and into a confluence point with perennial Stream 3 just outside the northern boundary of the Study Area. The streams drain water from the deciduous forested floodplain and upland areas. Stream 1 has an average ordinary high-water mark (OHWM) width of 6 feet and average OHWM depth of 8 inches within the Study Area, while Stream 2 (a channel with both its headwaters and confluence point located along the Stream 1 channel) has an OHWM width of 4 feet and average OHWM depth of 5 inches. Both streams have predominantly silt, gravel, and organic matter substrates. Land use immediately surrounding the stream's reach and riparian corridor within the site is predominantly forested and residential/developed.

Perennial Stream (Pigeon Creek):

Perennial Stream 3 was identified as Pigeon Creek and appears to flow southwestward along the western boundary of the Study Area and eventually drains into the Ohio River downstream and to the west-southwest (WSW) of the Study Area. The streams drain water from the deciduous forested, residential, and agricultural areas of Gibson, Warrick, and Vanderburgh Counties. Stream 3 has an average ordinary high-water mark (OHWM) width of 25 feet and an estimated average OHWM depth of 72 inches (6 feet) within the immediate vicinity of the Study Area. Its substrate is obscured and not visible due to the high silt content of the water. Land use immediately surrounding the stream's reach and riparian corridor within and adjacent to the site is predominantly forested and residential/developed, with increasing amounts of agricultural land use further upstream.

3.2.3 Ponds

No ponds were identified within the Study Area during the investigation.

4.0 Conclusion

The Study Area located northeast the City of Evansville, Vanderburgh County, Indiana was delineated by Meristem, LLC on April 19th, 2022. Two forested floodplain wetlands (totaling 0.376 acre) and two scrub-shrub wetlands (totaling 0.104 acre) were identified and delineated within the Study Area. Additionally, two intermittent stream channels totaling 661 linear feet (LF), and one 538-LF (0.498-acre) perennial stream were identified within the Study Area. The streams and forested wetlands were considered to be connected to "waters of the United States," and thus under the jurisdiction of the U.S. Army Corps of Engineers (USACE). Conversely, the two scrub-shrub wetlands were deemed to be isolated from "waters of the U.S." and were considered isolated and outside of the jurisdictional scope of USACE.

This report is based on Meristem's best professional opinion and is limited to the time frame when field work was conducted. Meristem is not responsible for the interpretation or use by others of conclusions described in this report. The U.S. Army Corps of Engineers (USACE) and the Indiana Department of Environmental Management (IDEM) have final determination of wetland boundaries and connectivity to "Waters of the U.S."

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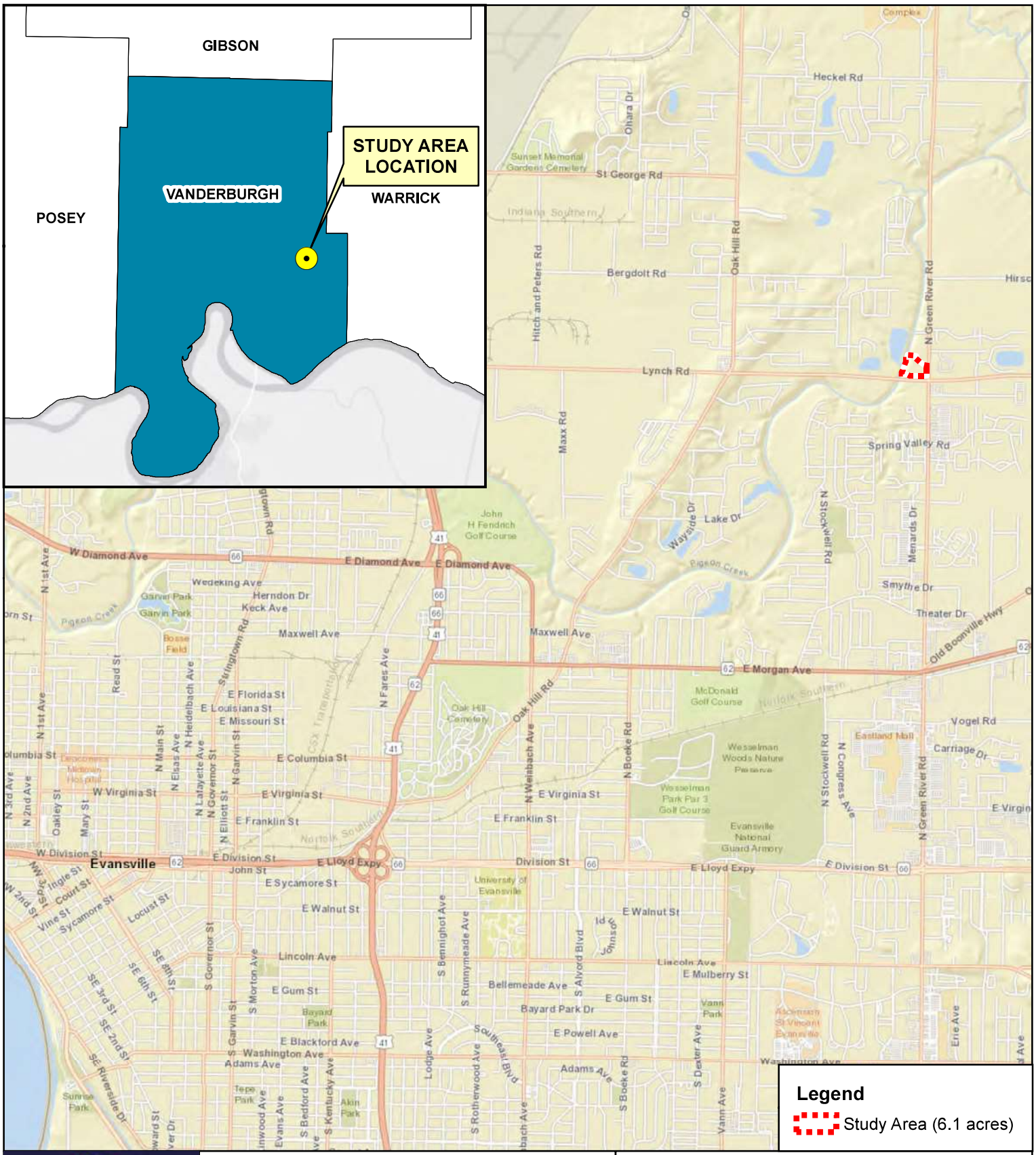

Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Appendix A, Figure 1:
Study Area Location Map

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana

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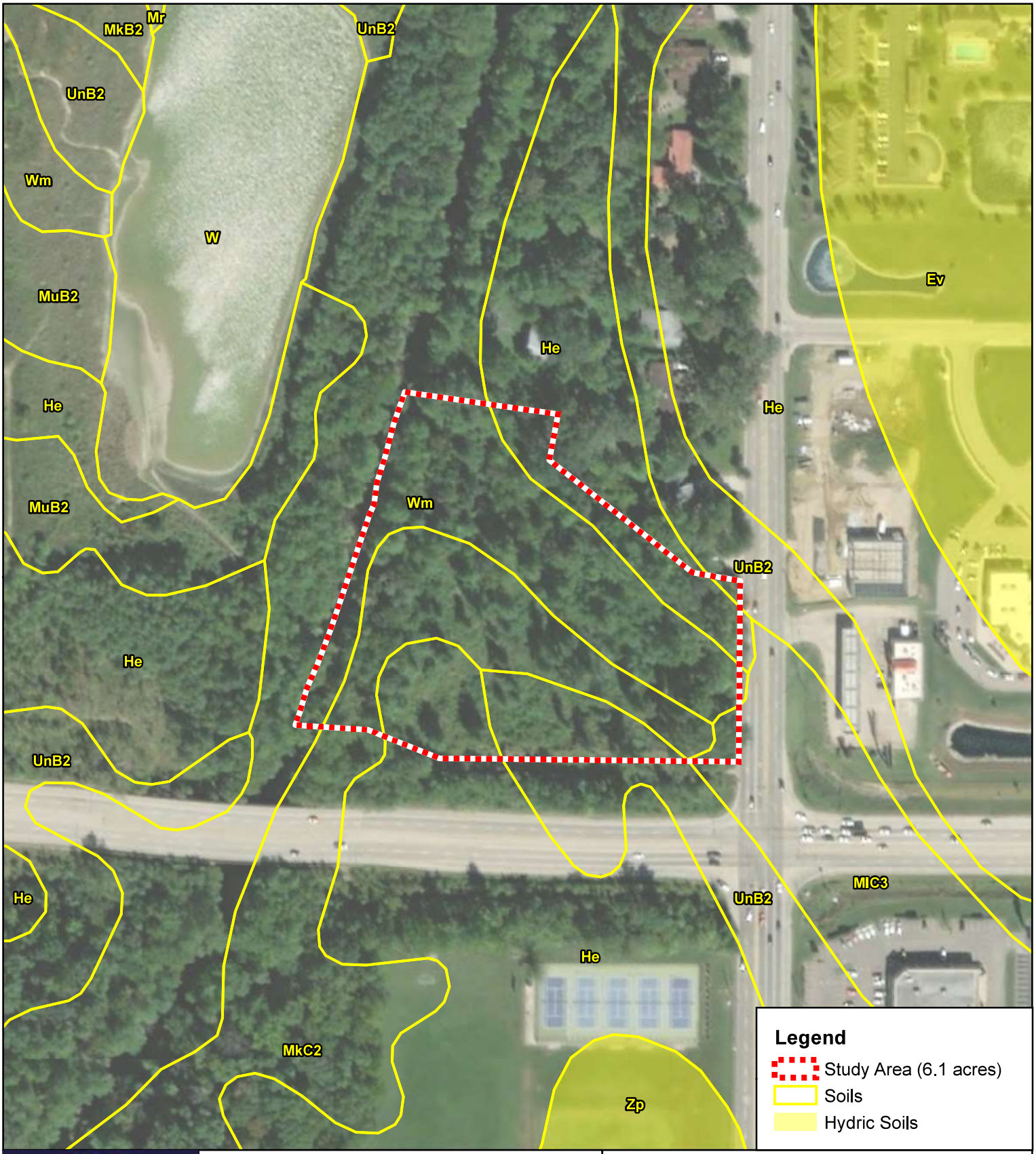
U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.
http://www.fws.gov/wetlands/

Appendix A, Figure 2:
***Study Area on** Topgraphic and NWI Map*

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana

Appendix A, Figure 3:
Study Area on Elevation Map

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana



N

0 100 200 400 Feet

1 in = 200 feet

Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey.
Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/.
Imagery Date: 2016

Appendix A, Figure 4:
Study Area on Vanderburgh County Soil Map

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana

N

0 50 100 200 Feet

1 in = 100 feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Imagery Date: 2021

Appendix A, Figure 5.1:
*Study Area on Aerial **Imagery** (2021)*

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana

N

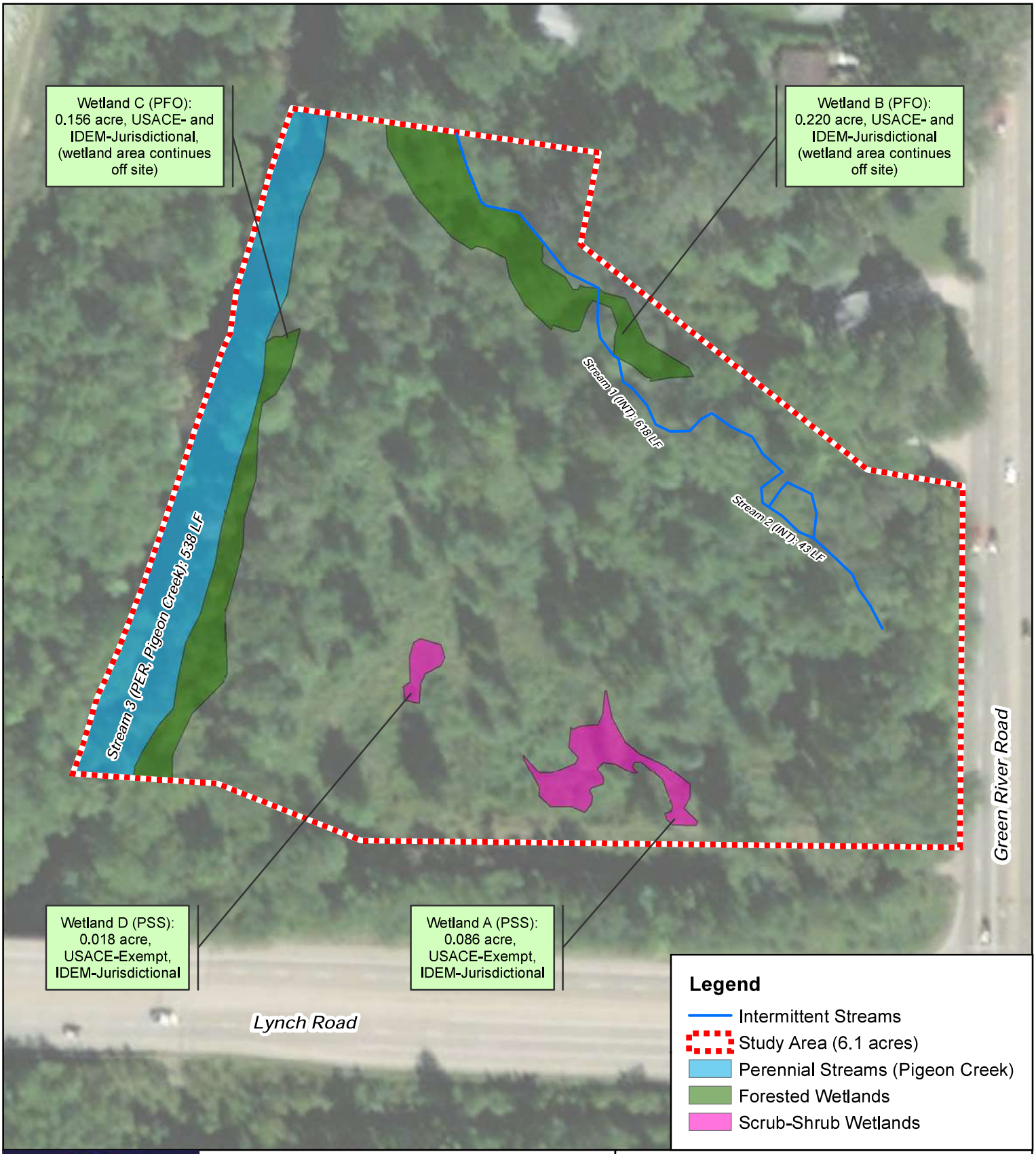
0 50 100 200 Feet

1 in = 100 feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Imagery Date: 2021

Appendix A, Figure 5.2:
Study Area on Aerial Imagery (2005)

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana



N

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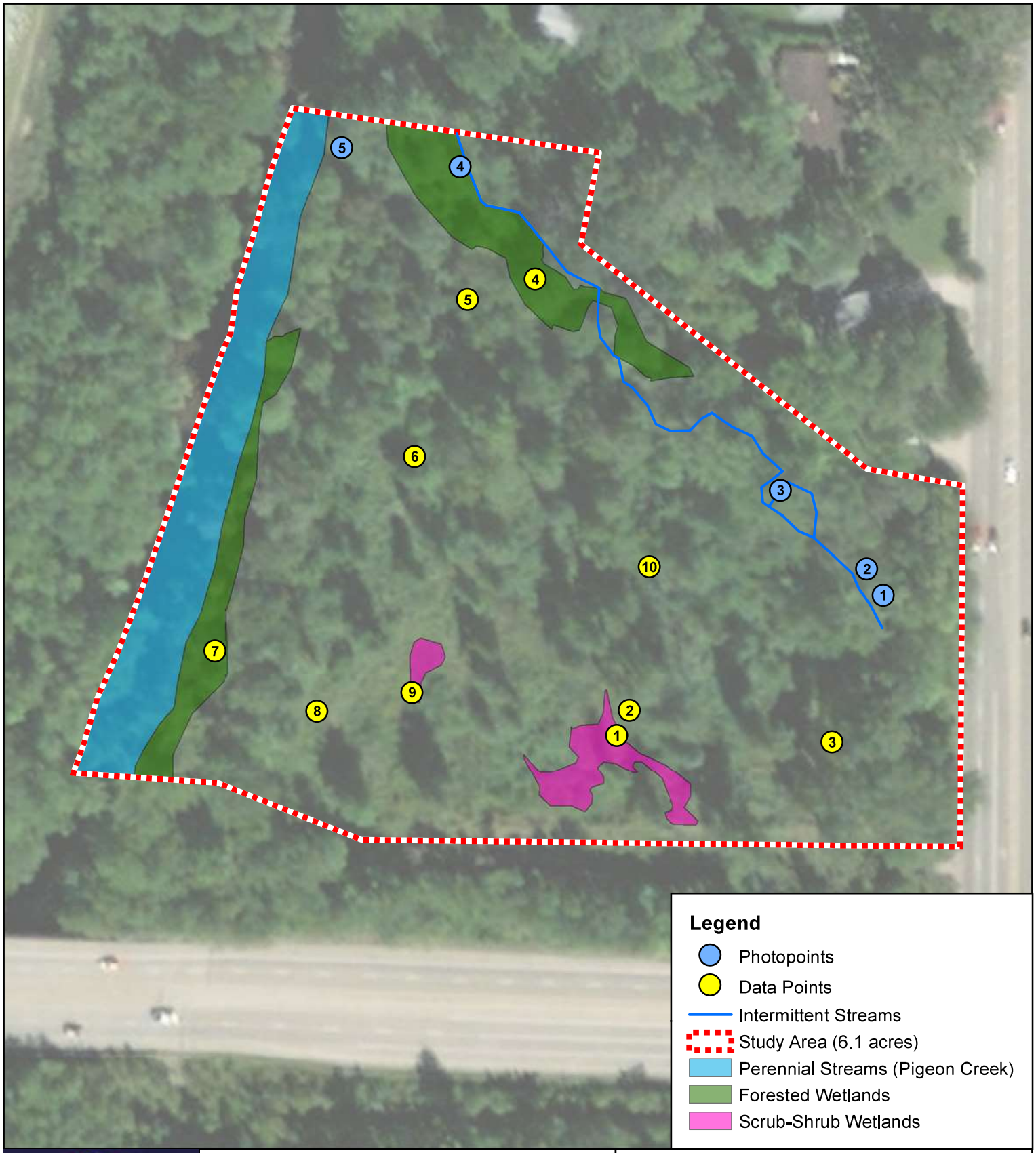
1 in = 100 feet

Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert, Inc.
Imagery Date: 2017

*Appendix **A, Figure 6**:*
*Delineated Water Resources **Map***

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana



Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert, Inc.
Imagery Date: 2021

Appendix A, Figure 7:
Photo and Data Point Locations Map

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 1

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): stream terrace Local relief (concave, convex, none): None

Slope (%): 1% Lat: 38.013359 Long: -87.49331 Datum: NAD83

Soil Map Unit Name: UnB2—Uniontown silt loam, 2 to 6 percent slopes, eroded 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 N, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation Y, Soil N, or Hydrology N 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 X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:
Leaf-off conditions. Disturbed by fill material below 5 inches.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus macrocarpa*	15%	Yes	FAC
2.			
3.			
4.			
5.			
	15%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Populus deltoides*	20%	Yes	FAC
2. *Salix nigra*	15%	Yes	OBL
3.			
4.			
5.			
	35%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Poa pratensis*	50%	Yes	FAC
2. *Eupatorium serotinum*	35%	Yes	FAC
3. *Juncus effusus*	15%	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30%	x1 =	0.3
FACW species		x2 =	
FAC species	120%	x3 =	3.6
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	1.50 (A)		3.9 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

X 2-Dominance Test is >50%

X 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.

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: 1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5"	10YR 4/1	85	7.5YR 5/6	15	C	PL	Silty Clay Loam	Disturbed below 5"

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:
Disturbed by fill material below 5 inches.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes x No ___ Depth (inches): 1"

Water Table Present? Yes x No ___ Depth (inches): 2"

Saturation Present? (includes capillary fringe) Yes x No ___ Depth (inches): Surface

Wetland Hydrology Present? **Yes** X **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 2

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): stream terrace Local relief (concave, convex, none): None

Slope (%): 1% Lat: 38.013412 Long: -87.493277 Datum: NAD83

Soil Map Unit Name: UnB2—Uniontown silt loam, 2 to 6 percent slopes, eroded 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 N, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation Y, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
Leaf-off conditions. Disturbed by fill material below 8 inches.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Carya ovata*	25%	Yes	FACU
2.			
3.			
4.			
5.			
	25%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Elaeagnus umbellata*	15%	Yes	UPL
2. *Rubus pensilvanicus*	45%	Yes	UPL
3.			
4.			
5.			
	60%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Solidago canadensis*	25%	Yes	FACU
2. *Geum vernum*	15%	No	FACU
3. *Erigeron canadensis*	5%	No	FACU
4. *Poa pratensis*	15%	No	FAC
5. *Lonicera japonica*	25%	Yes	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	85%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species	15%	x3 =	0.45
FACU species	95%	x4 =	3.8
UPL species	60%	x5 =	3
Column Totals:	1.70 (A)		7.25 (B)

Prevalence Index = B/A = 4.26

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.

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: 2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3"	10YR 3/1	100					Silty Clay Loam	Disturbed below 8"
3-8"	10YR 5/2	80	7.5YR 5/6	20	C	PL	Silty Clay Loam	Disturbed below 8"

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:
Disturbed by fill material below 8 inches.

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? (includes capillary fringe) Yes ___ No x Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 3

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): None

Slope (%): 6% Lat: 38.013347 Long: -87.492736 Datum: NAD83

Soil Map Unit Name: MkC2—Markland silt loam, 6 to 18 percent slopes, eroded 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation Y, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
Leaf-off conditions.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Carya ovata*	55%	Yes	FACU
2.			
3.			
4.			
5.			
	55%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Pyrus calleryana*	15%	Yes	UPL
2.			
3.			
4.			
5.			
	15%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Aureolaria flava*	15%	No	UPL
2. *Juncus tenuis*	3%	No	FAC
3. *Poa pratensis*	25%	Yes	FAC
4. *Lonicera japonica*	20%	Yes	FACU
5. *Cardamine concatenata*	15%	No	FACU
6. *Solidago canadensis*	20%	Yes	FACU
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	98%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species	28%	x3 =	0.84
FACU species	110%	x4 =	4.4
UPL species	30%	x5 =	1.5
Column Totals:	1.68 (A)		6.74 (B)

Prevalence Index = B/A = 4.01

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.

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: 3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10YR 3/1	100					Silt Loam	
6-16"	10YR 4/4	100					Silt Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): _____

Water Table Present? Yes ___ No x Depth (inches): _____

Saturation Present? Yes ___ No x Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 4

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): None

Slope (%): 1% Lat: 38.014321 Long: -87.493533 Datum: NAD83

Soil Map Unit Name: Wm—Wilbur silt loam 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation Y, Soil N, or Hydrology N 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 X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:
Leaf-off conditions.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Platanus occidentalis*	45%	Yes	FACW
2. *Acer saccharinum*	30%	Yes	FACW
3. *Acer negundo*	10%	No	FAC
4. *Ulmus americana*	5%	No	FACW
5.			
	90%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Acer negundo*	20%	Yes	FAC
2.			
3.			
4.			
5.			
	20%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Symphyotrichum lanceolatum*	15%	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	15%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	80%	x2 =	1.6
FAC species	45%	x3 =	1.35
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	1.25 (A)		2.95 (B)

Prevalence Index = B/A = 2.36

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

X 2-Dominance Test is >50%

X 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.

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: 4

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2"	10YR 3/2	100					Silty Clay Loam	
2-16"	10YR 5/2	90	7.5YR 5/6	10	C	PL	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: 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)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X 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)
- X 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)
- X Geomorphic Position (D2)
- X 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** X **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 5

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): None

Slope (%): 10% Lat: 38.014277 Long: -87.493713 Datum: NAD83

Soil Map Unit Name: Wm—Wilbur silt loam 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation Y, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
Leaf-off conditions.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Celtis occidentalis*	20%	Yes	FAC
2. *Cercis canadensis*	40%	Yes	FACU
3.			
4.			
5.			
	60%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Cercis canadensis*	40%	Yes	FACU
2. *Celtis occidentalis*	30%	Yes	FAC
3. *Morus alba*	15%	No	FAC
4. *Acer negundo*	15%	No	FAC
5.			
	100%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Euonymus fortunei*	97%	Yes	UPL
2. *Trillium recurvatum*	3%	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species	80%	x3 =	2.4
FACU species	83%	x4 =	3.32
UPL species	97%	x5 =	4.85
Column Totals:	2.60 (A)		10.57 (B)

Prevalence Index = B/A = 4.07

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.

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: 5

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4"	10YR 3/2	100					Silt Loam	
4-16"	10YR 4/3	100					Silt Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): _____

Water Table Present? Yes ___ No x Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): _____

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 6

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): stream terrace Local relief (concave, convex, none): None

Slope (%): 1% Lat: 38.013946 Long: -87.493853 Datum: NAD83

Soil Map Unit Name: MkC2—Markland silt loam, 6 to 18 percent slopes, eroded 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation Y, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
Leaf-off conditions.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Prunus serotina*	20%	Yes	FACU
2. *Carya ovata*	35%	Yes	FACU
3.			
4.			
5.			
	55%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Aralia spinosa*	60%	Yes	FACW
2. *Pyrus calleryana*	10%	No	UPL
3. *Elaeagnus umbellata*	20%	Yes	UPL
4.			
5.			
	90%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Symphoricarpos orbiculatus*	30%	Yes	FACU
2. *Podophyllum peltatum*	20%	Yes	FACU
3. *Lonicera japonica*	15%	Yes	FACU
4. *Claytonia virginica*	7%	No	FACU
5. *Viola sororia*	3%	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	75%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 14% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	60%	x2 =	1.2
FAC species	3%	x3 =	0.09
FACU species	127%	x4 =	5.08
UPL species	30%	x5 =	1.5
Column Totals:	2.20 (A)		7.87 (B)

Prevalence Index = B/A = 3.58

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.

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: 6

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5"	10YR 3/2	100					Silt Loam	
5-16"	10YR 4/3	100					Silt Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): _____

Water Table Present? Yes ___ No x Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 7

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): None

Slope (%): 1% Lat: 38.013534 Long: -87.494383 Datum: NAD83

Soil Map Unit Name: MkC2—Markland silt loam, 6 to 18 percent slopes, eroded 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation Y, Soil N, or Hydrology N 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 X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:
Leaf-off conditions.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	40%	Yes	FACW
2. *Acer negundo*	15%	No	FAC
3. *Ulmus americana*	35%	Yes	FACW
4.			
5.			
	90%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Arundinaria gigantea*	35%	Yes	FACW
2. *Acer saccharinum*	10%	No	FACW
3. *Symphyotrichum lanceolatum*	45%	Yes	FAC
4. *Euonymus fortunei*	10%	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	120%	x2 =	2.4
FAC species	60%	x3 =	1.8
FACU species		x4 =	
UPL species	10%	x5 =	0.5
Column Totals:	1.90 (A)		4.7 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

X 2-Dominance Test is >50%

X 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.

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: 7

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16"	10YR 4/2	80	7.5YR 5/6	20	C	PL	Silty Clay Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X 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)
- X 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)
- X Geomorphic Position (D2)
- X 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** X **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 8

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): None

Slope (%): 3% Lat: 38.013408 Long: -87.49411 Datum: NAD83

Soil Map Unit Name: He—Henshaw silt loam 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation Y, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
Leaf-off conditions.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	15%	Yes	FAC
2.			
3.			
4.			
5.			
	15%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Cercis canadensis*	5%	Yes	FACU
2.			
3.			
4.			
5.			
	5%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Solidago canadensis*	25%	Yes	FACU
2. *Glechoma hederacea*	25%	Yes	FACU
3. *Lonicera japonica*	25%	Yes	FACU
4. *Poa pratensis*	20%	Yes	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	95%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species	35%	x3 =	1.05
FACU species	80%	x4 =	3.2
UPL species		x5 =	
Column Totals:	1.15 (A)		4.25 (B)

Prevalence Index = B/A = 3.70

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.

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: 8

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10YR 3/2	100					Silty Clay Loam	
6-16"	10YR 4/3	100					Silty Clay Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): _____

Water Table Present? Yes ___ No x Depth (inches): _____

Saturation Present? Yes ___ No x Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 9

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): None

Slope (%): 1% Lat: 38.013448 Long: -87.493857 Datum: NAD83

Soil Map Unit Name: He—Henshaw silt loam 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 N, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation Y, Soil N, or Hydrology N 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 X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes X No ____

Remarks:
Leaf-off conditions. Soil disturbed by fill material below 5 inches.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Salix nigra*	10%	Yes	OBL
2. *Fraxinus pennsylvanica*	5%	Yes	FACW
3.			
4.			
5.			
	15% = Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Agrimonia parviflora*	15%	Yes	FACW
2. *Rumex crispus*	20%	Yes	FAC
3. *Poa pratensis*	20%	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	55% = Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10%	x1 =	0.1
FACW species	20%	x2 =	0.4
FAC species	40%	x3 =	1.2
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	0.70 (A)		1.7 (B)

Prevalence Index = B/A = 2.43

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

X 2-Dominance Test is >50%

X 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.

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: 9

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5"	10YR 5/2	80	7.5YR 5/6	20	C	PL	Silty Clay Loam	Disturbed below 5"

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:
Soil disturbed by fill material below 5 inches.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X 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)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x No ___	Depth (inches):	2"
Water Table Present?	Yes x No ___	Depth (inches):	Surface
Saturation Present? (includes capillary fringe)	Yes x No ___	Depth (inches):	Surface

Wetland Hydrology Present? **Yes** X **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: NW of Lynch Road and Green River Road City/County: Evansville/Vanderburgh County Sampling Date: 4/19/2022

Applicant/Owner: MORLEY State: IN Sampling Point: 10

Investigator(s): Tomas Fuentes-Rohwer Section, Township, Range: S11 T6S R10W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): None

Slope (%): 8% Lat: 38.013715 Long: -87.493226 Datum: NAD83

Soil Map Unit Name: MkC2—Markland silt loam, 6 to 18 percent slopes, eroded 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation Y, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
Leaf-off conditions.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Prunus serotina*	20%	Yes	FACU
2. *Cercis canadensis*	55%	Yes	FACU
3. *Carya ovata*	5%	No	FACU
4.			
5.			
	80%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Carya ovata*	10%	No	FACU
2. *Cercis canadensis*	25%	Yes	FACU
3. *Rubus pensilvanicus*	35%	Yes	UPL
4.			
5.			
	70%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Euonymus fortunei*	80%	Yes	UPL
2. *Claytonia virginica*	10%	No	FACU
3. *Solidago canadensis*	10%	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	135%	x4 =	5.4
UPL species	115%	x5 =	5.75
Column Totals:	2.50 (A)		11.15 (B)

Prevalence Index = B/A = 4.46

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.

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: 10

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5"	10YR 3/2	100					Silt Loam	
5-16"	10YR 4/3	100					Silt Loam	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): _____

Water Table Present? Yes ___ No x Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No x Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

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

Remarks:

Appendix C:
Study Area Photographs

DP01, Looking north (4/19/22)

DP01, Looking east (4/19/22)

DP01, Looking south (4/19/22)

DP01, Looking west (4/19/22)

DP02, Looking north (4/19/22)

DP02, Looking east (4/19/22)

Appendix C:
Study Area Photographs

DP02, Looking south (4/19/22)

DP02, Looking west (4/19/22)

DP03, Looking north (4/19/22)

DP03, Looking east (4/19/22)

DP03, Looking south (4/19/22)

DP03, Looking west (4/19/22)

Appendix C:
Study Area Photographs

DP04, Looking north (4/19/22)

DP04, Looking east (4/19/22)

DP04, Looking south (4/19/22)

DP04, Looking west (4/19/22)

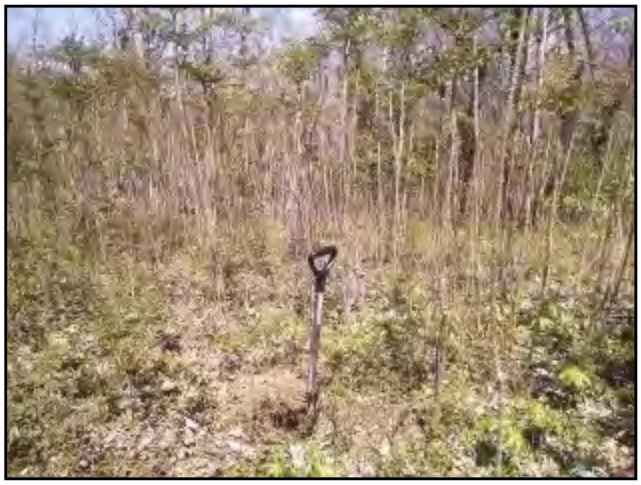
DP05, Looking north (4/19/22)

DP05, Looking east (4/19/22)

Appendix C:
Study Area Photographs

DP05, Looking south (4/19/22)

DP05, Looking west (4/19/22)



DP06, Looking north (4/19/22)

DP06, Looking east (4/19/22)

DP06, Looking south (4/19/22)

DP06, Looking west (4/19/22)

Appendix C:
Study Area Photographs

DP07, Looking north (4/19/22)

DP07, Looking east (4/19/22)

DP07, Looking south (4/19/22)

DP07, Looking west (4/19/22)

DP08, Looking north (4/19/22)

DP08, Looking east (4/19/22)

Appendix C:
Study Area Photographs

DP08, Looking south (4/19/22)

DP08, Looking west (4/19/22)

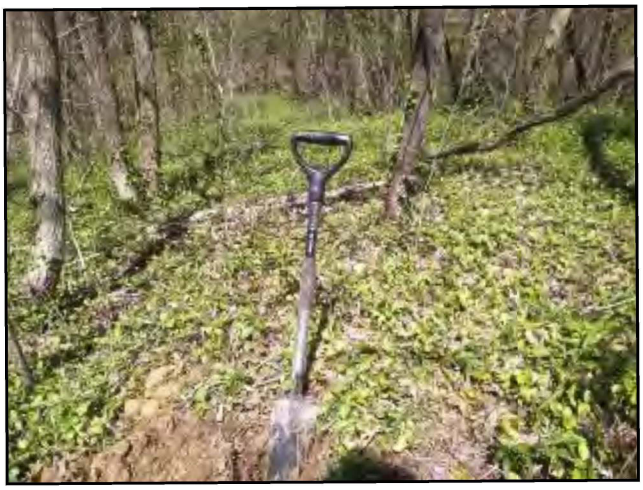
DP09, Looking north (4/19/22)

DP09, Looking east (4/19/22)

DP09, Looking south (4/19/22)

DP09, Looking west (4/19/22)

Appendix C:
Study Area Photographs



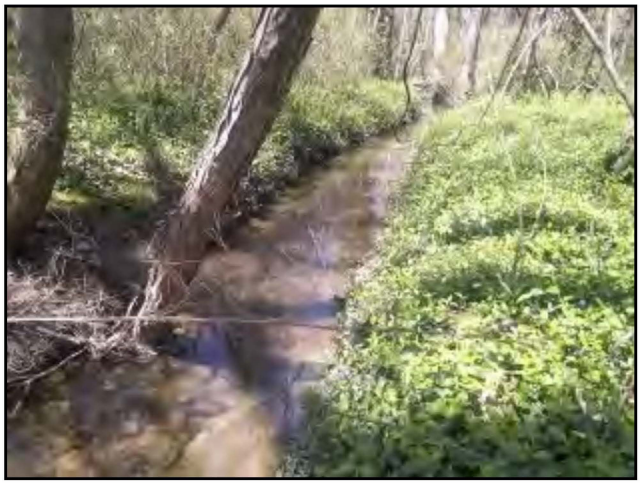
DP10, Looking north (4/19/22)

DP10, Looking east (4/19/22)

DP10, Looking south (4/19/22)

DP10, Looking west (4/19/22)

PP01, Stream 1 upstream (4/19/22)



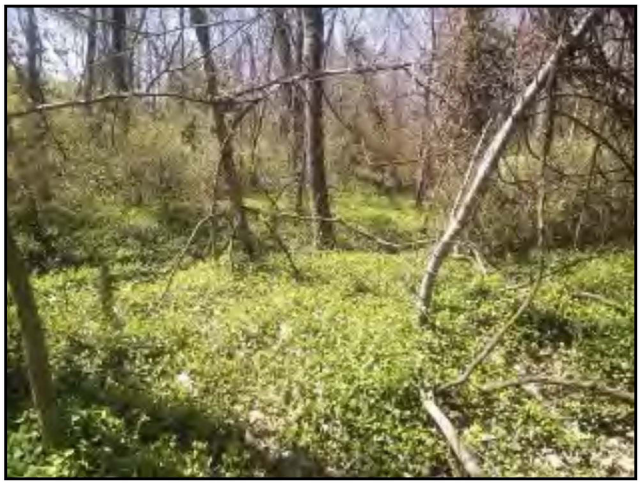
PP01, Stream 1 downstream (4/19/22)

Appendix C:
Study Area Photographs

PP02, Looking north (4/19/22)

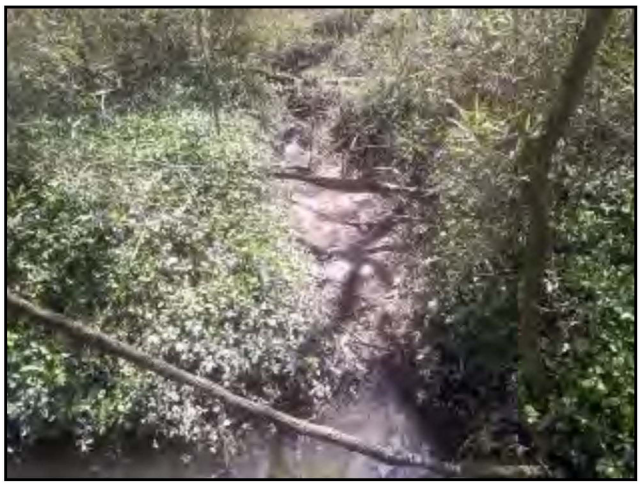
PP02, Looking east (4/19/22)

PP02, Looking south (4/19/22)



PP02, Looking west (4/19/22)

PP03, Stream 1 upstream (4/19/22)



PP03, Stream 2 upstream (4/19/22)

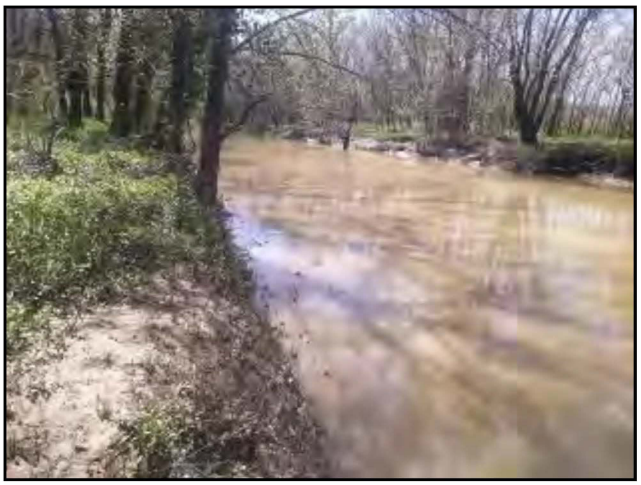
Appendix C:
Study Area Photographs

PP03, Stream 2 upstream (4/19/22)

PP04, Stream 1 upstream (4/19/22)

PP04, Stream 1 downstream (4/19/22)

PP05, Stream 3 (Pigeon Creek) upstream (4/19/22)



PP05, Stream 3 (Pigeon Creek) downstream (4/19/22)

Attachment 6: Indiana DNR Natural Heritage Data Center Correspondence

Division of Nature Preserves
402 W. Washington St., Rm W267
Indianapolis, IN 46204-2739

July 12, 2022

Bailey Duncan
Meristem, LLC
877 Port Avenue
Avon, IN 46123

Dear Bailey Duncan:

I am responding to your request for information on the threatened or endangered (T&E) species, high quality natural communities, and natural areas for the Sheffer Commercial Development Project located in Vanderburgh County, Indiana. The Indiana Natural Heritage Data Center has been checked and there are no T&E species or significant areas documented within 0.5 mile of the project area.

If you need a general environmental review of the project from DNR, you can submit the project information to Christie Stanifer, DNR Environmental Coordinator, at environmentalreview@dnr.in.gov (preferred) or send to the street address below. For more help or guidance contact Christie Stanifer at cstanifer@dnr.in.gov.

Department of Natural Resources
Environmental Review
Division of Fish and Wildlife
402 W. Washington Street, Room W273
Indianapolis, IN 46204

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. If you have concerns about potential Endangered Species Act issues you should contact the Service at their Bloomington, Indiana office.

U.S. Fish and Wildlife Service
620 South Walker St.
Bloomington, Indiana 47403-2121
(812)334-4261

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)233-2558 you have any questions or need additional information.

Sincerely,

Taylor Davis

Taylor Davis
Indiana Natural Heritage Data Center

Enclosure: Invoice

Attachment 7: USACE AJD Correspondence

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
REGULATORY DIVISION, SOUTH BRANCH
6855 STATE ROAD 66
NEWBURGH, INDIANA 47630

October 27, 2022

Regulatory Division
South Branch
ID No. LRL-2022-0603-dsp

Marc Woernle
877 Port Drive
Avon, Indiana 46123

Dear Mr. Woernle:

This letter is in regard to a jurisdictional determination request dated June 9, 2022, regarding the 6.1-acre study area located northwest of the intersection of Lynch Road and Green River Road in Vanderburgh County, Indiana, in the immediate vicinity of 38.013584 °N, -87.493426 °W. A location map of the site is enclosed.

The site was reviewed pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899. Section 404 of the CWA requires that a Department of the Army (DA) permit be obtained for the placement or discharge of dredged and/or fill material into "waters of the United States (U.S.)," including wetlands, prior to conducting the work (33 U.S.C. 1344). Section 10 of the Rivers and Harbors Act of 1899 requires that a DA Permit be obtained for structures or work in or affecting navigable "waters of the U.S.," prior to conducting the work (33 U.S.C. 403).

Representatives from this office inspected the site on September 15, 2022. Based on the information provided to this office, the site contains three streams (Stream 1 - 618 LF, Stream 2 - 43 LF, and Stream 3 - 538 LF) and two wetlands (Wetland B - 0.220 acres of PFO, and Wetland C – 0.156 acres of PFO) that may be considered jurisdictional "waters of the U.S.," in accordance with the Regulatory Guidance Letter for Jurisdictional Determinations issued by the U.S. Army Corps of Engineers on October 31, 2016 (RGL No. 16-01).

In addition, the site contains isolated waters. The specific isolated waters, Wetland A – 0.086 acres and Wetland D – 0.018 acres, in question do not appear to be used or be susceptible to use in interstate or foreign commerce. As such, these waters are not considered to be "waters of the U.S." Therefore, a Department of the Army permit is not required in this instance, for any impacts to the above listed isolated features. This jurisdictional determination is valid for a period of five years from the date of this letter unless new information warrants revision of the determination before the expiration date. However, this determination does not relieve you of the responsibility to comply with applicable state law. We urge you to contact the Indiana Department of Environmental Management, Office of Water Quality, Wetlands and Stormwater Programs, 100 North Senate Ave, MC-65-42 Room 1255, Indianapolis, IN 46204-2251 to determine the applicability of state law to your project.

This letter contains an approved jurisdictional determination and a preliminary jurisdictional determination for the aforementioned site. If you object to the approved jurisdictional determination, you may request an administrative appeal under Corps regulations

at 33 C.F.R. Part 331. However, as indicated in the guidance, the Preliminary Jurisdictional Determination is non-binding and cannot be appealed and only provides a written indication that "waters of the U.S.," including wetlands, may be present on-site. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a Preliminary Jurisdictional Determination will treat all waters and wetlands on the site as if they are jurisdictional "waters of the U.S." Impacting "waters of the U.S." identified in the preliminary jurisdictional determination will result in you waiving the right to request an approved jurisdictional determination at a later date. An approved JD may be requested (which may be appealed), by contacting me for further instruction.

Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal the approved jurisdictional determination, you must submit a completed RFA form to the Lakes and Rivers Division Office at the following address:

Regulatory Administrative Appeals Officer
ATTN: Ms. Katherine A. McCafferty
U.S. Army Corps of Engineers,
Great Lakes and Ohio River Division
550 Main Street, Room 10780
Cincinnati, Ohio 45202-3222
Office Phone: 513-684-2699, FAX: 513-684-2460
e-mail: katherine.a.mccafferty@usace.army.mil

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within **60 days** of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by December 26, 2022**.**

It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center prior to starting work.

Should your project proposal include the placement or discharge of dredged and/or fill material into any "waters of the U.S.," a DA Permit application must be submitted. Along with the DA permit application, we will need additional details regarding the project's design, scope, photos, construction methods, purpose, maps, and all impacts to "waters" (linear feet, width and acreage), as well as any coordination or documentation with the United States Fish and Wildlife Service and the State Historic Preservation Officer (if possible). You are reminded that all drawings must be submitted on 8½ x 11-inch paper and be of reproducible quality, or you may submit the information in electronic format via CD (please note we cannot accept thumb drives).

Further information on the Regulatory Program, including the DA Permit application, can be obtained from our website located at:
http://www.lrl.usace.army.mil/Missions/Regulatory.aspx Please allow sufficient time in your preconstruction schedule for the processing of a DA permit application.

If you have any questions, please contact us by writing to the Newburgh Regulatory Office at 6855 State Road 66, Newburgh, IN 47630-9794, ATTN: CELRL-RDS, or contact me directly at 812-853-7632 or darrin.s.parrent@usace.army.mil. Any correspondence on this matter should refer to our ID Number LRL-2022-0603-dsp. A copy of this letter will be furnished to your authorized agent.

Sincerely,

Darrin Parrent
Project Manager
South Branch

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): October 3, 2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Louisville District, Newburgh Office

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IN County/parish/borough: Vanderburgh City: Evansville
Center coordinates of site (lat/long in degree decimal format): Lat. 38.013584° **N**, Long. 87.493426° **W**.
Universal Transverse Mercator: 16N
Name of nearest waterbody: West Fork Pigeon Creek (on-site water resources have no hydrological connection to this stream)
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A
Name of watershed or Hydrologic Unit Code (HUC): 05140202040080
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☒ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

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

☒ Office (Desk) Determination. Date: 9/9/2022
☒ Field Determination. Date(s): 9/15/2022

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: N/A linear feet: N/A width (ft) and/or N/A acres.
      Wetlands: 0.376 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Not Applicable.**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Two depressional scrub-shrub wetlands totaling 0.104 acres (Wetland A - 0.086 acres, Wetland D - 0.018 acres) were located within the 6.1 acre study area. Both wetlands are physically isolated in the landscape, do not lie within the 100-year floodplain, and have no surface or subsurface connection to "waters of the U.S." As such, the wetlands are not considered "waters of the U.S."** .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent": .

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

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

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

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

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

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

   (i) General Area Conditions:
   Watershed size: **Pick List**
   Drainage area: **Pick List**
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☐ Tributary flows through **Pick List** tributaries before entering TNW.

   Project waters are **Pick List** river miles from TNW.
   Project waters are **Pick List** river miles from RPW.
   Project waters are **Pick List** aerial (straight) miles from TNW.
   Project waters are **Pick List** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .

   Identify flow route to TNW[5]: .
   Tributary stream order, if known: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

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

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

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

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

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

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

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

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

Identify specific pollutants, if known: .

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

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

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

All wetland(s) being considered in the cumulative analysis: **Pick List**

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

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
N/A	N/A	N/A	N/A

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

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

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

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

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

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

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

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

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

---

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☒ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☒ Wetlands: 0.104 acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☒ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name: .
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☒ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☐ Aerial (Name & Date): .
or ☒ Other (Name & Date): April 2022 delineation (3/29/2022).
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Marc Woernle	File Number: LRL-2022-0603-dsp	Date: 10/27/2022

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
X	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

U.S. Army Corps of Engineers
Attn: Mr. Darrin Parrent
Newburgh Regulatory Office
6855 State Road 66
Newburgh, IN 47630

812-853-7632

If you only have questions regarding the appeal process you may also contact:

Katherine A. McCafferty
Regulatory Administrative Appeals Officer
U.S. Army Corps of Engineers,
Great Lakes and Ohio River Division
550 Main Street, Room 10780
Cincinnati, Ohio 45202-3222
Office Phone: 513-684-2699, FAX: 513-684-2460
e-mail: katherine.a.mccafferty@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): May 10, 2022

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Marc W. Woernle
877 Port Drive
Address Line 2
Avon, IN 46123

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: CELRL-RDS, LRL-2022-0603

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: ***(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)***

State: Indiana County: Vanderburgh City: Evansville

Center coordinates of site: Latitude and Longitude (NAD 83): UTM16N

Latitude: 38.013584 North, Longitude: 87.493426 West

Name of nearest waterbody: Pigeon Creek

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

☒ Office (Desk) Determination Date: June 9, 2022
☒ Field Determination Date(s): April 29, 2022

TABLE OF AQUATIC RESOURCES IN REVIEW ARE 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, stream, impoundment, etc.)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
1	38.014003 N	87.493148 W	618 LF	Stream	Section 404
2	38.013808 N	87.492849 W	43 LF	Stream	Section 404
3	38.013905 N	87.494411 W	538 LF	Stream	Section 404
B	38.014395 N	87.493594 W	0.220 acre	Wetland	Section 404
C	38.013667 N	87.494379 W	0.156 acre	Wetland	Section 404
					Choose an item.
					Choose an item.
					Choose an item.
					Choose an item.

					Choose an item.
					Choose an item.

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 preliminary JD (check all that apply)- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: *Click here to enter text.*

☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

☐Office concurs with data sheets/delineation report.

☐Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps: *Click here to enter text.*

☐ Corps navigable waters' study: *Click here to enter text.*

☐ U.S. Geological Survey Hydrologic Atlas: *Click here to enter text.*

☐ USGS NHD data.

☐ USGS 8 and 12 digit HUC maps.

☐ U.S. Geological Survey map(s). Cite scale & quad name: *Click here to enter text.*

☐ USDA Natural Resources Conservation Service Soil Survey. Citation: *Click here to enter text.*

☐ National wetlands inventory map(s). Cite name:

☐ State/Local wetland inventory map(s): *Click here to enter text.*

☒ FEMA/FIRM maps: *Click here to enter text.*

☐ 100-year Floodplain Elevation is: *Click here to enter text.*
(National Geodectic Vertical Datum of 1929)

Photographs:

☐Aerial (Name & Date): *Click here to enter text.*

or ☒ Other (Name & Date): 4/28/2022

☐ Previous determination(s). File no. and date of response letter: *Click here to enter text.*

☐ Applicable/supporting case law: *Click here to enter text.*

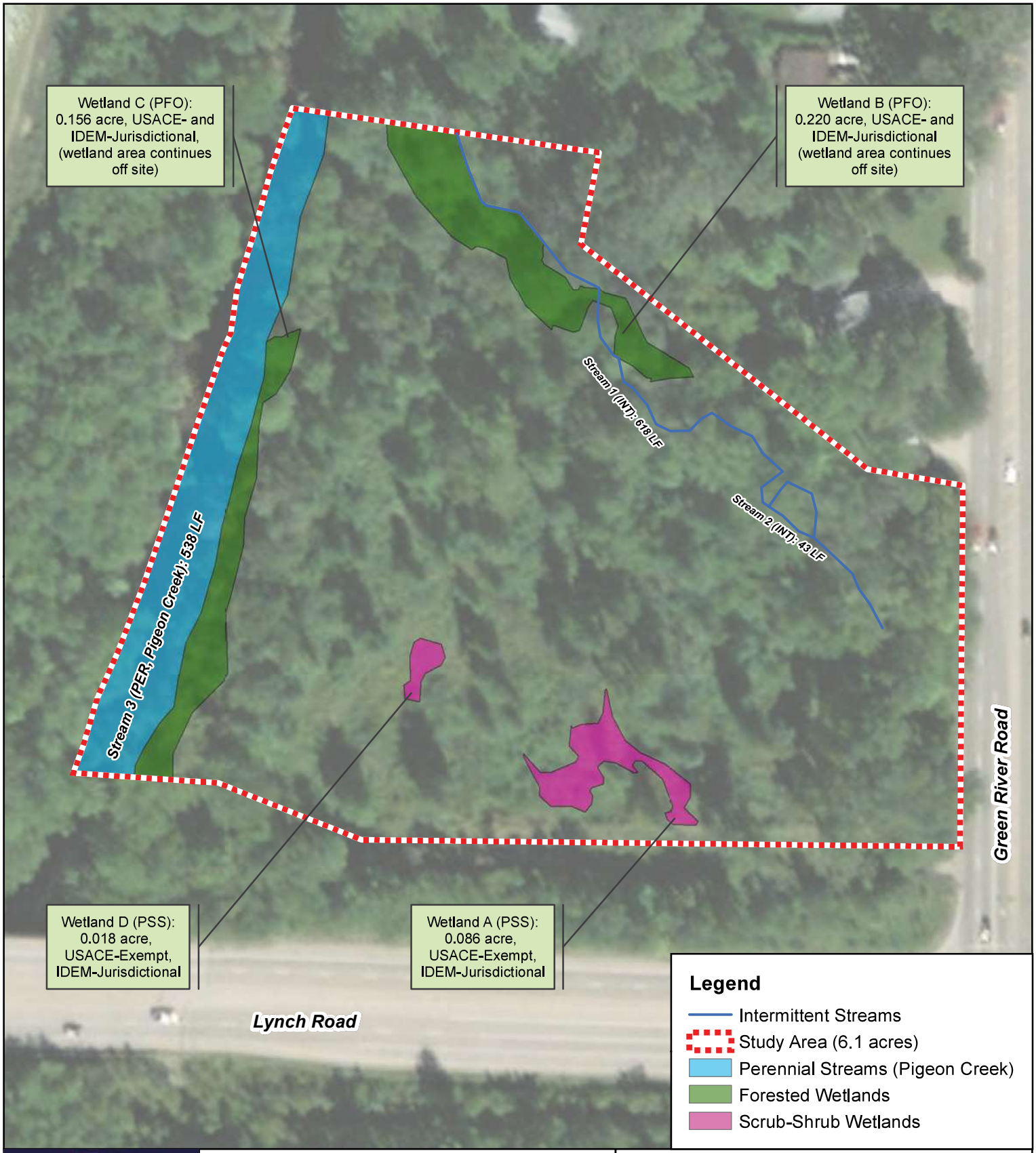
☐ Applicable/supporting scientific literature: *Click here to enter text.*

☐ Other information (please specify): *Click here to enter text.*

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

Signature and date of Regulatory Project Manager (REQUIRED)	Signature and date of person requesting preliminary JD (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.



Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woolpert, Inc.
Imagery Date: 2017

Appendix A, Figure 6:
Delineated Water Resources Map

NW of Lynch Road and Green River Road
Knight Township
Vanderburgh County, Indiana

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