December 16, 2022

Re: New Albany Tech Park
Permit - Intermediate
Application and Support
401 Wetlands
Licking County
DSW401228236A2

Application for Section 401 Water Quality Certification

Division of Surface Water

401 Water Quality Certification and Isolated Wetland Permitting Unit

Ohio Environmental Protection Agency

Section 1: Applicant (Project Proponent) and Consultant/Agent Information

	Applicant (Project Proponent)	Consultant/Agent
Company/Agency Name:	MBJ Holdings, LLC	EMH&T
Address:	8000 Walton Parkway, Suite 120, New Albany, OH 43054	5500 New Albany Road, New Albany, OH 43054
Contact Name/Title:	Brent Bradbury/CFO	Heather Dardinger/Senior Env Scientist
Contact Phone:	(614) 939-8000	(614) 775-4523
Alternate Phone:		
Contact FAX:		(614) 561-3503
Contact Email:	BBradbury@newalbanycompany.com	hdardinger@emht.com
Technical Contact:	Richard Roggenkamp	
Technical Phone:	(614) 939-8000	
Technical Email:	droggenkamp@newalbanycompany.com	

Section 2: Project Information

A. Project Name: New Albany Tech Park

B. Has a pre-filing (pre-application) meeting request been submitted? ☒ Yes ☐ No

401 Pre-application Reviewer: Lamoreaux **Date of pre-filing meeting request submittal:** 10/24/2022

C. Brief Project Description: The proposed development is an industrial business park, providing approximately 5 million square feet of occupiable building space for advanced technology manufacturers and users. The site is anticipated to include multiple warehouses, flex office and manufacturing/maintenance buildings, along with associated parking areas, paved storage areas, site entrances and drives, stormwater facilities and related infrastructure. The proposed development is anticipated to primarily be occupied by companies supporting and supplying the Intel semiconductor manufacturing facility to the north, which requires certain support and supply functions to be located in close proximity to that facility. The proposed development will also support the existing New Albany International Business Park by providing locations for expansion by existing businesses and sites for new companies that complement existing uses.

D. Construction Start Date: 03/01/2023 **End Date:** 12/31/2026

E. Is any portion of the activity complete now? ☐ Yes ☒ No

Is this an "After-The-Fact" permit application? ☐ Yes ☒ No

Description of completed activities and its impact on the waters of the state.:

F. Coordinates LATITUDE: 40.105064 **LONGITUDE:** -82.723607

G. Project Address: Clover Valley Road, New Albany, OH 43054

Location Description: The 442.5-acre site is located east and west of Clover Valley Road, between Jug Street and Miller Road NW in the City of New Albany, Licking County, Ohio.

ZIP Code(s): 43054

County(ies):	**Township(s):**
Licking	
H. 8 or 12 Digit HUC Number:	**I. Watershed Name:**
050600011307	Duncan Run
050600011503	Headwaters Blacklick Creek
050400060301	Headwaters Raccoon Creek

J. U.S. Army Corps of Engineers District: Huntington

K. Proposed impacts to "waters of the state":

☐ Beach Nourishment	☐ Blasting	☐ Breakwater	☐ Bulkhead
☐ Bridge/Culvert	☐ Dam	☐ Dredge	☒ Fill
☐ Groin/Jetty	☐ Levees/Berms	☐ Mine Through	☐ Revetment
☐ Bank Stabilization	☐ Stream Channelization	☐ Stream Relocation	☐ Water Body Crossing
☐ Weirs	☐ Other		

L. Other water related permits issued or required include:

☒ Individual 404 Permit **Public Notice Number:** LRH 2022-950-SCR

☐ Nationwide Permit

☐ Section 9 Permit

☐ Section 10 Permit

☒ Isolated Wetland Permit **Permit Level:** Level 3 **Date Submitted:** 11/17/2022

☒ NPDES Permit **Permit Type:** General **Date Issued:** 10/13/2022

☐ Permit to Install

☐ Regional General Permit

☐ ODNR Permit

☐ Oil & Gas Storm Water General Permit

Section 3: Fees

Are you exempt from fees? ☐ Yes ☒ No (If YES, leave fee section blank)

Are you a County, Township, or Municipal Corporation? ☐ Yes ☒ No

If YES, fee cap is $5,000.00 instead of $25,000.00

Application Fee =		$200.00	
Review Fees			
Wetland Acres Impacted	6.51 x $500.00 =	$3,255.00	
Intermittent Stream Linear Feet Impacted	563 x $10.00 =	$5,630.00	($200 minimum fee)
Perennial Stream Linear Feet Impacted	0 x $15.00 =	$0.00	($200 minimum fee)
Lake Cubic Yards Impacted	0 x $3.00 =	$0.00	
	Total Review Fees =	$8,885.00	
	Total Fees ($200 Application Fee + Total Review Fees) =	$9,085.00	
	Due with the 401 WQC Application (Application Fee + 1/2 of Review Fee) =	$4,642.50	
	Due at the 401 WQC Issuance (1/2 of Review Fee) =	$4,442.50	

PLEASE MAKE FEE CHECK PAYABLE TO: "TREASURER, STATE OF OHIO"

Section 4: Submitted Documentation

Check all documents/items that have been submitted.

☒ Submitted Pre-filing Meeting Request

Upload File(s): Application submitted 10-24-22.pdf

☐ Proposed Lake Impacts Table

☒ Proposed Stream Impacts Table

Upload File(s): A - Proposed Stream Impacts and Mitigation Table.pdf

☒ Proposed Wetland Impacts Table

Upload File(s): B - Proposed Wetland Impacts and Mitigation Table.pdf

☐ Additional Impact Tables

☒ Water Delineation Report

Upload File(s): Clover Valley Road Site Delineation Report_REV 2022-09-08.pdf

☒ Site Photographs

Upload File(s): 3B-Photographs.pdf

☒ Ohio Rapid Assessment Method (ORAM) Forms

Upload File(s): Juris ORAMs combined.pdf

☒ Habitat Evaluations

Upload File(s): HHEI Stream 2.pdf, HHEI Stream 3.pdf, HHEI Stream 1.pdf

☐ Biological Sampling Information

☒ US Army Corps of Engineers Jurisdictional Determination

Upload File(s): 7-2022-424-SCR-Blacklick Creek_JD FLAT.pdf

☒ US Army Corps of Engineers Public Notice or Provisional Nationwide Permit

Upload File(s): LRH 2022-950-SCR _ Huntington District _ Huntington District Regulatory Public Notices.pdf

☒ Ohio Department of Natural Resources - Natural Heritage Database Request

Upload File(s): 22-1031; EMH&T - New Albany Tech Park Comments.pdf

☒ US Fish & Wildlife Service - Threatened and Endangered Species Coordination

Upload File(s): 2022-0089745 New albany, bat survey recommended NETO.pdf, USFWS Response re bat survey 8-24-21.pdf, Dragonfly Mist-Net Survey Project Area.pdf

☒ Proposed Project Antidegradation Analysis

Upload File(s): Ohio EPA SEJ TABLE NA Tech Park.pdf, NA Tech Park 404-401 Report.pdf

☒ Proposed Project Mapping

Upload File(s): Exhibits 1-10.pdf

☒ Proposed Mitigation Plan

Upload File(s): NA Tech Park - Mitigation Summary.pdf, Avis Road_Pooled Stream Mitigation Balance Sheet REV6 11-09-2022.pdf, USUMBI-1, SCIO-187, TUSC-95, MBJ Holdings, LLC, deposit payment verification letter.pdf

Section 5: Applicant and Agent Signature

I hereby designate and authorize the agent/consultant identified in Section 1 to act on my behalf in the processing of this application, and to furnish, upon request, supplemental information in support of the application:

Application is hereby made for a Section 401 Water Quality Certification. The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief. The project proponent hereby requests that the certifying authority review and take action on the CWA 401 certification request within the applicable reasonable period of time.

Applicant Name:	**Title:**
Brent Bradbury	CFO
Signature:	**Date:**
Electronically submitted by NEWALBANYCO	Electronically submitted on 12/16/2022

Application for Section 401 Water Quality Certification - Proposed Lake Impacts

Division of Surface Water

401 Water Quality Certification and Isolated Wetland Permitting Unit

Water Body ID	Coastal Erosion Area?	Impact Type	Preferred Alternative			Placement of Dredged Material
			Cubic Yards of Fill/Dredged Material	Lakeward Extent (linear ft.)	Shoreline Impacted (linear ft.)	
No records found						

Application for Section 401 Water Quality Certification - Proposed Stream Impacts and Mitigation

Division of Surface Water

401 Water Quality Certification and Isolated Wetland Permitting Unit

Section 1: Streams Onsite and Proposed Impacts							
Stream ID	Jurisdictional?	Flow	Aquatic Life Use Designation in 3745-1	Existing Use?	Onsite (linear ft.)	Preferred Alternative	
						Impact Length (linear ft.)	Impact Type
No records found							

Section 2: Proposed Stream Mitigation (Check All That Apply) Preferred Alternative

☐ **In-Lieu Fee Program** **ILF Sponsor:**

Number of Stream Credits: **Number of Buffer Credits:**

☐ **Proof of Reservation?**

☐ **On-Site Permittee-Responsible Mitigation**

☐ **Restoration** **Aquatic Life Use:** **linear feet:**

☐ **Creation** **Aquatic Life Use:** **linear feet:**

☐ **Preservation** **Aquatic Life Use:** **linear feet:** **Buffer Width Linear Feet:**

☐ **Enhancement** **Aquatic Life Use:** **linear feet:**

Existing Aquatic Life Use: **Enhancement Activity:**

☐ **Other**

Other Description:

Application for Section 401 Water Quality Certification - Proposed Wetland Impacts and Mitigation

Division of Surface Water

401 Water Quality Certification and Isolated Wetland Permitting Unit

Ohio Environmental Protection Agency

Section 1: Wetlands Onsite and Proposed Impacts								
Wetland ID	ORAM Score	Category	Cat. Verified by Ohio EPA?	Ohio EPA Reviewer who Verified	Acreage Onsite	Preferred Alternative		
						Impact Acreage		Impact Type
						Forested	Non	
No records found								

Section 2: Proposed Wetland Mitigation (Check All That Apply) Preferred Alternative

☐ **Wetland Mitigation Bank** — **Number of Forested Credits:** — **Type of Credits (if applicable):**

Mitigation Bank: — **Number of Non-Forested Credits:** — **Type of Credits (if applicable):**

Number of Buffer Credits: — **Type of Credits (if applicable):**

☐ **Proof of Reservation?**

☐ **In-Lieu Fee Program** — **ILF Sponsor:**

Number of Wetland Credits: — **Number of Buffer Credits:**

☐ **Proof of Reservation?**

☐ **On-Site Permittee-Responsible Mitigation**

☐ **Restoration**	**Type of Wetland:**	**Acres:**
☐ **Creation**	**Type of Wetland:**	**Acres:**
☐ **Preservation**	**Type of Wetland:**	**Acres:**
☐ **Enhancement**	**Type of Wetland:**	**Acres:**

☐ **Other**

Other Description:

Application for Section 401 Water Quality Certification — Proposed Wetland Impacts and Mitigation

Division of Surface Water 401 Water Quality Certification and Isolated Wetland Permitting Unit

Wetland ID	ORAM Score	Category	Cat. Verified by Ohio EPA?	Ohio EPA Staff Who Verified	Acreage Onsite	Proposed Impacts		
						Impact Acreage		Impact Type
						Forested	Non	
Wetland K	30.00	2	☒	Lamoreaux	0.20	0.20		Fill
Wetland L	54.00	2	☒	Lamoreaux	1.15	0.33		Fill
Wetland R	54.00	2	☒	Lamoreaux	5.53	5.53		Fill
Wetland S	39.50	2	☒	Lamoreaux	0.20	0.20		Fill
Wetland V	39.00	2	☒	Lamoreaux	0.25	0.25		Fill
Click here to enter text.		1	☐	Choose an item.				Choose an item.
Click here to enter text.		1	☐	Choose an item.				Choose an item.
Click here to enter text.		1	☐	Choose an item.				Choose an item.
Click here to enter text.		1	☐	Choose an item.				Choose an item.
Click here to enter text.		1	☐	Choose an item.				Choose an item.
Click here to enter text.		1	☐	Choose an item.				Choose an item.
Click here to enter text.		1	☐	Choose an item.				Choose an item.
				Wetland Acreage Totals	7.33	6.51	0.00	
				Totals – Category 1 Wetlands	0.00	0.00	0.00	
				Totals – Category 2 Wetlands	7.33	6.51	0.00	
				Totals – Category 3 Wetlands	0.00	0.00	0.00	

Proposed Wetland Mitigation (Check All That Apply)			
☒ **Wetland Mitigation Bank** **Mitigation Bank:** Other	**Number of Forested Credits:** 16.3 **Number of Non-Forested Credits:** 0 **Number of Buffer Credits:** 0	**Type of Credits (if applicable):** Choose an item. **Type of Credits (if applicable):** Choose an item. **Type of Credits (if applicable):** Choose an item.	**Proof of Reservation?** ☒
☐ **In-Lieu Fee Program**	**ILF Sponsor:** Choose an item.	**Number of Wetland Credits:** **Number of Buffer Credits:**	**Proof of Reservation?** ☐
☐ **Permittee-Responsible Mitigation**	☐ **Reestablishment (Restoration)** Choose an item. **Acres** ☐ **Preservation** Choose an item. **Acres** ☐ **Other** (Credits from the Rocky Fork Pooled Mitigation Site)	☐ **Rehabilitation (Enhancement)** Choose an item. **Acres** ☐ **Establishment (Creation)** Choose an item. **Acres**	

Application for Section 401 Water Quality Certification — Proposed Stream Impacts and Mitigation

Ohio Environmental Protection Agency

Division of Surface Water 401 Water Quality Certification and Isolated Wetland Permitting Unit

Stream ID	Jurisdictional?	Flow	Aquatic Life Use Designation in 3745-1	Existing Use?	Length Onsite (linear ft.)	Proposed Impacts	
						Impact Length (linear ft.)	Impact Type
Stream 1 (Blacklick Creek)	YES	Choose an item.	Choose an item.	Choose an item.	3329.00	0.00	Choose an item.
Stream 2	YES	Choose an item.	Choose an item.	Choose an item.	54.00	0.00	Choose an item.
Stream 3 (Duncan Run)	YES	Choose an item.	Choose an item.	Choose an item.	563.00	563	Fill
Click here to enter text.	Choose an item.	Choose an item.	Choose an item.	Choose an item.			Choose an item.
Click here to enter text.	Choose an item.	Choose an item.	Choose an item.	Choose an item.			Choose an item.
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Click here to enter text.	Choose an item.	Choose an item.	Choose an item.	Choose an item.			Choose an item.
Click here to enter text.	Choose an item.	Choose an item.	Choose an item.	Choose an item.			Choose an item.
				Stream Length Totals	3946.00	563.00	

Section 2: Proposed Stream Mitigation (Check All That Apply)				
☐ **Stream Mitigation Bank**	**Mitigation Bank:** Choose an item.	**Number of Stream Credits:**	**Number of Buffer Credits:**	**Proof of Reservation? YES** ☐ **NO** ☐
☐ **In-Lieu Fee Program**	**ILF Sponsor:** Choose an item.	**Number of Stream Credits:**	**Number of Buffer Credits:**	**Proof of Reservation? YES** ☐ **NO** ☐
☒ **Permittee-Responsible Mitigation**	☒ **Reestablishment (Restoration) of** WWH **422.25 linear feet** ☐ **Establishment (Creation) of** Choose an item. **linear feet** ☐ **Preservation of** Choose an item. **linear feet** **with** Choose an item. **foot buffers**	☐ **Rehabilitation (Enhancement) of** **linear feet of a** WWH **to a** WWH **through** Choose an item. ☐ **Other** Click here to enter text.		

DSW 401 Water Quality Certification Pre-application

Division of Surface Water

401 Water Quality Certification and Isolated Wetland Permiting Unit

Instructions:

Filling out a pre-application form is an informal first step in the Section 401 WQC and/or Isolated Wetland Permitting process. It provides the opportunity to present and discuss details of your project while it is in its early planning stages. At a minimum, you must indicate your meeting purpose and complete Sections 1, 2 and 3 Please fill out Section 4 to the degree possible given your unique constraints on time and resources. More detailed instructions are provided in the Instructions for filling out the Pre-application meeting request form.

Meeting Purpose (Please state what you hope to accomplish at the pre-application meeting)

MBJ Holdings, LLC is proposing to develop an industrial business park on an approximately 442.5-acre site located east and west of Clover Valley Road, between Jug Street and Miller Road NW in the City of New Albany, Licking County, Ohio. The proposed development would result in impacts to jurisdictional wetlands, isolated wetlands, jurisdictional streams, and non-jurisdictional ponds, which will require authorization under an Individual 401 WQC and a Level 3 IWP. The purpose of this pre-application submittal is to provide information regarding the site and to fulfill the required pre-filing meeting request.

Questions (Please list any specific questions you have regarding the 401 WQC process)

Mail or E-mail completed request form and supporting information to:
Ohio EPA
Division of Surface Water
401 Water Quality Certification and Isolated Wetland Permiting Unit
P.O. Box 1049
Columbus, OH 43216-1049
Email Address: EPA401Webmail@epa.ohio.gov

Section 1: Applicant and Consultant/Agent Information

	Applicant	Agent
Company/Agency Name:	MBJ Holdings, LLC	EMH&T
Contact Name:	Dick Roggenkamp	Heather Dardinger
Title:	Dir. Real Estate	Senior Env Scientist
Address:	8000 Walton Parkway, Suite 120, New Albany, OH 43054	5500 New Albany Road, New Albany, OH 43054
Phone:	(614) 939-8040	(614) 775-4523
Alternate Phone:		
FAX Number:		(614) 561-3503
Email Address:	droggenkamp@newalbanycompany.com	hdardinger@emht.com

Statement of Authorization:

Applicant Name: Brent Bradbury	**Title:** CFO
Signature: Electronically submitted by NEWALBANYCO	**Date:** Electronically submitted on 10/24/2022

Section 2: Project Information

Project Name: New Albany Tech Park

Coordinates LATITUDE: 40.105064 **LONGITUDE:** -82.723607

Project Address: Clover Valley Road, New Albany, OH 43054

Project Location Description: This site is located east and west of Clover Valley Road, between Jug Street and Miller Road NW in the City of New Albany, Licking County, Ohio.

ZIP Code(s): 43054

County:	**Township:**
Licking	
8 or 12 Digit HUC Number:	**Watershed Name:**
050600011307	Duncan Run
050600011503	Headwaters Blacklick Creek
050400060301	Headwaters Raccoon Creek

Corps District: Huntington

Identify the criteria used to select the project site, including stream and wetland impact avoidance and minimization:
In general, selection criteria for New Albany Tech Park site included location within or contiguous with the City of New Albany, size of at least 400 acres, reasonable proximity to the New Albany International Business Park and the Intel site, interstate access, and suitable utilities.

Attachments (Check all documents/items that have been submitted):

☒ Site Map with boundaries

Upload File(s): 5-Exhibit 6 - Delineation Map.pdf

☐ Site maps for alternative locations considered during site selection

☒ Site identified on USGS topographic map

Upload File(s): Exhibit 2 - USGS.pdf

☐ Proposed project footprint (including proposed construction limits)

☒ Shape File

Upload File(s): StudyArea.dbf, StudyArea.prj, StudyArea.shx, StudyArea.shp

SECTION 3: Project Information

Description of Project:
The proposed development is an industrial business park, providing approximately 4.7 million square feet of occupiable building space for advanced technology manufacturers and suppliers. The site is anticipated to include multiple warehouses, flex office and manufacturing/maintenance buildings, along with associated parking areas, paved storage areas, site entrances and drives, stormwater facilities and related infrastructure.

Proposed Project Schedule (Include construction start date and other dates pertinent to the project):
It is anticipated that construction of the initial phase will commence upon or soon after the isolated wetland permit issuance in 2023 and be completed within two years. A second phase of development is expected to commence in 2024, and be completed over the following two years, such that full build out is completed by the end of 2026.

Description of Project Purpose and Need:
The purpose of the proposed development is to construct an industrial business park providing multiple warehouses, flex office and manufacturing/maintenance buildings for advanced technology manufacturers and suppliers. The proposed development is anticipated to support and complement existing business located within the New Albany International Business Park, as well as the adjacent Intel facilities.

Section 4: Investigation of Water Resources and Permitting Considerations

Check all documents/items that have been submitted.

☒ Have you taken photographs of the site?

☒ Photographs attached

Upload File(s): 1-Delineation Photos_rev.pdf

☒ Did you review a NRCS Soil Survey for this project?

☒ NRCS Soil Survey attached

Upload File(s): 2-Exhibit 3A - Soils.pdf

☒ Did you review USGS Stream Stats for this project?

☒ USGS Stream Stats attached

Upload File(s): 3-StreamStats.pdf

☒ Did you review a National Wetlands Inventory Map (NWI) for this project?

☒ NWI Map attached

Upload File(s): 4-Exhibit 5 - NWI Map.pdf

☒ Have you delineated the water resources on the site?

☒ Wetland Delineation attached

Upload File(s): 5-Exhibit 6 - Delineation Map.pdf

☒ Have you submitted the delineation to the U.S. Army Corps of Engineers?

Date Submitted: 05/23/2022

☒ Have you received a Jurisdictional Determination?

☒ Jurisdictional Determination attached

Upload File(s): 7-2022-424-SCR-Blacklick Creek_JD FLAT.pdf

☒ Did you review OAC rules 3745-1-08 to 3745-1-32 and/or 3745-1-53 for each of the water bodies on site to determine if it has a designated use?

☒ OAC rules attached

Upload File(s): 8-OAC 3745-1-09.pdf

☒ Have you performed habitat assessments on the streams on site?

☒ Habitat Assessment Score Sheets attached

Upload File(s): HHEI Stream 2 PDF.pdf, HHEI Stream 1 PDF.pdf, HHEI Stream 3 PDF.pdf

☒ Have you conducted ORAM assessments and made proposed category assignments for the wetlands on site?

☒ 10-page ORAM form attached

Upload File(s): ORAMs combined.pdf

☐ Have you performed any other analysis (e.g., biological)?

☐ Other Analysis attached

☐ Do you have an Avoidance and Minimization Plan?

☐ Avoidance/Minimization Plan attached

☐ Have you selected a Mitigation Site?

☐ Mitigation Site Map attached

☐ Do you have a conceptual Mitigation and Monitoring Plan?

☐ Conceptual Mitigation and Monitoring Plan attached

☒ Are you familiar with Ohio EPA's 401 Water Quality application requirements?

☒ Have you read Ohio EPA's Integrated Wetland Assessment Program. Part 6?

(Standardized Monitoring Protocols and Performance Standards for Ohio Mitigation Wetlands. 2004)

☒ Are you familiar with the Wetland Water Quality Standards, Ohio Administrative Code rules 3745?

(Rules 3745-1-50 to 54 and the Isolated Wetland Statute, Ohio Revised Code 6111.02 to 6111.029)

Have you determined if other permits are necessary for the project? Check all that apply:

☒ Individual 404 Permit

☐ Nationwide Permit

☐ Section 9 Permit

☐ Section 10 Permit

☒ Isolated Wetland Permit **Permit Level:** Level 3

☒ NPDES Permit **Permit Type:** General

☐ Permit to Install

☐ ODNR Permit

☐ Regional General Permit

Notes:

The information requested in this form is based on the requirements in Ohio Revised Code 6111.30 and 6111.021, and Administrative Code Chapter 3745-32. Applicants should be familiar with the contents of these laws and regulations prior to completing this request form. Additional information is available at www.epa.ohio.gov/dsw/401/index.aspx or by calling (614) 644-2001

For Internal Ohio EPA Use

Date Received:	**Coordinator:**
Ohio EPA ID #:	**USACE PN #:**

Site Visit (Y/N):

DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

REPLY TO
ATTENTION OF

September 13, 2022

Regulatory Division
North Branch
LRH-2022-424-SCR-Blacklick Creek

APPROVED AND PRELIMINARY JURISDICTIONAL DETERMINATIONS

Dick Roggenkamp
New Albany Company
800 Walton Parkway, Suite 120
New Albany, Ohio 43054

Dear Mr. Roggenkamp:

I refer to the *Clover Valley Road 515-Acre Site Investigation of Waters of the United States* dated May 23, 2022 and the additional information dated August 8, 2022, submitted on your behalf by EMH&T, Inc. You have requested a preliminary jurisdictional determination (JD) for the potential jurisdictional aquatic resources and an approved JD for the potential non-jurisdictional feature on the approximately 442.5-acre site located east and west of Clover Valley Road between Jug Street and Miller Road NW in Jersey Township, Licking County, Ohio at approximately 40.103135 latitude, -82.720736 longitude. On-site waters flow Blacklick Creek, an indirect tributary to the Scioto River, a traditional navigable water of the United States. Your JD request has been assigned the following file number: LRH-2022-424-SCR-Blacklick Creek. Please reference this number on all future correspondence related to this JD request.

The United States Army Corps of Engineers' (Corps) authority to regulate waters of the United States is based on the definitions and limits of jurisdiction contained in 33 CFR 328 and 33 CFR 329. Section 404 of the Clean Water Act (Section 404) requires a Department of the Army (DA) permit be obtained prior to discharging dredged and/or fill material into waters of the United States, including wetlands. Section 10 of the Rivers and Harbors Act of 1899 (Section 10) requires a DA permit be obtained for any work in, on, over or under a navigable water.

Based upon a review of the information provided, this office has determined three (3) streams (Stream 1 – 3,329 linear feet, Stream 2 – 54 linear feet, and Stream 3 – 588 linear feet) and five (5) wetlands (Wetland K – 0.20 acre, Wetland L – 1.15 acres, Wetland R – 5.53 acres, Wetland S – 0.20 acre, and Wetland V – 0.25 acre) are located within the preliminary JD review area. The aquatic resources identified above and on the enclosed preliminary JD form may be waters of the United States in accordance with the Regulatory Guidance Letter for JDs issued by the Corps on October 31, 2016 (Regulatory Guidance Letter No. 16-01). As indicated in the guidance, this preliminary JD is non-binding and cannot be appealed (33 CFR 331.2), and only

provides a written indication that waters of the United States, including wetlands, may be present on-site.

You have declined to exercise the option to obtain an approved JD in this instance and at this time for the above aquatic resources. However, for the purposes of the determination of impacts, compensatory mitigation, and other resource protection measures for activities that require authorization from this office, the above aquatic resources will be evaluated as if they are waters of the United States.

Enclosed please find a copy of the preliminary JD form. If you agree with the findings of this preliminary JD and understand your options regarding the same, please sign and date the preliminary JD form and return it to this office within 30 days of receipt of this letter. You should submit the signed copy to Kayla Osborne of the North Branch at kayla.n.osborne@usace.army.mil or to the following address:

United States Army Corps of Engineers
Huntington District
Attn: North Branch
502 Eighth Street
Huntington, West Virginia 25701

Our December 2, 2008 headquarters guidance entitled *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States* was followed in the final verification of Section 404 jurisdiction. Based on a review of the information provided and other information available to us, this office has determined Wetlands A-J, M-Q, T-U, and Z, totaling 14.46 acres, and Ponds 1-5, totaling 3.57 acres, are surrounded by uplands and do not exhibit a distinct surface water connection to a water of the United States. Wetlands A-J, M-Q, T-U, and Z and Ponds 1-5 would not support interstate or foreign commerce interests, nor do they contain any rare, threatened, or endangered species. Therefore, Wetlands A-J, M-Q, T-U, and Z and Ponds 1-5 are not jurisdictional waters of the United States. However, you should contact the Ohio Environmental Protection Agency, Division of Surface Water, at (614) 664-2001 to determine state permit requirements.

In accordance with the June 5, 2007 Joint Memorandum between the United States Environmental Protection Agency (USEPA) and the Corps and the January 28, 2008 Corps Memorandum regarding coordination on jurisdictional determinations, this isolated water determination was coordinated with the USEPA Region 5 and the Corps Headquarters, with coordination completed on September 12, 2022 and August 24, 2022, respectively.

This jurisdictional verification is valid for a period of five (5) years from the date of this letter unless new information warrants revision of the delineation prior to the expiration date. This letter contains an approved JD for the subject site within the approved JD boundary. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a

completed RFA form to the Great Lakes and Ohio River Division Office at the following address:

Regulatory Administrative Appeals Officer
United States Army Corps of Engineers
Great Lakes and Ohio River Division
550 Main Street, Room 10780
Cincinnati, Ohio 45202-3222
Phone: (513) 684-2699
Fax: (513) 684-2460

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 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

This determination has been conducted to identify the limits of the Corps' Section 404 jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are United States Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

A copy of this letter will be provided to the Ohio Environmental Protection Agency and your agent, Heather Dardinger with EMH&T, Inc. If you have any questions concerning the above, please contact Kayla Osborne of the North Branch at 304-399-5850, by mail at the above address, or by email at kayla.n.osborne@usace.army.mil.

Sincerely,

Andrew J. Wendt
Regulatory Project Manager
North Branch

Enclosures

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 13 September 2022

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Dick Roggenkamp
New Albany Company
800 Walton Parkway, Suite 120
New Albany, Ohio 43054

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

Huntington District, Clover Valley Road JD, LRH-2022-424-SCR-Blacklick Creek

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: Ohio County/parish/borough: Licking City: Jersey Township
Center coordinates of site (lat/long in degree decimal format):
Lat.: 40.103135 Long.: -82.720736
Universal Transverse Mercator: (X) 353024.898482, (Y) 4440625.719466
Name of nearest waterbody: Blacklick Creek

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

■ Office (Desk) Determination. Date: 13 September 2022
☐ Field Determination. Date:

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

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Stream 1	40.102325	-82.729305	3,329 linear feet	Non-Wetland	Section 404
Stream 2	40.100869	-82.723334	54 linear feet	Non-Wetland	Section 404
Stream 3	40.104409	-82.712978	588 linear feet	Non-Wetland	Section 404
Wetland K	40.101283	-82.722655	0.20 acre	Wetland	Section 404
Wetland L	40.100689	-82.722583	1.15 acres	Wetland	Section 404
Wetland R	40.104640	-82.711724	5.53 acres	Wetland	Section 404
Wetland S	40.104620	-82.712561	0.20 acre	Wetland	Section 404
Wetland V	40.102475	-82.713610	0.25 acre	Wetland	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

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

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

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items: *Clover Valley Road 515-Acre Site Investigation of Waters of the United States* dated 23 May 2022 completed by EMH&T, Inc. (JD, May 2022) and additional information submitted on 8 August 2022 (JD, Aug 2022)

- ■ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor: Exhibit 1 – Location Map (JD, May 2022)

- ■ Data sheets prepared/submitted by or on behalf of the PJD requestor. Appendix B – USACE Wetland and Upland Data Forms (JD, May 2022)
  - ■ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report. Rationale:_____

- ☐ Data sheets prepared by the Corps:_____
- ☐ Corps navigable waters' study:_____
- ☐ U.S. Geological Survey Hydrologic Atlas:_____
  - ■ USGS NHD data. NHD Map (LRD Regulatory Viewer)
  - ■ USGS 8 and 12 digit HUC maps. 05060001 – Upper Scioto River, 05040006 – Muskingum River, 050400060301 – Headwaters Raccoon Creek, 050600011307 – Duncan Run, and 050600011503 – Headwaters Blacklick Creek
- ■ U.S. Geological Survey map(s). Cite scale & quad name: USGS 1:24K – Jersey and Exhibit 2 – USGS Topographic Map (JD, May 2022)
- ■ Natural Resources Conservation Service Soil Survey. Citation: Exhibits 3A and 3B – Soil Survey Map (JD, May 2022)
- ■ National wetlands inventory map(s). Cite name: Exhibit 5 – National Wetlands Inventory Map (JD, May 2022)
- ☐ State/local wetland inventory map(s):____.
- ■ FEMA/FIRM maps: Exhibit 4 – Flood Insurance Rate Map (JD, May 2022)
- ☐ 100-year Floodplain Elevation is:_____. (National Geodetic Vertical Datum of 1929)

- ■ Photographs: ■ Aerial (Name & Date): Exhibit 6 – Delineation Map (JD, Aug 2022)
  - ■ or Other (Name & Date): Photographs (JD, May 2022) and Additional Photographs (JD, Aug 2022)
- ☐ Previous determination(s). File no. and date of response letter:_____.
- ☐ Other information (please specify):_____.

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

Kayla Osborne 9/13/22

Signature and date of Regulatory staff member completing PJD

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

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

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): September 13, 2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: LRH-2022-424-SCR

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Ohio County/parish/borough: Licking County City: Jersey Township
Center coordinates of site (lat/long in degree decimal format): Lat. 40.103135°, Long. -82.720736°
Universal Transverse Mercator: NAD 83
Name of nearest waterbody: Blacklick Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Scioto River and Muskingum River
Name of watershed or Hydrologic Unit Code (HUC): 05060001 – Upper Scioto River and 05040006 – Muskingum River

☐ 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: August 10, 2022

☐ Field Determination. Date(s):

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: linear feet: width (ft) and/or acres.
   Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on:

   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: The approved JD review area contains 18 geographically isolated wetlands (Wetlands A-J, M-Q, T-U, and Z [14.46 acres]) and five (5) geographically isolated ponds (Ponds 1-5 [3.57 acres]). Wetlands A-J, M-Q, T-U, and Z and Ponds 1-5 are surrounded by uplands and do not exhibit a distinct surface water connection to a water of the United States. Wetlands A-J, M-Q, T-U, and Z and Ponds 1-5 would not support interstate or foreign commerce interests, nor does they contain any rare, threatened, or endangered species. Blacklick

[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.

Creek is located approximately 60 linear feet north of Wetland A, 140 linear feet north of Wetland B, 512 linear feet north of Wetland C, 354 linear feet north of Wetland D, 530 linear feet north of Wetland E, 1,117 linear feet north of Wetland F, 793 linear feet north of Wetland G, 2,389 linear feet north of Wetland H, 1,755 linear feet north of Wetland I, 532 linear feet east of Wetland J, 673 linear feet south of Wetland M, 972 linear feet south of Wetland N, 958 linear feet south of Wetland O, 798 linear feet south of Wetland P, and 1,528 linear feet south of Wetland Q. Duncan Run is located approximately 1,291 linear feet north of Wetland T. An unnamed tributary to Raccoon Creek is located approximately 1,055 linear feet east of Wetland U. Therefore, Wetlands A-J, M-Q, T-U, and Z and Ponds 1-5 are not jurisdictional waters of the United States.

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:
Drainage area:

Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through tributaries before entering TNW.

Project waters are river miles from TNW.
Project waters are river miles from RPW.
Project waters are aerial (straight) miles from TNW.
Project waters are 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:

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

Tributary is: ☐ Natural

---

[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.

☐ 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:

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:
Tributary gradient (approximate average slope): %

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

Surface flow is: Characteristics:

Subsurface flow: 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:

(iv) Biological Characteristics. Channel supports (check all that apply):
☐ Riparian corridor. Characteristics (type, average width):

---

[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.

☐ 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: Explain:

Surface flow is:

Characteristics:

Subsurface flow: 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 river miles from TNW.

Project waters are aerial (straight) miles from TNW.

Flow is from:

Estimate approximate location of wetland as within the 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:

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)

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: acre.

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

[8]See Footnote # 3.

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:

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: 3.57 acres. Ponds 1-5
☐ Other non-wetland waters: acres. List type of aquatic resource:.
☑ Wetlands: 14.46 acres. Wetlands A-J, M-Q, T-U, and Z

[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 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): *Clover Valley Road 515-Acre Site Investigation of Waters of the United States* dated 23 May 2022 completed by EMH&T, Inc. (JD, May 2022) and additional information submitted on 8 August 2022 (JD, Aug 2022)

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Exhibit 1 – Location Map (JD, May 2022)
- ☑ Data sheets prepared/submitted by or on behalf of the applicant/consultant. Appendix B – USACE Wetland and Upland Data Forms (JD, May 2022)
  - ☑ 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. NHD Map (LRD Regulatory Viewer)
  - ☑ USGS 8 and 12 digit HUC maps. 05060001 – Upper Scioto River, 05040006 – Muskingum River, 050400060301 – Headwaters Raccoon Creek, 050600011307 – Duncan Run, and 050600011503 – Headwaters Blacklick Creek
- ☑ U.S. Geological Survey map(s). Cite scale & quad name: USGS 1:24K – Jersey and Exhibit 2 – USGS Topographic Map (JD, May 2022)
- ☑ USDA Natural Resources Conservation Service Soil Survey. Citation: Exhibits 3A and 3B – Soil Survey Map (JD, May 2022)
- ☑ National wetlands inventory map(s). Cite name: Exhibit 5 – National Wetlands Inventory Map (JD, May 2022)
- ☐ State/Local wetland inventory map(s):
- ☑ FEMA/FIRM maps: Exhibit 4 – Flood Insurance Rate Map (JD, May 2022)
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☑ Photographs: ☑ Aerial (Name & Date): Exhibit 6 – Delineation Map (JD, Aug 2022)
  - ☐ or ☑ Other (Name & Date): Photographs (JD, May 2022) and Additional Photographs (JD, Aug 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:

Public Notices by Year

- 2022 (39)
- 2021 (29)
- 2020 (50)
- 2019 (47)
- 2018 (30)
- 2017 (53)
- 2016 (46)
- 2015 (27)
- 2014 (55)
- 2013 (40)
- 2012 (46)

Disclaimer

The below listed documents may not be readable via Optical Character Recognition. To receive public notices via email for the **Huntington District Regulatory Division** please send an email to LRH.Permits@usace.army.mil indicating that you would like to be placed on the public notice electronic distribution list. Your email should include which state(s) **Ohio** and/or **West Virginia** in which you would like to receive public notices.

LRH 2022-950-SCR

CELRH-RDN

Published Dec. 12, 2022 /
Expiration date: 1/12/2023

PRINT | E-MAIL

TO WHOM IT MAY CONCERN: The following application has been submitted to the United States Army Corps of Engineers' (Corps) Huntington District for a Department of the Army (DA) Permit under the provisions of Section 404 of the Clean Water Act.

APPLICANT: Mr. Brent Bradbury

MBJ Holdings, LLC

8000 Walton Pkwy, Ste 120

New Albany, Ohio 43054

LOCATION: As depicted on the attached Sheet 1 of 2, the proposed project would be located within the watershed of the Scioto River (40.103135 Latitude, -82.720736 Longitude) east and west of Clover Valley Road, north of Jug Street, and south of Miller Road in the City of New Albany, Licking County, Ohio. The waters on-site flow to Duncan Run, an indirect tributary to the Scioto River, a navigable water of the United States.

DESCRIPTION OF PROPOSED WORK: The applicant has requested a DA authorization to discharge 10,605 cubic yards of dredged and/or fill material into 6.51 acres of five (5) forested wetlands and 563 linear feet (0.063 acre) of one (1) intermittent stream (Duncan Run) in conjunction with the construction of the proposed New Albany Tech Park Project as depicted on the attached Sheet 2 of 2 and Table 1.0 below. Additionally, the applicant is seeking an Isolated Wetlands Permit from the Ohio Environmental Protection Agency to discharge fill material into 8.60 acres of 18 isolated wetlands that are not subject to regulation under Section 404 of the Clean Water Act. The proposed project would also result in the discharge of fill material into 3.57 acres of five (5) non-jurisdictional ponds that are not subject to regulation under Section 404 of the Clean Water Act. The industrial business development would include the construction of multiple warehouses, a flex office, and maintenance/manufacturing buildings for advanced technology manufacturers and users. The industrial park is anticipated to provide approximately five (5) million square feet of occupiable building space along with associated parking areas, paved storage areas, site entrances and drives, stormwater facilities, and associated infrastructure. The proposed development is anticipated to be occupied by companies supporting and supplying the Intel semiconductor manufacturing facility to the north. The proposed development would also support the existing New Albany International Business Park by providing locations for expansion by existing businesses and sites for new companies that complement existing uses.

ALTERNATIVES ANALYSIS: As a result of the proposal, fill material would be discharged into 6.51 acres of five (5) forested wetlands and 563 linear feet (0.11 acre) of one (1) intermittent stream (Duncan Run) as described above. The project does not require access or proximity to or siting within special aquatic sites to fulfill its basic purpose and is considered a non-water dependent activity. The Section 404(b)(1) Guidelines state for non-water dependent activities, practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. The applicant is required to provide an alternatives analysis

that must overcome this presumption prior to receiving authorization for the discharge of dredged and/or fill material. No permit will be issued until our review of the alternative analysis clearly demonstrates that

AVOIDANCE AND MINIMIZATION: In evaluating a project area containing waters of the United States, consideration must be given to avoiding impacts on these sites. If waters of the United States cannot be avoided, then the impacts must be minimized. A total of 7.33 acres of five (5) forested wetlands, 3,892 linear feet of two (2) intermittent streams, and 54 linear feet of one (1) ephemeral stream are located within the proposed project area and are waters of the United States. The applicant has proposed to avoid 0.82 acre (71%) of one (1) forested wetland, 3,329 linear feet (100%) of one (1) intermittent stream, and 54 linear feet (100%) of one (1) ephemeral stream. The applicant has avoided and minimized impacts to waters of the United States to the maximum extent practicable. The project area also includes a total of 14.46 acres of 18 isolated forested wetlands and 3.57 acres of five (5) non-jurisdictional ponds. The applicant has avoided 5.86 acres of three (3) isolated forested wetlands. Stormwater management planning would incorporate best management practices and water pollution controls necessary to maintain compliance with the Federal Water Pollution Control Act and Ohio Water Pollution Control Act. Stormwater management and erosion control systems would be implemented during construction. All disturbed areas would be seeded and/or revegetated with native plant species and native seed mixes after completion of construction activities.

COMPENSATORY MITIGATION PLAN (CMP): To compensate for the loss of waters of the United States associated with the proposed project, the applicant proposes to purchase 16.3 acres of forested wetland mitigation credits from a federally approved mitigation bank or in-lieu fee program and 844.5 linear feet of stream credits from the Avis Road Pooled Stream Mitigation Site. The applicant's CMP is currently under review. After review of all the submitted information, the Corps will make a determination of the appropriate compensatory mitigation in the event a decision is made to issue a DA authorization.

WATER QUALITY CERTIFICATION: The applicant must obtain a Section 401 Water Quality Certification (WQC) from the Ohio Environmental Protection Agency assuring that applicable laws and regulations pertaining to water quality are not violated. A DA permit, if otherwise warranted, would not be issued for this project until the Section 401 WQC has been issued or waived and the 401(a)(2) process, if required, as described in the "Clean Water Act Section 401 Certification Rule" (Rule, 85 Federal Register 42,210 [July 13, 2020]) has been completed.

HISTORIC AND CULTURAL RESOURCES: The Corps is required by the National Historic Preservation Act (NHPA) to ensure no federal undertaking, including a Corps' permit action, which may affect historic resources, is commenced before the impacts of such action are considered and the Advisory Council on Historic Preservation and the State Historic Preservation Office (SHPO) are provided an opportunity to comment as required by the NHPA, 36 CFR 800, and 33 CFR 325, Appendix C. A Phase I Cultural Resources Management Survey was conducted by ASC Group, Inc. for a 513-acre study area that included the majority of the New Albany Tech Park permit area. The Phase I survey identified a total of 74 archaeological sites. One (1) prehistoric site (33LI3303) was identified as a Hopewell camp. A Phase IB investigation was conducted to determine the site's potential for listing on the National Register of Historic Places (NRHP). The site ultimately yielded 14 artifacts but no evidence of features or other potentially significant information was discovered. ASC recommended that no further work is necessary at 33LI3303 or any of the other newly documented prehistoric sites. In addition to the prehistoric sites, 20 sites with historic components and 24 architectural history resources were identified. All of the resources lack significance and as such are not recommended for further work nor eligible for listing on the NRHP. The review failed to identify resources within or immediately adjacent to the permit area that have been listed or that have been determined to be eligible for inclusion on the NRHP. Approximately ten (10) acres of the permit area was not included within the study area of the completed Phase 1 Survey. The applicant has indicated the remainder of the permit area, approximately ten (10) acres, will be subject to Phase 1 investigations. A copy of the completed Phase 1 Survey and the Corps effect determination will be provided to the Ohio SHPO. A copy of this Public Notice will be furnished to the Ohio SHPO and Tribal Nations for their review. Comments concerning archaeological sensitivity of the project area should be based on collected data. No DA permit will be issued until all obligations under Section 106 of the NHPA of 1966 have been fulfilled.

THREATENED AND ENDANGERED SPECIES: The proposed project is located within the known or historic range of the endangered Indiana bat (*Myotis sodalis*), the threatened northern long-eared bat (*Myotis septentrionalis*), and the proposed endangered tri-colored bat (*Perimyotis subflavus*). The proposed project area is comprised of agriculture fields, forested areas, 21.04 acres of twenty (20) forested wetlands, 0.75 acre of two (2) emergent wetlands, 3,917 linear feet of two (2) intermittent streams, 54 linear feet of one (1) ephemeral stream, and 3.57 acres of five (5) open water features. The proposed project area could provide potential habitat for the Indiana bat, the northern long-eared bat, and the tri-colored bat. A mist net survey was conducted for the majority of the project area and was submitted to the U.S. Fish and Wildlife Service (USFWS) for review on August 23, 2021. The USFWS provided comments and recommendations based on their review of the bat survey on August 24, 2021 (TAILS # 03E15000-2021-TA-2118). The USFWS indicated that, "Tree clearing on the site at any time of the year is unlikely to result in adverse impacts to Indiana bats and will not result in any unauthorized incidental take of northern long-eared bats". The survey excluded approximately 60 acres of forested habitat within the project area. By letter dated 20 October 2022 (Project Code: 2022-0089745), the USFWS indicated the previously un-surveyed area contains a significant amount of bat habitat and requested a summer bat survey be completed to

determine the presence or absence of threatened and/or endangered bat species. The applicant has indicated a summer bat survey will be completed in 2023. The Corps will make an effect determination on impacts to the

pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended). No DA permit will be issued until the Corps has verified that all obligations under Section 7 of the Endangered Species Act have been fulfilled.

PUBLIC INTEREST REVIEW AND CUMULATIVE EFFECTS: This application will be reviewed in accordance with 33 CFR 320-332, the Regulatory Program of the Corps, and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the United States Environmental Protection Agency pursuant to Section 404(b)(1) of the Clean Water Act (40 CFR part 230). The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both the protection and the utilization of important resources. The benefit that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including the cumulative effects thereof; among those factors are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

SOLICITATION OF COMMENTS: The Corps is soliciting comments from the public, federal, state and local agencies and officials, Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. For accuracy and completeness of the administrative record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. Any person may request, in writing, within the comment period specified in the notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Written statements received in this office on or before the expiration date of this Public Notice will become a part of the record and will be considered in the final determination. A permit will be granted unless its issuance is found to be contrary to the public interest.

CLOSE OF COMMENT PERIOD: Comments should be submitted electronically to Mr. Zack Abbott by email at jonathan.z.abbott@usace.army.mil. If the drawings are not yet posted on this website, you may request copies of the drawings via email the Mr. Abbott.

If you do not have internet access, comments may be submitted through the U.S. Postal Service (USPS) to the following address:

United States Army Corps of Engineers, Huntington District

ATTN: CELRH-RDN Public Notice: LRH-2022-950-SCR

502 Eighth Street

Huntington, West Virginia 25701-2070

Copies should only be provided through the USPS when electronic transmission is not possible. Precautionary internal mail handling procedures may be instituted to protect our workforce, which may result in longer than normal times to process and receive hard copy submissions. To be considered in our evaluation, comments submitted through the USPS should have a postmark dated on, or prior to, the close of the comment period listed on page one (1) of this Public Notice.

Please note names, addresses, and comments submitted in response to this Public Notice become part of our administrative record and, as such, may be available to the public under provisions of the Freedom of Information Act. Thank you for your interest in our nation's water resources. If you have any questions concerning this Public Notice, please contact Mr. Zack Abbott of the North Branch, at 304-399-5336, by mail at the above address, or by email at jonathan.z.abbott@usace.army.mil.

Table 1.0 – Proposed Discharges of Dredged and/or Fill Material into Waters of the United States associated with the New Albany Tech Park Project Site (LRH-2022-950-SCR)

Aquatic	Type	Amount Onsite (linear feet	Proposed Impact (linear	Impact	% Avoided
Stream 1	Intermittent	5,329 lf	0	NA	100%
Stream 2	Ephemeral	54 lf	0	NA	100%
Stream 3	Intermittent	563 lf	563 lf	Fill	0%
Wetland K	Forested	0.20 ac	0.20 ac	Fill	0%
Wetland L	Forested	1.15 ac	0.33 ac	Fill	71%
Wetland R	Forested	5.53 ac	5.53 ac	Fill	0%
Wetland S	Forested	0.20 ac	0.20 ac	Fill	0%
Wetland V	Forested	0.25 ac	0.25 ac	Fill	0%

Related Story: **LRH 2022-950-SCR Drawings**

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CLOVER VALLEY ROAD SITE

Investigation of Waters of the United States

The New Albany Company

Revised September 8, 2022

EMH&T

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EXHIBITS

- Exhibit 1: Location Map
- Exhibit 2: USGS Topographic Map
- Exhibit 3A: Soil Survey Map
- Exhibit 3B: Historical Soils Map
- Exhibit 4: Flood Insurance Rate Map
- Exhibit 5: National Wetlands Inventory Map
- Exhibit 6: Delineation Map

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APPENDICES

- APPENDIX A: Investigative Methodology
- APPENDIX B: USACE Wetland and Upland Dataforms

EMH&T

1.0 INTRODUCTION

A routine delineation of Waters of the United States, including wetlands, has been conducted by EMH&T for an approximately 442.5-acre study area located east and west of Clover Valley Road, between Jug Street and Miller Road NW in Jersey Township, Licking County, Ohio (Exhibit 1). The approximate center coordinates of the site are 40.103135°, -82.720736°. The majority of the site is located in the Upper Scioto River subbasin (HUC: 05060001-15-03 and 05060001-13-07); the far eastern portion of the site is located in the Licking River subbasin (HUC: 05040006-03-01). The study area is regulated by the U.S. Army Corps of Engineers (USACE) Huntington District. This study was performed at the request of and for the exclusive use of The New Albany Company.

The study area consists of active agricultural fields, forested woodlots and fencerows, scrub-shrub habitat, and maintained residential properties. Several rural residential properties are located within the study area, which are situated north of Jug Street, west of Clover Valley Road, and west of Mink Street.

Field investigations of the site were conducted in March and April 2022 by EMH&T environmental scientists. Potential surface water features were identified for confirmation by the USACE. The location and extent of the identified surface water features are summarized in the following sections. The boundaries identified by EMH&T are potential, as only the USACE has the final authority to determine whether a wetland or water is jurisdictional.

2.0 LITERATURE REVIEW

A review was made of available topographic maps, soils maps, and wetland inventory maps. This information helped determine topography and soil types present in the study area. It also identified any previously mapped wetlands and whether any portions of the study area were located within mapped floodways.

2.1 Topographic Features

As shown on Exhibit 2, the majority of the study area lies between approximately 1,160 feet and 1,200 feet in elevation (National Geodetic Vertical Datum) according to the United States Geological Survey (USGS) 7.5' Series *Jersey, Ohio* quadrangle (USGS, 1975). One stream (Blacklick Creek) and two (2) open water ponds are mapped within the study area.

2.2 Mapped Soils

According to the online *Soil Survey Geographic Database* for Licking County, Ohio (United States Department of Agriculture [USDA] - Natural Resources Conservation Service [NRCS], 2019) (Exhibit 3A), six (6) soils are mapped for the study area. The mapped soils are listed in Table 1 along with their hydric status. The historical *Soil Survey of Licking County, Ohio* (USDA, 1992), depicts three (3) streams (Blacklick Creek and two small tributaries) and two (2) open water ponds within the study area (Exhibit 3B).

TABLE 1
Onsite Mapped Soils

Mapped Soil Unit	Map Unit Symbol	Hydric Status	Hydric Inclusions (%)	Location of Hydric Inclusions
Bennington silt loam, 0 to 2 percent slopes	BeA	Non-hydric with hydric inclusions	Condit (5%) Pewamo (3%)	Drainageways, depressions
Bennington silt loam, 2 to 6 percent slopes	BeB	Non-hydric with hydric inclusions	Condit (3%) Pewamo (3%)	Drainageways, depressions
Centerburg silt loam, 2 to 6 percent slopes	Cen1B1	Non-hydric with hydric inclusions	Condit (4%) Marengo (3%)	Drainageways, depressions
Centerburg silt loam, 6 to 12 percent slopes, eroded	Cen1C2	Non-hydric with hydric inclusions	Condit (4%)	Drainageways
Condit silt loam, 0 to 1 percent slopes	Cn	Hydric	--	--
Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes	Pe	Hydric	--	--

A hydric soil is *a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part* (USDA-NRCS, 2018). As shown on the *Web Soil Survey* for Licking County, Ohio (Exhibit 3A), Condit silt loam, 0 to 1 percent slopes (Cn) and Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes (Pe) are hydric soils. The remaining four (4) mapped soils are non-hydric soils with inclusions of Condit, Pewamo and Marengo soils in drainageways and depressions.

2.3 Hydrologic Conditions

As shown on Exhibit 4, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was reviewed for the study area (FEMA, 2007). The majority of the study area lies within Zone X (unshaded), which are areas mapped outside the 500-year floodplain. A limited area along Stream 1 (Blacklick Creek) is mapped as Zone A, the 100-year floodplain.

The United States Fish and Wildlife Service's (USFWS) National Wetlands Inventory Map (NWI) was also reviewed for the study area (USFWS, 2009). As shown on Exhibit 5, 22 features were mapped partially or entirely within the study area, including:

- Eleven (11) palustrine, forested, broad-leaved deciduous, seasonally flooded wetlands (PFO1C);
- Four (4) palustrine, emergent, persistent, seasonally flooded wetlands (PEM1C);
- Three (3) palustrine, unconsolidated bottom, intermittently exposed, excavated ponds (PUBGx); and
- Two (2) riverine, unknown perennial, unconsolidated bottom, permanently flooded streams (R5UBH).

3.0 DELINEATION INVESTIGATION RESULTS

EMH&T conducted field investigations of the study area in March and April 2022 to determine the location, extent, and quality of potential Waters of the United States, including wetlands. The investigative methodology employed is summarized in Appendix A.

As shown on Exhibit 6, 23 potential wetlands, three (3) streams, and five (5) open water ponds (or portions thereof) were identified within the study area. Table 2 lists the extent of the surface water features identified and Table 3 summarizes the jurisdictional classification of each surface water feature. The USACE wetland and upland data forms are provided in Appendix B. Photographs of the surface water features are included in the Photographs section.

3.1 Potential Jurisdictional Features

Federal jurisdiction over various classes of water resources under the Clean Water Act is currently described in regulations (40 CFR 230.3) and USACE guidance (United States Environmental Protection Agency [USEPA] & USACE, 2008) following the United States Supreme Court Decision *Rapanos v. United States*. Among the classes of water resources subject to federal jurisdiction are traditional navigable waters (TNWs); wetlands adjacent to TNWs; non-navigable tributaries of TNWs that are relatively permanent (i.e., typically flow year-round or have continuous flow at least seasonally); and wetlands that directly abut such relatively permanent tributaries.

Further, federal jurisdiction also covers non-relatively permanent waters (non-navigable tributaries that do not typically flow year round or have continuous flow at least seasonally [3 months]), wetlands adjacent to non-relatively permanent waters and wetlands adjacent to but not directly abutting relatively permanent waters when a fact-specific analysis determines these waters have a "significant nexus" with a traditional navigable water. A significant nexus determination must be done in order to prove a non-relatively permanent water has more than an insubstantial or speculative effect on the chemical, physical and/or biological integrity of a downstream traditional navigable water.

Based on this understanding, the following waters identified within the study area are potentially jurisdictional. However, the definition of Waters of the United States is subject to change, pending ongoing litigation and rule making.

Five (5) potentially jurisdictional wetlands were identified within the study area:

- Wetland K (0.20 acre) is a forested wetland located in the south-central portion of the study area. Wetland K is potentially jurisdictional as it is adjacent to Stream 1, a Relatively Permanent Water (RPW).
- Wetland L (1.15 acres) is a forested wetland located in the south-central portion of the study area. Wetland L is potentially jurisdictional as it directly abuts Stream 2, a non-RPW, which flows directly to Stream 1, a RPW.
- Wetland R (5.53 acres) is a forested wetland located in the eastern portion of the study area. Wetland R is potentially jurisdictional as it directly abuts Stream 3, a RPW.
- Wetland S (0.20 acre) is a forested wetland located between Stream 3 and Wetland R in the eastern portion of the study area. Wetland S is potentially jurisdictional as it is adjacent to Stream 3, a RPW.
- Wetland V (0.25 acre) is a forested wetland located in the eastern portion of the study area, adjacent to Wetland R. Wetland V is potentially jurisdictional as it may flow indirectly to Stream 3, a RPW, via Wetland R.

Three (3) potentially jurisdictional streams were observed within the study area:

- Stream 1 was characterized as an intermittent stream that originates offsite and flows west to northwest for 3,329 linear feet through the western portion of the study area. Stream 1 represents the headwaters of Blacklick Creek, a direct tributary to Big Walnut Creek. Stream 1 primarily exists as an agricultural ditch within the study area. It is located within a narrow, straight, non-forested buffer, to which multiple agricultural drain tiles contribute flow from the surrounding agricultural fields.
- Stream 2 (54 linear feet) is an ephemeral tributary to Stream 1 that originates from Wetland L in the south-central portion of the study area, just east of Clover Valley Road.
- Stream 3 was characterized as an intermittent stream that originates onsite from Wetland R and flows north for 588 linear feet through the eastern portion of the study area within a forested woodlot. Stream 3 represents the headwaters of Duncan Run, a direct tributary to Big Walnut Creek.

3.2 Potential Non-Jurisdictional Features

The remaining 18 wetlands located within the study area are potentially isolated wetlands. These wetlands are potentially non-jurisdictional as they are located within closed depressions, with no observable connection to any other jurisdictional surface water. Two (2) of these wetlands (Wetlands A and B) are located in close proximity to jurisdictional streams, but are hydrologically isolated and do not exhibit a continuous surface connection with the streams, as further described below.

- Wetland A is located approximately 60 feet south of Stream 1 (Blacklick Creek). Stream 1 exists within a confined, entrenched agricultural ditch and does not show evidence of rising outside of that channel. There is no mapped floodplain along Stream 1 near Wetlands A and B, but the mapped 100-year floodplain downstream is very narrow, averaging approximately 20 to 30 feet wide on each stream bank. The area between Wetland A and Stream 1 includes upland forest and upland grassy field. This area exhibited no wetland characteristics, and no dike or berm is present. No evidence of a surface water connection between Wetland A and the stream was observed.
- Wetland B is located approximately 140 feet south of Stream 1, which exists within a confined, entrenched, ditched channel with limited floodplain, as described above. The area between Wetland B and Stream 1 includes upland forest, upland grassy field, and active agricultural field. This area exhibited no wetland characteristics, and no dike or berm is present. No evidence of surface water connection between Wetland B and the stream was observed.

Additionally, five (5) potentially non-jurisdictional ponds are located within the study area (Ponds 1, 2, 3, 4 and 5). The ponds exhibit no observable connections to jurisdictional waters and are not impoundments of jurisdictional waters. They appear to be excavated features located in and surrounded by uplands.

TABLE 2
Extent of Onsite Surface Water Features

Feature ID	Location		Classification*	Potentially Jurisdictional				Potentially Non-Jurisdictional		
				Stream		Wetland (ac)	Open Water (ac)	Isolated Wetland (ac)	Open Water (ac)	Ditch/Swale (lf)
	Latitude	Longitude		Length (lf)	Area (ac)					
Stream 1	40.102325°	-82.729305°	Intermittent	3,329**	0.49	--	--	--	--	--
Stream 2	40.100869°	-82.723334°	Ephemeral	54	0.004	--	--	--	--	--
Stream 3	40.104409°	-82.712978°	Intermittent	588**	0.11	--	--	--	--	--
Wetland A	40.100069°	-82.725895°	PFO	--	--	--	--	0.64	--	--
Wetland B	40.100283°	-82.727976°	PFO	--	--	--	--	0.54	--	--
Wetland C	40.100601°	-82.729281°	PFO	--	--	--	--	0.49	--	--
Wetland D	40.100722°	-82.728347°	PFO	--	--	--	--	0.05	--	--
Wetland E	40.100013°	-82.727970°	PFO	--	--	--	--	0.11	--	--
Wetland F	40.099327°	-82.730815°	PEM/PFO	--	--	--	--	2.04	--	--
Wetland G	40.100439°	-82.730813°	PFO	--	--	--	--	1.18	--	--
Wetland H	40.096476°	-82.732538°	PFO	--	--	--	--	0.07	--	--
Wetland I	40.097927°	-82.732040°	PEM	--	--	--	--	0.32	--	--
Wetland J	40.102890°	-82.733062°	PFO	--	--	--	--	0.92	--	--
Wetland K	40.101283°	-82.722655°	PFO	--	--	0.20	--	--	--	--
Wetland L	40.100689°	-82.722583°	PFO	--	--	1.15	--	--	--	--
Wetland M	40.102300°	-82.722024°	PFO	--	--	--	--	0.38	--	--
Wetland N	40.102681°	-82.721067°	PEM	--	--	--	--	0.19	--	--
Wetland O	40.101979°	-82.720295°	PFO	--	--	--	--	2.08	--	--
Wetland P	40.100887°	-82.719055°	PFO	--	--	--	--	1.70**	--	--
Wetland Q	40.100800°	-82.715072°	PFO	--	--	--	--	2.08	--	--
Wetland R	40.104640°	-82.711724°	PFO	--	--	5.53	--	--	--	--
Wetland S	40.104620°	-82.712561°	PFO	--	--	0.20	--	--	--	--
Wetland T	40.102563°	-82.710200°	PFO	--	--	--	--	0.95**	--	--
Wetland U	40.104579°	-82.708713°	PFO	--	--	--	--	0.48	--	--
Wetland V	40.102475°	-82.713610°	PFO	--	--	0.25	--	--	--	--
Wetland Z	40.097152°	-82.729675°	PEM	--	--	--	--	0.24	--	--
Pond 1	40.099698°	-82.725583°	Open Water	--	--	--	--	--	0.07	--
Pond 2	40.097278°	-82.733608°	Open Water	--	--	--	--	--	0.41	--
Pond 3	40.101663°	-82.723225°	Open Water	--	--	--	--	--	0.51	--
Pond 4	40.104231°	-82.708828°	Open Water	--	--	--	--	--	1.90	--
Pond 5	40.098001°	-82.730095°	Open Water	--	--	--	--	--	0.68	--
Total	--	--	--	**3,971**	**0.604**	**7.33**	--	**14.46**	**3.57**	--

*Wetland communities are classified according to the classification scheme of Cowardin et al. (1979):
PEM: Palustrine, Emergent
PFO: Palustrine, Forested
**Feature continues off-site.

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TABLE 3
Jurisdictional Classification of Onsite Surface Water Features

Feature ID	Streams			Wetlands				Ponds		Ditch/ Swale
	TNW	RPW	Non-RPW	(A)	(B)	(C)	(D)	Jurisdictional	Isolated	
Stream 1	--	X	--	--	--	--	--	--	--	--
Stream 2	--	--	X	--	--	--	--	--	--	--
Stream 3	--	X	--	--	--	--	--	--	--	--
Wetland A	--	--	--	--	--	--	X	--	--	--
Wetland B	--	--	--	--	--	--	X	--	--	--
Wetland C	--	--	--	--	--	--	X	--	--	--
Wetland D	--	--	--	--	--	--	X	--	--	--
Wetland E	--	--	--	--	--	--	X	--	--	--
Wetland F	--	--	--	--	--	--	X	--	--	--
Wetland G	--	--	--	--	--	--	X	--	--	--
Wetland H	--	--	--	--	--	--	X	--	--	--
Wetland I	--	--	--	--	--	--	X	--	--	--
Wetland J	--	--	--	--	--	--	X	--	--	--
Wetland K	--	--	--	--	--	X	--	--	--	--
Wetland L	--	--	--	--	--	X	--	--	--	--
Wetland M	--	--	--	--	--	--	X	--	--	--
Wetland N	--	--	--	--	--	--	X	--	--	--
Wetland O	--	--	--	--	--	--	X	--	--	--
Wetland P	--	--	--	--	--	--	X	--	--	--
Wetland Q	--	--	--	--	--	--	X	--	--	--
Wetland R	--	--	--	--	X	--	--	--	--	--
Wetland S	--	--	--	--	--	X	--	--	--	--
Wetland T	--	--	--	--	--	--	X	--	--	--
Wetland U	--	--	--	--	--	--	X	--	--	--
Wetland V	--	--	--	--	--	X	--	--	--	--
Wetland Z	--	--	--	--	--	--	X	--	--	--
Pond 1	--	--	--	--	--	--	--	--	X	--
Pond 2	--	--	--	--	--	--	--	--	X	--
Pond 3	--	--	--	--	--	--	--	--	X	--
Pond 4	--	--	--	--	--	--	--	--	X	--
Pond 5	--	--	--	--	--	--	--	--	X	--

TNW: Traditional Navigable Water
RPW: Relatively Permanent Waters (non-navigable tributaries that flow year-round or at least seasonally [3 months])
Non-RPW: Non-Relatively Permanent Waters (non-navigable tributaries without at least seasonal flow [3 months])
Wetlands: (A) Abutting or adjacent to a TNW; (B) Abutting a RPW; (C) Located adjacent to a RPW or Non-RPW; (D) Isolated

4.0 REGULATORY JURISDICTION

Impacts to Waters of the United States , including jurisdictional streams and wetlands, are regulated by the USACE and the USEPA through Section 404 of the Clean Water Act (33 U.S.C. 1344). Prior to federal authorization for impacts to streams or wetlands, certification must also be obtained from the Ohio EPA as defined in Section 401 of the Clean Water Act (33 U.S.C. 1341). Accordingly, no filling may occur in the potentially jurisdictional wetlands described in this document without appropriate permits and authorization from the USACE and Ohio EPA.

The Ohio EPA regulates discharges of fill to isolated wetlands in the State of Ohio as provided in Sections 6111.021 through 6111.029 of the Ohio Revised Code. Accordingly, no filling may occur in isolated wetlands without an appropriate Isolated Wetland Permit from the state. Additionally, confirmation of non-jurisdictional status must first be obtained through an Approved Jurisdictional Determination by the USACE.

5.0 CONCLUSIONS

A routine delineation of Waters of the United States, including streams and wetlands, was conducted and a report was prepared by EMH&T for the Clover Valley Road Site study area. The approximately 442.5-acre study area is located east and west of Clover Valley Road between Jug Street and Miller Road NW, in Jersey Township, Licking County, Ohio. This study was performed at the request of and for the exclusive use of The New Albany Company.

The results of the delineation identified three (3) potentially jurisdictional streams (3,971 LF), five (5) potentially jurisdictional wetlands (7.33 acres), eighteen (18) potentially non-jurisdictional (isolated) wetlands (14.46 acres), and five (5) potentially non-jurisdictional ponds (3.57 acres) within the study area boundaries. The boundaries and jurisdictional status of the surface water features are potential until verified by the USACE.

6.0 REFERENCES

Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online (Version 04DEC1998). Available online: https://www.fws.gov/wetlands/documents/classwet/index.html.

Flood Emergency Management Agency. FEMA. 2007. Flood Insurance Rate Map for Licking County, Ohio and Unincorporated Areas. Map number 39089C0280H. Available from: http://msc.fema.gov/portal.

United States Department of Agriculture - Natural Resources Conservation Service. USDA-NRCS. 2018. *Field Indicators of Hydric Soils in the United States, Version 8.2.* Vasilas, L.M., Hurt, G.W., and Berkowitz, J.F. (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

United States Department of Agriculture - Natural Resources Conservation Service. USDA-NRCS. 2021. NRCS Soil Survey Geographic Database and Web Soil Survey. Available online: http://websoilsurvey.nrcs.usda.gov/app/.

United States Department of Agriculture - Natural Resources Conservation Service. USDA-NRCS. 2022. *State Soil Data Access (SDA) Hydric Soils List.* Available online from the website of the Natural Resources Conservation Service:
https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316619.html#reportref.

United States Department of Agriculture - Soil Conservation Service. USDA-SCS. 1992. *Soil Survey of Licking County, Ohio.* Available online: https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=OH.

United States Department of the Interior, Fish and Wildlife Service. USFWS. 2009. National Wetlands Inventory Map. Available online: https://www.fws.gov/wetlands/Data/Mapper.html.

United States Environmental Protection Agency and United States Army Corps of Engineers. USEPA & USACE. 2008. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States. Available online:
https://www.epa.gov/sites/default/files/2016-02/documents/cwa_jurisdiction_following_rapanos120208.pdf.

United States Geological Service. USGS. 1975. *Jersey, Ohio* Quadrangle, 7.5 minute Series (Topographic). Maps prepared by the U.S. Geological Survey and revised in cooperation with State of Ohio Agencies. For sale from the U.S. Geological Survey, Reston, Virginia 22092.

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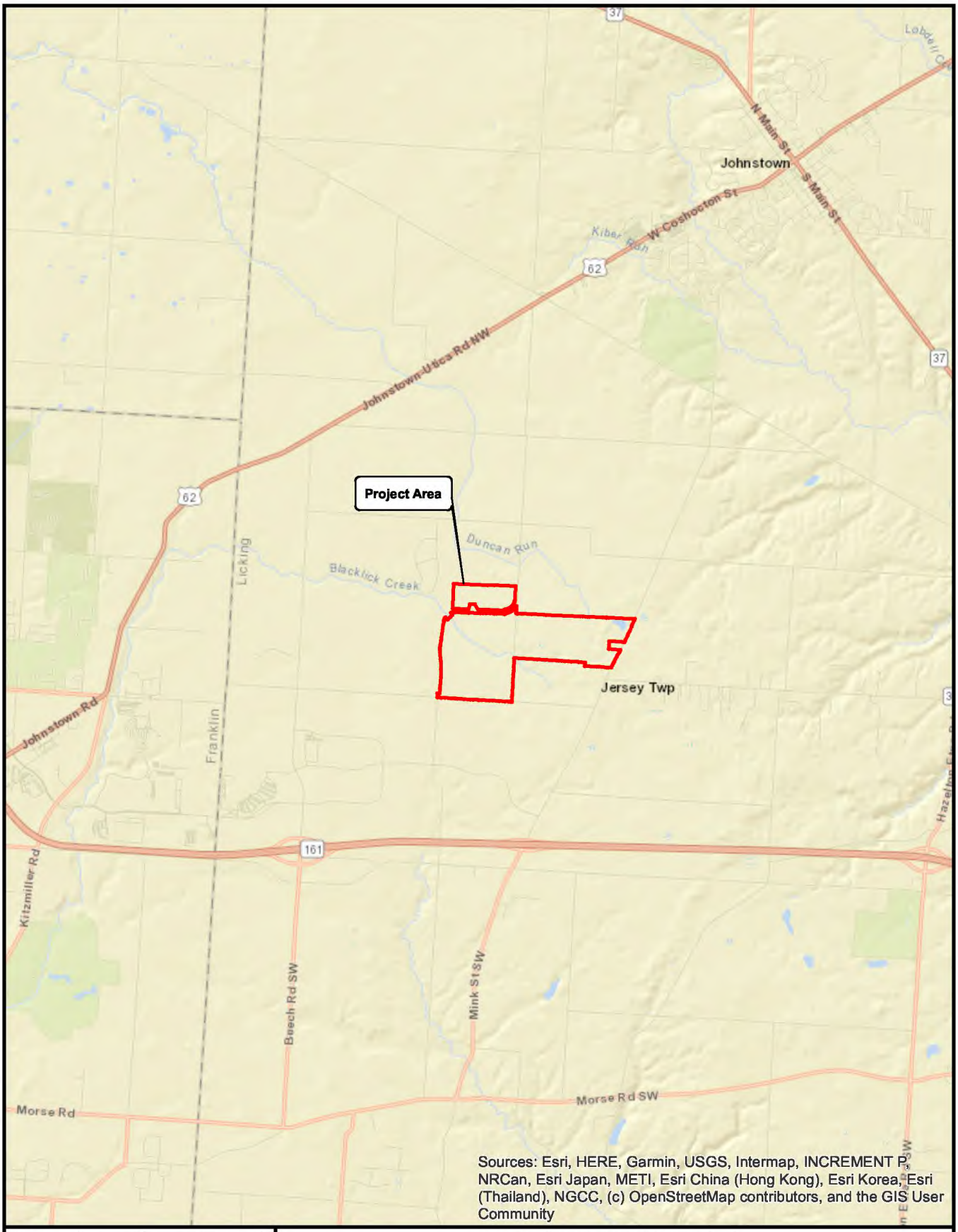
EXHIBITS



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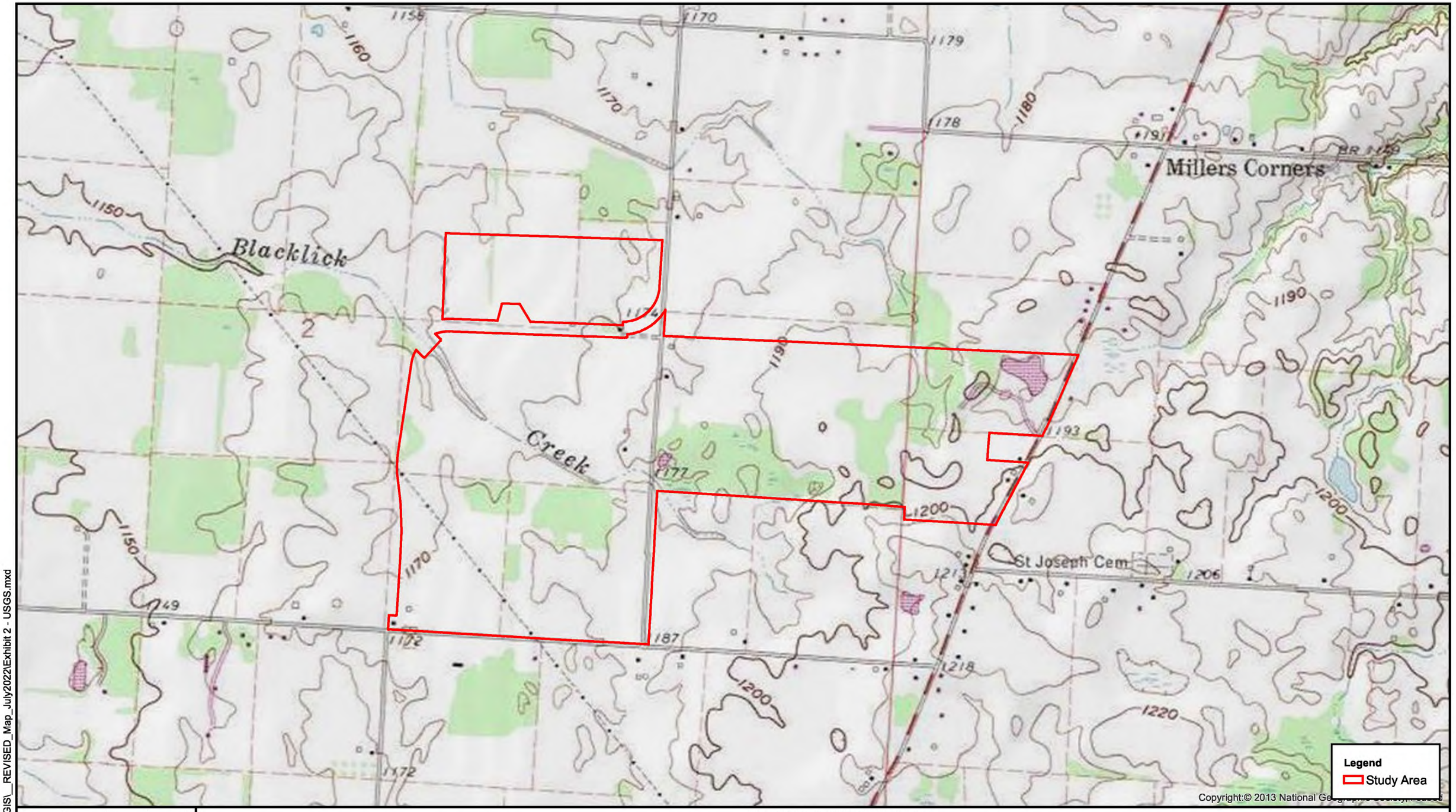
JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Clover Valley Road
Location Map
Exhibit 1

SCALE: 1" = 1 Mile

0 0.5 1 2 Miles

N



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SCALE: 1" = 1,000'

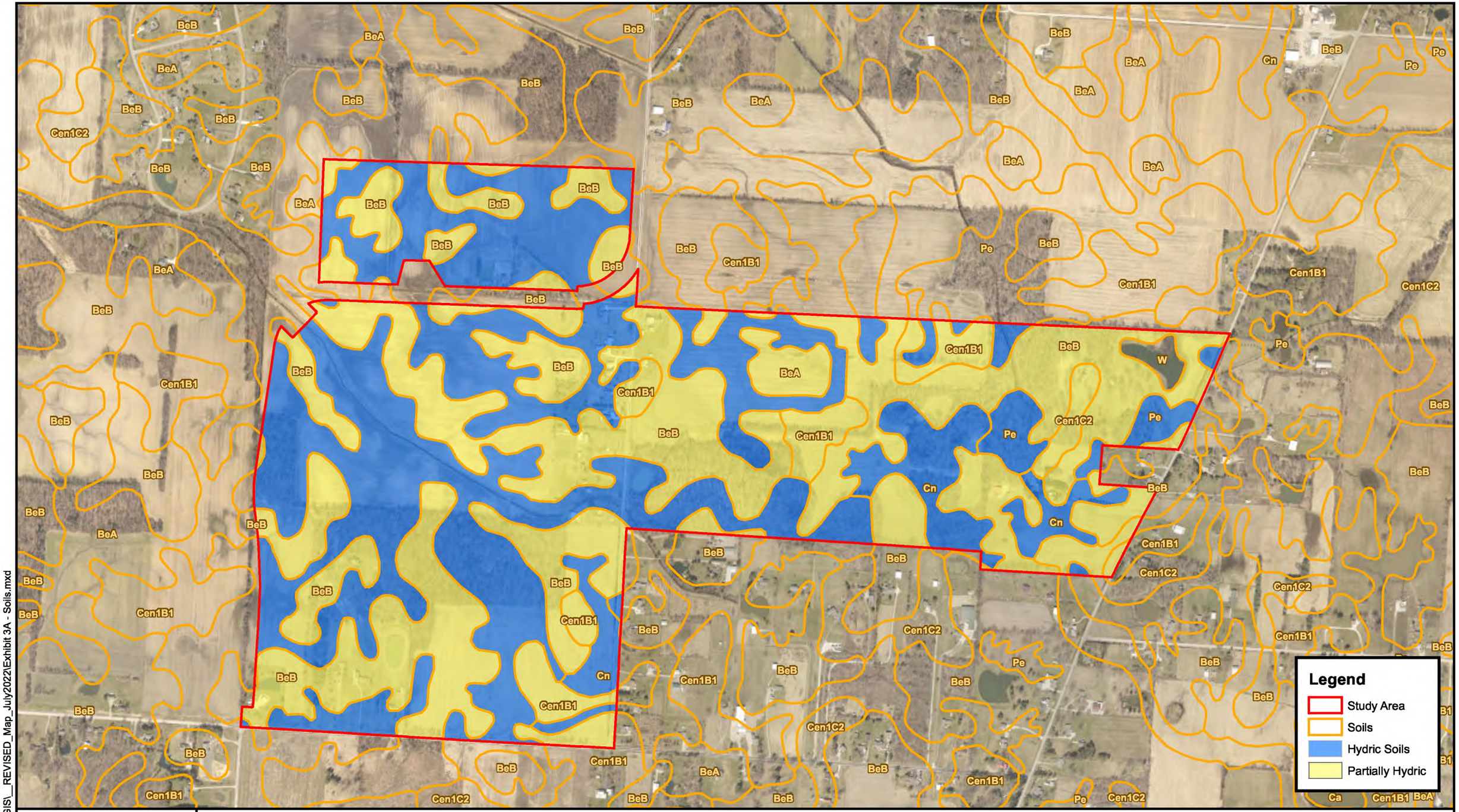
0 500 1,000 2,000 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Clover Valley Road
USGS Topographic Map
Exhibit 2

N

Source: USGS Jersey Quad Map (Pub. 1975)



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SCALE: 1" = 700'

0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Clover Valley Road
Soil Survey of Licking County
Exhibit 3A

N

Source: Soils - NRCS, 2021; Aerial - Licking County, 2021

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SCALE: 1" = 700'

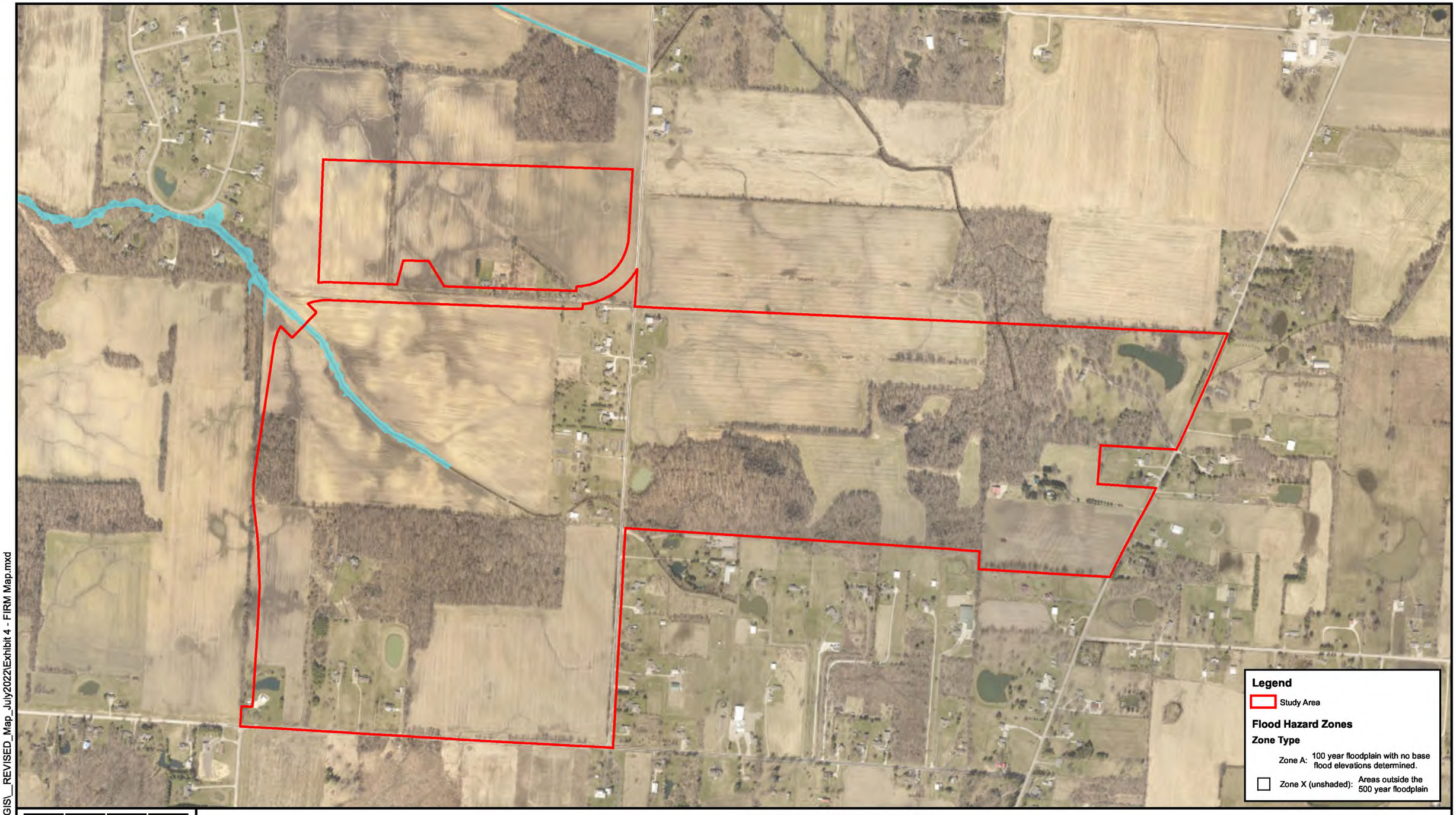
0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Clover Valley Road
Soils Map
Exhibit 3B

N

Source: Soils - USDA, 1992



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SCALE: 1" = 700'

0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Clover Valley Road
Flood Insurance Rate Map
Exhibit 4

N

Source: Floodplain - FEMA, 2015; Aerial - Licking County, 2021

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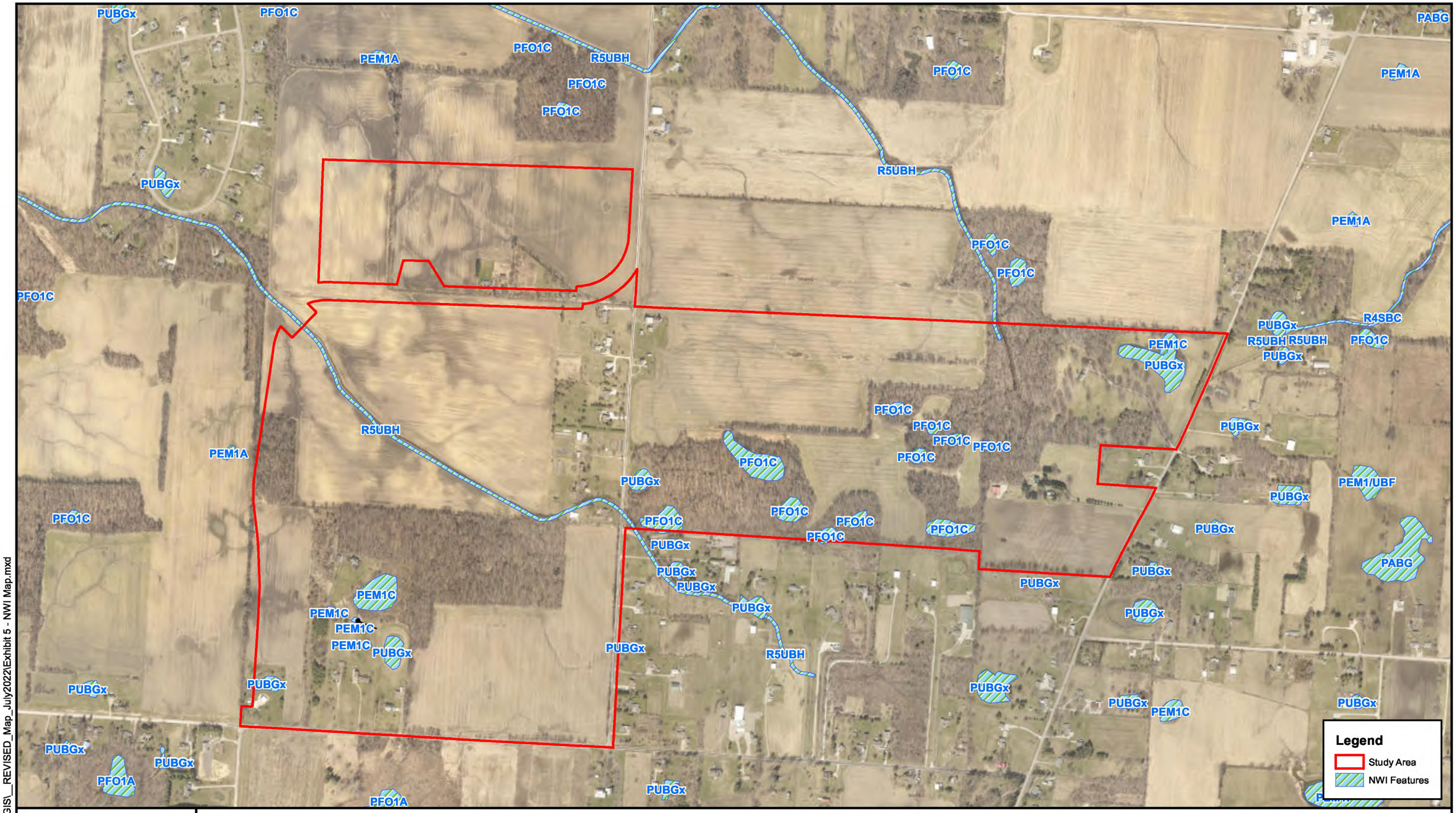

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SCALE: 1" = 700'

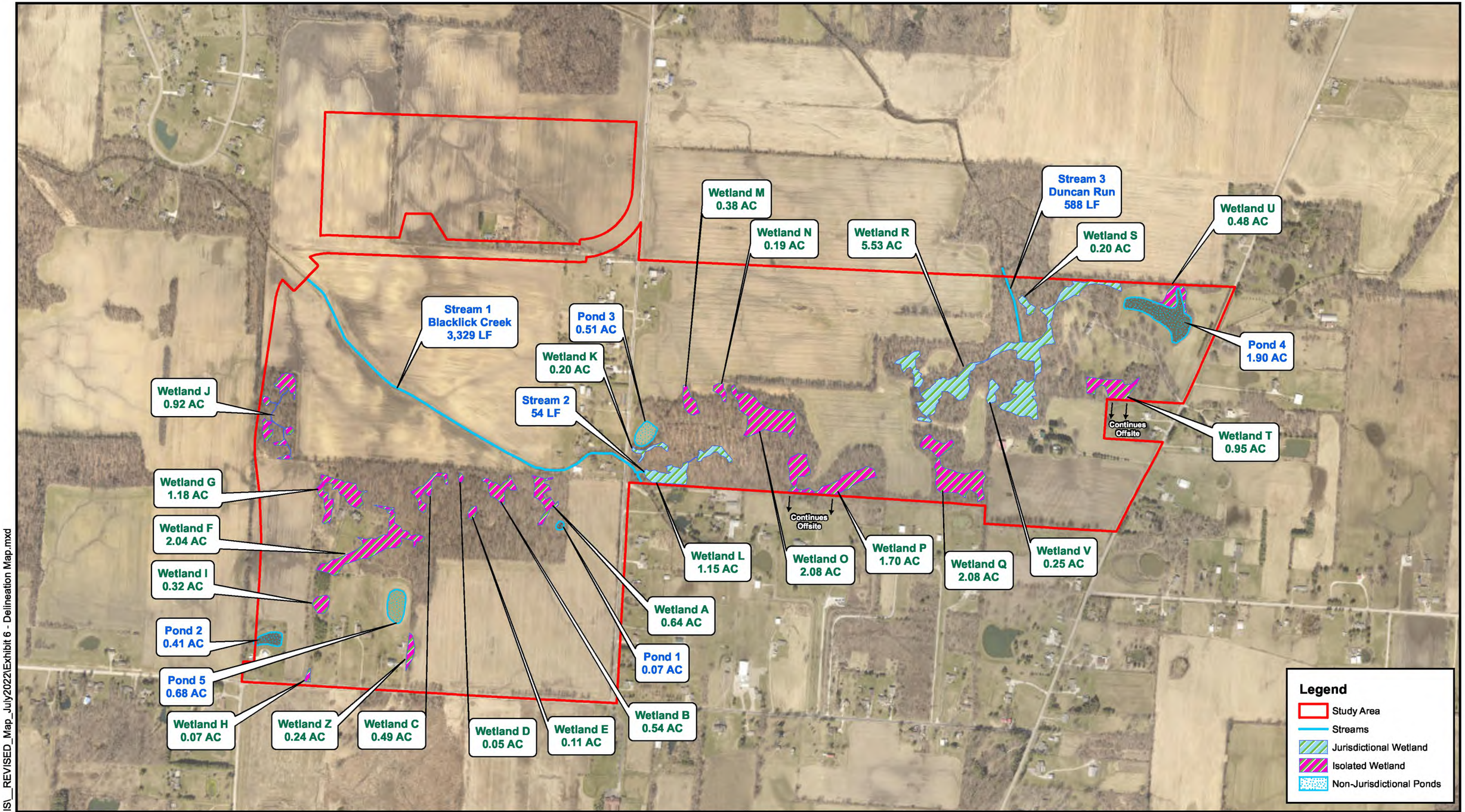
0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Clover Valley Road
National Wetland Inventory Map
Exhibit 5

N

Source: NWI Features - FWS, 2021; Aerial - Licking County, 2021



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SCALE: 1" = 700'

0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Clover Valley Road
Delineation Map
Exhibit 6

Source: Aerial - Licking County, 2021

Path: J:\20220326\GIS_REVISED_Map_July2022\Exhibit 6 - Delineation Map.mxd

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PHOTOGRAPHS

Photograph 1
View of Wetland A facing north.
(EMH&T 4/13/22)

Photograph 2
View of Wetland A facing south.
(EMH&T 4/13/22)

Photograph 3
View of Wetland A facing east.
(EMH&T 4/13/22)

Photograph 4
View of Wetland A facing west.
(EMH&T 4/13/22)

Photograph 5
View of Wetland B facing north.
(EMH&T 4/13/22)

Photograph 6
View of Wetland B facing south.
(EMH&T 4/13/22)

Photograph 7
View of Wetland B facing east.
(EMH&T 4/13/22)

Photograph 8
View of Wetland B facing west.
(EMH&T 4/13/22)

Photograph 9
View of Wetland C facing north.
(EMH&T 4/13/22)

Photograph 10
View of Wetland C facing south.
(EMH&T 4/13/22)

Photograph 11
View of Wetland C facing east.
(EMH&T 4/13/22)

Photograph 12
View of Wetland C facing west.
(EMH&T 4/13/22)

Photograph 13
View of Wetland D facing north.
(EMH&T 4/19/22)

Photograph 14
View of Wetland D facing south.
(EMH&T 4/19/22)

Photograph 15
View of Wetland D facing east.
(EMH&T 4/19/22)

Photograph 16
View of Wetland D facing west.
(EMH&T 4/19/22)

Photograph 17
View of Wetland E facing north.
(EMH&T 4/19/22)

Photograph 18
View of Wetland E facing south.
(EMH&T 4/19/22)

Photograph 19
View of Wetland E facing east.
(EMH&T 4/19/22)

Photograph 20
View of Wetland E facing west.
(EMH&T 4/19/22)

Photograph 21
View of Wetland F facing north.
(EMH&T 4/19/22)

Photograph 22
View of Wetland F facing south.
(EMH&T 4/19/22)

Photograph 23
View of Wetland F facing east.
(EMH&T 4/19/22)

Photograph 24
View of Wetland F facing west.
(EMH&T 4/19/22)

Photograph 25
View of Wetland G facing north.
(EMH&T 4/19/22)

Photograph 26
View of Wetland G facing south.
(EMH&T 4/19/22)

Photograph 27
View of Wetland G facing east.
(EMH&T 4/19/22)

Photograph 28
View of Wetland G facing west.
(EMH&T 4/19/22)

Photograph 29
View of Wetland H facing north.
(EMH&T 4/19/22)

Photograph 30
View of Wetland H facing south.
(EMH&T 4/19/22)

Photograph 31
View of Wetland H facing east.
(EMH&T 4/19/22)

Photograph 32
View of Wetland H facing west.
(EMH&T 4/19/22)

Photograph 33
View of Wetland I facing north.
(EMH&T 4/19/22)

Photograph 34
View of Wetland I facing south.
(EMH&T 4/19/22)

Photograph 35
View of Wetland I facing east.
(EMH&T 4/19/22)

Photograph 36
View of Wetland I facing west.
(EMH&T 4/19/22)

Photograph 37
View of Wetland J facing north.
(EMH&T 4/13/22)

Photograph 38
View of Wetland J facing south.
(EMH&T 4/13/22)

Photograph 39
View of Wetland J facing east.
(EMH&T 4/13/22)

Photograph 40
View of Wetland J facing west.
(EMH&T 4/13/22)

Photograph 41
View of Wetland K facing north.
(EMH&T 4/14/22)

Photograph 42
View of Wetland K facing south.
(EMH&T 4/14/22)

Photograph 43
View of Wetland K facing east.
(EMH&T 4/14/22)

Photograph 44
View of Wetland K facing west.
(EMH&T 4/14/22)

Photograph 45
View of Wetland L facing north.
(EMH&T 4/14/22)

Photograph 46
View of Wetland L facing south.
(EMH&T 4/14/22)

Photograph 47
View of Wetland L facing east.
(EMH&T 4/14/22)

Photograph 48
View of Wetland L facing west.
(EMH&T 4/14/22)

Photograph 49
View of Wetland M facing north.
(EMH&T 4/14/22)

Photograph 50
View of Wetland M facing south.
(EMH&T 4/14/22)

Photograph 51
View of Wetland M facing east.
(EMH&T 4/14/22)

Photograph 52
View of Wetland M facing west.
(EMH&T 4/14/22)

Photograph 53
View of Wetland N facing north.
(EMH&T 4/20/22)

Photograph 54
View of Wetland N facing south.
(EMH&T 4/20/22)

Photograph 55
View of Wetland N facing east.
(EMH&T 4/20/22)

Photograph 56
View of Wetland N facing west.
(EMH&T 4/20/22)

Photograph 57
View of Wetland O facing north.
(EMH&T 4/14/22)

Photograph 58
View of Wetland O facing south.
(EMH&T 4/14/22)

Photograph 59
View of Wetland O facing east.
(EMH&T 4/14/22)

Photograph 60
View of Wetland O facing west.
(EMH&T 4/14/22)

Photograph 61
View of Wetland P facing north.
(EMH&T 4/14/22)

Photograph 62
View of Wetland P facing south.
(EMH&T 4/14/22)

Photograph 63
View of Wetland P facing east.
(EMH&T 4/14/22)

Photograph 64
View of Wetland P facing west.
(EMH&T 4/14/22)

Photograph 65
View of Wetland Q facing north.
(EMH&T 4/14/22)

Photograph 66
View of Wetland Q facing south.
(EMH&T 4/14/22)

Photograph 67
View of Wetland Q facing east.
(EMH&T 4/14/22)

Photograph 68
View of Wetland Q facing west.
(EMH&T 4/14/22)

Photograph 69
View of Wetland R facing north.
(EMH&T 4/15/22)

Photograph 70
View of Wetland R facing south.
(EMH&T 4/15/22)

Photograph 71
View of Wetland R facing east.
(EMH&T 4/15/22)

Photograph 72
View of Wetland R facing west.
(EMH&T 4/15/22)

Photograph 73
View of Wetland S facing north.
(EMH&T 3/09/22)

Photograph 74
View of Wetland S facing south.
(EMH&T 3/09/22)

Photograph 75
View of Wetland S facing east.
(EMH&T 3/09/22)

Photograph 76
View of Wetland S facing west.
(EMH&T 3/09/22)

Photograph 77
View of Wetland T facing north.
(EMH&T 3/03/22)

Photograph 78
View of Wetland T facing south.
(EMH&T 3/03/22)

Photograph 79
View of Wetland T facing east.
(EMH&T 3/03/22)

Photograph 80
View of Wetland T facing west.
(EMH&T 3/03/22)

Photograph 81
View of Wetland U facing north.
(EMH&T 3/02/22)

Photograph 82
View of Wetland U facing south.
(EMH&T 3/02/22)

Photograph 83
View of Wetland U facing east.
(EMH&T 3/02/22)

Photograph 84
View of Wetland U facing west.
(EMH&T 3/02/22)

Photograph 85
View of Wetland V facing north.
(EMH&T 4/22/22)

Photograph 86
View of Wetland V facing south.
(EMH&T 4/22/22)

Photograph 87
View of Wetland V facing east.
(EMH&T 4/22/22)

Photograph 88
View of Wetland V facing west.
(EMH&T 4/22/22)

Photograph 89
View of Wetland Z facing north.
(EMH&T 5/20/22)

Photograph 90
View of Wetland Z facing south.
(EMH&T 5/20/22)

Photograph 91
View of Wetland Z facing east.
(EMH&T 5/20/22)

Photograph 92
View of Wetland Z facing west.
(EMH&T 5/20/22)

Photograph 93
View of Stream 1 (Blacklick Creek) facing upstream (west of Clover Valley Road).
(EMH&T 4/19/22)

Photograph 94
View of Stream 1 (Blacklick Creek) facing downstream (west of Clover Valley Road).
(EMH&T 4/19/22)

Photograph 95
View of Stream 1 (Blacklick Creek) substrate (west of Clover Valley Road).
(EMH&T 4/19/22)

Photograph 96
View of Stream 1 (Blacklick Creek) facing upstream (east of Clover Valley Road).
(EMH&T 4/20/22)

Photograph 97
View of Stream 1 (Blacklick Creek) facing downstream (east of Clover Valley Road).
(EMH&T 4/20/22)

Photograph 98
View of Stream 1 (Blacklick Creek) substrate (east of Clover Valley Road).
(EMH&T 4/20/22)

Photograph 99
View of Stream 2 facing upstream.
(EMH&T 4/14/22)

Photograph 100
View of Stream 2 facing downstream.
(EMH&T 4/14/22)

Photograph 101
View of Stream 2 substrate.
(EMH&T 4/14/22)

Photograph 102
View of Stream 3 (Duncan Run) facing upstream.
(EMH&T 3/02/22)

Photograph 103
View of Stream 3 (Duncan Run) facing downstream.
(EMH&T 3/02/22)

Photograph 104
View of Stream 3 (Duncan Run) substrate.
(EMH&T 3/02/22)

Photograph 105
View of Pond 1 facing southeast.
(EMH&T 4/13/22)

Photograph 106
View of Pond 1 facing east.
(EMH&T 4/13/22)

Photograph 107
View of Pond 1 facing northeast.
(EMH&T 4/13/22)

Photograph 108
View of Pond 2 facing southwest.
(EMH&T 4/19/22)

Photograph 109
View of Pond 2 facing southeast.
(EMH&T 4/19/22)

Photograph 110
View of Pond 2 facing east.
(EMH&T 4/19/22)

Photograph 111
View of Pond 3 facing west.
(EMH&T 4/14/22)

Photograph 112
View of Pond 3 facing northwest.
(EMH&T 4/14/22)

Photograph 113
View of Pond 3 facing north.
(EMH&T 4/14/22)

Photograph 114
View of Pond 4 facing west.
(EMH&T 3/02/22)

Photograph 115
View of Pond 4 facing north.
(EMH&T 3/02/22)

Photograph 116
View of Pond 4 facing east.
(EMH&T 3/02/22)

Photograph 117
View of Pond 5 facing southeast.
(EMH&T 5/20/22)

EMH&T

APPENDIX A:

Investigative Methodology

EMH&T

INVESTIGATIVE METHODOLOGY

Wetlands

According to the Federal Register (1980; 1982), wetlands are defined as *Those areas that are inundated or saturated by surface or groundwater 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. Wetlands generally include swamps, marshes, bogs, and similar areas.* Potential wetlands located on non-agricultural lands are identified using the 1987 Wetland Delineation Manual (Environmental Laboratory, 1987) for confirmation by the U.S. Army Corps of Engineers (USACE).

Under normal site conditions, all three (3) indicators of jurisdictional wetlands including the presence of hydrophytic macrophytes, hydric soils and certain hydrologic indicators must be identified to meet the criteria for a jurisdictional wetland (Environmental Laboratory, 1987). As such, identification of potential wetlands requires characterization of plant community types, identification of hydric soils, and hydrologic indicators for each community type.

For all potential wetland areas, dominant species in the tree, sapling, shrub, woody vine, and herb layers are determined, in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, Version 2.0* (USACE, 2010). Recorded vegetative data consists of herbs with the greatest percentage of aerial cover within 5' of the plot center. Within a 15' radius of the plot center, saplings and shrubs with the greatest height are recorded. Within a 30' radius of the plot center, trees with the largest relative basal area and woody vines with the greatest number of stems are recorded. Species within each of these layers are listed on data forms in order of dominance.

Dominance is determined for each stratum individually. Dominant species include those that comprise 50 percent of the total dominance measure for a stratum, plus any additional species comprising 20 percent or more of the total dominance measure of a stratum. Hydrophytic vegetation is determined to be present when more than 50 percent of the dominants in a sample area are listed as facultative (FAC), facultative wetland (FACW) or obligate wetland (OBL) plants according to Lichvar (2016).

Where possible, soil data are collected by digging a test pit to a maximum depth of 20" to determine the presence of hydric soil. Soil matrix and mottle colors are identified using a Munsell Soil Color Chart (Macbeth, Revised 1994). Evidence of any hydric soil characteristics and evidence of the presence of wetland hydrology are also recorded.

The boundaries of areas that meet all three (3) wetland criteria are identified and measured in the field. Points at which dominant vegetation species changes from wetland to upland, where soils change from hydric to non-hydric, or where indicators of wetland hydrology are no longer observed are noted. The characteristics of each community type are recorded on dataforms and sample points are chosen to represent both an identified potential wetland and its surrounding upland community. All potential wetlands delineated in the field are marked with flagging and mapped using a Trimble GeoXH GPS unit. The dominant vegetation, soils, and indicators of wetland

hydrology are described on delineation forms. Wetland communities are classified according to the classification scheme of Cowardin et al. (1979).

Wetlands are further classified using the Ohio Rapid Assessment Method (ORAM) Version 5 (Ohio EPA, 2001). The ORAM seeks to determine whether wetlands are rated as Category 1, 2, or 3 based on the State of Ohio Wetland Water Quality Standards. Category 1 wetlands exhibit limited quality, function, or value. Category 2 wetlands exhibit moderate quality, function, or value; this includes wetlands that have been degraded but have reasonable potential for restoration (Modified Category 2). Category 3 wetlands are wetlands of superior quality, function, or value.

Streams

The centerline of the streams are mapped for their entire length found on-site using a Trimble® GPS unit. Ordinary High Water Marks (OHWM), which define the outermost regulatory boundaries of streams and open waters, are flagged and mapped using the GPs unit.

Streams are classified as ephemeral, intermittent, or perennial based on site observations, and are assigned a regulatory classification according to the most recent USACE guidance. Streams are also assessed using the Ohio EPA's Qualitative Habitat Evaluation Index (QHEI) and/or Headwater Habitat Evaluation Metric (HHEI). Assessment locations are placed in representative reaches of the streams within the assessment area.

The QHEI is used for streams with drainage areas greater than one square mile and pools with maximum water depths greater than 15.75 in (40 cm) (Ohio EPA 2006). QHEI scoring is based on substrate types, in-stream cover, channel morphology, riparian quality and bank erosion, pool/glide and riffle/run quality, and gradient. These metrics reflect stream habitat features that are correlated with the potential to attain the aquatic life use designation for Ohio streams.

Streams that do not meet these requirements are assessed using the HHEI (Ohio EPA, 2020). HHEI scoring is based on three (3) parameters that are associated with habitat quality in small headwater streams: substrate type, maximum pool depth and bankfull width. Using the HHEI scoring system, streams may be categorized as Class I, II or III primary headwaters (PHW). Class III represents streams with perennial flow with moderately to highly diverse communities of cold water adapted fauna present year-round; Class II represents streams with intermittent or perennial flow derived from shallow groundwater with moderately diverse communities of warm water adapted fauna present either seasonally or year-round; and Class I represents ephemeral (seasonally dry) streams with limited aquatic life potential.

Open Water Habitat

The boundaries of open water systems (deepwater aquatic habitats, such as ponds and lakes) are delineated either using recent aerial photography or by flagging boundaries in the field and locating them using a GPS unit. Based on the 1987 Wetland Delineation Manual (Environmental Laboratory, 1987), deepwater aquatic habitats are areas that are permanently inundated at mean annual water depths >6.6 ft or permanently inundated areas <6.6 ft in depth that do not support rooted-emergent or woody plant species.

REFERENCES

Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online (Version 04DEC1998). Available online: https://www.fws.gov/wetlands/documents/classwet/index.html.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1*. US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. and appendices.

Federal Register. 1980. *40 CFR Part 230: Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material*. U.S. Government Printing Office, Washington, DC Vol. 45, No. 249, pp. 85352-3.

Federal Register. 1982. *Title 33: Navigation and Navigable Waters; Chapter II, Regulatory programs of the Corps of Engineers*. U.S. Government Printing Office, Washington, DC Vol. 47, No. 138, p31810.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 wetland ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.

Macbeth. Revised 1994. *Munsell Soil Color Charts*. Macbeth, division of Lollmorgen Instruments Corp., P.O. Box 230, Newburgh, New York 12551-0230.

Ohio Environmental Protection Agency. February 1, 2001. *Ohio Rapid Assessment Method for Wetlands v.5.0*. Available online: https://epa.ohio.gov/static/Portals/35/401/ORAM%20Manual%205.0.pdf.

Ohio Environmental Protection Agency. 2006. *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI)*. Ohio EPA Technical Bulletin EAS/2006-06-01. Columbus, Ohio: Ohio EPA, Division of Surface Water. Available online: https://epa.ohio.gov/static/Portals/35/documents/QHEIManualJune2006.pdf.

Ohio Environmental Protection Agency. 2020. *Field Methods for Evaluating Primary Headwater Streams in Ohio (Version 4.1)*. Ohio Environmental Protection Agency, Division of Surface Water, Columbus, Ohio. Available online: https://epa.ohio.gov/static/Portals/35/wqs/headwaters/PHWHManual_2020_Ver_4_1_May_2020_Final.pdf?ver=Jx6Z3rn9feBAUir3HWp_FQ%3d%3d.

U. S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest* Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center. Available online at: http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramand Permits/reg_supp.aspx.

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APPENDIX B:

USACE Wetland and Upland Dataforms

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-13-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-A-24

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): _____ | Lat: 40.100069° | Long: -82.725895° | Datum: _____

Soil Map Unit Name: Bennington silt loam (BeB) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	60	Yes	FAC
2. *Acer saccharinum*	30	Yes	FACW
3. *Ulmus americana*	10	No	FACW
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	20	Yes	FACW
2.			
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Carex spp.*	20	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	20	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	60	x 3 =	180
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		340 (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: W-A-24

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	98	10YR 5/6	2	C	PL	Loamy/Clayey	Prominent redox concentrations
6-12	10YR 4/1	70	10YR 5/6	30	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- X 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 X	No ___	Depth (inches): 4		
Water Table Present?	Yes X	No ___	Depth (inches): 4		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site City/County: New Albany/ Licking Sampling Date: 4-13-2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: W-B-1

Investigator(s): Eric Nagy, EMH&T Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): _____ Lat: 40.100283° Long: -82.727097 Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	90	Yes	FACW
2. *Quercus palustris*	10	No	FACW
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	50	Yes	FACW
2.			
3.			
4.			
5.			
	50	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Cinna arundinacea*	10	Yes	FACW
2. *Carex spp.*	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	15	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	165	x 2 =	330
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	165 (A)		330 (B)

Prevalence Index = B/A = 2.00

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: W-B-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
0-10	10YR 4/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- X 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 X	No ___	Depth (inches):	1	
Water Table Present?	Yes X	No ___	Depth (inches):	1	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-13-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-C-15

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): _____ | Lat: 40.100601° | Long: -82.729281° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus americana*	80	Yes	FACW
2. *Quercus palustris*	15	No	FACW
3. *Quercus bicolor*	5	No	FACW
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	5	Yes	FACW
2.			
3.			
4.			
5.			
	5	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Carex spp.*	30	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	135	x 2 =	270
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	135 (A)		270 (B)

Prevalence Index = B/A = 2.00

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: W-C-15

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
0-10	10YR 4/1	80	10YR 4/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- X 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)
- X 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):	1	
Water Table Present?	Yes X	No ___	Depth (inches):	1	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-D-4

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): ____ | Lat: 40.100722° | Long: -82.728347° | Datum: ____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

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

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*	50	Yes	FAC
2. *Quercus palustris*	20	Yes	FACW
3. *Ulmus americana*	30	Yes	FACW
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	20	Yes	FACW
2.			
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: 5')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		290 (B)

Prevalence Index = B/A = 2.42

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: W-D-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
0-6	10YR 4/2	95	10YR 5/6	5	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- X 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)
- X 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):	3	
Water Table Present?	Yes X	No ___	Depth (inches):	3	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-E-9

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): _____ | Lat: 40.100013° | Long: -82.727970° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Carya laciniosa*	45	Yes	FACW
2. *Quercus palustris*	40	Yes	FACW
3. *Ulmus americana*	5	No	FACW
4. *Populus deltoides*	10	No	FAC
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	50	Yes	FACW
2.			
3.			
4.			
5.			
	50	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Carex spp.*	2	No	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	2	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	142	x 2 =	284
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	152 (A)		314 (B)

Prevalence Index = B/A = 2.07

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: W-E-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
0-6	10YR 3/1	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
6-10	10YR 4/1	80	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

___ Surface Water (A1)
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)
X 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 X	No ___	Depth (inches): 0		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site City/County: New Albany/ Licking Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: W-F-2

Investigator(s): Eric Nagy, EMH&T Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): _____ Lat: 40.099516° Long: -82.730476° Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1. *Fraxinus pennsylvanica*	10	Yes	FACW
2. *Cornus racemosa*	10	Yes	FAC
3.			
4.			
5.			
	20 =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Juncus effusus*	70	Yes	FACW
2. *Scirpus cyperinus*	28	Yes	OBL
3. *Dipsacus fullonum*	2	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 15')			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	28	x 1 =	28
FACW species	80	x 2 =	160
FAC species	10	x 3 =	30
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	120 (A)		226 (B)

Prevalence Index = B/A = 1.88

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: W-F-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
0-10	10YR 4/1	85	10YR 5/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- X 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 X	No ___	Depth (inches): 3		
Water Table Present?	Yes X	No ___	Depth (inches): 3		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-F-61

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): ____ | Lat: 40.099327° | Long: -82.730815° | Datum: ____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

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

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	80	Yes	FACW
2.			
3.			
4.			
5.			
	80	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	____	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	40	Yes	FACW
2. *Scirpus cyperinus*	20	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
	____	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	120	x 2 =	240
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		260 (B)

Prevalence Index = B/A = 1.86

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: W-F-61

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
0-10	10YR 4/1	80	10YR 4/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- X 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 X	No ___	Depth (inches):	6	
Water Table Present?	Yes X	No ___	Depth (inches):	6	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-G-42

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): _____ | Lat: 40.100439° | Long: -82.730813° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus americana*	70	Yes	FACW
2. *Quercus palustris*	30	Yes	FACW
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	40	Yes	FACW
2. *Ligustrum vulgare*	10	No	FACU
3. *Rosa multiflora*	5	No	FACU
4.			
5.			
	55	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Cinna arundinacea*	35	Yes	FACW
2. *Carex spp.*	5	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	180	x 2 =	360
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	195 (A)		420 (B)

Prevalence Index = B/A = 2.15

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: W-G-42

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 4/2	98	10YR 3/4	2	C	M	Loamy/Clayey	Distinct redox concentrations
6-10	10YR 4/1	85	10YR 4/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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)
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 X	No ___	Depth (inches): 1		
Water Table Present?	Yes X	No ___	Depth (inches): 1		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-20-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-H-2

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): _____ | Lat: 40.096476° | Long: -82.732538° | Datum: _____

Soil Map Unit Name: Bennington silt loam (BeB) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus palustris*	40	Yes	FACW
2. *Fraxinus pennsylvanica*	10	No	FACW
3. *Crataegus crus-galli*	10	No	FAC
4. *Acer saccharinum*	10	No	FACW
5.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Cornus amomum*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Elymus virginicus*	20	Yes	FACW
2. *Carex spp.*	70	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1. *Vitis labrusca*	10	Yes	FACU
2.			
	10	=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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	160	x 2 =	320
FAC species	10	x 3 =	30
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	180 (A)		390 (B)

Prevalence Index = B/A = 2.17

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: W-H-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
0-6	10YR 3/1	90	10YR 5/6	10	C	PL	Loamy/Clayey	Prominent redox concentrations
6-12	10YR 3/1	98	10YR 3/4	2	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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)
X Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
X Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ 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): 2		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-I-1

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): ____ | Lat: 40.097927° | Long: -82.732040° | Datum: ____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

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

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus palustris*	5	Yes	FACW
2.			
3.			
4.			
5.			
	5	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Lysimachia nummularia*	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1. *Vitis labrusca*	10	Yes	FACU
2.			
	10	=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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	20 (A)		60 (B)

Prevalence Index = B/A = 3.00

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: W-I-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
0-10	10YR 4/1	90	10YR 3/4	10	C	PL	Loamy/Clayey	Distinct redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X 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)
- X 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): 6		
Water Table Present?	Yes X	No ___	Depth (inches): 6		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 04/13/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: WJ-1

Investigator(s): Bryan Lombard, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): 3 | Lat: 40.102890° | Long: -82.733062° | Datum:

Soil Map Unit Name: pewamo silty clay loam (Pe) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	90	Yes	FACW
2. *Quercus palustris*	10	No	FACW
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lindera benzoin*	20	Yes	FACW
2.			
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Carex stricta*	10	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	120	x 2 =	240
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	130 (A)		250 (B)

Prevalence Index = B/A = 1.92

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: WJ-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
0-12	10YR 3/1	80	10YR 5/4	20	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X 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)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	2	
Water Table Present?	Yes X	No ___	Depth (inches):	2	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0	**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: Clover Valley Road 515-Acre Site City/County: New Albany/ Licking Sampling Date: 4-14-2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: W-K-1

Investigator(s): Eric Nagy, EMH&T Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): _____ Lat: 40.101283° Long: -82.722655° Datum: _____

Soil Map Unit Name: Bennington silt loam (BeB) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	50	Yes	FACW
2. *Ulmus americana*	30	Yes	FACW
3.			
4.			
5.			
	80	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	30	Yes	FACW
2.			
3.			
4.			
5.			
	30	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Impatiens capensis*	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	115	x 2 =	230
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	115 (A)		230 (B)

Prevalence Index = B/A = 2.00

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: W-K-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
0-10	10YR 4/1	95	10YR 5/6	5	C	PL	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- X 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)
- X 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)
- X 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): 2		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**Wetland Hydrology Present?**	**Yes** X **No** ___

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

Remarks:

Buttressed roots.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 04/14/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: WL-1

Investigator(s): Bryan Lombard, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): 5 | Lat: 40.100689° | Long: -82.722583° | Datum:

Soil Map Unit Name: pewamo silty clay loam (Pe) | NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	50	Yes	FACW
2.			
3.			
4.			
5.			
	50	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lindera benzoin*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Carex spp*	80	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	80	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		200 (B)

Prevalence Index = B/A = 1.43

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: WL-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
0-12	10YR 3/1	90	10YR 5/4	10	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X 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)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	1	
Water Table Present?	Yes X	No ___	Depth (inches):	1	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0	**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: Clover Valley Road 515-Acre Site City/County: New Albany/ Licking Sampling Date: 4-14-2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: W-M-2

Investigator(s): Eric Nagy, EMH&T Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): _____ Lat: 40.102300° Long: -82.722024° Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	30	Yes	FACW
2. *Ulmus americana*	5	No	FACW
3. *Quercus palustris*	5	No	FACW
4.			
5.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	15	Yes	FACW
2.			
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Carex spp.*	50	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	105	x 2 =	210
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		210 (B)

Prevalence Index = B/A = 2.00

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: W-M-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
0-10	10YR 4/1	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- X 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 X	No ___	Depth (inches): 2		
Water Table Present?	Yes X	No ___	Depth (inches): 2		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-20-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-N-9

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): _____ | Lat: 40.102681° | Long: -82.721067° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	_____ =Total Cover		
Herb Stratum (Plot size: 5')			
1. *Juncus effusus*	40	Yes	FACW
2. *Carex spp.*	30	Yes	FACW
3. *Aster spp.*	10	No	FACW
4. *Setaria glauca*	20	Yes	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 15')			
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		160 (B)

Prevalence Index = B/A = 2.00

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: W-N-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
0-20	10YR 3/2	85	10YR 5/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ 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:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- 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 ___ No X Depth (inches): ___

Water Table Present? Yes X No ___ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0

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: Clover Valley Road 515-Acre Site City/County: New Albany/ Licking Sampling Date: 4-14-2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: W-0-19

Investigator(s): Eric Nagy, EMH&T Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): ____ Lat: 40.101979° Long: -82.720295° Datum: ____

Soil Map Unit Name: Bennington silt loam (BeB) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

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

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	60	Yes	FACW
2. *Ulmus americana*	30	Yes	FACW
3. *Quercus palustris*	10	No	FACW
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Carex spp.*	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	115	x 2 =	230
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	115 (A)		230 (B)

Prevalence Index = B/A = 2.00

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: W-0-19

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
0-8	10YR 3/1	98	10YR 4/6	2	C	PL	Loamy/Clayey	Prominent redox concentrations
8-12	10YR 5/1	60	10YR 4/6	40	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

X Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
X Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
X Inundation Visible on Aerial Imagery (B7)
X Sparsely Vegetated Concave Surface (B8)
X Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
X Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ 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)
X 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): 8		
Water Table Present?	Yes X	No ___	Depth (inches): 8		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 04/14/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: WP-1

Investigator(s): Bryan Lombard, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): 8 | Lat: 40.100887° | Long: -82.719055° | Datum:

Soil Map Unit Name: pewamo silty clay loam (Pe) | NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	80	Yes	FACW
2. *Quercus palustris*	10	No	FACW
3.			
4.			
5.			
	90	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lindera benzoin*	15	Yes	FACW
2. *Lindera benzoin*	5	Yes	FACW
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Carex stricta*	3	Yes	OBL
2. *Cinna arundinacea*	2	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	3	x 1 =	3
FACW species	112	x 2 =	224
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	115 (A)		227 (B)

Prevalence Index = B/A = 1.97

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: WP-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
0-12	10YR 2/1	90	10YR 5/4	10	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A
Depth (inches): ____

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

X Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
X Water Marks (B1)
X Sediment Deposits (B2)
X Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
X 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)
X Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
X Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
X Geomorphic Position (D2)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 5		
Water Table Present?	Yes X	No ____	Depth (inches): 5		
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site City/County: New Albany/ Licking Sampling Date: 4-20-2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: W-Q-1

Investigator(s): Eric Nagy, EMH&T Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): _____ Lat: 40.100800° Long: -82.715072° Datum: _____

Soil Map Unit Name: Condit silt loam (Cn) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus bicolor*	50	Yes	FACW
2. *Ulmus americana*	20	Yes	FACW
3. *Quercus palustris*	30	Yes	FACW
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	10	Yes	FACW
2. *Rosa palustris*	5	Yes	OBL
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Carex spp.*	10	Yes	FACW
2. *Cinna arundinacea*	15	Yes	FACW
3. *Galium spp.*	5	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	135	x 2 =	270
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	145 (A)		290 (B)

Prevalence Index = B/A = 2.00

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.)
Buttonbush is located in the center of the wetland.

SOIL

Sampling Point: W-Q-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
0-8	10YR 4/1	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- X Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X 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)
- X 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): 4		
Water Table Present?	Yes X	No ___	Depth (inches): 4		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 03/2/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: WR-1

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): 3 | Lat: 40.104640° | Long: -82.711724° | Datum:

Soil Map Unit Name: Bennington (BeB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	80	Yes	FACW
2. *Quercus palustris*	20	Yes	FACW
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Lindera benzoin*	15	Yes	FACW
2. *Fraxinus pennsylvanica*	15	Yes	FACW
3.			
4.			
5.			
	30	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Carex stricta*	15	Yes	OBL
2. *Cinna arundinacea*	15	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	145	x 2 =	290
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	160 (A)		305 (B)

Prevalence Index = B/A = 1.91

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: WR-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
0-3	10YR 3/1	100					Loamy/Clayey	
3-12	10YR 3/1	95	10YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
12-16	10YR 3/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
16-20	10YR 3/1	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): _____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
X 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): 1		
Water Table Present?	Yes X	No ___	Depth (inches): 1		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 03/9/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-S-1

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): _____ | Lat: 40.104620° | Long: -82.712561° | Datum: _____

Soil Map Unit Name: Bennington (BeB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	70	Yes	FACW
2. *Quercus palustris*	30	Yes	FACW
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Lindera benzoin*	10	Yes	FACW
2. *Rosa multiflora*	30	Yes	FACU
3.			
4.			
5.			
	40	=Total Cover	
Herb Stratum (Plot size: _____)			
1. *Carex spp.*	50	Yes	FACW
2. *Cinna arundinacea*	30	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	80	=Total Cover	
Woody Vine Stratum (Plot size: _____)			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	160	x 2 =	320
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	220 (A)		470 (B)

Prevalence Index = B/A = 2.14

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: W-S-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
0-12	10YR 3/1	85	10YR 4/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- 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 X	No ___	Depth (inches):	0.5	
Water Table Present?	Yes X	No ___	Depth (inches):	0.5	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 03/3/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: WT-1

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): 3 | Lat: 40.102563° | Long: -82.710200° | Datum:

Soil Map Unit Name: Bennington (BeB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	70	Yes	FACW
2.			
3.			
4.			
5.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Cornus sericea*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Ajuga reptans*	60	Yes	FACW
2. *Toxicodendron radicans*	20	Yes	OBL
3. *Leersia oryzoides*	10	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	140	x 2 =	280
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	170 (A)		310 (B)

Prevalence Index = B/A = 1.82

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: WT-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
0-6	10YR 4/1	90	10YR 7/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): ____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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)
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 X	No ____	Depth (inches):	0.5	
Water Table Present?	Yes X	No ____	Depth (inches):	0.5	
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 03/2/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: WU-4

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): 3 | Lat: 40.104579° | Long: -82.708713° | Datum:

Soil Map Unit Name: Bennington (BeB) | NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	80	Yes	FAC
2. *Salix nigra*	20	Yes	OBL
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Cornus sericea*	5	Yes	FACW
2. *Rosa multiflora*	5	Yes	FACU
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Juncus effusus*	30	Yes	OBL
2. *Toxicodendron radicans*	15	Yes	FAC
3. *Dactylis glomerata*	10	No	FACU
4. *Solidago spp.*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	60	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	5	x 2 =	10
FAC species	95	x 3 =	285
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	170 (A)		425 (B)

Prevalence Index = B/A = 2.50

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: WU-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
0-3	10YR 4/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
3-10	10YR 5/1	65	10YR 7/6	35	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

- 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)
- 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 X	No ___	Depth (inches): 1
Water Table Present?	Yes X	No ___	Depth (inches): 1
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0

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: Clover Valley Road 515-Acre Site City/County: New Albany/ Licking Sampling Date: 04/22/2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: WV-1

Investigator(s): Bryan Lombard, EMH&T Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave

Slope (%): 5 Lat: 40.102475° Long: -82.713610° Datum:

Soil Map Unit Name: Pewamo (Pe) NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes 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:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	80	Yes	FACW
2. *Ulmus americana*	20	Yes	FACW
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Cornus sericea*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	110	x 2 =	220
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		220 (B)

Prevalence Index = B/A = 2.00

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: WV-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
0-3	10YR 4/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
3-10	10YR 5/1	65	10YR 7/6	35	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A
Depth (inches): ____

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

X Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
X 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)
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)
X 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): 4		
Water Table Present?	Yes X	No ____	Depth (inches): 4		
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 05/20/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: WZ-1

Investigator(s): Bryan Lombard, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression/farm field/fence row | Local relief (concave, convex, none): concave

Slope (%): 3 | Lat: 40.097152° | Long: -82.729675° | Datum:

Soil Map Unit Name: Pewamo (Pe) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Carex spp.*	40	Yes	FACW
2. *Phalaris arundinacea*	30	Yes	FACW
3. *Juncus effusus*	10	No	OBL
4. *Agrimonia parviflora*	5	No	FACW
5. *Rumex crispus*	5	No	FAC
6. *Toxicodendron radicans*	5	No	FAC
7. *Setaria pumila*	3	No	FAC
8. *Rubus idaeus*	2	No	FACU
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	75	x 2 =	150
FAC species	13	x 3 =	39
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	100 (A)		207 (B)

Prevalence Index = B/A = 2.07

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: WZ-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
0-6	10YR 3/1	95	10YR 5/4	5	C	M	Loamy/Clayey	Distinct redox concentrations
6-12	10YR 3/1	75	10YR 5/4	25	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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)
X 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)
X 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): 6		
Water Table Present?	Yes X	No ___	Depth (inches): 6		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**Wetland Hydrology Present?**	**Yes** X **No** ___

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

Remarks:

SOIL

Sampling Point: WZ-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
0-6	10YR 3/1	95	10YR 5/4	5	C	M	Loamy/Clayey	Distinct redox concentrations
6-12	10YR 3/1	75	10YR 5/4	25	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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)
X 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)
X 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): 6		
Water Table Present?	Yes X	No ___	Depth (inches): 6		
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0	**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: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-13-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-A-24

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.099727° | Long: -82.726188° | Datum: _____

Soil Map Unit Name: Bennington silt loam (BeB) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Prunus serotina*	50	Yes	FACU
2. *Carya ovalis*	10	No	FACU
3. *Acer saccharum*	20	Yes	FACU
4. *Acer saccharinum*	20	Yes	FACW
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Erythronium americanum*	90	Yes	UPL
2. *Podophyllum peltatum*	2	No	FACU
3. *Geranium maculatum*	2	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	94	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	84	x 4 =	336
UPL species	90	x 5 =	450
Column Totals:	194 (A)		826 (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: U-A-24

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 4/2	100					Loamy/Clayey	
6-12	10YR 6/1	80	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
No hydology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515-Acre Site. City/County: New Albany/ Licking Sampling Date: 4-13-2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: U-B-1

Investigator(s): Eric Nagy, EMH&T Section, Township, Range: T. 2 N; R. 15 W

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

Slope (%): _____ Lat: 40.100192° Long: -82.727672° Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	70	Yes	FACW
2. *Carya ovata*	15	No	FACU
3. *Juglans nigra*	10	No	FACU
4. *Ulmus americana*	5	No	FACW
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Geranium maculatum*	25	Yes	FACU
2. *Cardamine douglassii*	2	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	27	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	87	x 2 =	174
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	137 (A)		374 (B)

Prevalence Index = B/A = 2.73

Hydrophytic Vegetation Indicators:

_____ 1 - Rapid Test for Hydrophytic Vegetation

X 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 X No _____

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

SOIL

Sampling Point: U-B-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
0-10	10YR 4/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-13-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-C-15

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.100644° | Long: -82.729582° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharum*	80	Yes	FACU
2. *Carya ovata*	20	Yes	FACU
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Geranium maculatum*	5	Yes	FACU
2. *Cardamine douglassii*	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	105	x 4 =	420
UPL species	0	x 5 =	0
Column Totals:	110 (A)		430 (B)

Prevalence Index = B/A = 3.91

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: U-C-15

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
0-10	10YR 4/1	90	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (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:

No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-D-4

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): slope | Local relief (concave, convex, none): sloping

Slope (%): _____ | Lat: 40.100715° | Long: -82.728448° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	80	Yes	FACW
2. *Carya ovata*	15	No	FACU
3. *Juglans nigra*	5	No	FACU
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	40	Yes	FACW
2. *Rosa multiflora*	10	Yes	FACU
3.			
4.			
5.			
	50	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Geranium maculatum*	25	Yes	FACU
2. *Cardamine douglassii*	2	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	27	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	122	x 2 =	244
FAC species	0	x 3 =	0
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	177 (A)		464 (B)

Prevalence Index = B/A = 2.62

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: U-D-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
0-10	10YR 4/1	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

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

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

Remarks:

No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-E-9

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.099996° | Long: -82.728176° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	30	Yes	FAC
2. *Juglans nigra*	60	Yes	FACU
3. *Ulmus americana*	10	No	FACW
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	40	Yes	FACW
2.			
3.			
4.			
5.			
	40	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Geranium maculatum*	15	Yes	FACU
2. *Cardamine douglassii*	10	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	30	x 3 =	90
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	165 (A)		510 (B)

Prevalence Index = B/A = 3.09

Hydrophytic Vegetation Indicators:

_____ 1 - Rapid Test for Hydrophytic Vegetation

X 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** X **No** _____

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

SOIL

Sampling Point: U-E-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
0-15	10YR 3/1	95	10YR 5/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
15-20	10YR 4/1	80	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
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** ___ **No** X

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

Remarks:
No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-F-2

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.099551° | Long: -82.730613° | Datum: _____

Soil Map Unit Name: Bennington silt loam (BeB) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Gleditsia triacanthos*	30	Yes	FACU
2. *Fraxinus pennsylvanica*	15	Yes	FACW
3.			
4.			
5.			
	45	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Apocynum cannabinum*	30	Yes	FACU
2. *Solidago canadensis*	50	Yes	FACW
3. *Rosa carolina*	10	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	135 (A)		410 (B)

Prevalence Index = B/A = 3.04

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: U-F-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
0-15	10YR 3/1	95	10YR 5/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
15-20	10YR 4/1	70	10YR 5/6	30	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-G-42

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.100665° | Long: -82.729857° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Carya ovata*	50	Yes	FACU
2. *Ulmus americana*	50	Yes	FACW
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	10	Yes	FACW
2. *Ligustrum vulgare*	5	Yes	FACU
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Geranium maculatum*	10	Yes	FACU
2. *Cardamine douglassii*	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	15	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	130 (A)		390 (B)

Prevalence Index = B/A = 3.00

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: U-G-42

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 4/2	100					Loamy/Clayey	
4-10	10YR 4/1	85	10YR 4/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-20-2022

Applicant/Owner: The City of New Albany | State: OH | Sampling Point: Up-H-2

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.096472° | Long: -82.732406° | Datum: _____

Soil Map Unit Name: Bennington silt loam (BeB) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5')			
1. *Trifolium repens*	20	Yes	FACU
2. *Festuca spp.*	70	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: 15')			
1. *Vitis labrusca*	10	Yes	FACU
2.			
	10 =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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.00

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: Up-H-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
0-20	10YR 4/3	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site City/County: New Albany/ Licking Sampling Date: 4-19-2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: U-I-1

Investigator(s): Eric Nagy, EMH&T Section, Township, Range: T. 2 N; R. 15 W

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

Slope (%): _____ Lat: 40.098104° Long: -82.731847° Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus strobus*	30	Yes	FACU
2.			
3.			
4.			
5.			
	30	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Glechoma hederacea*	10	No	FACU
2. *Taraxacum officinale*	30	Yes	UPL
3. *Festuca spp.*	60	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1. *Vitis labrusca*	10	Yes	FACU
2.			
	10	=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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	110	x 4 =	440
UPL species	30	x 5 =	150
Column Totals:	140 (A)		590 (B)

Prevalence Index = B/A = 4.21

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: U-I-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
0-10	10YR 4/1	95	10YR 4/4	5	C	M	Loamy/Clayey	Distinct redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (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:

No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 04/13/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: UPJ-1

Investigator(s): Bryan Lombard, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): farm field | Local relief (concave, convex, none): convex

Slope (%): 3 | Lat: 40.103056° | Long: -82.733234° | Datum:

Soil Map Unit Name: pewamo silty clay loam (Pe) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Zea mays*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.)
Fallow Corn Field

SOIL

Sampling Point: UPJ-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
0-12	10YR 3/2	90	10YR 5/4	10	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): ___

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (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: Clover Valley Road 515- Acre Site City/County: New Albany/ Licking Sampling Date: 4-14-2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: U-K-1

Investigator(s): Eric Nagy, EMH&T Section, Township, Range: T. 2 N; R. 15 W

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

Slope (%): _____ Lat: 40.101298° Long: -82.722499° Datum: _____

Soil Map Unit Name: Bennington silt loam (BeB) NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fagus grandifolia*	70	Yes	FACU
2. *Prunus serotina*	20	Yes	FACU
3. *Quercus palustris*	10	No	FACW
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	5	Yes	FACW
2.			
3.			
4.			
5.			
	5	=Total Cover	
Herb Stratum (Plot size: 5')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	105 (A)		390 (B)

Prevalence Index = B/A = 3.71

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: U-K-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
0-4	10YR 4/2	100					Loamy/Clayey	
4-10	10YR 4/1	70	10YR 7/6	30	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 04/14/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: UPL-1

Investigator(s): Bryan Lombard, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): woods | Local relief (concave, convex, none): convex

Slope (%): 7 | Lat: 40.100944° | Long: -82.723163° | Datum:

Soil Map Unit Name: bennington (BeB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Gleditsia triacanthos*	70	Yes	FACU
2.			
3.			
4.			
5.			
	70	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Rosa multiflora*	10	Yes	FACW
2. *Lindera benzoin*			FACW
3.			
4.			
5.			
	10	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Geranium maculatum*	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	15	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	95 (A)		360 (B)

Prevalence Index = B/A = 3.79

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: UPL-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
0-12	10YR 3/2	90	10YR 5/4	10	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): _____

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (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: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-14-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-M-2

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.102310° | Long: -82.721869° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fagus grandifolia*	20	Yes	FACU
2. *Carya ovata*	5	No	FACU
3. *Acer saccharum*	30	Yes	FACU
4. *Acer saccharinum*	20	Yes	FACW
5. *Ostrya virginiana*	25	Yes	FACU
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	15	Yes	FACW
2.			
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Cardamine douglassii*	5	Yes	FACW
2. *Geranium maculatum*	5	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.9% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	125 (A)		420 (B)

Prevalence Index = B/A = 3.36

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: U-M-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
0-6	10YR 4/2	100					Loamy/Clayey	
6-12	10YR 4/1	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
No hydology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-20-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: W-N-9

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.102730° | Long: -82.720996° | Datum: _____

Soil Map Unit Name: Pewamo silty clay loam (Pe) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	_____	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Festuca spp.*	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.00

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: W-N-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
0-20	10YR 3/2	85	10YR 5/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (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:

No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-14-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-0-19

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.101986° | Long: -82.720513° | Datum: _____

Soil Map Unit Name: Bennington silt loam (BeB) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fagus grandifolia*	30	Yes	FACU
2. *Quercus bicolor*	10	No	FACW
3. *Quercus rubra*	40	Yes	FACU
4. *Ulmus americana*	20	Yes	FACW
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lindera benzoin*	15	Yes	FACW
2.			
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Fragaria vesca*	5	Yes	UPL
2. *Claytonia virginica*	5	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	5	x 5 =	25
Column Totals:	125 (A)		415 (B)

Prevalence Index = B/A = 3.32

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: U-0-19

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					Loamy/Clayey	
6-20	10YR 3/2	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ 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:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (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:

No hydology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 04/14/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: UPP-1

Investigator(s): Bryan Lombard, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): woods | Local relief (concave, convex, none): convex

Slope (%): 4 | Lat: 40.100913° | Long: -82.719522° | Datum:

Soil Map Unit Name: Bennington (BeB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus pennsylvanica*	70	Yes	FACW
2. *Fagus grandifolia*	30	Yes	FACU
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Rosa multiflora*	35	Yes	FACU
2. *Lindera benzoin*	10	Yes	FACW
3.			
4.			
5.			
	45	=Total Cover	
Herb Stratum (Plot size: ____)			
1. *Geranium maculatum*	20	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	20	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
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: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	165 (A)		500 (B)

Prevalence Index = B/A = 3.03

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: UPP-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
0-12	10YR 3/2	95	10YR 5/4	5	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): ___

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (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: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 4-20-2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-Q-1

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): depression | Local relief (concave, convex, none): concave

Slope (%): _____ | Lat: 40.100815° | Long: -82.715253° | Datum: _____

Soil Map Unit Name: Condit silt loam (Cn) | NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	70	Yes	FACW
2. *Maclura pomifera*	30	Yes	FACU
3.			
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Ligustrum vulgare*	10	Yes	FACU
2. *Rubus occidentalis*	5	Yes	UPL
3.			
4.			
5.			
	15	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Solidago canadensis*	10	Yes	FACU
2. *Fragaria vesca*	15	Yes	UPL
3. *Aster spp.*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30	=Total Cover	
Woody Vine Stratum (Plot size: 15')			
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: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	55	x 4 =	220
UPL species	20	x 5 =	100
Column Totals:	145 (A)		460 (B)

Prevalence Index = B/A = 3.17

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.)
Buttonbush is located in the center of the wetland.

SOIL

Sampling Point: U-Q-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
0-10	10YR 4/2	90	10YR 5/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (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:

No hydrology observed.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 03/2/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: UPR-1

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): woods | Local relief (concave, convex, none): convex

Slope (%): 3 | Lat: 40.104522° | Long: -82.711540° | Datum:

Soil Map Unit Name: Bennington (BeB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus rubra*	65	Yes	FAC
2. *Quercus rubra*	20	Yes	FACU
3. *Populus deltoides*	10	No	FAC
4. *Maclura pomifera*	5	No	FACU
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Rosa multiflora*	20	Yes	FACW
2.			
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1. *Vitis vinifera*	50	Yes	FACU
2.			
	50	=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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	75	x 3 =	225
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	170 (A)		565 (B)

Prevalence Index = B/A = 3.32

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: UPR-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
0-3	10YR 3/2	100						
3-20	10YR 5/3	90	10YR 7/6	10	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A
Depth (inches): ____

Hydric Soil Present? Yes ____ No X

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515- Acre Site | City/County: New Albany/ Licking | Sampling Date: 03/9/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: U-S-1

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): terrace | Local relief (concave, convex, none): none

Slope (%): _____ | Lat: 40.104620° | Long: -82.712561° | Datum: _____

Soil Map Unit Name: Bennington (BeB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

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

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	50	Yes	FACW
2. *Quercus palustris*	20	Yes	FACW
3. *Juglans nigra*	30	Yes	FACU
4.			
5.			
	100	=Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. *Rosa multiflora*	20	Yes	FACU
2.			
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: _____)			
1. .			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	_____	=Total Cover	
Woody Vine Stratum (Plot size: _____)			
1. *Vitis labrusca*	30	Yes	FACU
2.			
	30	=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: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	150 (A)		460 (B)

Prevalence Index = B/A = 3.07

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: U-S-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
0-12	10YR 3/1	85	10YR 4/6	15	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): ___

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

Remarks:

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

Saturation Present? (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: Supplier Site | City/County: New Albany/ Licking | Sampling Date: 03/3/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: WT-1

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): woods | Local relief (concave, convex, none): convex

Slope (%): 3 | Lat: 40.102970° | Long: -82.709874° | Datum:

Soil Map Unit Name: Bennington (BeB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	90	Yes	FACW
2.			
3.			
4.			
5.			
	90	=Total Cover	
Sapling/Shrub Stratum (Plot size: ____)			
1. *Rosa multiflora*	10	Yes	FACU
2. *Lonicera periclymenum*	10	Yes	FACU
3.			
4.			
5.			
	20	=Total Cover	
Herb Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		=Total Cover	
Woody Vine Stratum (Plot size: ____)			
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	110 (A)		260 (B)

Prevalence Index = B/A = 2.36

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 X No ____

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

SOIL

Sampling Point: WT-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
0-6	10YR 4/3	100						
6-12	10YR 4/2	80	10YR 4/6	20	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A
Depth (inches): ___

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
none observed

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515-Acre Site | City/County: New Albany/ Licking | Sampling Date: 03/2/2022

Applicant/Owner: The New Albany Company | State: OH | Sampling Point: UPU-4

Investigator(s): Eric Nagy, EMH&T | Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): field | Local relief (concave, convex, none): convex

Slope (%): 3 | Lat: 40.104681° | Long: -82.709135° | Datum:

Soil Map Unit Name: Bennington (BeB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. *Elaeagnus umbellata*	20	Yes	FACU
2.			
3.			
4.			
5.			
	20 =Total Cover		
Herb Stratum (Plot size: ____)			
1. *Dactylis glomerata*	75	Yes	FACU
2. *Aster spp.*	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	105 (A)		400 (B)

Prevalence Index = B/A = 3.81

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: UPU-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
0-4	10YR 4/2	100					Loamy/Clayey	
4-10	10YR 4/2	80	10YR 4/6	20	C	PL	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ 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)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A
Depth (inches): ____

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

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Remarks:
none observed

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Clover Valley Road 515-Acre Site City/County: New Albany/ Licking Sampling Date: 04/22/2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: UPV-1

Investigator(s): Bryan Lombard, EMH&T Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): farm field Local relief (concave, convex, none): convex

Slope (%): 5 Lat: 40.102486° Long: -82.713862° Datum:

Soil Map Unit Name: Bennington (BeB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Zea mays*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.)
Fallow Corn Field

SOIL

Sampling Point: UPV-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
0-12	10YR 3/2	90	10YR 5/4	10	C	M	Loamy/Clayey	Distinct redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X 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)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

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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: Clover Valley Road 515-Acre Site City/County: New Albany/ Licking Sampling Date: 05/20/2022

Applicant/Owner: The New Albany Company State: OH Sampling Point: UPZ-1

Investigator(s): Bryan Lombard, EMH&T Section, Township, Range: T. 2 N; R. 15 W

Landform (hillside, terrace, etc.): farm field Local relief (concave, convex, none): convex

Slope (%): 3 Lat: 40.097134° Long: -82.729473° Datum:

Soil Map Unit Name: Bennington (BeB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: ____)			
1. *Zea mays*	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
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: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	100	x 5 =	500
Column Totals:	100 (A)		500 (B)

Prevalence Index = B/A = 5.00

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.)
Fallow Corn Field

SOIL

Sampling Point: UPZ-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
0-12	10YR 3/2	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: N/A
Depth (inches): ____

Hydric Soil Present? Yes ____ No X

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

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Wetland Hydrology Present? Yes ____ No X

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

Remarks:

Primary Headwater Habitat Field Evaluation Form

HHEI Score (sum of metrics 1+2+3) 53

SITE NAME/LOCATION Clover Valley Road Site Stream 1 (Blacklick Creek)
SITE NUMBER _____ RIVER BASIN _____ RIVER CODE _____ DRAINAGE AREA (mi²) 0.62
LENGTH OF STREAM REACH (ft) 100 LAT 40.100975 LONG -82.723589 RIVER MILE _____
DATE 4/20/2022 SCORER Eric Nagy COMMENTS channelization

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

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

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

TYPE		PERCENT	TYPE		PERCENT
☐ ☐	BLDR SLABS [16 pts]		☑ ☐	SILT [3 pt]	90
☐ ☐	BOULDER (>256 mm) [16 pts]		☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	
☐ ☐	BEDROCK [16 pts]		☐ ☑	FINE DETRITUS [3 pts]	10
☐ ☐	COBBLE (65-256 mm) [12 pts]		☐ ☐	CLAY or HARDPAN [0 pt]	
☐ ☐	GRAVEL (2-64 mm) [9 pts]		☐ ☐	MUCK [0 pts]	
☐ ☐	SAND (<2 mm) [6 pts]		☐ ☐	ARTIFICIAL [3 pts]	

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

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: (B) 2

HHEI Metric Points
Substrate Max = 40: 8
A + B

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

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

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): 20

Pool Depth Max = 30: 25

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

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

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters) 2

Bankfull Width Max=30: 20

This information must also be completed

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

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

COMMENTS _____

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

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

COMMENTS _____

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

☑	None	☐	1.0	☐	2.0	☐	3.0
☐	0.5	☐	1.5	☐	2.5	☐	>3

STREAM GRADIENT ESTIMATE

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

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

QHEI PERFORMED? ☐ Yes ☑ No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

☑ WWH Name: Blacklick Creek Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

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

USGS Quadrangle Name: _____ NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____

County: _____ Township/City: _____

MISCELLANEOUS

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

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 10

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

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

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

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

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

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

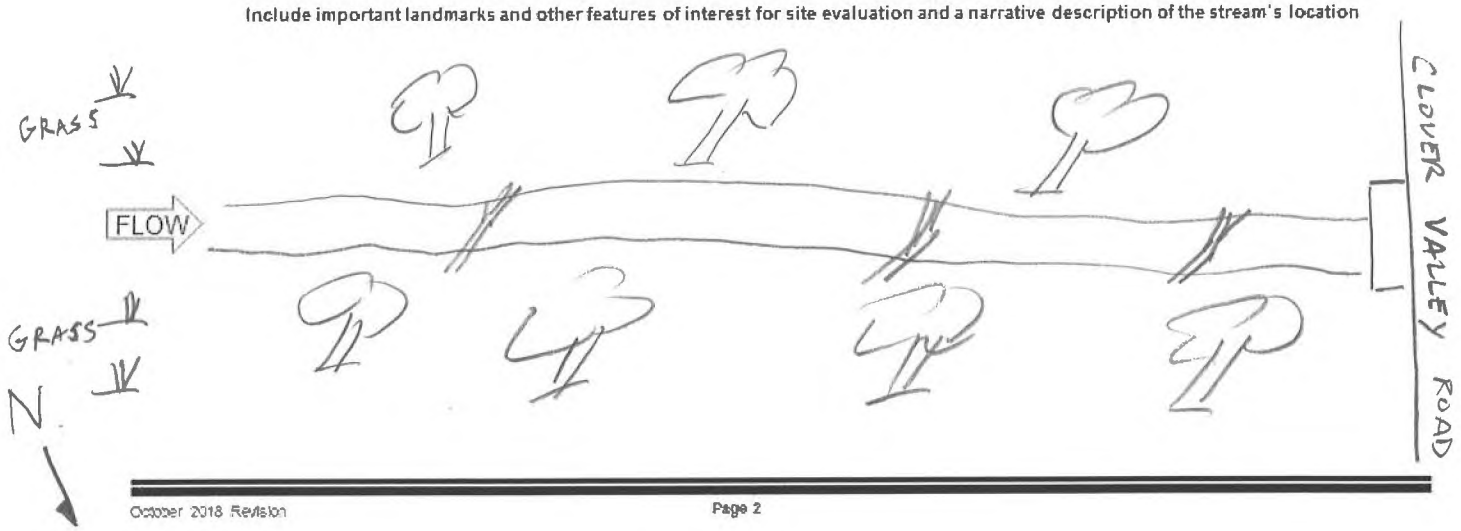
Salamanders Observed? (Y/N) N Species observed (if known): _____

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

Comments Regarding Biology: no biology observed

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

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



Primary Headwater Habitat Field Evaluation Form

HHEI Score (sum of metrics 1+2+3) 35

SITE NAME/LOCATION Clover Valley Road Site Stream 2
SITE NUMBER _____ RIVER BASIN _____ RIVER CODE _____ DRAINAGE AREA (mi²) <0.1
LENGTH OF STREAM REACH (ft) 54 LAT 40.100867 LONG -82.723397 RIVER MILE _____
DATE 4/20/2022 SCORER Eric Nagy COMMENTS channelization

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

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

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

TYPE		PERCENT	TYPE		PERCENT
☐ ☐	BLDR SLABS [16 pts]		☑ ☐	SILT [3 pt]	70
☐ ☐	BOULDER (>256 mm) [16 pts]		☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	
☐ ☐	BEDROCK [16 pts]		☐ ☐	FINE DETRITUS [3 pts]	10
☐ ☐	COBBLE (65-256 mm) [12 pts]		☐ ☐	CLAY or HARDPAN [0 pt]	
☐ ☑	GRAVEL (2-64 mm) [9 pts]	20	☐ ☐	MUCK [0 pts]	
☐ ☐	SAND (<2 mm) [6 pts]		☐ ☐	ARTIFICIAL [3 pts]	

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

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: (B) 3

HHEI Metric Points
Substrate Max = 40: 15
A + B

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

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

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): 4

Pool Depth Max = 30: 5

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

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

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters) 1.1

Bankfull Width Max=30: 15

This information must also be completed

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

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

COMMENTS _____

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

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

COMMENTS _____

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

☑	None	☐	1.0	☐	2.0	☐	3.0
☐	0.5	☐	1.5	☐	2.5	☐	>3

STREAM GRADIENT ESTIMATE

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

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

QHEI PERFORMED? ☐ Yes ☑ No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

☑ WWH Name: Blacklick Creek Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

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

USGS Quadrangle Name: _____ NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____

County: _____ Township/City: _____

MISCELLANEOUS

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

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 10

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

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

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

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

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

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

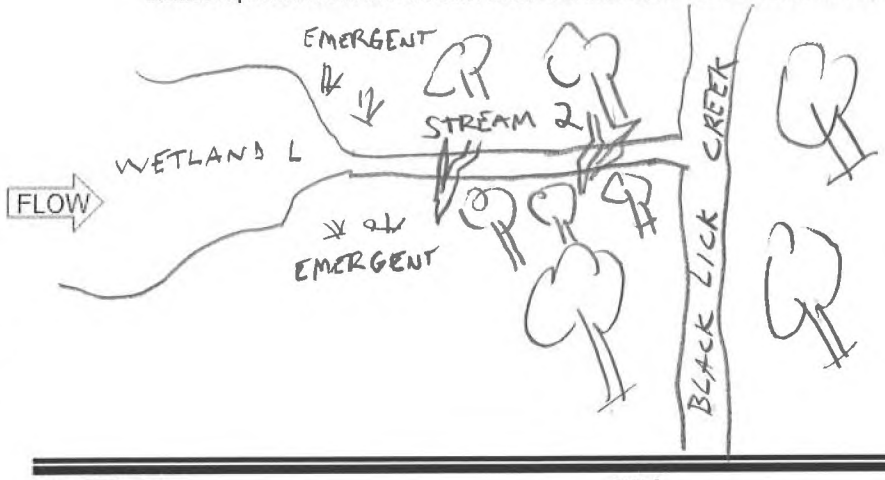
Salamanders Observed? (Y/N) N Species observed (if known): _____

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

Comments Regarding Biology: no biology observed

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

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



Primary Headwater Habitat Field Evaluation Form

HHEI Score (sum of metrics 1+2+3) 57

SITE NAME/LOCATION Clover Valley Road Site Stream 3 (Duncan Run)
SITE NUMBER _____ RIVER BASIN _____ RIVER CODE _____ DRAINAGE AREA (mi²) 0.16
LENGTH OF STREAM REACH (ft) 100 LAT 40.105893 LONG -82.713365 RIVER MILE _____
DATE 3/02/2022 SCORER Eric Nagy COMMENTS channelization

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

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

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

TYPE		PERCENT	TYPE		PERCENT
☐ ☐	BLDR SLABS [16 pts]		☑ ☐	SILT [3 pt]	60
☐ ☐	BOULDER (>256 mm) [16 pts]		☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	10
☐ ☐	BEDROCK [16 pts]		☐ ☐	FINE DETRITUS [3 pts]	
☐ ☐	COBBLE (65-256 mm) [12 pts]	5	☐ ☐	CLAY or HARDPAN [0 pt]	
☐ ☑	GRAVEL (2-64 mm) [9 pts]	23	☐ ☐	MUCK [0 pts]	
☐ ☐	SAND (<2 mm) [6 pts]	2	☐ ☐	ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 5 (A)
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12
(B) TOTAL NUMBER OF SUBSTRATE TYPES: 5

HHEI Metric Points
Substrate Max = 40
17
A + B

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

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

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): 9

Pool Depth Max = 30
15

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

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

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters) 3

Bankfull Width Max=30
25

This information must also be completed

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

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

COMMENTS _____

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

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

COMMENTS _____

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

☑	None	☐	1.0	☐	2.0	☐	3.0
☐	0.5	☐	1.5	☐	2.5	☐	>3

STREAM GRADIENT ESTIMATE

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

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

QHEI PERFORMED? ☐ Yes ☑ No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

☑ WWH Name: Duncan Creek Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

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

USGS Quadrangle Name: Jersey NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____

County: Licking Township/City: _____

MISCELLANEOUS

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

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 0

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

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

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

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

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

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

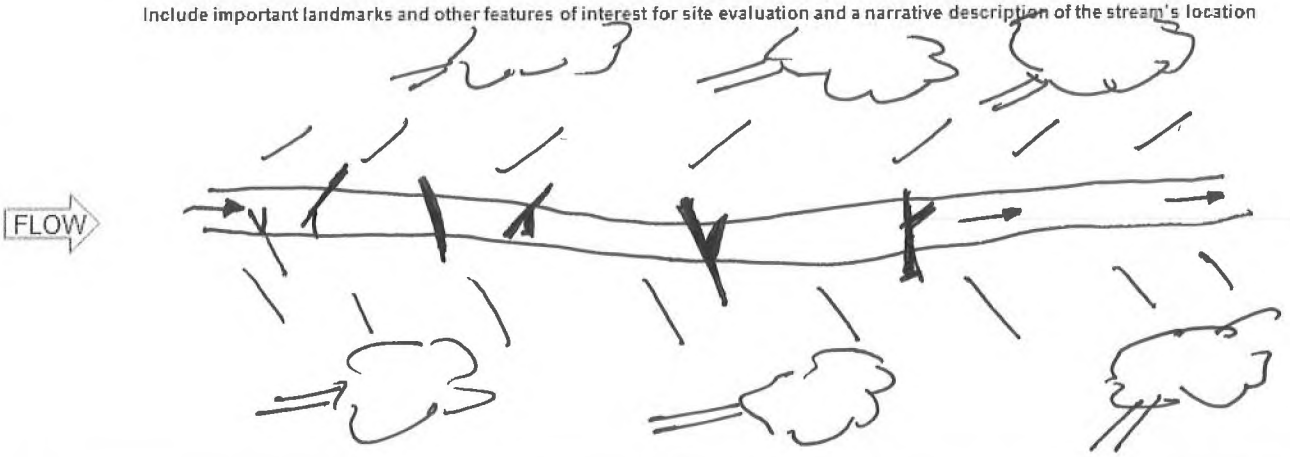
Salamanders Observed? (Y/N) N Species observed (if known): _____

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

Comments Regarding Biology: no biology observed

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

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



Background Information

Name: Bryan Lombard
Date: 4/14/2022
Affiliation: EMH&T
Address: 5500 New Albany Road, Columbus, Ohio 43054
Phone Number: (614) 775-4517
e-mail address: blombard@emht.com
Name of Wetland: Wetland K
Vegetation Communit(ies): Forested
HGM Class(es): PFO
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. See Delineation Map

Lat/Long or UTM Coordinate	40.101283°; -82.722655°
USGS Quad Name	Jersey, Ohio Quad
County	Licking
Township	Jersey
Section and Subsection	
Hydrologic Unit Code	05060001-15-03
Site Visit	4/14/2022
National Wetland Inventory Map	None
Ohio Wetland Inventory Map	--
Soil Survey	Web Soil Survey
Delineation report/map	EMH&T, May 2022

Name of Wetland: Wetland K	
Wetland Size (acres, hectares):	0.2 acre

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

See Delineation Map.

Comments, Narrative Discussion, Justification of Category Changes:

NA

Final score : 30 **Category:**	1 or 2 gray zone

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	X	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		X
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	X	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		X
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		X
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		X

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	NO Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b

8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	**Relict Wet Prairies**. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Suppliers Site Wetland K	**Rater(s):** Eric Nagy, EMH&T	**Date:** 4/14/2022

Metric 1. Wetland Area (size).

1	1
max 6 pts.	subtotal

Select one size class and assign score.

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

Metric 2. Upland buffers and surrounding land use.

8	9
max 14 pts.	subtotal

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

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

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

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

Metric 3. Hydrology.

6	15
max 30 pts.	subtotal

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

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

3b. Connectivity. Score all that apply.

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

impounded pond

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

- [ ] >0.7 (27.6in) (3)
- [ ] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [x] <0.4m (<15.7in) (1)

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

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

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

- [ ] None or none apparent (12)
- [ ] Recovered (7)
- [ ] Recovering (3)
- [x] Recent or no recovery (1)

Check all disturbances observed

- [ ] ditch
- [ ] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [ ] filling/grading
- [ ] road bed/RR track
- [ ] dredging
- [x] other_____

Metric 4. Habitat Alteration and Development.

8	23
max 20 pts.	subtotal

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

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [ ] Recovering (2)
- [ ] Recent or no recovery (1)

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

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [ ] Fair (3)
- [x] Poor to fair (2)
- [ ] Poor (1)

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

- [ ] None or none apparent (9)
- [ ] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [ ] mowing
- [ ] grazing
- [ ] clearcutting
- [x] selective cutting
- [ ] woody debris removal
- [ ] toxic pollutants
- [ ] shrub/sapling removal
- [ ] herbaceous/aquatic bed removal
- [ ] sedimentation
- [ ] dredging
- [ ] farming
- [ ] nutrient enrichment

23
subtotal this page

last revised 1 February 2001 jjm

Site: Suppliers Site Wetland K	Rater(s): Eric Nagy, EMH&T	Date: 4/14/2022

23
subtotal first page

0 (max 10 pts.) | 23 (subtotal)

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

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

7 (max 20 pts.) | 30 (subtotal)

Metric 6. Plant communities, interspersion, microtopography.

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [ ] Aquatic bed
- [0] Emergent
- [2] Shrub
- [1] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other_____

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [ ] Moderately high(4)
- [ ] Moderate (3)
- [ ] Moderately low (2)
- [✔] Low (1)
- [ ] None (0)

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

- [ ] Extensive >75% cover (-5)
- [ ] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [✔] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [1] Vegetated hummucks/tussucks
- [ ] Coarse woody debris >15cm (6in)
- [1] Standing dead >25cm (10in) dbh
- [ ] Amphibian breeding pools

Vegetation Community Cover Scale

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

Narrative Description of Vegetation Quality

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

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

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

30 Category 1 or 2 gray zone

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	2
	Metric 2. Buffers and surrounding land use	8	9
	Metric 3. Hydrology	6	15
	Metric 4. Habitat	8	23
	Metric 5. Special Wetland Communities	0	23
	Metric 6. Plant communities, interspersion, microtopography	7	30
	TOTAL SCORE	30	Category based on score breakpoints Category 1 or 2 gray zone

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	Final Category		
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Bryan Lombard
Date: 4/14/2022
Affiliation: EMH&T
Address: 5500 New Albany Road, Columbus, Ohio 43054
Phone Number: (614) 775-4517
e-mail address: blombard@emht.com
Name of Wetland: Wetland L
Vegetation Communit(ies): Forested
HGM Class(es): PFO
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. See Delineation Map

Lat/Long or UTM Coordinate	40.100689°; -82.722583°
USGS Quad Name	Jersey, Ohio Quad
County	Licking
Township	Jersey
Section and Subsection	
Hydrologic Unit Code	05060001-15-03
Site Visit	4/14/2022
National Wetland Inventory Map	PFO1C
Ohio Wetland Inventory Map	--
Soil Survey	Web Soil Survey
Delineation report/map	EMH&T, May 2022

Name of Wetland: Wetland L	
Wetland Size (acres, hectares):	1.15 acre

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

See Delineation Map.

Comments, Narrative Discussion, Justification of Category Changes:

NA

Final score : 54	**Category:**	2

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	X	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		X
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	X	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		X
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		X
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		X

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	NO Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b

8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	**Relict Wet Prairies**. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Suppliers Site Wetland L	**Rater(s):** Bryan Lombard, EMH&T	**Date:** 4/14/2022

Metric 1. Wetland Area (size).

2	2
max 6 pts.	subtotal

Select one size class and assign score.

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

Metric 2. Upland buffers and surrounding land use.

8	10
max 14 pts.	subtotal

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

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

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

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

Metric 3. Hydrology.

16	26
max 30 pts.	subtotal

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

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

3b. Connectivity. Score all that apply.

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

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

- [ ] >0.7 (27.6in) (3)
- [x] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [ ] <0.4m (<15.7in) (1)

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

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

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

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [ ] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [ ] ditch
- [x] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [x] filling/grading
- [ ] road bed/RR track
- [ ] dredging
- [ ] other_____

Metric 4. Habitat Alteration and Development.

11	37
max 20 pts.	subtotal

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

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [x] Recovering (2)
- [ ] Recent or no recovery (1)

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

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [x] Moderately good (4)
- [ ] Fair (3)
- [ ] Poor to fair (2)
- [ ] Poor (1)

clearing for trail road southern abutting mowed lawn and gravel driveway

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

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [x] mowing
- [ ] grazing
- [ ] clearcutting
- [x] selective cutting
- [ ] woody debris removal
- [ ] toxic pollutants
- [ ] shrub/sapling removal
- [ ] herbaceous/aquatic bed removal
- [ ] sedimentation
- [ ] dredging
- [ ] farming
- [ ] nutrient enrichment

37
subtotal this page

last revised 1 February 2001 jjm

Site: Suppliers Site Wetland L	Rater(s): Bryan Lombard, EMH&T	Date: 4/14/2022

37
subtotal first page

Metric 5. Special Wetlands.

0 max 10 pts. | 37 subtotal

Check all that apply and score as indicated.

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

Metric 6. Plant communities, interspersion, microtopography.

14 max 20 pts. | 51 subtotal

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [ ] Aquatic bed
- [2] Emergent
- [1] Shrub
- [2] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other_____

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [ ] Moderately high(4)
- [✔] Moderate (3)
- [ ] Moderately low (2)
- [ ] Low (1)
- [ ] None (0)

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

- [ ] Extensive >75% cover (-5)
- [ ] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [✔] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [2] Vegetated hummucks/tussucks
- [1] Coarse woody debris >15cm (6in)
- [1] Standing dead >25cm (10in) dbh
- [2] Amphibian breeding pools

Vegetation Community Cover Scale

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

Narrative Description of Vegetation Quality

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

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

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

51 Category 2

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	2
	Metric 2. Buffers and surrounding land use	8	10
	Metric 3. Hydrology	16	26
	Metric 4. Habitat	11	37
	Metric 5. Special Wetland Communities	0	37
	Metric 6. Plant communities, interspersion, microtopography	14	51
	TOTAL SCORE	51	Category based on score breakpoints Category 2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	Final Category		
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Bryan Lombard
Date: 4/15/2022 and 3/9/2022
Affiliation: EMH&T
Address: 5500 New Albany Road, Columbus, Ohio 43054
Phone Number: (614) 775-4517
e-mail address: blombard@emht.com
Name of Wetland: Wetland R
Vegetation Communit(ies): Forested
HGM Class(es): PFO
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. See Delineation Map

Lat/Long or UTM Coordinate	40.104640°; -82.711724°
USGS Quad Name	Jersey, Ohio Quad
County	Licking
Township	Jersey
Section and Subsection	
Hydrologic Unit Code	05060001-15-03
Site Visit	3/9/2022 & 4/15/2022
National Wetland Inventory Map	PFO1C
Ohio Wetland Inventory Map	--
Soil Survey	Web Soil Survey
Delineation report/map	EMH&T, May 2022

Name of Wetland: Wetland R	
Wetland Size (acres, hectares):	5.53 acres

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

See Delineation Map.

Comments, Narrative Discussion, Justification of Category Changes:

NA

Final score : 54	**Category:** 2

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	X	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		X
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	X	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		X
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		X
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		X

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	NO Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b

8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	**Relict Wet Prairies**. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Suppliers Site Wetland R	**Rater(s):** Eric Nagy, EMH&T	**Date:** 3/9/2022 & 4/15/2022

Metric 1. Wetland Area (size).

max 6 pts.	subtotal
3	3

Select one size class and assign score.

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

Metric 2. Upland buffers and surrounding land use.

max 14 pts.	subtotal
3	6

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

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

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

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

Metric 3. Hydrology.

max 30 pts.	subtotal
15.5	21.5

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

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

3b. Connectivity. Score all that apply.

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

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

- [ ] >0.7 (27.6in) (3)
- [x] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [ ] <0.4m (<15.7in) (1)

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

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

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

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [ ] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [x] ditch
- [x] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [x] filling/grading
- [ ] road bed/RR track
- [ ] dredging
- [ ] other_____

Metric 4. Habitat Alteration and Development.

max 20 pts.	subtotal
14.5	36

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

- [x] None or none apparent (4)
- [x] Recovered (3)
- [ ] Recovering (2)
- [ ] Recent or no recovery (1)

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

- [ ] Excellent (7)
- [ ] Very good (6)
- [x] Good (5)
- [ ] Moderately good (4)
- [ ] Fair (3)
- [ ] Poor to fair (2)
- [ ] Poor (1)

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

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [ ] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [ ] mowing
- [ ] grazing
- [ ] clearcutting
- [x] selective cutting
- [ ] woody debris removal
- [ ] toxic pollutants
- [ ] shrub/sapling removal
- [ ] herbaceous/aquatic bed removal
- [ ] sedimentation
- [ ] dredging
- [ ] farming
- [ ] nutrient enrichment

subtotal this page
36

last revised 1 February 2001 jjm

Site: Suppliers Site Wetland R	**Rater(s):** Eric Nagy, EMH&T	**Date:** 3/9/2022 & 4/15/2022

36
subtotal first page

Metric 5. Special Wetlands.

0 max 10 pts. | 36 subtotal

Check all that apply and score as indicated.

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

Metric 6. Plant communities, interspersion, microtopography.

18 max 20 pts. | 36 subtotal

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [ ] Aquatic bed
- [1] Emergent
- [2] Shrub
- [2] Forest
- [ ] Mudflats
- [1] Open water
- [ ] Other_____

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [ ] Moderately high(4)
- [✔] Moderate (3)
- [ ] Moderately low (2)
- [ ] Low (1)
- [ ] None (0)

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

- [ ] Extensive >75% cover (-5)
- [ ] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [✔] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [2] Vegetated hummucks/tussucks
- [3] Coarse woody debris >15cm (6in)
- [2] Standing dead >25cm (10in) dbh
- [2] Amphibian breeding pools

Vegetation Community Cover Scale

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

Narrative Description of Vegetation Quality

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

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

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

54 Category 2

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	3
	Metric 2. Buffers and surrounding land use	5	8
	Metric 3. Hydrology	15.5	15.5
	Metric 4. Habitat	14.5	14.5
	Metric 5. Special Wetland Communities	0	36
	Metric 6. Plant communities, interspersion, microtopography	18	54
	TOTAL SCORE	54	Category based on score breakpoints Category 2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category

Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Bryan Lombard
Date: 3/09/2022
Affiliation: EMH&T
Address: 5500 New Albany Road, Columbus, Ohio 43054
Phone Number: (614) 775-4517
e-mail address: blombard@emht.com
Name of Wetland: Wetland S
Vegetation Communit(ies): Forested/Emergent
HGM Class(es): PFO/PEM
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. See Delineation Map

Lat/Long or UTM Coordinate	40.104620°; -82.712561°
USGS Quad Name	Jersey, Ohio Quad
County	Licking
Township	Jersey
Section and Subsection	
Hydrologic Unit Code	05060001-15-03
Site Visit	3/09/2022
National Wetland Inventory Map	NA
Ohio Wetland Inventory Map	--
Soil Survey	Web Soil Survey
Delineation report/map	EMH&T, May 2022

Name of Wetland: Wetland S	
Wetland Size (acres, hectares):	0.2 acre

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

See Delineation Map.

Comments, Narrative Discussion, Justification of Category Changes:

NA

Final score : 39.5	**Category:**	Modified 2

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	X	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		X
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	X	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	X	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		X
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		X

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	NO Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b

8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	**Relict Wet Prairies**. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Suppliers Site Wetland S	**Rater(s):** Bryan Lombard, EMH&T	**Date:** 3/09/2022

Metric 1. Wetland Area (size).

1	1
max 6 pts.	subtotal

Select one size class and assign score.

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

Metric 2. Upland buffers and surrounding land use.

13	14
max 14 pts.	subtotal

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

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

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

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

Metric 3. Hydrology.

11	25
max 30 pts.	subtotal

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

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

3b. Connectivity. Score all that apply.

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

Logging

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

- [ ] >0.7 (27.6in) (3)
- [ ] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [x] <0.4m (<15.7in) (1)

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

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

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

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [ ] ditch
- [x] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [ ] filling/grading
- [ ] road bed/RR track
- [ ] dredging
- [x] other_____

Metric 4. Habitat Alteration and Development.

9.5	34.5
max 20 pts.	subtotal

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

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [ ] Recovering (2)
- [ ] Recent or no recovery (1)

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

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [ ] Fair (3)
- [x] Poor to fair (2)
- [ ] Poor (1)

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

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [ ] mowing
- [ ] grazing
- [ ] clearcutting
- [x] selective cutting
- [ ] woody debris removal
- [ ] toxic pollutants
- [ ] shrub/sapling removal
- [ ] herbaceous/aquatic bed removal
- [ ] sedimentation
- [ ] dredging
- [x] farming
- [ ] nutrient enrichment

34.5
subtotal this page

last revised 1 February 2001 jjm

Site: Suppliers Site Wetland S	Rater(s): Bryan Lombard, EMH&T	Date: 3/09/2022

34.5
subtotal first page

Metric 5. Special Wetlands.

0 max 10 pts. | 34.5 subtotal

Check all that apply and score as indicated.

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

Metric 6. Plant communities, interspersion, microtopography.

5 max 20 pts. | 39.5 subtotal

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [ ] Aquatic bed
- [1] Emergent
- [ ] Shrub
- [1] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other_____

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [ ] Moderately high(4)
- [ ] Moderate (3)
- [ ] Moderately low (2)
- [✔] Low (1)
- [ ] None (0)

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

- [ ] Extensive >75% cover (-5)
- [ ] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [✔] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [ ] Vegetated hummucks/tussucks
- [1] Coarse woody debris >15cm (6in)
- [ ] Standing dead >25cm (10in) dbh
- [ ] Amphibian breeding pools

Vegetation Community Cover Scale

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

Narrative Description of Vegetation Quality

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

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

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

39.5 Category Modified 2

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	1
	Metric 2. Buffers and surrounding land use	13	14
	Metric 3. Hydrology	11	25
	Metric 4. Habitat	9.5	34.5
	Metric 5. Special Wetland Communities	0	34.5
	Metric 6. Plant communities, interspersion, microtopography	5	39.5
	TOTAL SCORE	39.5	Category based on score breakpoints Category Modified 2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	Final Category		
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Bryan Lombard
Date: 4/26/2022
Affiliation: EMH&T
Address: 5500 New Albany Road, Columbus, Ohio 43054
Phone Number: (614) 775-4517
e-mail address: blombard@emht.com
Name of Wetland: Wetland V
Vegetation Communit(ies): Forested
HGM Class(es): PFO
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. See Delineation Map

Lat/Long or UTM Coordinate	40.102449°; -82.73612°
USGS Quad Name	Jersey, Ohio Quad
County	Licking
Township	Jersey
Section and Subsection	
Hydrologic Unit Code	05060001-15-03
Site Visit	4/26/2022
National Wetland Inventory Map	PFO1C
Ohio Wetland Inventory Map	--
Soil Survey	Web Soil Survey
Delineation report/map	EMH&T, May 2022

Name of Wetland: Wetland V	
Wetland Size (acres, hectares):	0.25 acre

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

See Delineation Map.

Comments, Narrative Discussion, Justification of Category Changes:

NA

Final score : 39	**Category:**	Mod. 2

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	X	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		X
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	X	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		X
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		X
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		X

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	NO Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b

8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	**Relict Wet Prairies**. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: Suppliers Site Wetland V	**Rater(s):** Bryan Lombard, EMH&T	**Date:** 4/26/2022

Metric 1. Wetland Area (size).

1	1
max 6 pts.	subtotal

Select one size class and assign score.

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

Metric 2. Upland buffers and surrounding land use.

5	6
max 14 pts.	subtotal

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

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

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

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

Metric 3. Hydrology.

13	19
max 30 pts.	subtotal

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

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

3b. Connectivity. Score all that apply.

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

Impoundment

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

- [x] >0.7 (27.6in) (3)
- [ ] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [ ] <0.4m (<15.7in) (1)

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

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

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

- [ ] None or none apparent (12)
- [ ] Recovered (7)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [ ] ditch
- [x] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [ ] filling/grading
- [ ] road bed/RR track
- [ ] dredging
- [x] other_____

Metric 4. Habitat Alteration and Development.

10	29
max 20 pts.	subtotal

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

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [x] Recovering (2)
- [ ] Recent or no recovery (1)

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

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [x] Fair (3)
- [ ] Poor to fair (2)
- [ ] Poor (1)

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

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [ ] mowing
- [ ] grazing
- [ ] clearcutting
- [x] selective cutting
- [ ] woody debris removal
- [ ] toxic pollutants
- [ ] shrub/sapling removal
- [ ] herbaceous/aquatic bed removal
- [ ] sedimentation
- [ ] dredging
- [ ] farming
- [ ] nutrient enrichment

29
subtotal this page

last revised 1 February 2001 jjm

Site: Suppliers Site Wetland V	Rater(s): Bryan Lombard, EMH&T	Date: 4/26/2022

29
subtotal first page

Metric 5. Special Wetlands.

0 max 10 pts. | 29 subtotal

Check all that apply and score as indicated.

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

Metric 6. Plant communities, interspersion, microtopography.

10 max 20 pts. | 39 subtotal

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [ ] Aquatic bed
- [ ] Emergent
- [ ] Shrub
- [2] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other_____

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [ ] Moderately high(4)
- [✔] Moderate (3)
- [ ] Moderately low (2)
- [ ] Low (1)
- [ ] None (0)

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

- [ ] Extensive >75% cover (-5)
- [ ] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [✔] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [ ] Vegetated hummucks/tussucks
- [2] Coarse woody debris >15cm (6in)
- [1] Standing dead >25cm (10in) dbh
- [2] Amphibian breeding pools

Vegetation Community Cover Scale

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

Narrative Description of Vegetation Quality

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

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

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

39 Modified Category 2

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	1
	Metric 2. Buffers and surrounding land use	5	6
	Metric 3. Hydrology	13	19
	Metric 4. Habitat	10	29
	Metric 5. Special Wetland Communities	0	29
	Metric 6. Plant communities, interspersion, microtopography	10	39
	TOTAL SCORE	39	Category based on score breakpoints Modified Category 2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	Final Category		
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Photograph 1
View of Wetland K facing north.
(EMH&T 4/14/22)

Photograph 2
View of Wetland K facing south.
(EMH&T 4/14/22)

Photograph 3
View of Wetland K facing east.
(EMH&T 4/14/22)

Photograph 4
View of Wetland K facing west.
(EMH&T 4/14/22)

Photograph 5
View of Wetland L facing north.
(EMH&T 4/14/22)

Photograph 6
View of Wetland L facing south.
(EMH&T 4/14/22)

Photograph 7
View of Wetland L facing east.
(EMH&T 4/14/22)

Photograph 8
View of Wetland L facing west.
(EMH&T 4/14/22)

Photograph 9
View of Wetland R facing north.
(EMH&T 4/15/22)

Photograph 10
View of Wetland R facing south.
(EMH&T 4/15/22)

Photograph 11
View of Wetland R facing east.
(EMH&T 4/15/22)

Photograph 12
View of Wetland R facing west.
(EMH&T 4/15/22)

Photograph 13
View of Wetland S facing north.
(EMH&T 3/09/22)

Photograph 14
View of Wetland S facing south.
(EMH&T 3/09/22)

Photograph 15
View of Wetland S facing east.
(EMH&T 3/09/22)

Photograph 16
View of Wetland S facing west.
(EMH&T 3/09/22)

Photograph 17
View of Wetland V facing north.
(EMH&T 4/22/22)

Photograph 18
View of Wetland V facing south.
(EMH&T 4/22/22)

Photograph 19
View of Wetland V facing east.
(EMH&T 4/22/22)

Photograph 20
View of Wetland V facing west.
(EMH&T 4/22/22)

Photograph 21
View of Stream 1 (Blacklick Creek) facing upstream (west of Clover Valley Road).
(EMH&T 4/19/22)

Photograph 22
View of Stream 1 (Blacklick Creek) facing downstream (west of Clover Valley Road).
(EMH&T 4/19/22)

Photograph 23
View of Stream 1 (Blacklick Creek) substrate (west of Clover Valley Road).
(EMH&T 4/19/22)

Photograph 24
View of Stream 1 (Blacklick Creek) facing upstream (east of Clover Valley Road).
(EMH&T 4/20/22)

Photograph 25
View of Stream 1 (Blacklick Creek) facing downstream (east of Clover Valley Road).
(EMH&T 4/20/22)

Photograph 26
View of Stream 1 (Blacklick Creek) substrate (east of Clover Valley Road).
(EMH&T 4/20/22)

Photograph 27
View of Stream 2 facing upstream.
(EMH&T 4/14/22)

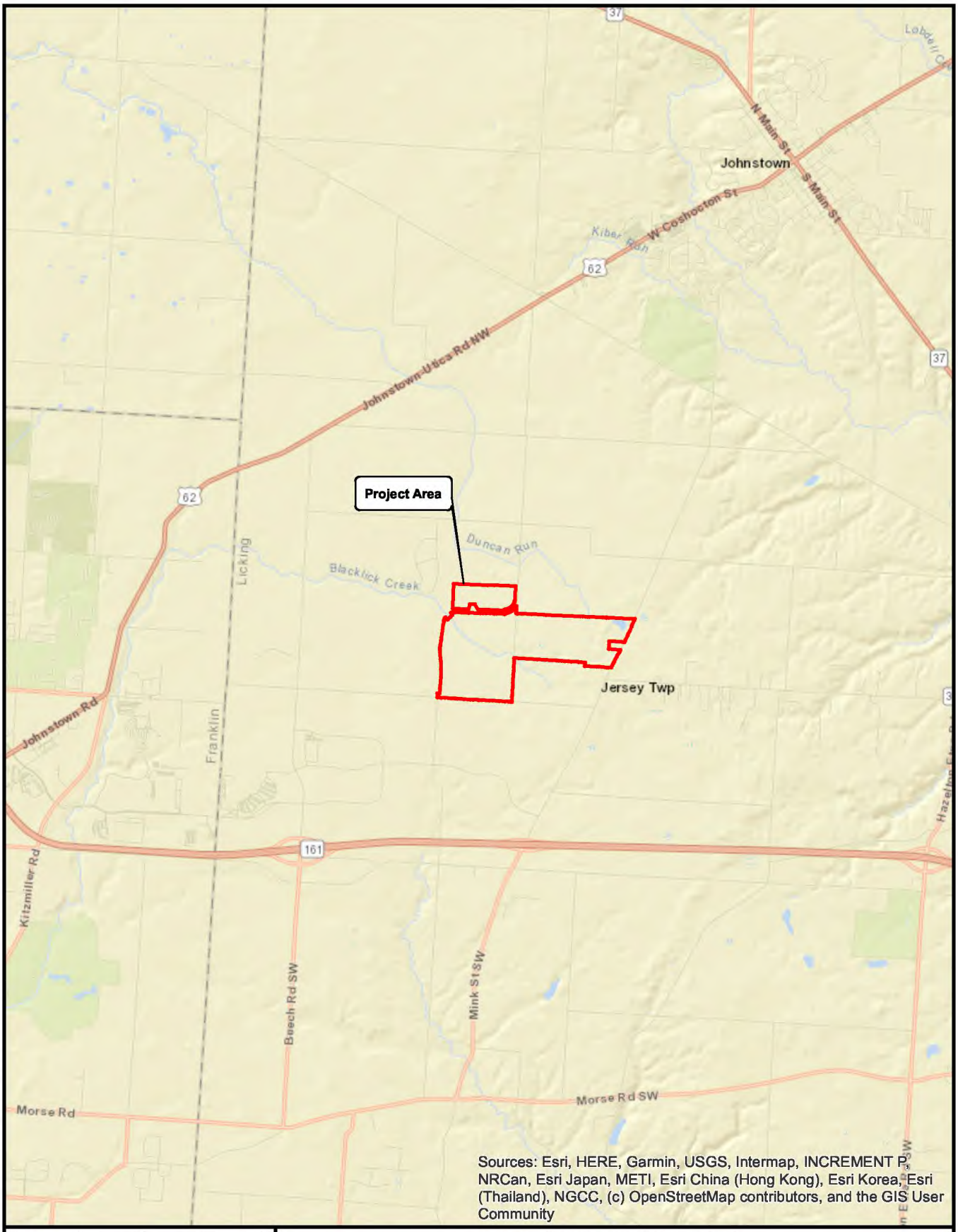
Photograph 28
View of Stream 2 facing downstream.
(EMH&T 4/14/22)

Photograph 29
View of Stream 2 substrate.
(EMH&T 4/14/22)

Photograph 30
View of Stream 3 (Duncan Run) facing upstream.
(EMH&T 3/02/22)

Photograph 31
View of Stream 3 (Duncan Run) facing downstream.
(EMH&T 3/02/22)

Photograph 32
View of Stream 3 (Duncan Run) substrate.
(EMH&T 3/02/22)



Sources: 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

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JERSEY TOWNSHIP, LICKING COUNTY, OHIO

New Albany Tech Park
Location Map
Exhibit 1

SCALE: 1" = 1 Mile

0 0.5 1 2 Miles

N

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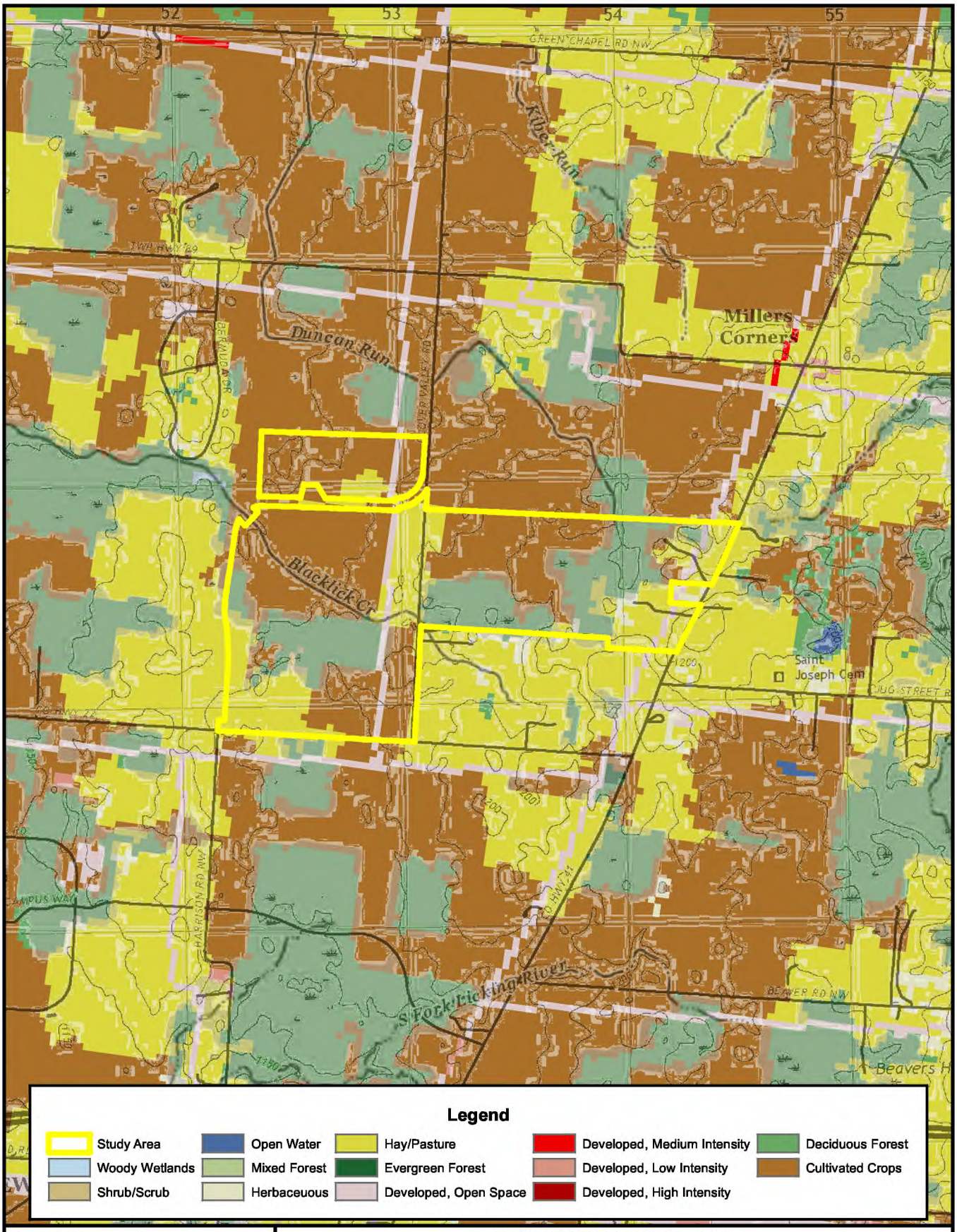

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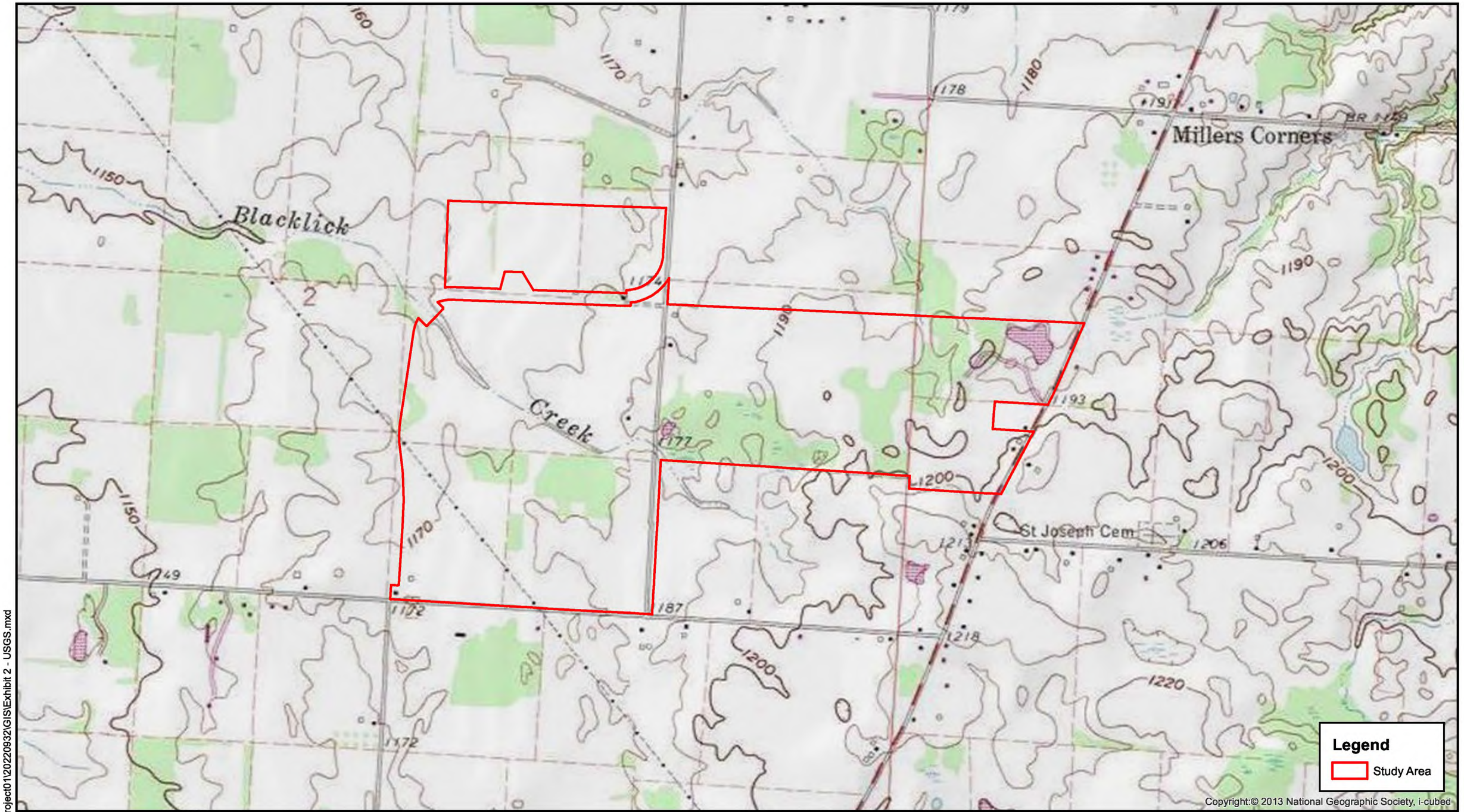
New Albany Tech Park
Vicinity Map
Exhibit 2

SCALE: 1" = 2,000'

0 1,000 2,000 4,000 Feet

N

Source: USGS Jersey Quad Map (Pub. 2019)



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SCALE: 1" = 1,000'

0 500 1,000 2,000 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Clover Valley Road
USGS Topographic Map
Exhibit 3

N

Source: USGS Jersey Quad Map (Pub. 1975)

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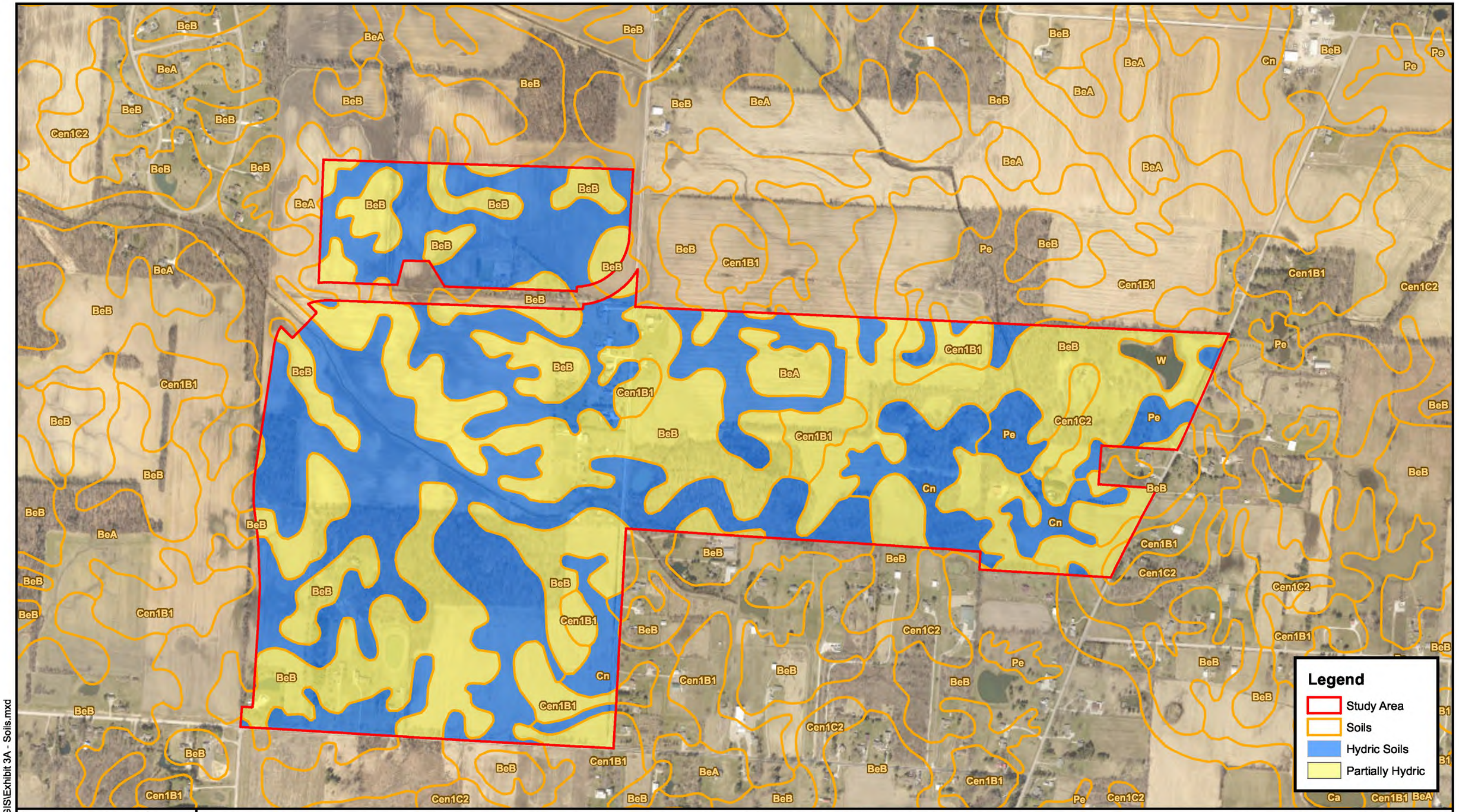

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SCALE: 1" = 700'

0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

New Albany Tech Park
Soil Survey of Licking County
Exhibit 4A

N

Source: Soils - NRCS, 2021; Aerial - Licking County, 2021

Path: J:\20220932\GIS\Exhibit 3A - Soils.mxd

Path: J:\20220932\GIS\Exhibit 3B - Soils.mxd

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SCALE: 1" = 700'

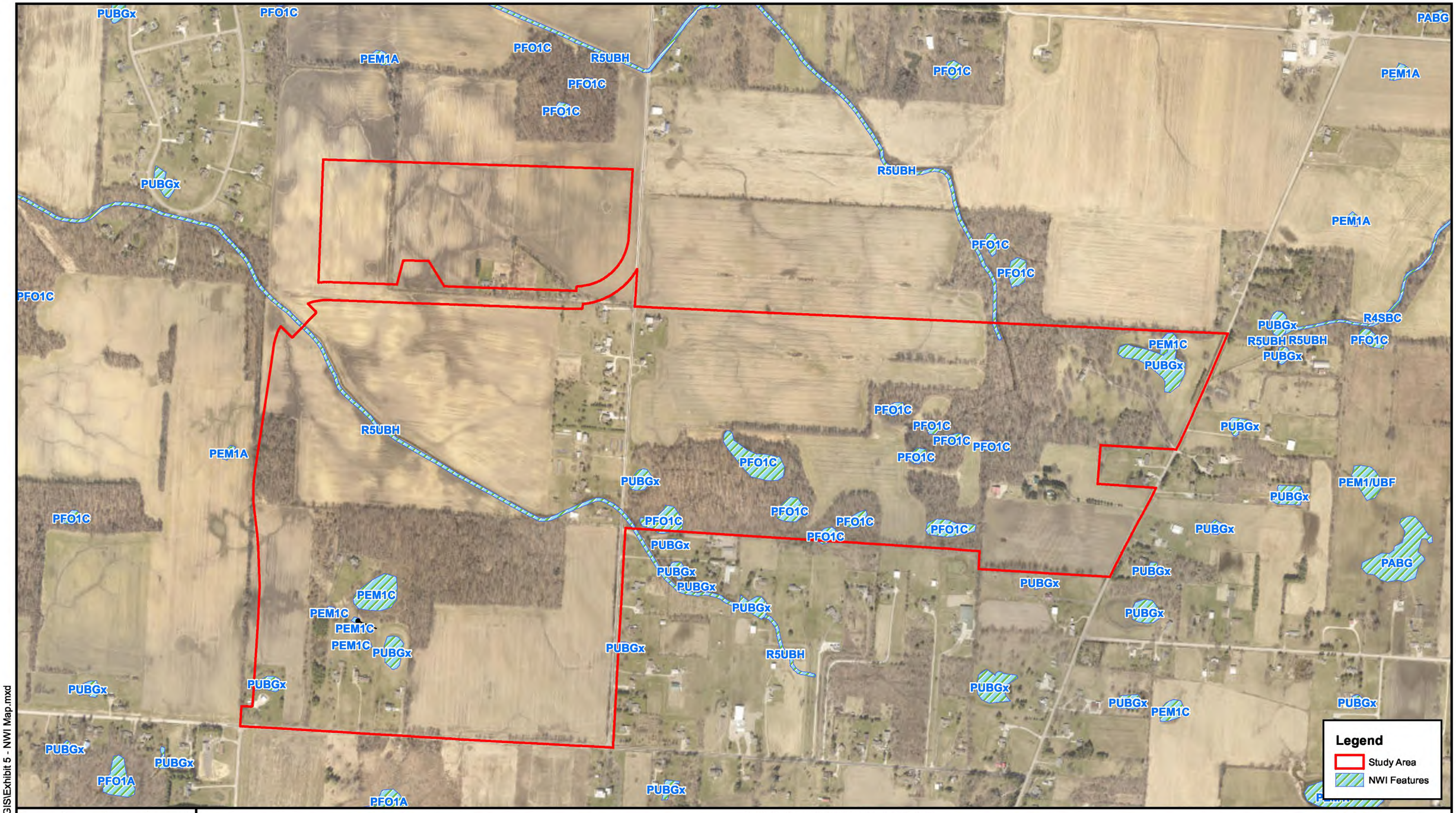
0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

New Albany Tech Park
Soils Map
Exhibit 4B

N

Source: Soils - USDA, 1992



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SCALE: 1" = 700'

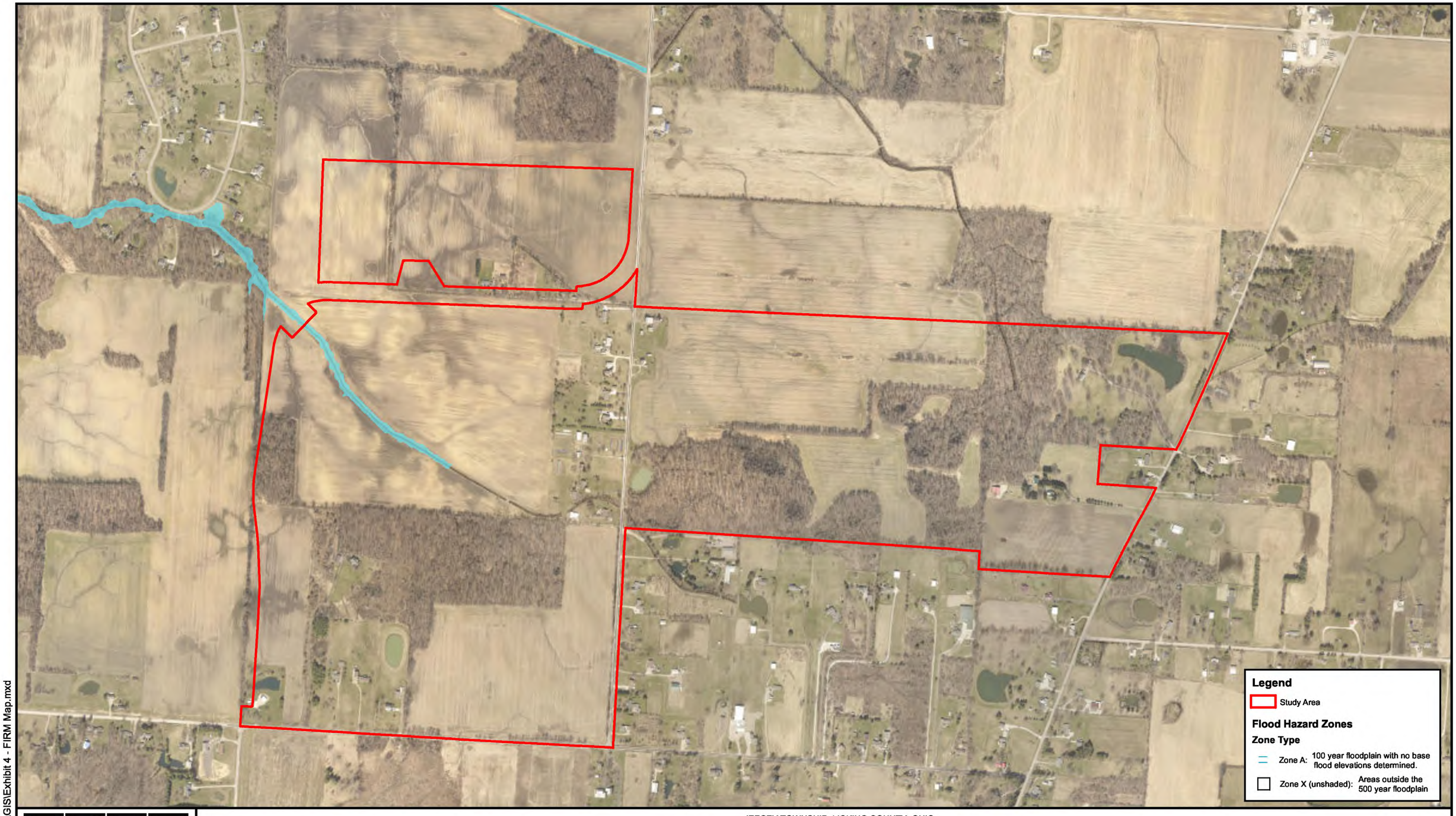
0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

New Albany Tech Park
National Wetland Inventory Map
Exhibit 5

N

Source: NWI Features - FWS, 2021; Aerial - Licking County, 2021



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SCALE: 1" = 700'

0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

New Albany Tech Park
Flood Insurance Rate Map
Exhibit 6

N

Source: Floodplain - FEMA, 2015; Aerial - Licking County, 2021

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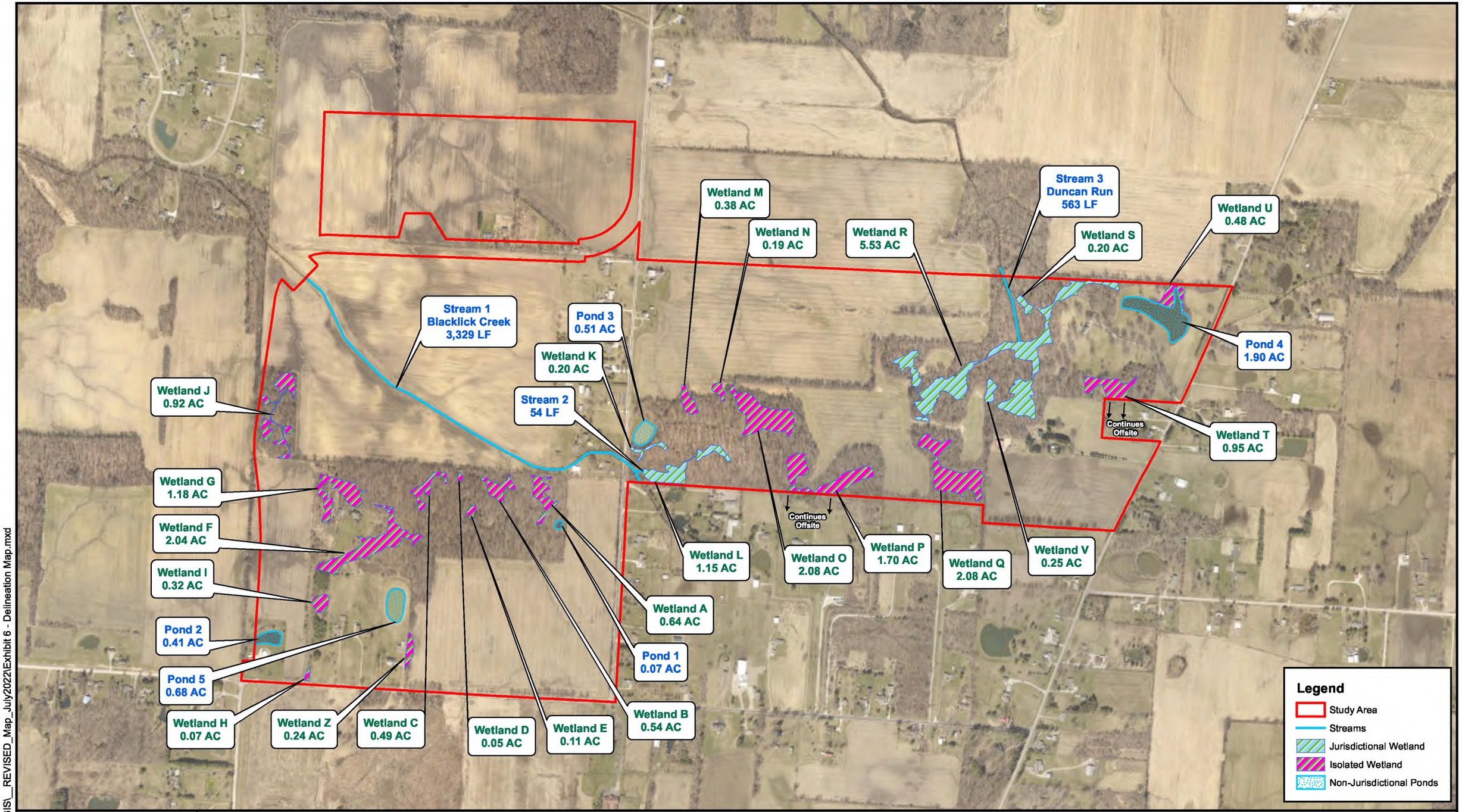

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SCALE: 1" = 700'

0 350 700 1,400 Feet

JERSEY TOWNSHIP, LICKING COUNTY, OHIO

New Albany Tech Park
Delineation Map
Exhibit 7

N

Source: Aerial - Licking County, 2021

GREEN CHAPEL ROAD

60' Pavement & Building Setback

Prop Basin

BUILDING 130,000 SF

BUILDING 60,000 SF

BUILDING 60,000 SF

BUILDING 60,000 SF

Prop Basin

BUILDING 302,400 SF

BUILDING 302,400 SF

100' Pavement & 150' Building Setback

Stream/Wetland Buffer

Wetland T 10.17 Ac

BUILDING 525,000 SF

Prop Basin

Stream 1 3628 LF Impacted 3628 LF

BUILDING 35,200 SF

Wetland X 0.54 Ac

Stream 2 243 LF Impacted 243 LF

Prop Basin

BUILDING 60,000 SF

BUILDING 225,000 SF

BUILDING 302,400 SF

Wetland S 0.19 Ac

Wetland R 0.81 Ac

Wetland Q 0.46 Ac

Wetland P 0.75 Ac

Wetland O 0.69 Ac

BUILDING 525,000 SF

Prop Basin

Wetland I 0.45 Ac

Wetland K 0.23 Ac

BUILDING 302,400 SF

Wetland N 0.42 Ac

Wetland L 3.08 Ac

Wetland M 1.07 Ac

Pond 3 0.58 Ac

Wetland J 0.15 Ac

Prop Basin

Pond 2 0.23 Ac

Wetland E 0.08 Ac

Wetland H 0.21 Ac

BUILDING 35,200 SF

BUILDING 42,000 SF

60' Pavement & Building Setback

Wetland G 0.68 Ac

Prop Basin

Pond 1 0.21 Ac

Wetland F 1.05 Ac

BUILDING 275,000 SF

Prop Basin

BUILDING 202,500 SF

BUILDING 175,500 SF

BUILDING 37,700 SF

Wetland W 1.28 Ac

BUILDING 275,200 SF

Wetland C 0.39 Ac

Wetland V 1.09 Ac

BUILDING 302,400 SF

CLOVER VALLEY ROAD

MILLER ROAD

SR

GRAPHIC SCALE

0 100 200 400

1 inch = 200 feet

LEGEND

- Site Boundary
- Avoided Wetland 10.17 Acres
- Impacted Isolated Wetlands 13.09 Acres
- Impacted Non-Jurisdictional Pond 1.02 Acres
- Existing Stream
- Impacted Stream 3871 LF
- 50' Stream/Wetland Buffer

REVISIONS		
MARK	DATE	DESCRIPTION

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MBJ HOLDINGS, LLC

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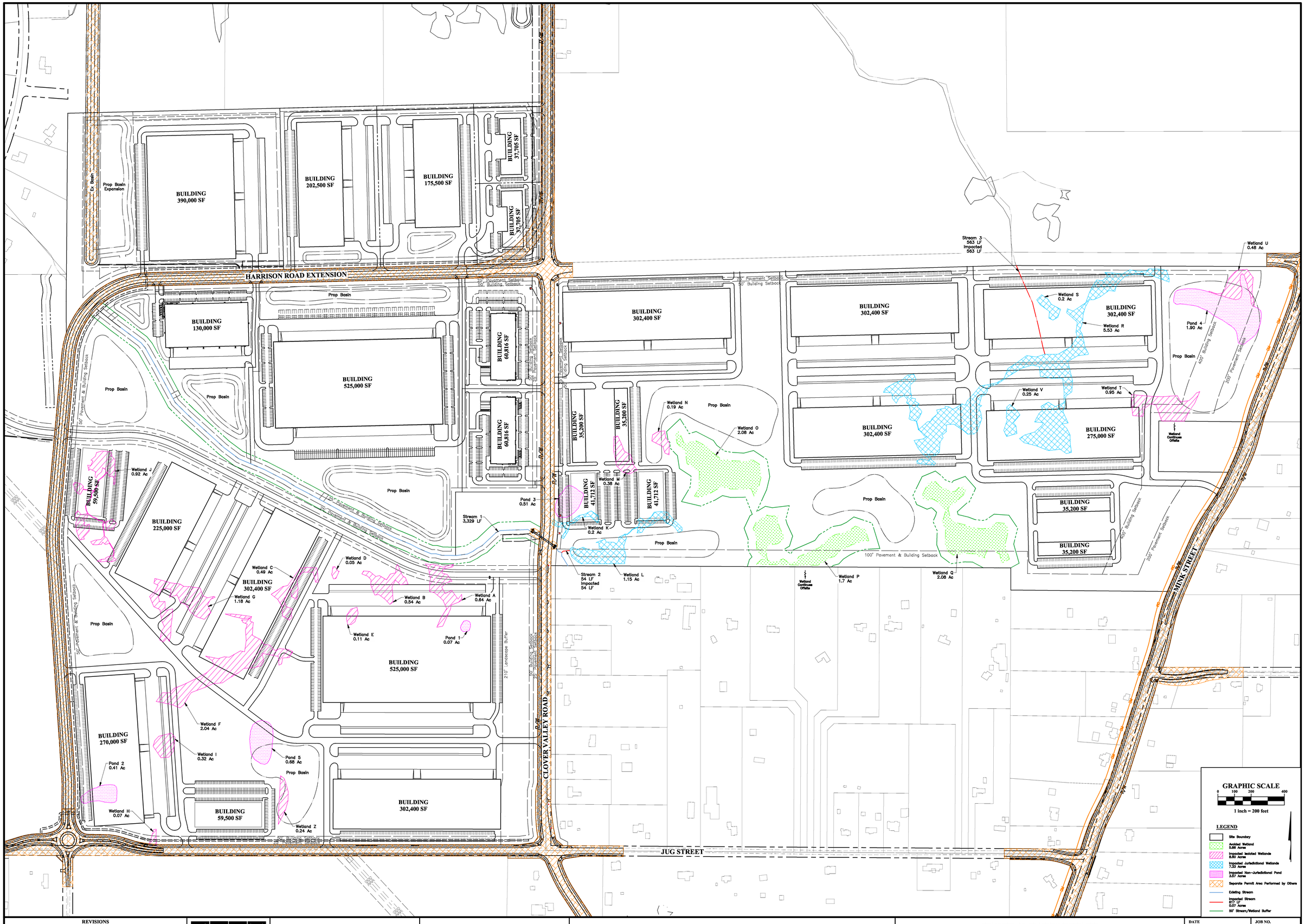
CITY OF NEW ALBANY, LICKING COUNTY, OHIO
EXHIBIT
FOR
NEW ALBANY TECH PARK OFFSITE ALTERNATIVE

DATE	JOB NO.
October 31, 2022	2022-0326
SCALE	SHEET
1" = 300'	EXHIBIT 8



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MBJ HOLDINGS, LLC

PRELIMINARY
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CITY OF NEW ALBANY, LICKING COUNTY, OHIO
EXHIBIT
FOR
NEW ALBANY TECH PARK
ALTERNATIVE A

DATE	JOB NO.
October 31, 2022	2022-0326
SCALE	SHEET
1" = 200'	EXHIBIT 9

REVISIONS

MARK	DATE	DESCRIPTION

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CITY OF NEW ALBANY, LICKING COUNTY, OHIO
EXHIBIT
FOR
NEW ALBANY TECH PARK ALTERNATIVE B

DATE	JOB NO.
October 31, 2022	2022-0326
SCALE	SHEET
1" = 200'	EXHIBIT 10

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(No Xrefs)

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NEW ALBANY TECH PARK

Individual Section 404/401 Permit Application

MBJ Holdings, LLC

December 13, 2022

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1.0 INTRODUCTION

MBJ Holdings, LLC is proposing to construct an industrial development known as the "New Albany Tech Park." The project is located on approximately 442.5 acres of land positioned east and west of Clover Valley Road, north of Jug Street, and south of Miller Road in the City of New Albany, Licking County, Ohio. The proposed development includes the construction of an industrial business park providing multiple warehouses, flex office, and maintenance/manufacturing buildings for advanced technology manufacturers and users. The industrial park is anticipated to provide approximately 5 million square feet of occupiable building space along with associated parking areas, paved storage areas, site entrances and drives, stormwater facilities and associated infrastructure.

Construction of the New Albany Tech Park project will require impacts to 6.51 acres of jurisdictional forested wetlands, as well as 563 linear feet of intermittent stream. A request for an Isolated Wetland Permit for authorization to impact 8.60 acres of isolated wetlands for the proposed project was submitted to the Ohio Environmental Protection Agency (Ohio EPA) under a separate cover. Additionally, the proposed development will impact 3.57 acres of non-jurisdictional ponds.

EMH&T has prepared this document in accordance with a request by MBJ Holdings, LLC for Section 401 Water Quality Certification from the Ohio EPA and Clean Water Act Section 404 authorization from the United States Army Corps of Engineers (USACE) for impacts to Waters of the United States in association with the proposed project. MBJ Holdings, LLC is seeking authorization from the Ohio EPA and the USACE to construct the proposed **Alternative B**. Based on the proposed schedule for full buildout of the development, MBJ Holdings is requesting a five-year permit expiration.

The sequence of this proposal follows the format of the Ohio EPA Section 401 Water Quality Certification Application Completion and Submittal Instructions (rev. 07/2022). Attached to the end of this section is the completed 401 Water Quality Certification Application Form (Attachment 1A) and 404 Permit Application Form (Attachment 1B).

2.0 SUMMARY OF IMPACTS

EMH&T has prepared this document in accordance with a request by MBJ Holdings, LLC for Section 401 Water Quality Certification from the Ohio EPA and Section 404 authorization from the USACE for impacts to Waters of the United States in association with the proposed development of the New Albany Tech Park. The project area is located east and west of Clover Valley Road, north of Jug Street, and south of Miller Road in the City of New Albany, Licking County, Ohio, as shown on Exhibit 1 (Section 6). MBJ Holdings, LLC is seeking authorization from the Ohio EPA and the USACE to be able to construct the proposed **Alternative B.**

In total, the 442.5-acre site has 3,892 linear feet of intermittent stream, 54 linear feet of ephemeral stream, and 7.33 acres of jurisdictional, forested wetlands as shown on Exhibit 7 (Section 6). Based on Alternative B (Exhibit 10 in Section 6), the proposed jurisdictional impacts necessary for the expansion include 563 linear feet of intermittent stream and 6.51 acres of forested wetland. These impacts are summarized on the Proposed Impacts Tables (Attachments 2A and 2B).

For Alternative B, the proposed mitigation will include the purchase of wetland mitigation bank credits as well as the use of permittee-responsible pooled stream mitigation credits. The wetland mitigation will include utilization of mitigation bank and in-lieu fee credits purchased from the Stream + Wetlands Foundation in the Upper Scioto River watershed (HUC 05060001). The stream mitigation will be provided via use of pooled mitigation credits from the Avis Road Pooled Mitigation Site, which is located approximately five miles south of the proposed New Albany Tech Park, also in the Upper Scioto River watershed.

Alternative B is the Least Environmentally Damaging Practicable Alternative (LEDPA). This alternative is feasible, cost effective and a desirable alternative for onsite development. By implementing this design, numerous social and economic benefits could be gained by the City of New Albany, Licking County and the State of Ohio. Some environmental resources would be lost during the construction of the proposed development, but with the implementation of the proposed mitigation techniques, environmental benefits would also be gained within the Upper Scioto River watershed (HUC 05060001).

3.0 INVESTIGATION OF WATERS OF THE U.S.

A field investigation of the site was conducted by EMH&T in March and April 2021 to determine the location and extent of potential Waters of the United States, including streams and wetlands. A delineation report covering the 442.5-acre project site was prepared and submitted to the USACE on May 23, 2022. Additional information was submitted to the USACE on August 8, 2022 and the report was final revised September 8, 2022.

The Jurisdictional Waters field investigations were conducted in accordance with the Corps of Engineers Wetlands Delineation Manual (USACE, 1987) and the Regional Supplement to Corps of Engineers Wetlands Delineation Manual: Midwest Region (Version 2.0) (USACE, 2010). A Trimble Handheld Global Positioning (GPS) unit (sub-meter accuracy) was used to delineate the potential streams and wetlands identified within the 442.5-acre site.

3.1 Delineation Investigation Results

A total of five (5) jurisdictional wetlands (7.33 acres), two (2) intermittent streams (3,892 linear feet), and one (1) ephemeral stream (54 linear feet) were identified on the approximately 442.5-acre site, which are summarized in Table 1. In addition, eighteen (18) non-jurisdictional, isolated wetlands (14.46 acres) and five (5) non-jurisdictional ponds (3.57 acres) were identified on the site. These features do not meet the definition of Waters of the U.S. and are not further discussed herein. Exhibit 7 (provided in Section 6) shows the location of the identified surface water features on the site. The Investigation of Waters of the United States is provided at the end of this section as Attachment 3A. Photographs of the surface water features are provided in Attachment 3B.

TABLE 1
Onsite Jurisdictional Surface Water Features Summary

Feature ID	Classification	Jurisdictional Stream		Jurisdictional Wetland (acres)
		Length (LF)	Area (acres)	
Stream 1 (Blacklick Creek)	Intermittent	3,329*	0.49	--
Stream 2	Ephemeral	54	0.004	--
Stream 3 (Duncan Run)	Intermittent	563*	0.11	--
Stream Total	**--**	**3,946**	**0.604**	**--**
Wetland K	Forested	--	--	0.20
Wetland L	Forested	--	--	1.15
Wetland R	Forested	--	--	5.53
Wetland S	Forested	--	--	0.20
Wetland V	Forested	--	--	0.25
Wetland Total	**--**	**--**	**--**	
PROJECT TOTALS	**--**	**3,946 lf**	**0.604 ac**	**7.33 ac**

*Feature continues offsite

3.2 Wetlands Assessment

There are five (5) jurisdictional wetlands located on the site, totaling 7.33 acres. The Ohio Rapid Assessment Method (ORAM), as presented in the *Ohio Rapid Assessment Method for Wetlands v. 5.0* (Mack, 2001) was used to determine the appropriate category for each wetland under the Wetland Antidegradation Rule, Ohio Administrative Code (OAC) 3745-1-54. The ORAM assigns a score to a wetland based on a series of answers to questions dealing with wetland functions and features. The score is used to classify the wetland as Category 1, 2 or 3, which corresponds with low, general, and high quality, respectively.

The results of the ORAM assessment are summarized in Table 2. The ORAM data forms are provided in Attachment 3C. The ORAM scores were verified by Mr. Matthew Lamoreaux of Ohio EPA on October 28, 2022, following a site visit conducted on October 26, 2022. All of the wetlands exhibit narrow buffers and prior alteration/disturbance stemming from the surrounding high intensity, agricultural land use and logging. Further discussion of the jurisdictional wetlands proposed to be impacted is provided below.

TABLE 2
Wetland ORAM Summary

Feature ID	Classification	ORAM Score	ORAM Category
Wetland K	Forested	30	1 or 2 Gray Zone
Wetland L	Forested	51	2
Wetland R	Forested	54	2
Wetland S	Forested	39.5	Modified 2
Wetland V	Forested	39	Modified 2

Wetland K is a 0.20-acre forested wetland located on the central portion of the site, just east of Clover Valley Road. Wetland K is dominated by American elm (*Ulmus americana*), spicebush (*Lindera benzoin*), and jewelweed (*Impatiens capensis*). The ORAM score for Wetland K was 30, categorizing it within the Category 1 or 2 gray zone.

Wetland L is a 1.15-acre forested wetland located on the central portion of the site, south of Wetland K and east of Clover Valley Raod. Wetland L is dominated by silver maple (*Acer saccharinum*), spicebush, and sedge species (*Carex* spp.). The ORAM score for Wetland L was 51, categorizing it as a Category 2 wetland.

Wetland R is a 5.53-acre forested wetland located on the northeastern portion of the site. Wetland R is dominated by silver maple, pin oak (*Quercus palustris*), spicebush, green ash (*Fraxinus pennsylvanica*), tussock sedge (*Carex stricta*), and stout wood reed-grass (*Cinna arundinacea*). The ORAM score for Wetland R was 54, categorizing it as a Category 2 wetland.

Wetland S is a 0.20-acre forested wetland located on the northeastern portion of the site, northwest of Wetland R. Wetland S is dominated by silver maple, pin oak, spicebush, multiflora rose (*Rosa multiflora*), sedge species, and stout wood reed-grass. The ORAM score for Wetland S was 39.5, categorizing it as a Modified Category 2 wetland.

Wetland V is a 0.25-acre forested wetland located on the northeastern portion of the site, south of Wetland R. Wetland V is dominated by green ash, American elm, and red-osier dogwood (*Cornus sericea*). The ORAM score for Wetland V was 39, categorizing it as a Modified Category 2 wetland.

3.3 Stream Assessment

The Ohio EPA assigns Aquatic Life Use Designations to rivers and streams, which reflect the highest chemical, physical and biological quality that a particular waterway can be expected to attain. For primary headwater (PHW) streams, such as those on site, which have watersheds less than one (1) square mile, the field evaluation methods described in the *Field Methods for Evaluating Primary Headwater Streams in Ohio (Version 4.1)* (Ohio EPA, 2020) generally are applied to assess the relative quality and function of the aquatic communities of these streams, i.e., the Headwater Habitat Evaluation Index (HHEI).

The HHEI methodology was developed by Ohio EPA to evaluate streams with watersheds less than or equal to one (1) square mile and natural pools less than 40 cm in depth. HHEI scoring is based on three (3) parameters that are associated with habitat quality in small headwater streams: substrate type, maximum pool depth and bankfull width. In addition, a presence/absence survey for aquatic biota is conducted. Using the HHEI scoring system, streams may be categorized as Class I (ephemeral), Class II (intermittent or perennial) or Class III (perennial) streams.

The HHEI cannot be used to establish existing aquatic life use per OAC 3745-1-07. However, the HHEI assessment provides a qualitative field assessment of the condition of the physical stream habitat, which can aid in the determination of a provisional aquatic life use (ALU) designation, i.e. warmwater habitat (WWH), exceptional warmwater habitat (EWH), modified warmwater habitat (MWH), coldwater habitat (CWH) or limited resource water (LRW), as defined in OAC 3745-1-07.

It is also important to consider the assigned aquatic life use designation for the overall watershed. The onsite streams are located within the Headwaters Blacklick Creek (05060001-15-03) and Duncan Run (05060001-13-07) subwatersheds. The Headwaters Blacklick Creek subwatershed encompasses 48.88 square miles, extending from the City of Reynoldsburg north to U.S. Route 62 in Licking County. The Duncan Run subwatershed encompasses 16.79 square miles of land north of New Albany and east of Hoover Reservoir. Both Blacklick Creek and Duncan Run are designated as WWH per OAC 3745-1-09. However, the streams are in non-attainment of that use designation per the Ohio EPA's *Total Maximum Daily Loads for the Big Walnut Creek Watershed* (August 2005).

EMH&T completed an HHEI assessment for each onsite stream. The datasheets for these evaluations are attached at the end of this section (Attachment 3D) and a summary of the scores and provisional aquatic life use determinations is provided in Table 3. The results of the stream assessments are discussed below.

TABLE 3
Determination of Existing Stream Use Summary

Stream ID	Flow Regime	HHEI	PHW Class	ALU
Stream 1/ Blacklick Creek	Intermittent	53	Class II	WWH
Stream 2	Ephemeral	35	Class II	LRW
Stream 3/ Duncan Run	Intermittent	57	Class II	WWH

Stream 1/Blacklick Creek: Stream 1, the headwaters of Blacklick Creek, begins just offsite to the south of the central portion of the project area. The stream flows for 3,329 linear feet from southeast to northwest through the western half of the site, traveling under Clover Valley Road through a culvert pipe. Stream 1 exists primarily as an agricultural ditch within the project area. It is located within a narrow, linear, non-forested buffer, to which multiple agricultural drain tiles contribute flow from the surrounding agricultural fields. The stream has an average bankfull width of 6.5 feet and a maximum pool depth of approximately 8 inches. The dominant substrate types observed were silt and detritus. An HHEI score of 53 was calculated for the stream. Blacklick Creek is designated as WWH per OAC 3745-1-09, but is in non-attainment of that use designation north of Morse Road (RM 22.4) (Ohio EPA, 2005). No impacts to Stream 1/Blacklick Creek are proposed for the New Albany Tech Park project; however, the culvert carrying the stream under Clover Valley Road will be replaced and extended as part of a separate roadway improvement project to be permitted and performed by others.

Stream 2: Stream 2 flows for 54 linear feet southeast to northwest between Wetland L and Stream 1/Blacklick Creek. The stream was observed to be a 3.5-foot wide ephemeral channel with a maximum pool depth of approximately 1.6 inches. The dominant substrate types observed were silt and gravel. An HHEI score of 35 was calculated for the stream, resulting in its classification as "Class I" PHW. However, due to its small size, shallow pool depths and ephemeral flow regime, it was determined that Stream 2 is likely incapable of supporting and maintaining "a balanced, integrated, adaptive community of warmwater aquatic organisms." Accordingly, Stream 2 was assigned a provisional ALU designation of LRW (per OAC 3745-1-07). No impacts to Stream 2 are proposed for the project.

Stream 3/Duncan Run: Stream 3, the headwaters of Duncan Run, originates onsite from Wetland R and flows northwest for 563 linear feet before flowing off the property. Stream 3 was observed to be an approximately 10-foot wide intermittent channel with a maximum pool depth of approximately 3.5 inches. The dominant substrate types observed were silt and gravel. An HHEI score of 57 was calculated for the stream. Duncan Run is designated as WWH per Ohio Administrative Code (OAC) 3745-1-09. However, the stream is in non-attainment of that use designation (Ohio EPA, 2005). The onsite portion of Duncan Run is proposed to be filled for the development of the site, resulting in an impact of 563 linear feet of intermittent stream.

4.0 AGENCY CORRESPONDENCE

Prior to any activity authorized under Section 401/404 of the Clean Water Act, coordination is required with the USACE, United States Fish and Wildlife Service (USFWS), and Ohio Department of Natural Resources (ODNR). To fulfill these requirements, these agencies were contacted about information pertaining to the site. The information obtained from these agencies is summarized below. Additionally, a Phase I Cultural Resources Management Survey has been completed for the project area, which is being coordinated with the Ohio Historic Preservation Office (OHPO).

4.1 Pre-Application Meeting Request

40 C.F.R. Part 121.4 requires a pre-filing meeting request to be submitted, in writing, at least 30 days prior to applying for a 401 WQC. A pre-application request was submitted to Ohio EPA on October 24, 2022 (Attachment 4A), and the pre-application meeting / site visit was held October 26, 2022.

4.2 USACE Jurisdictional Determination

Ohio Revised Code (ORC) 6111.30(A)(1) requires that a 401 WQC application include a copy of the Jurisdictional Determination (JD) letter from the USACE documenting its jurisdiction over the wetlands, streams or other waters of the state that are the subject of the 401 WQC application. A delineation report for a larger (515-acre) site containing the 442.5-acre project area was prepared and submitted to the USACE on May 23, 2022. The site boundaries were modified and additional information was submitted to the USACE on August 8, 2022. The final revised delineation report was then prepared on September 8, 2022. Approved and Preliminary Jurisdictional Determinations for the 515-acre delineated area were issued by the USACE on September 13, 2022 (provided in Attachment 4B).

4.3 USACE Public Notice

Ohio Revised Code (ORC) 6111.30(A) (1) requires that a 401 WQC application include a copy of the USACE Public Notice regarding the Section 404 permit application concerning the proposed project. The public notice for the proposed project was issued by the USACE on December 12, 2022, and is provided as Attachment 4C.

4.4 State-Listed Rare or Endangered Species

The ODNR was contacted for information available concerning the presence of state listed endangered, threatened, and proposed species or their habitat. A request was made to provide information through a formal Environmental Review through the Office of Real Estate and Land Management. ODNR provided comments on November 15, 2022, which are provided in Attachment 4D.

4.5 Federally-Listed Threatened or Endangered Species

EMH&T reviewed the USFWS Information for Planning and Consultation (IPaC) website for listed species and critical habitat that "may be present" within the project area. There are two (2) listed species that may occur within the project area:

- Indiana bat (*Myotis sodalis*) – Endangered
- Northern long-eared bat (*Myotis septentrionalis*) – Threatened

Several woodlots and wooded fencerows are present with the permit area. However, the majority of the permit area is non-forested, consisting of active agricultural fields, scrub-shrub vegetation, and maintained farmsteads. Approximately 105 acres of trees will be cleared in order to accommodate the proposed development. In regards to the federally-listed bat species, a mist-net presence/probable absence (P/A) survey for a larger area encompassing the Tech Park project site was conducted and submitted to the USFWS for review on August 23, 2021. This survey did not include the approximately 60-acre woodlot present on the eastern portion of the Tech Campus project site.

The USFWS provided comments and recommendations based on their review of the bat survey for the larger site on August 24, 2021 (TAILS # 03E15000-2021-TA-2118). The USFWS indicated that, "Tree clearing on the site at any time of the year is unlikely to result in adverse impacts to Indiana bats and will not result in any unauthorized incidental take of northern long-eared bats." Due to the project type, size, and location, the USFWS did not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.

Upfront coordination with the USFWS for the New Albany Tech Park project was initiated by EMH&T through a coordination letter submitted on October 15, 2022. The USFWS responded in a letter dated October 20, 2022. With respect to the previously un-surveyed 60-acre woodlot, the USFWS stated "These areas provide a significant amount of suitable bat habitat and thus we request a summer bat survey be completed within these areas."

It should be noted that within the proposed project limits under the requested permit authorization, approximately 35 acres of the 60-acre woodlot not previously surveyed will be cleared. The remaining ±25 acres of forest along the southern property boundary, surrounding Wetlands L, O, P, and Q, will be preserved. The proposed project and onsite avoidance are discussed in Section 5. The entirety of this clearing, which will require an additional bat survey, is located east of Clover Valley Road, within the second phase of the proposed development. Construction in this area will not commence until 2024. As such, the requested summer bat survey may be completed in the summer of 2023. All tree clearing to occur west of Clover Valley Road, within the first phase of development, is covered under the prior bat survey and USFWS' August 24, 2021 recommendations.

Regarding potential impacts to other species, the USFWS stated: "Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat." Copies of all USFWS correspondence is provided as Attachment 4E.

4.6 Archaeological and Historical Information

A Phase I Cultural Resources Management Survey was conducted by ASC Group, Inc. for a 513-acre study area that included the New Albany Tech Park project site (ASC, 2022). The Phase I survey identified a total of 74 archaeological sites, the majority of which contained prehistoric components consisting of isolated finds or small lithic scatters. One prehistoric site (33LI3303) was identified as a Hopewell camp, for which further work was recommended to ascertain the site's potential for listing on the National Register of Historic Places (NRHP). A Phase IB investigation was conducted, the results of which are included in the Phase I survey report. The site ultimately yielded 14 artifacts but no evidence of features or other potentially significant information was discovered. ASC recommends that no further work is necessary at 33LI3303 or any of the other newly documented prehistoric sites. In addition to the prehistoric sites, 20 sites with historic components and 24 architectural history resources were identified. All of the resources lack significance and as such are not recommended for further work nor eligible for listing in the NRHP. A copy of the Phase I survey is included in Attachment 4F.

5.0 ANTIDEGRADATION ANALYSIS

An antidegradation analysis is required to be performed as part of a 401 Water Quality Certification application pursuant to Ohio Revised Code 6111.30 and Ohio Administrative Code (OAC) 3745-32-03, 3745-1-05 and 3745-1-54. This analysis shall be prepared in accordance with 40 CFR Part 230 and OAC 3745-32-03, 3745-1-05 and 3745-1-54. The analysis must include a discussion of both offsite and onsite alternatives, which are available and capable of meeting the project purpose and include avoidance and minimization measures. In addition, mitigation techniques must be discussed.

The sequence of the antidegradation analysis discussion follows the format of the Ohio EPA Section 401 Water Quality Certification Application Completion and Submittal Instructions (rev. 07/2022) and the numbers following the heading titles correspond with those indicated under Item 5 of the submittal instructions.

5.1 Project Purpose and Description (1.1)

The purpose of the proposed development is to construct an industrial business park providing multiple warehouses, flex office and maintenance/manufacturing buildings for advanced technology manufacturers and users. The proposed development is anticipated to primarily be occupied by companies supporting and supplying the Intel semiconductor manufacturing facility to the north, which requires certain support and supply functions to be located in close proximity to that facility. The proposed development will also support the existing New Albany International Business Park by providing locations for expansion by existing businesses and sites for new companies that complement existing uses.

The industrial park is anticipated to provide approximately 5 million square feet of occupiable building space, along with associated parking areas, paved storage areas, site entrances and drives, stormwater facilities and related infrastructure. The first phase of development, located west of Clover Valley Road, will include 10 warehouse buildings and six (6) flex office buildings (±3.4 million square feet). The subsequent phase of development to the east of Clover Valley Road will provide an additional five (5) warehouses, four (4) equipment maintenance buildings and one (1) flex office building (±1.7 million square feet). Associated public roadway and utility improvements located outside of the permit area or along adjacent public or private rights-of-way are separate single and complete projects being undertaken by the City of New Albany or other governmental organizations and are not discussed herein.

While the exact timing of construction has not been determined, MBJ Holdings anticipates that construction of the initial phase will commence upon or soon after the isolated wetland permit issuance in 2023 and be completed within three years. The subsequent phase of development is expected to commence in 2024 and be completed over the following three years, such that full build out is completed by the end of 2027.

5.2 Analysis of Practicable Alternatives and Demonstration of Avoidance, Minimization and Mitigation (1.2)

5.2.1 Offsite Alternatives

For the purpose of the required antidegradation analysis, MBJ Holdings evaluated offsite alternatives in the City of New Albany for construction of the proposed tech park. For the evaluation of off-site alternatives, available properties were evaluated based on the certain minimum criteria, including:

1) Sites that were within the City of New Albany or contiguous to the corporate limits (i.e., able to be annexed to New Albany);
2) Sites that were at least 400 acres in size or larger to accommodate an approximately 5 million-square foot development;
3) Sites in proximity to the Intel semiconductor manufacturing facility and the New Albany International Business Park, which the Tech Park is intended to support;
4) Sites with direct access to the interstate (State Route 161); and
5) Sites with available utilities or potential to develop sufficient utilities.

Using these criteria, two (2) local sites were determined to be eligible for consideration. These include a site located west of Clover Valley Road, south of Green Chapel Road, and north of Miller Road, and the desired Tech Park site. A comparison matrix of these alternatives is provided in Table 4. These sites are shown on Exhibits 8 and 9, respectively (Section 6).

TABLE 4
Off-Site Alternatives Comparison Matrix for Practicability

Category	Factor	New Albany Tech Park	Offsite Alternative (Clover Valley Rd.)
Location	New Albany or Annexable	YES	YES ±200 acres in process of being annexed
Availability	Available for Acquisition	YES Owned by applicant	POTENTIALLY Portions not currently owned by applicant are currently in contract for acquisition, but portions are also under contract for sale to 3rd parties
Logistics	±400 Acre Parcel	YES 442.5 acres	YES ±425 acres
	Appropriate Zoning	YES Zoned for use	MAYBE ±200 ac requires rezoning with annexation
	Access to SR 161	YES Immediately north of Mink St./161 interchange	YES Green Chapel Rd. to US 62 to Beech Rd./161 interchange
	Available Utilities	YES	NO Would require utility expansion and roadway improvements
Constructability	Feasible for Construction	YES	YES
Acquisition Cost	Reasonable Acquisition Cost	YES Owned by applicant	YES Real estate acquisition for unowned parcels is pending
Construction Cost	Reasonable Construction Cost	YES $491.9 million	YES (higher) $503.6 million
Practicable?	--	**YES**	**YES**

The Offsite Alternative is approximately 425 acres in size, located west of Clover Valley Road, south of Green Chapel Road, and north of Miller Road, approximately 0.5 mile north of the Tech Park site. The site is located immediately west of the Intel facility and approximately one mile north of the International Business Park. The site is comprised of agricultural fields (±290 acres), forest and scrub/shrub areas (±80 acres) and rural residential lots (±55 acres). Duncan Run bisects the site. Approximately half of the site is located outside the corporate limits, but is in the process of being annexed to the City of New Albany. Access to 161 is available via Green Chapel Road to US 62, Beech Road or Mink Street. The site would require expansion of utilities in order to support the proposed use.

The primary practical issues with the Offsite Alternative are (i) portions of the site are currently under contractual obligation to a third party, and (ii) significant roadway improvements and expansion of utilities would be necessary. The existing contractual obligations would have to be modified in order to make this site available, with no assurance that such modifications could be accomplished. With respect to roadway and utility infrastructure, significant investment has already

been made by the City of New Albany in improving Clover Valley Road and Jug Street, extending Harrison Road, and providing associated utility expansions within those roadway corridors in order to support the Intel project, and the proposed Tech Park, among other developments in the area. If the development were to be sited on the Offsite Alternative, similar improvements would need to first take place along Green Chapel Road, which would require significant additional investment, estimated to total over $11.6 million, resulting in a construction cost of approximately $503.6 million. These improvements would also delay the schedule of development by at least a year or more. Accordingly, the Offsite Alternative was determined to be practicable for the proposed project, but it is less desirable than New Albany Tech Park.

As both the New Albany Tech Park and the Offsite Alternative were determined to be practicable, each was evaluated based upon the potential impacts to the environment, should the proposed project be implemented on the site. This comparison is discussed in Section 5.2.3.

5.2.2 Onsite Alternatives

In accordance with 40 CFR Part 230 and OAC 3745-1-05, MBJ Holdings completed an analysis of onsite alternatives to determine if there is an onsite alternative, other than the preferred alternative, that would result in a lesser lowering of water quality. The onsite alternatives analysis includes a discussion of two (2) proposed project alternatives referred to as Alternative A and Alternative B, as provided below.

Alternative A

Alternative A is shown on Exhibit 8 (Section 6). This design provides for the potential development of a large industrial business park containing multiple warehouses, office buildings, and equipment maintenance buildings (27 buildings comprising 5,072,666 square feet in total), as well as associated utility infrastructure, internal roadways, parking lots, storage yards, and stormwater facilities within the proposed development footprint.

Stream impacts under Alternative A include 563 linear feet of intermittent stream and 54 linear feet of ephemeral stream (617 linear feet total). The intermittent stream impact includes the total fill of the onsite portion of Stream 3/Duncan Run for the construction of a 302,400 square foot warehouse and an associated parking lot; ephemeral stream impacts include the total fill of Stream 2 for grading associated with the construction of a proposed stormwater basin.

Jurisdictional wetland impacts associated with Alternative A include 7.33 acres of forested wetland. All wetlands proposed for impact are ORAM Category 2. The impacts include fill and grading associated with construction of the proposed buildings, internal roadways, parking lots, and stormwater basins. The specific activities impacting each jurisdictional water resource proposed for impact are listed below and the impacts are quantified in Table 5.

- Total fill (54 linear feet) of ephemeral Stream 2 for grading for a stormwater pond;
- Total fill (563 linear feet) of intermittent Stream 3 for the construction of a 302,400 square foot warehouse and associated parking lot;
- Total fill of Wetland K (0.20 acre) for the construction of a 41,712 square foot office building and associated parking lot;

- Total fill (1.15 acres) of Wetland L associated with grading for a stormwater pond and construction of a 41,712 square foot office building and associated parking lot;
- Total fill (5.53 acres) of Wetland R for the construction of three (3) warehouses (two 302,400 square foot buildings and one 275,000 square foot building), associated parking lots, truck parking, and internal roadways;
- Total fill (0.20 acre) of Wetland S for the construction of a 302,400 square foot warehouse; and
- Total fill (0.25 acre) of Wetland V for the construction of a 275,000 square foot warehouse.

Total fill to be placed in association with grading of the jurisdictional surface water features during construction of Alternative A is estimated to be approximately 11,933 cubic yards.

TABLE 5
Proposed Impacts to Jurisdictional Surface Waters for Alternative A

a. Streams

Stream ID	Type	ALU	Length Onsite (lf)	Proposed Impact (lf)	Impact Type	Volume of Impact (cy)	% Avoided
Stream 1	Intermittent	WWH	3,329	0	--	0	100%
Stream 2	Ephemeral	LRW	54	54	Fill	5	0%
Stream 3	Intermittent	WWH	563	563	Fill	102	0%
Total	**--**	**--**	**3,946**	**617**	**--**	**107**	**84%**

b. Wetlands

Wetland ID	Type	ORAM/ Cat	Area Onsite (ac)	Proposed Impact (ac)	Impact Type	Volume of Impact (cy)	% Avoided
Wetland K	Forested	30/ 2	0.20	0.20	Fill	323	0%
Wetland L	Forested	54 / 2	1.15	1.15	Fill	1,855	0%
Wetland R	Forested	54 / 2	5.53	5.53	Fill	8,922	0%
Wetland S	Forested	39.5 / 2	0.20	0.20	Fill	323	0%
Wetland V	Forested	45 / 2	0.25	0.25	Fill	403	0%
Total	**--**	**--**	**7.33**	**7.33**	**--**	**11,826**	**0%**

Alternative B

Alternative B is shown on Exhibit 10 (Section 6). This alternative retains approximately 5,030,954 square feet of facility building space, along with associated parking areas, utility infrastructure, internal roadways, storage yards, and stormwater facilities. Impacts to surface water features are reduced by eliminating one (1) flex office building (41,712 square feet) from the east side of the project and reconfiguring the footprint of a proposed stormwater basin to avoid impacts to Stream 2 and the majority of Wetland L. The proposed jurisdictional impacts associated with Alternative B include 563 linear feet of intermittent stream and 6.51 acres of forested wetland, as shown in Table 6. Because this layout retains the necessary features required to fulfill the project's purpose and meets the user's minimum square footage requirements, this alternative was determined to be practicable. **Therefore, MBJ Holdings, LLC is seeking authorization from the Ohio EPA and the USACE to construct the proposed Alternative B.**

TABLE 6
Proposed Impacts to Jurisdictional Surface Waters for Alternative B

a. Streams

Stream ID	Type	ALU	Length Onsite (lf)	Proposed Impact (lf)	Impact Type	Volume of Impact (cy)	% Avoided
Stream 1	Intermittent	WWH	3,329	0	--	0	100%
Stream 2	Ephemeral	LRW	54	0	--	0	100%
Stream 3	Intermittent	WWH	563	563	Fill	102	0
Total	**--**	**--**	**3,946**	**563**	**--**	**102**	**86%**

b. Wetlands

Wetland ID	Type	ORAM/ Cat	Area Onsite (ac)	Proposed Impact (ac)	Impact Type	Volume of Impact (cy)	% Avoided
Wetland K	Forested	30/ 1-2 GZ*	0.20	0.20	Fill	323	0%
Wetland L	Forested	54 / 2	1.15	0.33	Fill	532	71%
Wetland R	Forested	54 / 2	5.53	5.53	Fill	8,922	0
Wetland S	Forested	39.5 / Mod 2*	0.20	0.20	Fill	323	0
Wetland V	Forested	45 / 2	0.25	0.25	Fill	403	0
Total	**--**	**--**	**7.33**	**6.51**	**--**	**10,503**	**11%**

* Wetlands with scores in the ORAM Category 1-2 "gray zone" or Modified Category 2 range have been treated as Category 2 wetlands for the purpose of calculating mitigation requirements.

5.2.3 Least Environmentally Damaging Practicable Alternative

Both onsite alternatives (Alternative A and Alternative B) and the Offsite Alternative were determined to be practicable alternatives for achieving the project purpose. Accordingly, each of these alternatives were evaluated based upon their potential environmental impacts, as presented in Table 7. The environmental factors considered included permanent impacts to streams, wetlands (both jurisdictional and isolated), open water ponds, and floodplains.

TABLE 7
Practicable Alternatives Comparison Matrix for Environmental Factors

Environmental Factor	Alternative A	Alternative B	Offsite Alternative
Jurisdictional Wetland Impacts (acres)	7.33	6.51	None
Isolated Wetland Impact (acres)	8.60	8.60	13.59
Stream Impacts (linear feet)	617	563	3,871
Jurisdictional Open Water Impacts (acres)	None	None	None
Non-jurisdictional Open Water Impacts (acres)	3.57	3.57	1.02
Regulated Floodplain Impacts (acres)	None	None	7.71
Least Environmentally Damaging Practicable Alternative?	**NO**	**YES**	**NO**

As detailed in Section 3, the New Albany Tech Park property (Alternatives A and B) contains 7.33 acres of jurisdictional wetlands and 3,946 linear feet of stream. Alternative B proposes to impact 6.51 acres of jurisdictional Category 2 wetland and 563 linear feet of intermittent stream.

Alternative B will preserve 0.82 acre (11%) of the jurisdictional wetlands and 3,383 linear feet (86%) of the stream habitat on the site. In contrast, Alternative A proposes to impact all 7.33 acres of jurisdictional wetlands and will preserve 3,329 linear feet (84%) of stream channel. Isolated wetland impacts and non-jurisdictional open water impacts are the same between the alternatives. No work will occur in regulated floodplain areas on the property.

There are significant water resources located on the Offsite Alternative, including approximately 23.76 acres of isolated wetlands, 3,871 linear feet of stream, and 1.02 acres of non-jurisdictional ponds. The onsite wetlands include at least one (1) large, forested, potential Category 3 wetland, totaling approximately 10 acres. The required area and configuration for the development would require the development to completely surround the Category 3 wetland, would impact 13.59 acres of the other onsite wetlands, and would require piping 3,871 linear feet of stream. In addition, the Offsite Alternative is the only alternative which would require impacts to regulated floodplains. If the project were to be implemented on the Offsite Alternative, nearly all of the onsite resources, aside from the potential Category 3 wetland, would be impacted, resulting in significantly greater impacts as compared to the chosen site.

The New Albany Tech Park site has been determined to meet all required criteria, providing approximately 442.5 acres of property with sufficient space for over 5 million square feet of development. Moreover, environmental impacts, particularly to isolated wetlands, streams, and associated floodplain, are significantly less as compared to the Offsite Alternative. These impacts have been further reduced under Alternative B by modifying the project design. As such, Alternative B is the Least Environmentally Damaging Practicable Alternative (LEDPA) amongst the alternatives considered.

5.2.4 Avoidance

MBJ Holdings has avoided onsite wetlands and streams on the Tech Park site to the maximum extent practical. However, it is not practical to avoid all the onsite surface water resources, given their locations across the site. Given the size requirements of the proposed development and the presence of wetlands and streams throughout much of the site, it is not possible to implement the project on the site without impacting water resources. As described herein, given the project purpose and objectives, Alternative B was determined to be the LEDPA.

Accordingly, MBJ Holdings focused on avoiding the highest quality areas on the site. Alternative B will avoid approximately 6.68 acres of forested Category 2 wetlands and 3,383 linear feet of ephemeral and intermittent streams on site. The wetlands avoided include almost all of the largest and highest scoring wetlands on the site, including all of Wetland O (2.08 acres), Wetland P (1.70 acres), Wetland Q (2.08 acres) and most of Wetland L (0.82 acre). Avoidance of ephemeral Stream 2 will preserve the hydrologic connectivity between Wetland L and Stream 1. Furthermore, impacts to Blacklick Creek and its floodplain impacts have been avoided under this alternative. Stormwater management infrastructure on the site has been carefully considered to ensure that the hydrology to avoided wetlands and streams is maintained, with a focus on improving the quality of runoff in accordance with state and local requirements. The stormwater management plan is further discussed in Section 5.8.

5.2.5 Minimization

Alternative B shows how the site plan can be reconfigured to reduce impacts to Wetland L and Stream 2 while still meeting the applicant's needs. The reconfiguration results in the loss of 41,712 square feet of building space, approximately 127 permanent jobs, and the associated state/local tax revenue. However, the reduced square footage continues to meet the minimum requirements of the user. Social and economic considerations related to the project are discussed in more detail in Section 5.5.

5.2.6 Mitigation

As described in the previous sections detailing the alternatives analysis, it is not possible to implement the proposed development on the New Albany Tech Park site without impacting water resources. As such, MBJ Holdings is proposing to mitigate for those impacts that cannot be avoided. The proposed compensatory mitigation will be "in-kind" with respect to the structural and functional types of resources to be impacted, and will be provided based on the mitigation ratios described in OAC 3745-1-54. The mitigation is described in Section 7.

In accordance with 33 CFR Part 332 and ORC 6111.30, compensatory mitigation shall be provided in the following preferred order:

1) At a mitigation bank approved in accordance with 33 CFR 332.8;
2) Through an in-lieu fee mitigation program approved in accordance with 33 CFR 332.8; or
3) At a permittee-responsible compensatory mitigation site located in accordance with 33 CFR 332.3(b).

As described in Section 7, MBJ Holdings is proposing to provide mitigation through the purchase of wetland mitigation bank credits and through the use of permittee-responsible pooled stream mitigation credits. As MBJ Holdings is proposing to deviate from the preferred mitigation order for the stream mitigation, the following justification is provided per 33 CFR Part 332 and OAC 3745-1-54.

Availability of Mitigation Bank or In-Lieu Fee Programs

Through consultation of the USACE Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) and coordination with the mitigation providers, it was determined that Stream + Wetlands Foundation (S+WF) has stream in-lieu fee mitigation credits available in the watershed.

Cost of Mitigation Bank or In-Lieu Fee Credits

The cost for stream in-lieu fee mitigation credit is $330 per linear foot from Stream + Wetlands Foundation. As outlined in Section 7, MBJ Holdings anticipates that up to 855 linear feet of stream mitigation credit will be required for the proposed stream impacts (563 linear feet of intermittent stream) associated with New Albany Tech Park Alternative B. Thus, the cost of purchasing the required stream mitigation credits from the in-lieu fee program is approximately $282,150.

The proposed source for stream mitigation for the project (the Avis Road Pooled Mitigation Site) functions as private mitigation bank for MBJ Holdings, as it created mitigation for future impacts that may be incurred by MBJ Holdings in the watershed. MBJ Holdings already owns all of the property on which the permittee-responsible stream mitigation is to occur for the New Albany Tech Park project, and the stream mitigation construction is currently underway. The cost for the proposed permittee-responsible stream mitigation is a sunk cost, as it has already been incurred by MBJ Holdings. Thus, utilizing the pooled credit on this offsite property is the most cost-effective stream mitigation option for the applicant.

Ecological Benefits of Proposed Mitigation

Mitigation for intermittent stream impacts will be accomplished via permittee-responsible mitigation at the Avis Road Pooled Mitigation Site. MBJ Holdings has a long, successful record of implementing successful permittee-responsible mitigation projects. MBJ Holdings has a long-held partnership with the City of New Albany to implement its mitigation projects locally, for the benefit of the New Albany community. Typically, the mitigation areas are utilized by the City as passive natural parkland following completion of the mitigation monitoring. This arrangement has had strong local support, including the support of City Council and the Rocky Fork-Blacklick Accord Implementation Panel.

The proposed stream impact will occur along the headwaters of Duncan Run (Stream 3) within the Duncan Run subwatershed (05060001-13-07). The proposed permittee-responsible stream mitigation will be implemented on property located in the Headwaters Blacklick Creek (HUC 05060001-15-03) subwatershed. As previously stated, the overall New Albany Tech Park project site falls primarily within both of these subwatersheds. Enhancing and restoring the water resources at the proposed offsite location ensures that the ecological benefits of the mitigation are achieved within the Upper Scioto Watershed (HUC 05060001), the same watershed as the project impacts. While the proposed stream mitigation will be conducted in an adjacent subwatershed to the proposed stream impact, the impact and mitigation sites are spatially located in relatively close physical proximity (less than 5 miles) to each other.

Acceptance of mitigation that deviates from the preferred order specified in OAC 3745-1-54 may be approved by the Ohio EPA based upon sufficient demonstration of financial burden and ecological benefit. Moreover, as described in 33 CFR 332.3, when evaluating compensatory mitigation options, the USACE District Engineer must assess the likelihood for ecological success and sustainability, the location of the compensation relative to the impact site and its significance within the watershed, and the costs of the compensatory mitigation project. Based on the foregoing, MBJ Holdings requests that the Ohio EPA and the USACE consider the deviation from the preferred order proposed for the stream mitigation as justified in this case.

5.3 Magnitude of the Proposed Lowering of Water Quality (1.3)

As described previously in Table 6, construction of Alternative B would permanently impact (fill) 563 linear feet of intermittent Stream 3 and 6.51 acres of jurisdictional wetlands to accommodate the proposed development. Flow from Stream 3 will be diverted to the on-site stormwater system and conveyed via pipe to the planned stormwater basins, ultimately discharging at the northern

end of the project area. The material to be discharged within the onsite water resources would include clean earthen fill material, to be placed via standard earthmoving practices. The potential impacts to habitat, biota, human health and welfare, recreation, and aesthetics associated with these proposed fills are detailed below.

Stream and Wetland Habitat Impacts: Under Alternative B, stream and wetland habitat would be impacted through the permanent loss of 563 linear feet of intermittent headwater stream and 6.51 acres of jurisdictional wetlands. The five (5) jurisdictional wetlands to be permanently impacted on site are all Category 2 forested wetland habitats.

All of the streams and wetlands to be impacted on the site have been previously disturbed by agricultural activities, including tiling, ditching, selective cutting/logging, mowing, and farming. Because the resources onsite are not unique or rare natural systems, the functions and values of the impacted waters can be replaced through the proposed mitigation (see Section 7).

Impacts to Stream Biota: Approximately 563 linear feet of Stream 3/Duncan Run, an intermittent headwater, is proposed to be filled for the project. Stream 3 is a historically channelized waterway with no sinuosity and a primarily silt substrate. This stream does not support permanent populations of fish and has been heavily influenced by historic and ongoing agricultural activities. Based on the observed habitat and substrate characteristics within Stream 3, it is not expected to contain rare or unique biota. Accordingly, the project is not anticipated to significantly adversely affect stream biota.

Impacts to Wetland Biota: EMH&T did not conduct a biological assessment of the wetlands on this site. ORAM scores of 30 to 54, indicative of Category 2 wetlands, applied to all jurisdictional wetlands that are to be impacted. These moderate quality wetlands are common to Ohio and not regionally scarce. While several of the wetlands contain amphibian breeding habitat (vernal pools), the wetlands containing the most abundant and highest quality vernal pools on the project site (isolated Wetlands O, P and Q) are being avoided.

Quality of Aquatic Community: As demonstrated by the habitat assessment of the stream and wetland features to be impacted via the HHEI and ORAM, the overall quality of the aquatic communities on this site is generally expected to be poor to moderate. This expectation is based on the current surrounding land uses, historic disturbances to the resources, and the fact that the resources to be impacted are not unique or rare within the locality or the state. The stream and wetlands to be impacted will be permanently filled, resulting in the elimination of aquatic life from these areas. However, the onsite preservation of nearly six (6) acres of existing Category 2 wetlands and nearly 3,400 linear feet of primarily intermittent stream and adjacent floodplain would provide a potential refuge for existing aquatic species such as frogs, salamanders, and insects to re-colonize.

Impacts to Terrestrial Biota: Construction and grading activities would impact vegetation through removal of existing trees, shrubs and herbaceous ground cover within portions of the project site. No impacts are anticipated to occur to threatened/endangered terrestrial species, as none are known to exist on the site. Few terrestrial biota, including birds, amphibians, reptiles, small mammals, etc. are expected to be disturbed or displaced during construction. These wildlife species could re-colonize to other portions of the site not being disturbed or habitat located on adjacent parcels.

Human Health Impacts: Since the surface waters on the site are not used for direct contact recreation or as a direct source of drinking water, no impacts are expected to occur to human health due to the potential implementation of Alternative B.

Recreational Impacts: The size and quality of the existing surface waters on site make recreational opportunities such as fishing and swimming effectively non-existent. The area could potentially support wildlife observation and passive recreation; however, the site is privately owned and is not currently used for any recreational activities.

Social, Economic and Aesthetic Impacts: No significant, direct loss of jobs is anticipated due to the development of the subject property, as it does not support any tourism, recreational pursuits, or commercial economic activity. The project may have an indirect impact on agricultural activities as portions of the site are currently being actively farmed.

5.4 Technical Feasibility and Cost Effectiveness (1.4)

Alternative B provides for the potential development of approximately 5 million square feet of space across the proposed campus, which could include 26 buildings and associated parking, stormwater facilities, and internal roadways throughout the 442.5-acre project site. Based on the economic benefits for the entire project, as discussed in Section 5.5 and outlined in the Social and Economic Justification (SEJ) table in Attachment 5, Alternative B is the more cost-effective alternative, compared to the off-site alternatives, as it pertains to the developable use of the site.

Alternative B is a technically feasible design and optimizes land use on the site. The proposed layout and dimensions of the buildings on this site are somewhat fixed by certain industry standards. The building sizes determine the amount of required parking for each building and required stormwater detention for each building. The development has been laid out to accommodate the required minimum square footage and provide access to Clover Valley Road, Jug Street, Mink Street, and a planned Harrison Road extension project being conducted separately by others, as well as all necessary utilities.

5.5 Social and Economic Considerations (1.5)

The proposed potential development under Alternative B provides for a campus of 26 buildings, providing approximately 5 million square feet of occupiable business space, which will provide flex office, warehouse, and maintenance facility space. The project will also include associated parking, stormwater basins and internal roadways. At full build out, the facility could potentially support an estimated 6,809 permanent jobs and potentially create an estimated 200 new temporary (construction) jobs.

The permanent positions could potentially result in an estimated annual payroll of approximately $544.7 million, while the new temporary jobs could potentially result in another $12 million of annual payroll. Using these assumptions, the total estimated annual payroll taxes for the new permanent positions would be approximately $109 million, while the estimated annual payroll taxes for the temporary jobs would be approximately $2.4 million. The permanent state and local annual income and property taxes generated from the proposed complex would exceed $36

million annually, based on the taxable real estate and income taxes for the development. The potential projected social and economic benefits for the project are shown in the Social & Economic Justification (SEJ) Table in Attachment 5.

Franklin County and Licking County have unemployment rates of 3.9% and 3.8%, respectively, as of August 2022, according to the Bureau of Labor Statistics (USBLS 2022). Franklin County and Licking County have poverty rates of 14.2% and 12.2%, respectively, according to the 2021 estimate provided by the U.S. Census Bureau. Moreover, a study completed by the United Way in 2018 showed that 28 percent of households in Franklin County and 24 percent of households in Licking County are "asset limited, income constrained, employed" (ALICE), meaning they earn less than the amount needed to provide for housing, childcare, food, transportation and health care (United Way et Al., 2020). It is anticipated that these metrics related to poverty and income have worsened as a result of the COVID-19 pandemic. Accordingly, these jobs and the associated tax revenues would have significant, positive social and economic impacts for the surrounding area.

5.6 Cumulative Impact (1.6)

5.6.1 Land Uses in 12-Digit HUC

The permit area is located within three subwatersheds. Approximately 140 acres of the site is located in Duncan Run (05060001-13-07), approximately 268 acres is in Headwaters Blacklick Creek (05060001-15-03), and approximately 35 acres of the eastern portion of the site is located in Headwaters Raccoon Creek (05040006-03-01). These watersheds are further described below. Land uses within the vicinity of the project area are shown on Exhibit 2.

The Duncan Run subwatershed encompasses 16.79 square miles of land north of New Albany and east of Hoover Reservoir within the Upper Scioto River watershed. The U.S. EPA EnviroAtlas (USEPA 2022) indicates that there are approximately 24.4 miles of stream within the Duncan Run subwatershed, and approximately 0.17% of the subwatershed is comprised of wetlands. According to the *Ohio 2020 Integrated Water Quality Report for 2020* (Ohio EPA, 2020), the subwatershed is comprised of approximately 75.4% agricultural land use (e.g., row crops and pasture), 18.4% forest, 5.8% developed land use (e.g., residential and commercial development), and 0.5% other land uses.

The Headwaters Blacklick Creek subwatershed encompasses 48.88 square miles of land extending from north of State Route 161 to south of Interstate 70. This subwatershed includes eastern New Albany and significant portions of Blacklick and Reynoldsburg. There are approximately 98 miles of stream located within the subwatershed, and approximately 0.43% of the subwatershed is comprised of wetlands according to the U.S. EPA EnviroAtlas (USEPA 2022). According to the *Headwater of Blacklick Creek Nine-Element Nonpoint Source Implementation Strategic Plan (NPS-IS Plan)* (Franklin Soil and Water Conservation District, 2016), the watershed is comprised of approximately 12% impervious cover (e.g., residential and commercial development), 23% agricultural cover (e.g., pasture and row crop), and 24% forest. The balance is open space. Agricultural land uses within the watershed are expected to decline with development growth anticipated along the State Route 161 corridor.

The Headwaters Raccoon Creek subwatershed encompasses 27.01 square miles of land extending north and south of the Village of Johnstown within the Licking River watershed. There are approximately 53 miles of stream located within the subwatershed and approximately 0.15% of the subwatershed is comprised of wetlands according to the U.S. EPA EnviroAtlas (USEPA 2022). Per the *Ohio 2020 Integrated Water Quality Report for 2020* (Ohio EPA, 2020), the subwatershed is comprised of approximately 72.8% agricultural land use (e.g., row crops and pasture), 18.2% forest, 8.7% developed land use (e.g., residential and commercial development), and 0.3% other land uses.

5.6.2 Water Resources in 12-Digit HUC

The primary water resource in HUC 05060001-13-07 is Duncan Run. Duncan Run originates within the eastern portion of the New Albany Tech Park project site, flowing north from Wetland R and then eventually west for approximately 13 miles to its confluence with Hoover Reservoir (Big Walnut Creek). Duncan Run is designated as WWH per OAC 3745-1-09. Per the *Total Maximum Daily Loads for the Big Walnut Creek Watershed* (Ohio EPA, 2005), Duncan Run is in non-attainment of its WWH use designation. Ohio EPA indicates that the biological communities in Duncan Run are most significantly impacted by nutrient loading, siltation and pathogens stemming from home sewage treatment systems (HSTS) and agriculture, as well as habitat alternation stemming from channelization and removal of riparian vegetation.

The primary water resource in HUC 05060001-15-03 is Blacklick Creek, which begins just to the southeast of the project site and then flows through the western portion of the Tech Park. Blacklick Creek is designated as WWH per OAC 3745-1-09; the headwaters in proximity to the project sites are in non-attainment of that use designation per the *Total Maximum Daily Loads for the Big Walnut Creek Watershed* (Ohio EPA, 2005). This is primarily due to nutrient loading and organic enrichment from HSTS and dairy cow operations. There are approximately 98.5 miles of stream located within the subwatershed according to the U.S. EPA EnviroAtlas. According to the EnviroAtlas, approximately 0.3% of the subwatershed is comprised of wetlands.

The primary water resources in HUC 05040006-03-01 are Raccoon Creek and Kiber Run. Kiber Run originates approximately 0.75 mile north of the site and flows north and then west for approximately 4.6 miles to its confluence with Raccoon Creek. Kiber Run is undesignated; Raccoon Creek is designated as WWH per OAC 3745-1-24. Upstream of the confluence with Kiber Run, near RM 23.7 and 23.9, Raccoon Creek is in partial attainment of its WWH use designation per the *Biological and Water Quality Study of the Licking River and Selected Tributaries* (Ohio EPA, 2012). This partial attainment was primarily attributed to the Johnstown wastewater treatment plant, as well as residential and commercial development near State Route 62.

5.6.3 Known Past, Present and Future Activities

The Duncan Run, Headwaters Black Creek, and Raccoon Creek subwatersheds have been historically dominated by agricultural land uses. Within the southern portions of the Duncan Run and Raccoon Creek subwatersheds and the headwaters of Blacklick Creek, agriculture is expected to decline as commercial and residential development expands along State Route 161 east of New Albany. The New Albany International Business Campus, located off Beech Road north of State Route 161, has continued to expand over the past several years and provided thousands of jobs to the area

economy. To date, the business campus is estimated to have created over 21,000 jobs and represents over $9 billion in total investment. Similarly, the Intel Semiconductor Manufacturing Facility, Facebook NAO Data Center, Google New Albany Data Center, Amazon New Albany Fulfillment Center and Amgen Biomanufacturing Plant are currently under construction. These developments collectively represent $22.1 billion in additional investment, and are anticipated to employ more than 4,200 permanent workers when complete.

Nearly 5,200 acres of ground have been developed in association with the business campus and other commercial/industrial projects, mostly in the Headwaters Blacklick Creek subwatershed. However, stream and wetland impacts within these developed areas were minimized by avoiding and preserving the highest quality stream and wetland features. For those surface water impacts that were unavoidable, the mitigation completed has resulted in an increase of wetland acreage. The development also removed over 3,800 acres from active agricultural use, eliminating nonpoint source pollution from nutrient runoff.

Beyond the recent commercial and industrial development efforts, agricultural fields and cattle pasture continue to comprise the majority of the subwatershed areas. The historical and ongoing agricultural activities have significantly altered local stream, riparian and wetland habitats and have contributed to nonpoint source pollutant loading. Drainage across the majority of the subwatersheds is influenced by drain tiles and most of the local waterways have been ditched and channelized, contributing to sedimentation and nonpoint source pollutant loading. HSTS on rural estates also contribute to nutrient pollution.

South of State Route 161, the subwatershed is dominated by urban and suburban residential developments of Blacklick and Reynoldsburg. This urbanization has had attendant impacts on surface water resources, and the associated increase in impervious cover has contributed to increased stormwater runoff and pollutant loading. Due to the high rates of forecasted population growth within the next several years and associated land use impacts, the Blacklick Creek watershed has been identified by Ohio EPA as a "Rapidly Developing Watershed." Rapidly developing watersheds are subject to increased permit requirements and an accelerated implementation schedule under the Ohio EPA National Pollutant Discharge Elimination System (NPDES) Phase II General Permits. This provides protection for water quality, habitat and aquatic life within the watershed.

Despite significant population growth and ongoing agricultural activities, Ohio EPA has determined that fish and aquatic communities are in fair condition within the Blacklick Creek watershed. The *Big Walnut Creek Watershed TMDL* (Ohio EPA, 2005) reported that approximately 62% of Blacklick Creek is in full attainment of WWH aquatic life use goals. Those segments found to be in non-attainment are located in the headwaters north of Morse Road. The biological communities in the headwaters are most significantly impacted by failing HSTS and dairy cow operations.

The proposed development will remove approximately 260 acres of land from active agricultural production, precluding future impacts related to agricultural land uses. Sanitary sewer service, which will be extended to the site, will also lead to removal of HSTS. The development will significantly increase impervious cover across the permit area, but as discussed in Section 5.8, onsite stormwater facilities will be employed to effectively address potential adverse water quality and quantity impacts.

5.7 Indirect (Secondary) Impacts (1.7)

Alternative B would result in the loss of 563 linear feet of intermittent stream and 6.51 acres of jurisdictional wetland. These surface resources would be filled to allow for the development of the proposed tech park facilities and associated infrastructure.

The ecological and hydrological functions of the onsite streams and wetlands would be reduced by the project. However, approximately 3,383 linear feet of stream, 0.82 acres of jurisdictional, Category 2 wetlands (Wetland L), and 5.86 acres of isolated, Category 2 wetland (Wetlands O, P, and Q) onsite will be avoided and will continue to provide ecological functions.

In regard to offsite impacts, the majority of the surrounding area has been previously impacted by agricultural practices and recent commercial/industrial development. The project is located in proximity to the Beech Road North District, which includes recent significant light industrial manufacturing developments. The southern portion of the Blacklick Creek watershed includes developed areas in Jefferson Township, Blacklick, and Reynoldsburg. Downstream surface water resources could be indirectly impacted by changes to the onsite surface contours and drainage, reduction of riparian buffers and elimination of wetlands on the project site. However, sediment and erosion controls during project construction would protect downstream populations from project-related impacts stemming from in-water activities. Further, the proposed stream and wetland mitigation would serve to provide in-kind habitat within the Upper Scioto 8-digit watershed.

5.8 Stormwater Management Plans (1.8)

5.8.1 Construction Stormwater Management Plans

Best Management Practices (BMPs) for sediment and erosion control would be implemented at all times during the construction of any portion of the proposed development. These BMPs may include silt fence, compost filter sock, temporary and permanent seeding and mulching, construction road stabilization, temporary inlet protection, and wet basins with skimmers installed for construction and post-construction use. The proposed basins will function as temporary sediment basins during construction and may be converted to permanent wet basins following construction.

A stormwater permit and Stormwater Pollution Prevention Plan (SWPPP) for construction activities would be prepared for the site development, following the requirements of the National Pollutant Discharge Elimination Systems program and the Ohio EPA Stormwater Program. Appropriate, site-specific BMPs will be included in construction plans to decrease erosion and sedimentation during and after construction of the proposed development including the placement of sediment fence and/or compost filter sock inside impact areas. All sediment controls that would be utilized would be kept in place during construction activities and would remain until the site has been stabilized. All areas disturbed during construction would be seeded to encourage the establishment of a vegetative cover and decrease erosion potential. No area shall be left unstabilized if no additional disturbance is anticipated in the next 14 days, in which case erosion controls shall be applied within seven days of the most recent disturbance.

5.8.2 Post-construction Stormwater Management Plans

Post-construction stormwater control on the site would rely upon structural controls that include multiple wet retention basins constructed across the approximately 442.5-acre permit area, as shown on Exhibit 10. The basins would serve to remove pollutants from stormwater runoff, reduce downstream erosion, and provide flood control. Runoff from the site would be routed to these storage facilities, which will provide quantity and quality control as required by state and local requirements, before discharging to tributaries of Raccoon Creek (05040006-03-01), Duncan Run (HUC 05060001-13-07), and the Blacklick Creek headwaters (HUC 05060001-15-03).

The stormwater retention basins would detain the post-development stormwater runoff and discharge the runoff at or below the pre-developed peak discharge rates. The basins would provide extended detention time for the purposes of meeting post-construction water quality design criteria. The basin outlet structures would be designed to provide a minimum 24 hour drain time per the Ohio EPA's General Permit requirements for post-construction water quality. The proposed permanent wet basins may be used as temporary sediment basins during construction to manage sediment runoff resulting from land disturbing activities. Skimmers would be attached to the permanent wet basin outlet structures to provide the proper 48-hour drawdown.

6.0 PROJECT MAPPING

6.1 Site Existing Conditions

6.1.1 Site Location and Vicinity

As shown on Exhibit 1, the site is located east and west of Clover Valley Road, north of Jug Street, and south of Miller Road in the City of New Albany, Licking County, Ohio. The site generally consists of active agricultural fields, forested woodlots and fencerows, scrub-shrub habitat, and maintained residential properties. As shown on Exhibit 2, major surrounding land uses within one mile of the site include cultivated crops, pasture, forest and developed land. Areas to the north between Clover Valley Road and Mink Street, south of Green Chapel Road, are currently under development as an Intel semiconductor chip manufacturing plant.

6.1.2 Topographic Features

As shown on Exhibit 3, the majority of the study area lies between approximately 1,160 feet and 1,200 feet in elevation (National Geodetic Vertical Datum) according to the United States Geological Survey (USGS) 7.5' Series *Jersey, Ohio* quadrangle (USGS, 1975). The USGS map shows two (2) ponds corresponding with Pond 3 and Pond 4/Wetland U, and marsh symbols corresponding with jurisdictional Wetland L and isolated Wetlands O and P. In addition, two (2) intermittent streams, corresponding to Stream 1 (Blacklick Creek) and Stream 2 (Duncan Run), are noted.

6.1.3 Mapped Soils

According to the *Web Soil Survey* for Licking County, Ohio (USDA-NRCS, 2021) as shown on Exhibit 4A, the site contains seven (6) soil types. These soils are listed below in Table 8 along with their hydric status. According to the *Hydric Soils List* for Licking County, Ohio, Condit silt loam and Pewamo silty clay loam are listed as hydric soils (USDA-NCRS, 2022). The remaining soils on the site are non-hydric with hydric inclusions.

TABLE 8
Mapped Onsite Soils

Mapped Soil Unit	Hydric Status	Hydric Inclusions %	Location of Hydric Inclusions
Bennington silt loam, 0 to 2 percent slopes (BeA)	Partially hydric	Condit (5%) Pewamo (3%)	Drainageways, Depressions
Bennington silt loam, 2 to 6 percent slopes (BeB)	Partially hydric	Condit (3%) Pewamo (3%)	Drainageways, Depressions
Centerburg silt loam, 2 to 6 percent slopes (Cen1B1)	Partially hydric	Condit (4%) Marengo (3%)	Drainageways, Depressions
Centerburg silt loam, 6 to 12 percent slopes, eroded (Cen1C2)	Partially hydric	Condit (4%)	Drainageways
Condit silt loam, 0 to 1 percent slopes (Cn)	Hydric	--	--
Pewamo silty clay loam (Pe)	Hydric	--	--

The historical *Soil Survey of Licking County, Ohio* (USDA, 1992), depicts three (3) streams (Blacklick Creek and a small tributary, and Duncan Run), two (2) open water ponds (Ponds 3 and 4), and one wetland symbol corresponding to Wetland P within the study area (Exhibit 4B).

6.1.4 Hydrologic Conditions

As shown on Exhibit 5, the United States Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) map was reviewed for the site (USFWS, 2019). The following features are mapped partially or entirely within the project area:

- Two (2) Palustrine, Unconsolidated Bottom, Intermittently Exposed, Excavated (PUBGx) features. One of these corresponds to Pond 3.
- One (1) Riverine, Intermittent, Streambed, Seasonally Flooded (R4SBC) feature, corresponding to Stream 1.
- Two (2) Palustrine, Aquatic Bed, Intermittent Exposed (PABG) features. One of these corresponds to Pond 6.
- One (1) Palustrine, Emergent, Persistent, Seasonally Flooded (PEM1C) feature, which roughly corresponds with Wetland 34.

As shown on Exhibit 6, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was reviewed for the study area. The entirety of the project area lies within Zone X (unshaded), which are areas mapped outside the 500-year floodplain.

6.1.5 Surface Water Resources

Exhibit 7 shows the location and extent of identified surface water features on the project site, overlaid on a scaled 2021 aerial photograph. As shown on Exhibit 7, the site includes three (3) streams, five (5) jurisdictional wetlands, eighteen (18) isolated wetlands (or portions thereof), and five (5) non-jurisdictional ponds.

6.2 Alternatives Analysis Mapping

Exhibit 8 presents the Off-Site Alternative. Exhibits 9 and 10 show the layouts for onsite Alternative A and Alternative B (LEDPA).

7.0 PROPOSED MITIGATION AND MONITORING PLAN

A mitigation and monitoring plan is required for this project as part of the Individual Permit review and pursuant to Ohio Administrative Code 3745-1-05. The mitigation discussion that follows describes the mitigation proposal for Alternative B. A discussion of how the amount of required mitigation was determined is provided, along with the overall objectives of the mitigation plan.

The sequence of the mitigation discussion below follows the format of the Ohio EPA Section 401 Water Quality Certification Application Completion and Submittal Instructions (rev. 09/2020), as described under Item 7 thereof.

7.1 Mitigation Overview

Under Alternative B, the proposed jurisdictional impacts include 563 linear feet of stream and 6.51 acres of jurisdictional wetland. MBJ Holdings proposes to mitigate for the proposed wetland impacts via purchase of mitigation bank and in-lieu fee credits. Mitigation for stream impacts is proposed to occur via permittee-responsible mitigation. The proposed mitigation is discussed in the following subsections.

7.1.1 Wetland Mitigation

Compensatory mitigation for jurisdictional wetland impacts will be accomplished via the purchase of wetland mitigation bank and/or in-lieu fee credit in accordance with the mitigation ratios described in OAC 3745-1-54. Based on the proposed impacts under Alternative B, the required wetland mitigation is provided in Table 9.

TABLE 9
Alternative B Wetland Impacts and Required Mitigation

Wetland	Classification	ORAM Category	Impact (ac)	Mitigation Ratio	Mitigation Acreage
Wetland K	Forested	2	0.20	2.5:1	0.500
Wetland L	Forested	2	0.33	2.5:1	0.825
Wetland R	Forested	2	5.53	2.5:1	13.825
Wetland S	Forested	2	0.20	2.5:1	0.500
Wetland V	Forested	2	0.25	2.5:1	0.625
Total	--	--	**6.51**	--	**16.275**

As shown in Table 9, 16.275 acres of wetland mitigation credit is required based on the project impacts and required mitigation ratios. Mitigation credit will be purchased from the S+WF Upper Scioto Umbrella Mitigation Banking Instrument (UMBI). Credits must be purchased in increments of 1/10 acre. Accordingly, 16.3 acres of forested mitigation credit must be purchased.

As reflected on the proof of mitigation purchase (Attachment 7A), a total of 18.1 acres of forested wetland mitigation credit will be purchased from the UMBI, and an additional credit will be purchased from the S+WF Huntington District ILFP Scioto River Service Area and Muskingum River Service Area, as the agreement includes mitigation for additional isolated wetland impacts on the site, which are subject to a pending Level 3 Isolated Wetland Permit. Mitigation for the jurisdictional

impacts will include 16.3 acres of forested credit from the S+WF UMBI. A summary of the mitigation purchased from the S+WF for both the jurisdictional and isolated wetland impacts on the site is provided in Attachment 7A.

7.1.2 Stream Mitigation

Compensatory mitigation for the proposed stream impacts will be accomplished by utilizing a portion of the remaining credit established and pooled at the Avis Road Pooled Mitigation Site. The Avis Road Pooled Mitigation Site Stream Mitigation Plan was submitted and reviewed in association with the Beech Road SW Site C Project (LRH-2020-135-SCR-Unnamed Tributary Blacklick Creek; OEPA ID 206833A). Construction of the mitigation area is currently underway and anticipated to be complete by the end of 2022. The updated mitigation balance sheet for the Avis Road Pooled Stream Mitigation Site is included as Attachment 7B.

The Avis Road Pooled Stream Mitigation Site includes stream channel restoration/establishment and enhancement along Stream 1 (an unnamed tributary to Ackerburg Ditch), a direct tributary to Blacklick Creek. This stream mitigation is located approximately five miles south of the New Albany Tech Park. As described in the mitigation plan, the Avis Road Pooled Mitigation Site generated a total of 8,007 stream mitigation credits though channel restoration and enhancement activities. A total of 844.5 linear feet of the remaining stream mitigation credit will be applied to New Albany Tech Park.

The analysis of the proposed permittee-responsible stream mitigation was completed in accordance with the *Guidelines for Stream Mitigation Banking and In-Lieu Fee Programs in Ohio Version 1.1* (USACE, 2016). It is important to note that this document is provided as guidance, and does not represent rule or regulatory requirement. Based on this guidance, up to 844.5 impact debits may be associated with the proposed stream impacts under Alternative B. The analysis of the impact debits and mitigation credits is presented in Table 10.

TABLE 10
Stream Impact Debits and Proposed Mitigation Credits for Alternative B

a. Impacts

Stream ID	Type	ALU	Impacted Length (lf)	Debit Ratio	Debits (lf)
Stream 3 (Duncan Run)	Group 1; intermittent stream with silt substrate	WWH	563	1.5:1	844.5
Total	--	--	**563**	--	**844.5**

b. Mitigation

Stream ID	Mitigation Type	Length (lf)	Credit Ratio	Credits (lf)
Avis Rd. Stream 1	Restoration (Type 1, Level 1)	422.25	2:1	844.5
Total	--	--	--	**844.5**

7.2 Wetland Mitigation Bank

The proposed mitigation includes purchase of wetland mitigation credit from the S+WF Upper Scioto UMBI. Per Item 7, Section 2 of the 401 WQC Application Submittal Instructions, the following information is provided:

1) The proof of mitigation purchase is provided in Attachment 7A.
2) The required wetland mitigation credit will be purchased from S+WF Upper Scioto UMBI.
3) A total of 18.1 acres of forested credit will be purchased.
4) The mitigated wetlands include both jurisdictional and isolated wetlands.
5) The mitigation bank is located in the Upper Scioto watershed (8-digit HUC: 05060001).
6) The proposed project is located in the service area of the mitigation bank (Upper Scioto).

7.3 In-Lieu Fee Mitigation

The proposed mitigation for jurisdictional impacts does not include payment to an in-lieu fee program; this section is not applicable.

7.4 Permittee-Responsible Mitigation Project

Compensatory mitigation for the stream impacts will be accomplished through use of credits from the Avis Road Pooled Mitigation Site. Construction of the stream mitigation project is currently underway and anticipated to be complete by the end of 2022. This mitigation project will provide full-extent channel restoration between Babbitt Road and an existing stream on the Avis Road site, which is an unnamed tributary to Ackerburg Ditch (a direct tributary to Blacklick Creek).

The proposed project will reestablish 3,332 linear feet of natural stream channel, providing appropriate dimension, pattern and profile, riffle/pool sequence, and floodplain connectivity. The adjacent 150-foot wide riparian corridor will be seeded and planted with native live stakes, trees and shrubs to establish a native, forested riparian corridor. An additional 1,343 linear feet of the existing Stream 1 will be enhanced and stabilized on the site. The mitigation area will be protected in perpetuity via a conservation easement as detailed in Section 7.5.

Additional details regarding this stream mitigation project, including site setting, ownership, mitigation activities, monitoring and performance standards, were provided in the Avis Road Pooled Mitigation Site Stream Mitigation Plan (EMH&T, 2020), which was submitted and reviewed in association with Beech Road SW Site C Permit (LRH-2020-135-SCR-Unnamed Tributary Blacklick Creek; OEPA ID 206833A). An updated mitigation balance sheet is provided in Attachment 7B.

7.5 Long Term Protection

Per the requirements of the Ohio Administrative Code and Ohio Revised Code, the proposed stream mitigation area will be protected in perpetuity via an appropriate protective instrument. Specifically, the mitigation area will be protected by a conservation easement which will restrict the current and future use of the mitigation area in perpetuity. The conservation easement will run with the land and be binding on all future persons or interests having acquired the property or its rights.

The conservation easement will be held by the City of New Albany, which meets the requirements of ORC 5301.68 to hold a conservation easement. The applicant has a long-held partnership with the City of New Albany to hold such mitigation property. Typically, the mitigation areas held in an easement by the City are later used by the City as passive natural parkland following completion of the mitigation monitoring. This arrangement has had strong local support, including the support of City Council. Construction of the Avis Road Pooled Mitigation Site is currently ongoing, and the associated conservation easement is anticipated to be recorded in early 2023.

8.0 CITATIONS

ASC Group, Inc. 2022. *Phase I Cultural Resources Survey for the Proposed New Albany Parcel B Project in Jersey Township, Licking County, Ohio*. ASC Group, Inc. Kevin Schwarz Project Manager. 800 Freeway Drive North, Suite 101, Columbus, Ohio 43229.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1*. US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. and appendices.

Flood Emergency Management Agency (FEMA). 2015. Flood Insurance Rate Map for Licking County, Ohio and Unincorporated Areas. Map number 39089C0267H. Available online: http://msc.fema.gov/portal.

Mack, John J. 2001. *Ohio Rapid Assessment Method for Wetlands, Manual for Using Version 5.0*. Ohio EPA Technical Bulletin Wetland/2001-1-1. Ohio Environmental Protection Agency, Division of Surface Water, 401 Wetland Ecology Unit, Columbus, Ohio. Available online: http://epa.ohio.gov/portals/35/401/oram50um_s.pdf.

Ohio Environmental Protection Agency (Ohio EPA). 2012. *Biological and Water Quality Study of the Licking River and Selected Tributaries*. Ohio Environmental Protection Agency, Division of Surface Water, Columbus, Ohio. Available online: https://epa.ohio.gov/static/Portals/35/documents/2008LickingTSD.pdf

Ohio Environmental Protection Agency (Ohio EPA). 2005. *Total Maximum Daily Loads for the Big Walnut Creek Watershed*. Ohio Environmental Protection Agency, Division of Surface Water, Columbus, Ohio. Available online: https://epa.ohio.gov/portals/35/tmdl/BWC_Final%20081505.pdf

Ohio Environmental Protection Agency (Ohio EPA). 2020. *Ohio 2020 Integrated Water Quality Monitoring and Assessment Report*. Watershed Assessment Unit Summary for Headwaters Blacklick Creek (05060001 15 03). Available online: https://geot.epa.ohio.gov/webapps/ir/IR2020reports.html?wau=050600011503

Ohio Environmental Protection Agency (Ohio EPA). 2020. *Field Methods for Evaluating Primary Headwater Streams in Ohio. Version 4.1*. Ohio Environmental Protection Agency, Division of Surface Water, Columbus, Ohio. Available online: https://www.epa.state.oh.us/Portals/35/wqs/headwaters/PHWHManual_2020_Ver_4_1_May_2020_Final.pdf?ver=Jx6Z3rn9feBAUir3HWp_FQ%3d%3d

United States Bureau of Labor Statistics (USBLS). 2022. *Local Area Unemployment Statistics*. Available online: https://www.bls.gov/lau/

United States Army Corps of Engineers (USACE). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center. Available online:

http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/reg_supp.aspx

Unites States Army Corps of Engineers (USACE). 2016. *Guidelines for Stream Mitigation Banking and In-Lieu Fee Programs in Ohio Version 1.1*. Available online: https://www.lrh.usace.army.mil/Portals/38/docs/regulatory/Guidelines%20for%20Stream%20Mitigation%20Banking%20and%20In-Lieu%20Fee%20Programs%20in%20Oh.pdf

United States Department of Agriculture - Natural Resources Conservation Service. USDA-NRCS. 2018. Field Indicators of Hydric Soils in the United States, Version 8.2. Vasilas, L.M., Hurt, G.W., and Berkowitz, J.F. (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

United States Department of Agriculture - Natural Resources Conservation Service. USDA-NRCS. 2021. *NRCS Soil Survey Geographic Database and Web Soil Survey*. Available online: http://websoilsurvey.nrcs.usda.gov/app/.

United States Department of Agriculture - Natural Resources Conservation Service. USDA-NRCS. 2022. *State Soil Data Access (SDA) Hydric Soils List*. Available online from the website of the Natural Resources Conservation Service: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316619.html#reportref.

United States Department of Agriculture - Soil Conservation Service (USDA-SCS). 1980. *Soil Survey of Franklin County, Ohio*. Available online: https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=OH

United States Department of Agriculture - Soil Conservation Service (USDA-SCS). 1992. *Soil Survey of Licking County, Ohio*. Available online: https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=OH

United States Department of the Interior, Fish and Wildlife Service (USFWS). 2019. National Wetland Inventory Map. Available online: https://www.fws.gov/wetlands/Data/Mapper.html.

United States Environmental Protection Agency (USEPA). 2022. EnviroAtlas. Available Online: https://enviroatlas.epa.gov/enviroatlas/interactivemap/

United States Geological Service (USGS). 2016. *New Albany, Ohio* Quadrangle, 7.5 minute Series (Topographic). Maps prepared by the U.S. Geological Survey and revised in cooperation with State of Ohio Agencies. For sale from the U.S. Geological Survey, Reston, Virginia 22092.

United Way et al. 2020. *ALICE in Ohio: A Financial Hardship Study*. Available online: https://www.unitedforalice.org/Attachments/AllReports/2020ALICEReport_OH_FINAL.pdf

SOCIAL AND ECONOMIC JUSTIFICATION TABLE

	ALTERNATIVE A	ALTERNATIVE B
Scope	Industrial park including 8 flex office buildings (399,466 SF), 15 warehouse buildings (4,532,400 SF), and 4 maintenance facilities (140,800 SF) with associated parking, pads, site entrances and drives, stormwater facilities and infrastructure	Industrial park including 7 flex office buildings (357,754 SF), 15 warehouse buildings (4,532,400 SF), and 4 maintenance facilities (140,800 SF) with associated parking, pads, site entrances and drives, stormwater facilities and infrastructure
Square Footage	5,072,666	5,030,954
Total Project Investment	$ 723,335,880	$ 715,827,720
Total Project Construction Cost	$ 497,767,240	$ 491,927,560
New Permanent Jobs	6,934	6,809
Est. Payroll $/yr	$ 554,743,840	$ 544,732,960
Est. Federal Income Taxes /yr	$ 110,948,768	$ 108,946,592
Est. State Income Taxes /yr	$ 19,526,983	$ 19,174,600
Est. Local Income Taxes /yr	$ 11,094,877	$ 10,894,659
New Temporary Jobs	200	200
Est. Temporary Payroll $/yr	$ 12,000,000	$ 12,000,000
Est. Federal Income Taxes /yr	$ 2,400,000	$ 2,400,000
Est. State Income Taxes /yr	$ 422,400	$ 422,400
Est. Local Income Taxes /yr	$ 240,000	$ 240,000
Estimated Local Property Taxes/yr	$ 6,183,935	$ 6,068,287
Land Donated to Community (acres)	0	
Royalties to ODNR for oil/coal projects	N/A	
County Unemployment Rate (August 2022)[1]	3.8%	
County Poverty Rate, All People (2021)[2]	12.2%	
Environmental Benefit	See document	
Social Benefit	See document	
Recreation Benefit	See document	

1. Source: Bureau of Labor Statistics, U.S. Department of Labor
2. Source: 2021 American Community Survey 1-Year Estimates

These projections were prepared by MBJ Holdings LLC based on both historic construction costs in central Ohio and extrapolations from recent similar projects. These projections are subject to Business Risks and are not guaranteed metrics.

Office of Real Estate
John Kessler, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6621
Fax: (614) 267-4764

November 15, 2022

Heather Dardinger
EMH&T, Inc.
5500 New Albany Road
Columbus, OH 43054

Re: 22-1031; New Albany Tech Park

Project: The proposed project includes the construction of an industrial business park providing multiple office, warehouse, and manufacturing buildings for advanced technology users.

Location: The proposed project is located in Jersey Township, Licking County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The project is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW understands that winter tree clearing from October 1 through March 31 will be implemented. The DOW recommends that trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH $\geq$ 20 be conserved where possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "*RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES*." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range the lake chubsucker (*Erimyzon sucetta*) a state threatened fish. The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this or other aquatic species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

October 20, 2022

Project Code: 2022-0089745

Re: New Albany Tech Park, Licking County, Ohio

Dear Ms Dardinger:

The U.S. Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see https://ecos.fws.gov/ecp/species/9045), incidental take of Indiana bats is still prohibited without a project-specific exemption.

Female Indiana bats exhibit strong site fidelity to summer roosting and foraging areas, meaning that they return to the same area, and often the same trees, to roost year after year. Because the project will result in a large amount of forest clearing relative to the available habitat in the immediately surrounding area, habitat removal could result in significant impacts to Indiana bats. Because of this, the proposed project may result in indirect adverse effects to Indiana bats, even if tree clearing is conducted during the winter season when Indiana bats are not present. Therefore, we recommend that a summer survey be conducted to determine presence or absence

of Indiana bats at the project site. The summer survey must be conducted in coordination with the Ohio Field Office.

Your letter indicates that the project area was already subject to a summer bat survey in conjunction with a larger project area called "Project Dragonfly", TAILS#03E15000-2021-TA-2118, reviewed by this office in August and December 2021. We have reviewed the mist net survey report and prior correspondence on Project Dragonfly. Our review indicates that approximately 60 acres of forest containing streams and wetlands that are proposed to be cleared by the New Albany Tech Park Project were specifically excluded from summer bat surveys as part of Project Dragonfly due to "no tree clearing" (see attached mist net survey report). These areas provide a significant amount of suitable bat habitat and thus we request a summer bat survey be completed within these areas.

If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are also warranted. Portal surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office.

Survey results should be coordinated with this office prior to initiation of any work at the project area. Based on the results of the survey(s), we will evaluate potential impacts to the Indiana bat from the proposed project. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not

previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Eileen Wyza, ODNR-DOW

Dardinger, Heather

From: Ohio, FW3 <ohio@fws.gov>
Sent: Tuesday, August 24, 2021 9:04 AM
To: twetzel@copperheadconsulting.com
Cc: Boyer, Angela; Hazelton, Erin; nathan.reardon@dnr.state.oh.us; Parsons, Kate; cleftwich@copperheadconsulting.com; Milligan, Rob
Subject: Dragonfly Project in Licking County, Ohio - Survey #21-054

Categories: Filed by Newforma

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994

TAILS# 03E15000-2021-TA-2118

Dear Ms. Wetzel,

The U.S. Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

We have received your summer bat survey report for the subject project. The survey was conducted following current Service guidelines. No Indiana bats (*Myotis sodalis*) were captured/detected, demonstrating probable absence of Indiana bats in the project area. Currently, the Service has no known hibernacula or maternity roost records for northern long-eared bat (*Myotis septentrionalis*) in the vicinity of the project. Therefore, the 4(d) rule for the northern long-eared bat could be applied (see: http://www.fws.gov/midwest/endangered/mammals/nleb/index.html). Tree clearing on the project site at any time of the year is unlikely to result in adverse impacts to Indiana bats and will not result in any unauthorized incidental take of northern long-eared bats. Negative Indiana bat summer surveys are valid for five years. Therefore, no tree clearing should occur on the site after March 31, 2026 without further coordination with this office.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army

Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

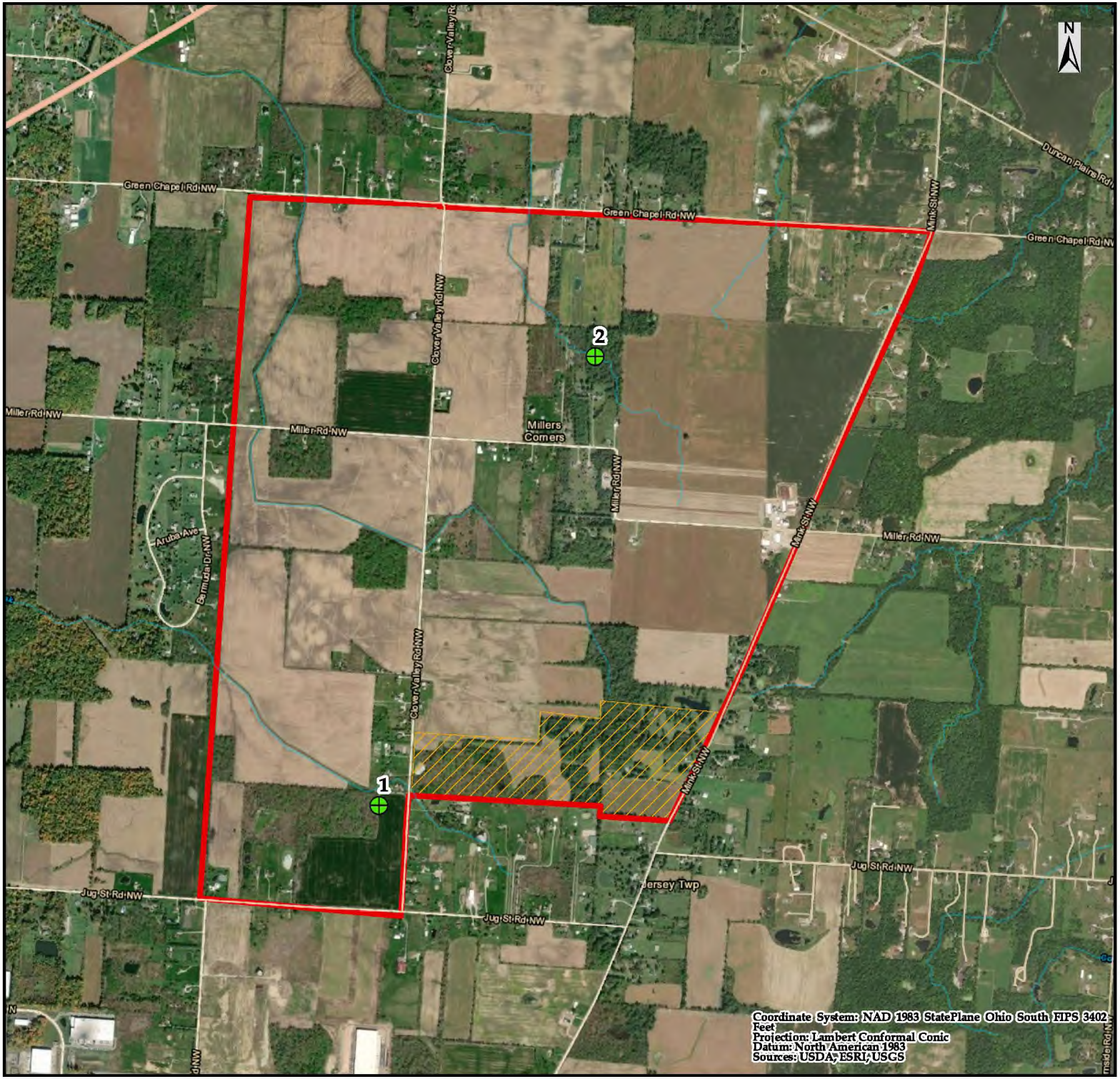
Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW



COPPERHEAD
ENVIRONMENTAL CONSULTING

Prepared for:

EMH&T

FIGURE 1:
Proposed Dragonfly Project Area
and Mist-net Survey Sites
Licking County, Ohio

Legend

- Mist-net Site
- Project Area
- No Tree Clearing

0 2,000 4,000
Feet

Scale: 1 in = 2,000 ft

Prepared by :
Copperhead Environmental Consulting, Inc.
471 Main Street
P.O. Box 73
Paint Lick, Kentucky 40461

Drawn by:	CM	Date:	8/18/2021
Checked by:	TW	Revision:	01

New Albany Tech Park: S+WF Purchase Summary

Wetland Impacts		Category 1	Ratio	Category 2	Ratio	Total Impact	Mitigation (ac)	Rounded
Scioto River Watershed								
Jurisdictional	Forested	0	--	6.51	2.5	6.51	16.275	16.3
	Non-Forested	0	--	0	--	0	0	0
Isolated	Forested	0.07	2.0	4.91	2.5	4.98	12.415	12.5
	Non-Forested	0.75	2.0	1.44	2.0	2.19	4.38	4.4
Total	Forested	0.07	--	11.42	--	11.49	28.69	28.7
	Non-Forested	0.75	--	1.44	--	2.19	4.38	4.4
	Total	**0.82**	**--**	**12.86**	**--**	**13.68**	**33.07**	**33.1**
UPPER SCIOTO UMBRELLA MITIGATION								
	Forested							18.1
	Non-Forested							0
	Total							**18.1**
Total Payment								$ 995,500
Deposit								$ 149,325
HUNTINGTON DISTRICT IN LIEU FEE*								
	Forested							10.6
	Non-Forested							4.4
	Total							**15.0**
Total Payment								$ 825,000
Deposit								$ 123,750
Licking River Watershed								
Isolated	Forested	0	--	1.43	2.5	1.43	3.575	3.6
	Non-Forested	0	--	0	--	0	0	0
	Total	**0.00**	**--**	**1.43**	**--**	**1.43**	**3.58**	**3.6**
HUNTINGTON DISTRICT IN LIEU FEE								
Total Payment								$ 198,000
Deposit								$ 29,700
Grand Total	Forested	0.07	--	12.85	--	12.92	32.27	32.3
	Non-Forested	0.75	--	1.44	--	2.19	4.38	4.4
	Total	**0.82**	**--**	**14.29**	**--**	**15.11**	**36.65**	**36.7**
Total Payment								$2,018,500
Deposit								$ 302,775

*These are "released" ILF credits (not advance credits) and are considered equivalent to mitigation bank credit.

MITIGATION BALANCE SHEET

MBJ Holdings, LLC
Avis Road Pooled Stream Mitigation Site
Plain Township, Franklin County, Ohio

ORIGINAL BALANCE: 8007.00

CURRENT BALANCE: **1767.50**

LATEST REVISION: **11/9/2022**

RUNNING BALANCE:

Project	USACE / Ohio EPA Permit ID#	USACE / Ohio EPA Authorization Date	Stream Impact (linear feet)				Mitigation Credits Utilized (linear feet)			Credit Balance (linear feet)		
			Perennial	Intermittent	Ephemeral	Total	Restoration	Enhancement	Total	Restoration	Enhancement	Total
									Beginning Balance [1]**:**	***6,664***	***1,343***	***8,007***
Beech Road SW Site C	LRH-2019-960-SCR-UNT Blacklick Creek Ohio EPA ID 206833A	USACE: 01/21/2021 Ohio EPA: 12/22/2020	0	1,864	147	2,011	2,606.0	1,343	3,949.0	4,058.0	0	4,058.0
Project Titan EGP	Ohio EPA ID 207044W	01/29/2021	0	0	411	411	411.0	0	411.0	3,647.0	0	3,647.0
Project Charger NWP	LRH-2021-267-SCR	05/07/2021	222	0	0	222	222.0	0	222.0	3,425.0	0	3,425.0
Project Titan NWP	LRH-2020-721-SCR-UNT Blacklick Creek	06/01/2021	0	813	0	813	813.0	0	813.0	2,612.0	0	2,612.0
New Albany Tech Park	TBD	TBD	0	563	0	563	844.5	0	844.5	1,767.5	0	1,767.5
Total			**222**	**3,240**	**558**	**4,020**	**4,897**	**1,343**	**6,240**			
Current Balance										**1,767.5**	**0**	**1,767.5**

1. The quantity shown reflects the *credit* available from the stream restoration and enhancement. The mitigation included 3,332 lf of stream restoration (2:1 credit) and 1,343 lf of stream enhancement (1:1 credit).

Stream and Wetlands FOUNDATION

123 South Broad Street, Suite 238
P.O. Box 369
Lancaster, Ohio 43130
T: (740) 654-4016
F: (740) 689-0890

November 15, 2022

Mr. Brent Bradbury
MBJ Holdings
8000 Walton Pkwy, Suite 120
New Albany, OH 43054

RE: New Albany Tech Park 2B Site, Wetlands Mitigation Agreements
Clover Valley and Jug St, New Albany, Licking County, OH

ACCT NO.: USUMBI-1, SCIO-187, TUSC-95

Dear Mr. Bradbury:

The Stream + Wetlands Foundation received on November 14, 2022, the required deposit payment for the purchase of a total of 36.7 acres of wetland mitigation credit for the proposed New Albany Tech 2B Site. The Site is located at the intersection of Clover Valley and Jug St., New Albany, Licking County, Ohio. Please find enclosed a copy of the fully executed purchase agreement.

The purchase of 36.7 acres of mitigation credit includes 18.1 acres of forested wetland mitigation credit from the Upper Scioto Umbrella Mitigation Banking Instrument; 10.6 acres of forested and 4.4 acres of non-forested wetland mitigation credit from our Huntington In-Lieu Fee Program, Scioto River Service Area; and 3.6 acres of forested wetland mitigation credit from our Huntington In-Lieu Fee Program, Muskingum River Service Area.

The remaining balance is due within 30 days of the permit issuance date. If you do not receive your permit within the initial six-month reservation period, additional deposit payments will be required as per the terms of our agreement.

Thank you very much for allowing Stream + Wetlands Foundation to assist you with the wetland mitigation needs of this project. Should you need further assistance, please feel free to call anytime.

Sincerely,

Vincent E. Messerly, P.E.
President

Cc: Heather Dardinger, EMH&T, via email