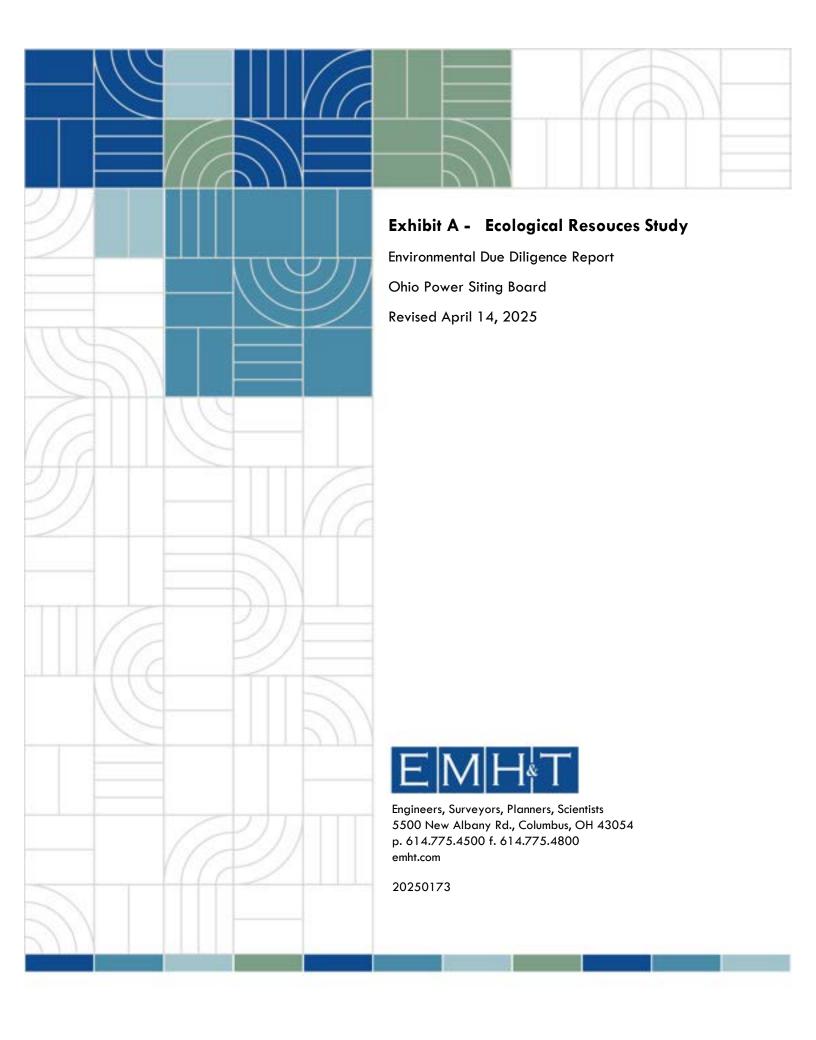
# **Exhibit A Ecological Resources Study**

**EMHT** 

**April 14, 2025** 







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# **PHOTOGRAPHS**

### **APPENDICES**

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### 1.0 INTRODUCTION

EMH&T conducted an ecological resource review on the 525 Building Power Generation Project site, located north of Innovation Campus Way and northwest of Mink Street in the City of New Albany, Licking County, Ohio (Exhibit 1). The following tasks were completed for the ecological resources review:

- A desktop review, including a literature review of available information such as topographic maps, soil survey, National Wetland Inventory, floodplain maps and historical aerial photography, was conducted.
- EMH&T coordinated with the Ohio Department of Natural Resources (ODNR) to request a Natural Heritage Database search to determine whether any state listed endangered/threatened species of potential habitat for such species are present within or near the project area.
- •□ The U.S. Fish and Wildlife Service (USFWS) list of endangered and threatened species for Licking County, Ohio was also reviewed to evaluate the suitability of the project area for listed species and their critical habitat.
- •□ EMH&T staff conducted a field investigation for the site on March 11, 2025 to assess on-site vegetation and habitats and determine the location and extent of potential waters, including streams and wetlands. Previously collected data from October 2015 and January 2021 supplemented this effort.
- Attachments include exhibits depicting the mapping studied as part of the desktop review, a
  photograph log for the project area, including photos of all identified habitat types, vegetation,
  land use, wildlife and/or surface water features, and coordination letters from the ODNR, USFWS,
  Ohio Environmental Protection Agency (EPA), and United States Army Corps of Engineers (USACE).

### 2.0 SITE SETTING

The proposed power generation area encompasses approximately 2.40 acres of a  $\pm 48.6$ -acre developed property that includes an existing building/warehouse, paved roadways, parking lots, two (2) stormwater basins, riparian forest, unmaintained field, and maintained mowed areas. The proposed power generation area is located along the northeast boundary of the site, adjacent to an existing paved parking area. Construction laydown is proposed to occur in the northwest portion of the site.

As shown on Exhibit 2A, the site is situated near the eastern municipal boundary of the City of New Albany. An electric transmission line is located immediately northeast of the site; additional transmission lines are located to the south and west. Named bodies of water in the vicinity include the headwaters of Kiber Run, Duncan Run and Blacklick Creek to the north, and the headwaters of the South Fork Licking River to the south. The site is surrounded by development to the northwest and southwest; cultivated cropland, pasture and forest are located to the northeast and southeast (Exhibit 2B).

As shown on Exhibit 3, the project site is located between the elevations of 1,170 and 1,200 feet (National Geodetic Vertical Datum) according to the USGS 7.5' Series Jersey, Ohio quadrangle (USGS 1975). The site elevation reaches its highest point to the northeast. The site gently slopes to the southwest from this high point, toward the South Fork Licking River.

### 3.0 SOIL DESCRIPTION

According to the Web Soil Survey for Licking County, Ohio (USDA, 2019), as shown on Exhibit 4A, the site contains six (6) soil types. These soils are listed in Table 1 along with their hydric status. The historic soil



survey map (USDA 1992), as shown on Exhibit 4B, one (1) stream is mapped along the southern site boundary. No drainageways, marsh symbols or open water features are mapped within the site boundary.

Table 1: Mapped On-site Soils

| Mapped Soil Unit   | Hydric Status                     | Hydric Inclusion           | Location of Hydric<br>Inclusions |
|--|-----------------------------------|----------------------------|----------------------------------|
| Bennington silt loam, 0 to 2 percent slopes (BeA)                  | Non-hydric with hydric inclusions | Pewamo (3%)<br>Condit (5%) | Drainageways and Depressions     |
| Bennington silt loam with 2 to 6 percent slopes (BeB)              | Non-hydric with hydric inclusions | Pewamo (3%)<br>Condit (3%) | Drainageways and Depressions     |
| Centerburg silt loam, 6 to 12 percent slopes, eroded (Cen1C2)      | Non-hydric with hydric inclusions | Condit (4%)                | Drainageways and depressions     |
| Condit silt loam, 0 to 1 percent slopes (Cn)                       | Hydric                            | -                          | -                                |
| Pewamo silty clay loam (Pe)  | Hydric                            | -                          | -                                |
| Shoals silt loam, 0 to 2 percent slopes, occasionally flooded (Sh) | Non-hydric with hydric inclusions | Sloan (8%)                 | Floodplains                      |

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (USDA 2010). According to the USDA, the Condit and Pewamo soils are considered hydric soils. The remaining four (4) mapped soils are non-hydric soils with inclusions of Condit, Pewamo and Sloan soils in drainageways, depressions, and floodplains. None of these soil types are classified as highly erodible, nor do they exhibit slopes greater than 12 percent.

# 4.0 VEGETATION

The majority of the site is mowed and consists of upland grasses (Fescue spp.) and scattered upland hardwood trees species such as black tupelo (Nyssa sylvatica), and green mountain maple (Acer saccharum 'Green Mountain') in landscaped areas. The natural wooded areas include tree species such as silver maple (Acer saccharinum), American elm (Ulmus americana), American sycamore (Platanus occidentalis), black cherry (Prunus serotina), and pin oak (Quercus bicolor). The understory species include Virginia creeper (Parthenocissus quinquefolia), multiflora rose (Rosa multiflora), goldenrod (Solidago canadensis), spice bush (Lindera benzoin), raspberry (Rubus allegheniensis), and sedges (Carex spp.).

# 4.1 Threatened and 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 site. There are no federally listed plant species known to occur in the area. The IPaC species lists is provided in Appendix A.

Additionally, ODNR indicated that based on a review of the Natural Heritage Database dated April 3, 2025, there are no records of state or federally listed plants within one mile of the project area. The ODNR Environmental Review letter is included in Appendix A.

### 4.2 Invasive Species

Multiflora rose (Rosa multiflora) and Amur honeysuckle (Lonicera maackii) are invasive species that were observed on the project site. These species are common along fencerows and wooded fringe areas of open fields and poorly maintained areas in Licking County.



### 4.3 Tree Protection Ordinances

The City of New Albany and Licking County have no ordinances or regulatory requirements for the protection of trees.

# 5.0 WILDLIFE

Wildlife observed at the site included squirrel (Sciurus carolinensis), and various small songbirds, such as American robin (Turdus migratorius), Northern cardinal (Cardinalis cardinalis), and sparrows (Passer spp.). No reptiles or amphibians were observed.

# 5.1 Migratory Birds

Numerous migratory birds that are protected under the Migratory Bird Treaty Act occur in central Ohio. These include common species such as red-winged blackbird (Agelaius phoeniceus), Eastern bluebird (Sialia sialis), Northern cardinal (Cardinalis cardinalis), gray catbird (Dumetella carolinensis), American crow (Corvus brachyrhynchos), house finch (Carpodacus mexicanus), Canada goose (Branta canadensis), red-tailed hawk (Buteo jamaicensis), American robin (Turdus migratorius), barn swallow (Hirundo rustica), and turkey vulture (Cathartes aura).

Some of these species were observed on the project site, as noted above, and others may be likely present. Per the USFWS IPaC website, the following birds of concern may be located in the vicinity of the project:

- □ Bald eagle (Haliaeetus leucocephalus)
- ☐ Cerulean warbler (Setophaga cerulea)
- ☐ Chimney swift (Chaetura pelagica)
- Lesser yellowlegs (Tringa flavipes)
- □ Pectoral sandpiper (Calidris melanotos)
- •□ Red-headed woodpecker (Melanerpes erythrocephalus)
- □ Wood thrush (Hylocichla mustelina)

Due to the location and type of habitat within the project area, the bald eagle, cerulean warbler, chimney swift, lesser yellowlegs, and pectoral sandpiper are not expected to be encountered. However, the woodlot within southern portion of the project area offers marginally suitable habitat for the red-headed woodpecker and the wood thrush, both of which are tree nesting species.

Under guidance issued by the USFWS on March 6, 2025, incidental take of these and other migratory bird species is prohibited by the Migratory Bird Treaty Act. In order to avoid incidental take, any tree clearing should be conducted outside the breeding and nesting season, which is April 1 to July 15. Adult birds are highly mobile and capable of leaving the project area if threatened by construction activities. Adherence to the seasonal tree cutting recommended for listed bat species (discussed below), will also minimize potential impacts to these bird species.

## 5.2 Threatened and Endangered Species

According to the review of the USFWS IPaC website, the following federally-listed animal species may occur in the vicinity of the project site:

- Indiana bat (Myotis sodalis) Endangered
- ■□ Northern long-eared bat (Myotis septentrionalis) Endangered
- •□ Monarch butterfuly (Danaus plexippus) Proposed Threatened



ODNR indicated that based on a review of the Natural Heritage Database, dated April 3, 2025, there are no records of state or federally listed animals within one mile of the project area. Potential bat habitat onsite is discussed further below. The ODNR Environmental Review letter is included in Appendix A.

According to ODNR, habitat for the listed bat species consists of suitable trees in riparian corridors including: (1) dead and dying trees with exfoliating bark, crevices or cavities; and (2) living trees with exfoliating bark, cavities or hollow areas formed from broken branches or tops. The majority of the trees within the project site are medium-aged, living trees that lack significant exfoliating bark, cracks, or crevices. No bats were observed on the subject property during the site visit.

Per coordination conducted with the USFWS and ODNR, seasonal tree cutting (clearing of trees  $\geq 3$  inches diameter at breast height between October 1 and March 31) is recommended and sufficient to avoid impacts to listed bat species.

# 5.3 Invasive Species

According to the Ohio Department of Agriculture, the Asian longhorned beetle (Anoplophora glabripennis), emerald ash borer (Agrilus planipennis), spongy moth (Lymantria dispar), box tree moth (Cydalima perspectalis), hemlock woolly adelgid (Adelges tsugae), northern giant hornet (Vespa mandarinia), spotted lanternfly (Lycorma delicatula), and yellow-legged hornet (Vespa velutina) are invasive insects affecting Ohio. None of these invasive insects were observed on the site. However, any ash trees or walnut trees on the site may be affected by the presence of these insects. The Asian longhorned beetle attacks various species of hardwood trees and could be present on the site.

In addition, several invasive aquatic species are listed by ODNR. However, no streams are located within the portion of the site to be occupied by the proposed power generation equipment. Furthermore, no indications of invasive terrestrial wildlife species, i.e., feral swine (Sus scrofa), were observed on the subject property. Wild boars are mostly concentrated in southeastern Ohio. It is unlikely that these species are located on the subject property based on their reported distribution and the maintenance of the project site as mowed and development space.

### 6.0 SURFACE WATER RESOURCES

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was reviewed for the site (FEMA, 2015) (Exhibit 5). According to the FEMA FIRM, the entire site lies within Zone X (unshaded), which is an area determined to be outside the 500-year floodplain.

The USFWS' National Wetland Inventory (NWI) map was reviewed for the site (USFWS, 2024). As shown on Exhibit 6, three (3) features were mapped within the site. Two (2) palustrine, forested, broad-leaved deciduous, seasonally flooded wetlands (PFO1C) were mapped in the northern portion of the site. A riverine, intermittent, streambed, seasonally flooded stream (R4SBC) was mapped in the southern riparian forest on the site.

EMH&T conducted field investigations of the site in October 2015, on January 19, 2021, on August 11, 2021 and on March 11, 2025 to determine the location and extent of potential waters, including streams and wetlands. The delineation reports, dated November 3, 2015, February 8, 2021, and November 29, 2021, are provided in Appendix B.

The site received an Approved Jurisdictional Determination (AJD) dated February 17, 2016 (LRH-2015-238-MUS-UT South Fork Licking River). No ponds, rivers, or lakes were observed on the site at that time. Two (2) streams (Streams 5 and 7) were located within the southern riparian forest. Stream 5 (South Fork Licking River) is a seasonally flooded, intermittent stream, with a watershed of approximately 1.06 square miles. Stream 5 (South Fork Licking River) will not be impacted by the proposed power generation project.



Stream 7 was a small ephemeral stream that was previously permitted for impact (Ohio EPA ID No. 154756 and 154841) and has since been impacted for the construction of the 525 Building. Stream 7 is no longer present onsite and is not discussed further herein.

The site received an additional AJD dated March 12, 2021 (LRH-2021-00152). Three (3) wetlands were observed and verified on the project site as a result of the 2021 investigation, as shown on Exhibit 7. The three (3) wetlands identified on the project site were located in the woodlot that was previously located in the northwestern portion of the site. These wetlands were permitted (Ohio EPA ID No. 217323W) and have since been disturbed for the construction of the 525 building. These wetlands are no longer present onsite and are not discussed further herein.

Finally, an AJD covering the northwestern portion of the site was issued on February 4, 2022 (LRH-2021-907-SCR-Blacklick Creek). No features were identified in the northwestern portion of the site. The AJDs issued in 2016, 2021 and 2022 are provided in Appendix B, along with copies of the abovementioned permits.

During the March 11, 2025 investigation, no new features were observed. A majority of the surrounding land was observed to be maintained open space with scattered landscaping trees, and developed industrial space including parking lots, paved roadways, and stormwater basins. Within 1,000' feet of the proposed power generation facility, the following water resources are present, as shown on Exhibit 8:

- Three constructed stormwater basins (one each to the northwest, southwest and northeast)
- ullet One farm pond to the southeast
- ullet One stream to the southeast within a forested riparian corridor

### 7.0 LAND USE AND SURROUNDING DEVELOPMENT

The site land use consists of industrial development, developed space, riparian forest, maintained space, and open water (stormwater basins), as depicted on Exhibit 9. The majority of the site has been consistently maintained/mowed which provides little opportunity for wildlife habitat. The developed areas include a building/warehouse, paved roadways, parking lots, stormwater basins, and mowed areas that are generally not conducive to wildlife.

Exhibit 10 identifies the structures located within 250 feet and 1,000 feet of the proposed generation equipment and associated facilities. The identified structures are listed in Table 2. A total of 23 structures are located within 1,000 feet, consisting of dwellings/houses, sheds, and garages. There are no structures located within 250 feet.

**Table 2: Existing Structures** 

| Parcel Number     | Number of Structures | Type of Structure                |
|-------------------|----------------------|----------------------------------|
| 093-107490-03.002 | 2                    | Dwelling, garage                 |
| 093-107490-03.001 | 2                    | Dwelling, shed                   |
| 093-107478-00.002 | 1                    | Dwelling                         |
| 035-106518-00.000 | 10                   | Dwelling (3), shed or garage (7) |
| 035-107490-01.004 | 3                    | Dwelling, garage, shed           |
| 095-112236-00.000 | 1                    | Dwelling                         |
| 093-106422-00.002 | 1                    | Industrial                       |

Exhibit 11 depicts the zoning districts and surrounding structures located within one mile of the proposed facility. The site is located within the City of New Albany's Infill Planned Unity Development (IPUD) and General Employment (GE) zoning districts, which are intended to support a range of commercial/industrial and other employment-generating activity. Zoned uses within one mile of the site include IPUD, GE and



technology manufacturing (TMD). A portion of the surrounding land is located outside the municipal boundary, in Jersey Township. These areas have residential township zoning with various overlays for the general employment, mixed use office and other commercial/industrial uses that are expected to develop in the near future.

Exhibit 12 identifies the recreation areas and registered landmarks located within five (5) miles of the site. The identified recreational resources are listed in Table 3. There are no recreational trails, scenic rivers, routes or byways within five (5) miles of the site.

Distance Name Type of Resource (miles) Bevelhymer Park 4.14 Municipal Park Jefferson Community Park 5.04 Municipal Park 4.47 Rocky Fork Metro Park Municipal Park Rose Run Park 5.07 Municipal Park Wexner Community Park 5.15 Municipal Park 5.06 Swickard Woods Nature Preserve Municipal Nature Preserve Archibald's Mill 3.31 Historic Landmark Founders of New Albany 4.67 Historic Landmark Smith's Burying Ground 3.25 Historic Landmark Wagnor Cemetery 4.39 Historic Landmark

**Table 3: Recreational Resources** 

## 7.1 Viewshed Analysis

Exhibit 13 provides a viewshed analysis within two miles of the project site. The viewshed analysis was conducted using ESRI ArcGIS Pro software to assess the potential visual impacts of the proposed structures. The analysis utilized 2020 OSIP Lidar data to generate a Digital Elevation Model (DEM).

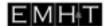
To refine the model, recent aerial imagery was used to identify and remove smaller vegetation features, such as tree rows and isolated clusters, replacing them with a bare-earth surface. However, large, continuous stands of trees were retained in the DEM to better reflect actual visual obstructions. In addition, buildings constructed after 2020 were manually added using Licking County building footprint data, with building heights estimated based on measurements from nearby similar structures within the Lidar dataset.

This process resulted in a comprehensive and current elevation model, which was then used in ArcGIS Pro to identify areas where proposed facilities may or may not be visible. The analysis assumed:

- □ Tower design height: 78 feet above ground.
- •□ Observer height: 5.5 feet above ground level.
- Atmospheric conditions: Clear, low-humidity, and low-pollution conditions were assumed to simulate maximum visibility, with a maximum theoretical range of up to 3 miles.

Each proposed tower location was analyzed individually as a point source in the viewshed model. To ensure accuracy, the analysis results were also reviewed and verified using a 3D scene environment within ArcGIS Pro.

As shown on Exhibit 13, the proposed power generation facilities will be most visible from vantage points to the north and northeast, within a distance of 0.5 to 1.0 mile. However, given the predominantly built landscape of the surrounding area, planned development in Jersey Township to the east, and the existing development on the project site, the overall visual impact of the proposed power generation facility is minimal. Exhibit 14 provides a series of visual simulations showing existing and proposed conditions.



### 8.0 REGULATORY REQUIREMENTS

### 8.1 Federal

Impacts to Waters of the United States, including jurisdictional streams and wetlands, are regulated by the USACE and the U.S. Environmental Protection Agency (EPA) 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).

If the project will have a federal nexus, e.g., will receive federal funding or a federal permit, then coordination is also required with the USFWS under Section 7 of the Endangered Species Act. Moreover, under Section 9 of the Endangered Species Act it is unlawful for any entity to "take" an endangered or threatened species, regardless of federal nexus. A federal nexus also triggers coordination regarding cultural resources with the State Historic Preservation Office (SHPO) under Section 106 of the National Historic Preservation Act.

No jurisdictional surface water resources were identified onsite that would be impacted by the proposed power generation equipment and associated facilities. As such, no permitting under Section 404 or 401 of the Clean Water Act is required, nor coordination under the Endangered Species Act or National Historic Preservation Act.

### 8.2 State

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. No isolated wetlands were identified onsite. As such, an Ohio Isolated Wetland Permit is not required.

### 9.0 RECOMMENDATIONS

In regard to state or federal endangered species, the primary species of concern on the site is the Indiana and northern long-eared bat. Absent a federal nexus requiring coordination with the USFWS, any tree clearing should occur during the winter months (October 1 - March 31) to avoid any potential impacts to listed bat species. Adherence to this clearing window will also minimize potential impacts to birds of concern under the MBTA.

Impacts to the riparian forest in the southern portion of the study area are expected to be avoided by the project. If impacts cannot be avoided, there may be regulatory requirements such as permitting (as described in Section 8). Best management practices should be utilized to minimize erosion and sedimentation to onsite water resources during construction.

## 10.0 REFERENCES

Federal Emergency Management Agency (FEMA). 2024. Flood Insurance Rate Map for Licking County, Ohio and Unincorporated Areas. Map number 39089C0280H. Available online at: https://msc.fema.gov/portal/home.

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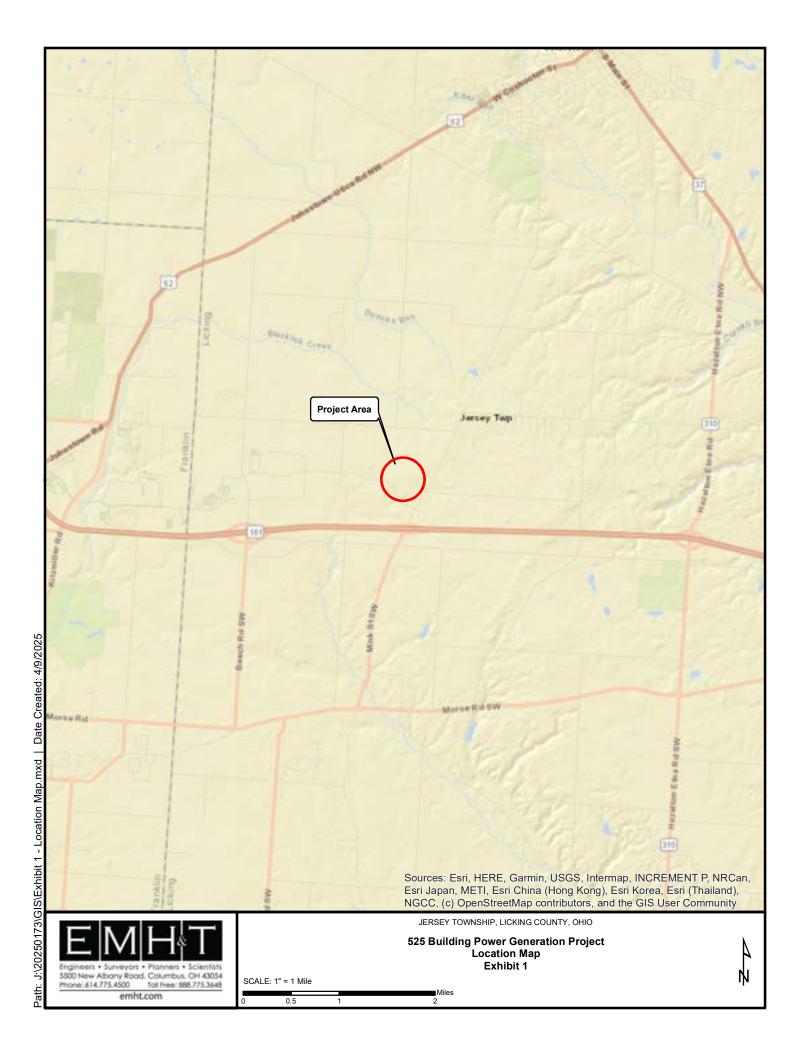
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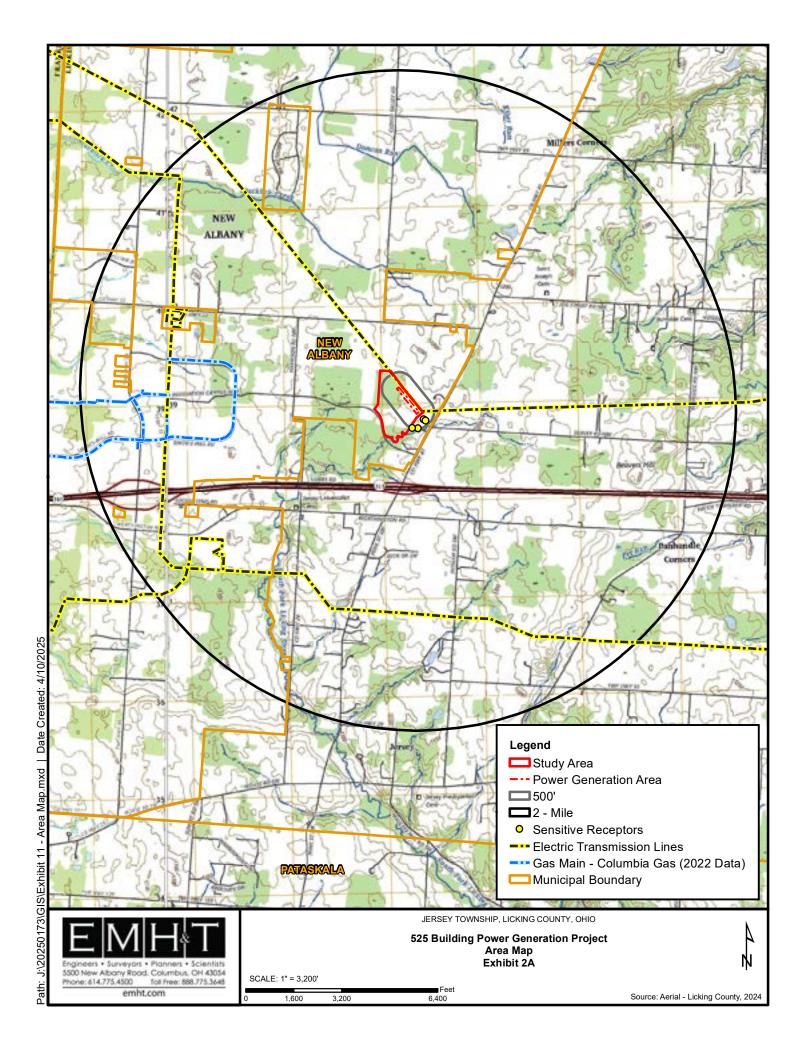
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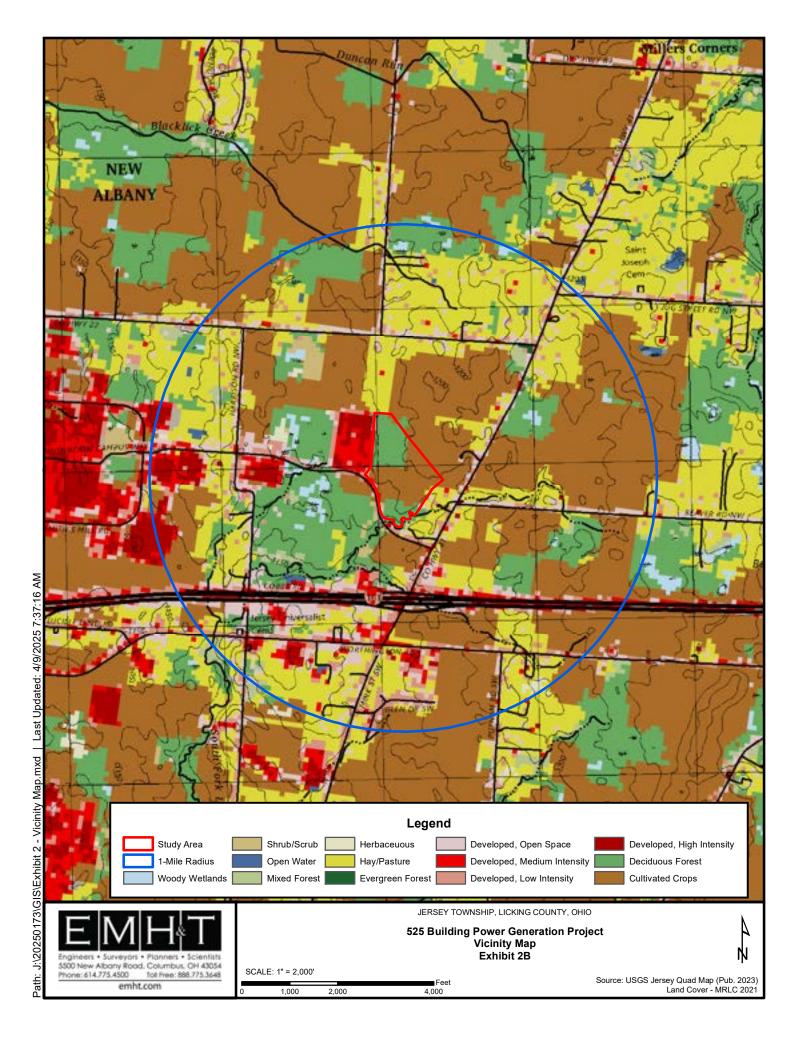
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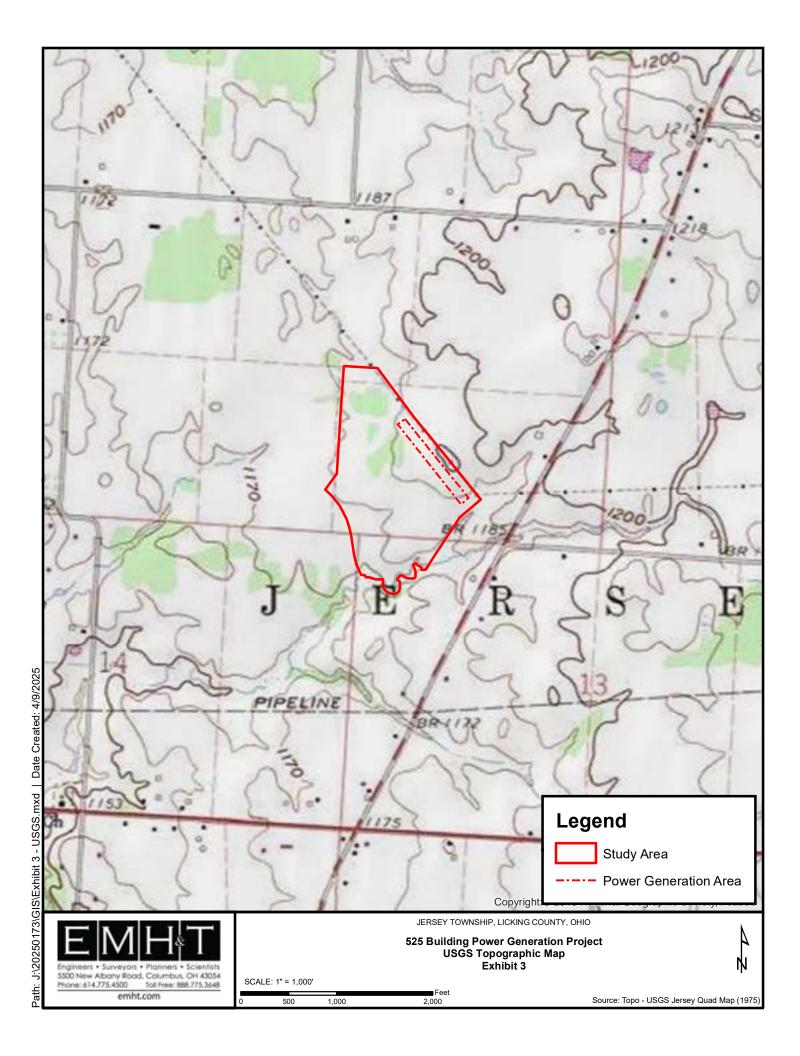


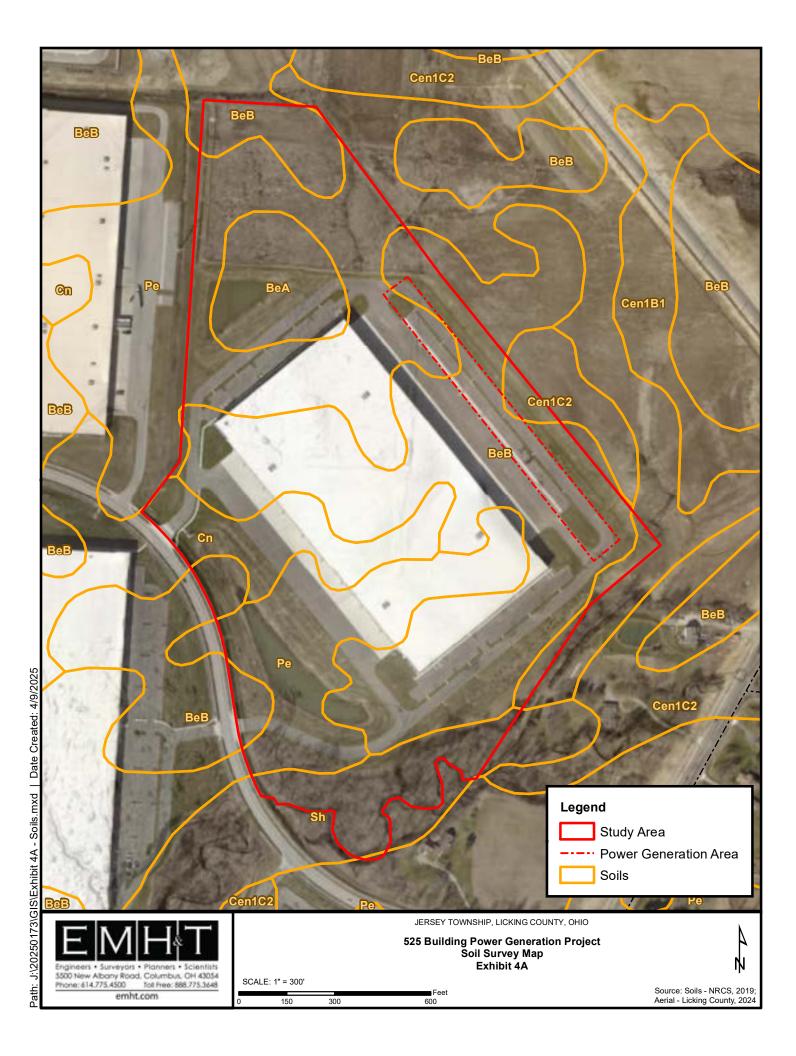
# **EXHIBITS**

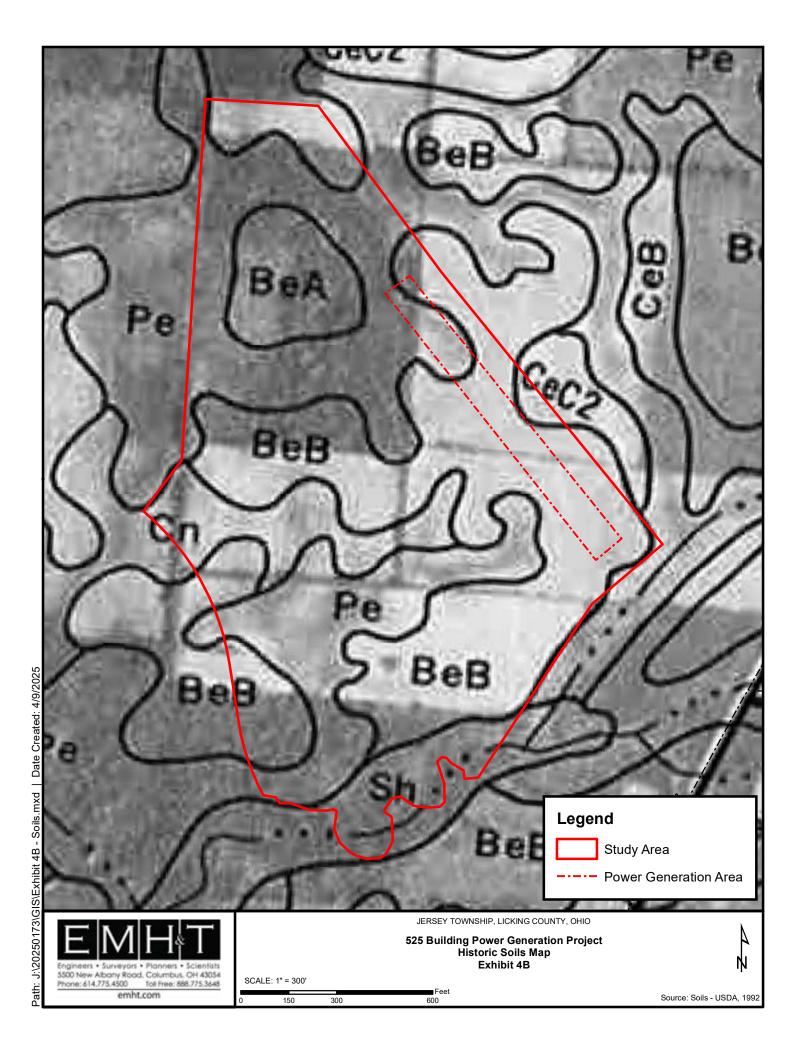


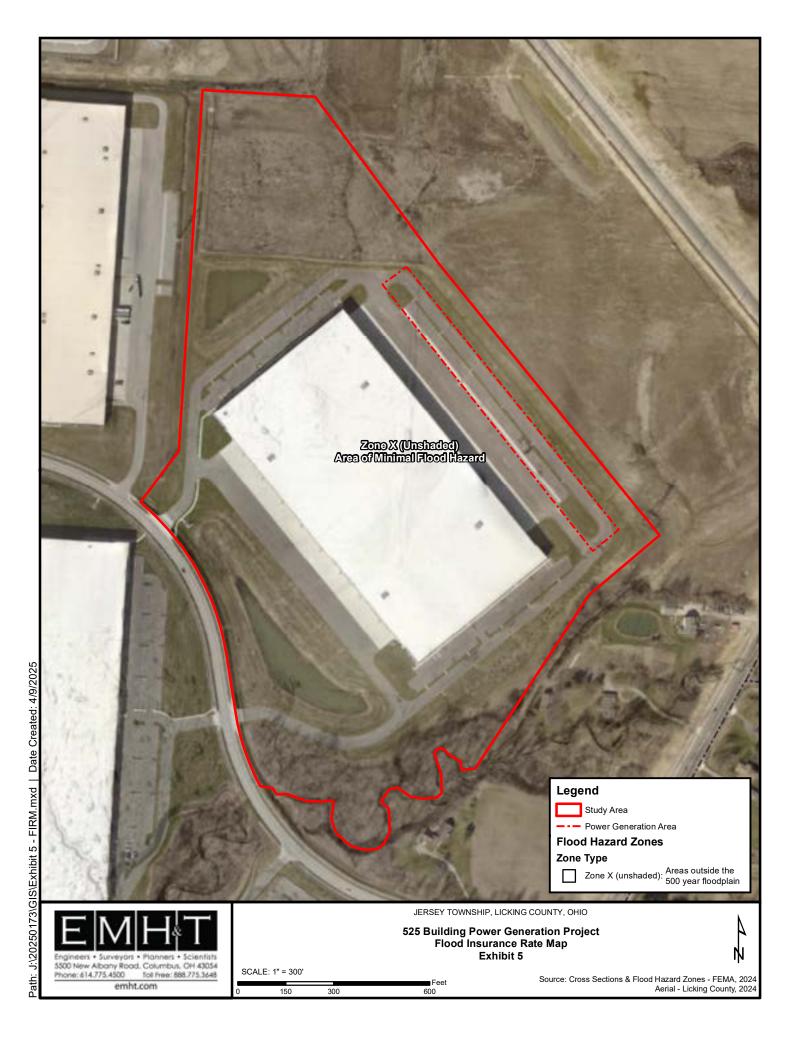


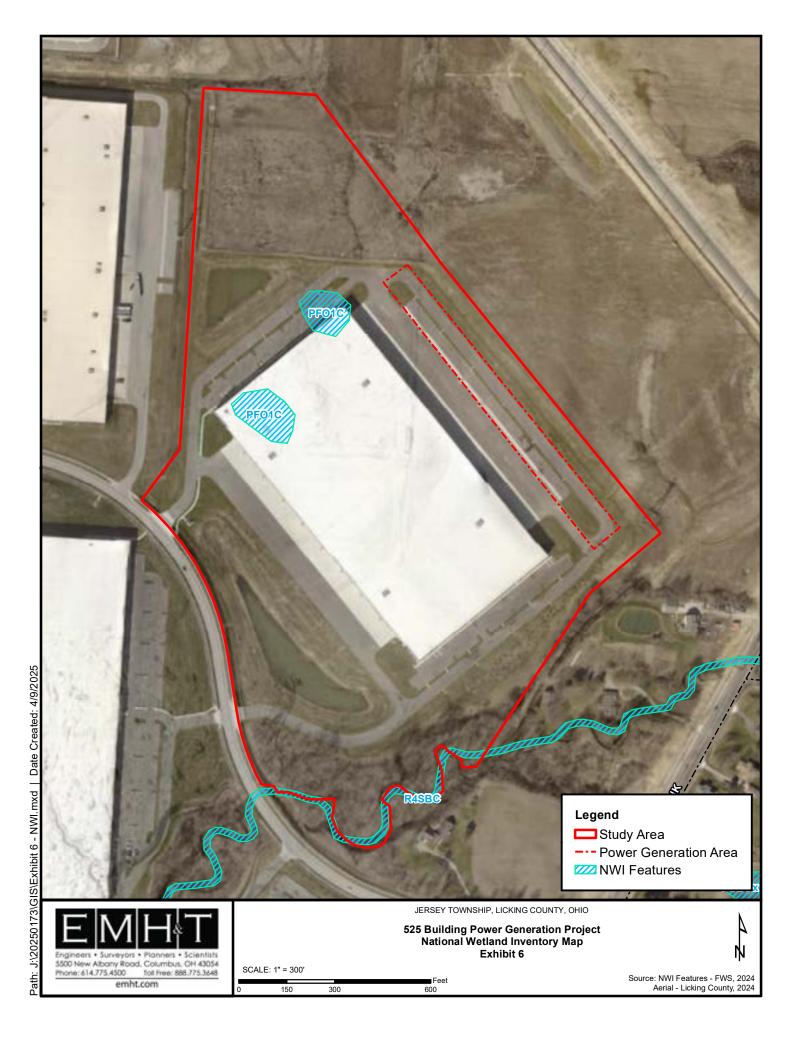


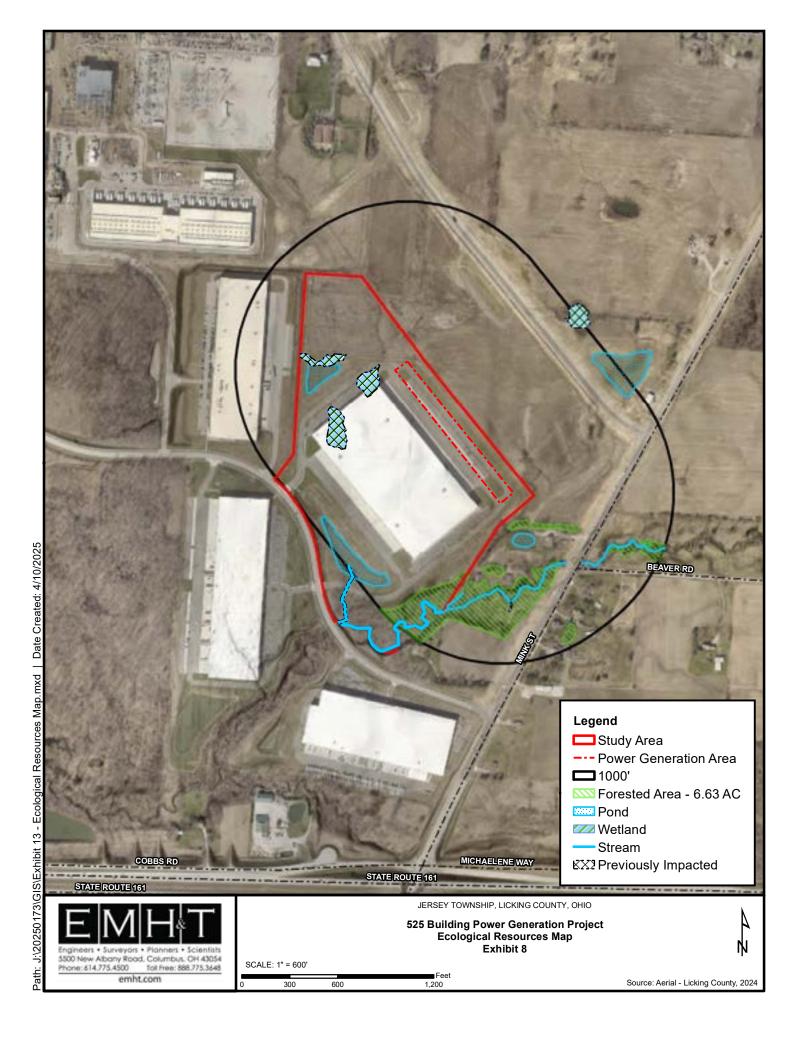


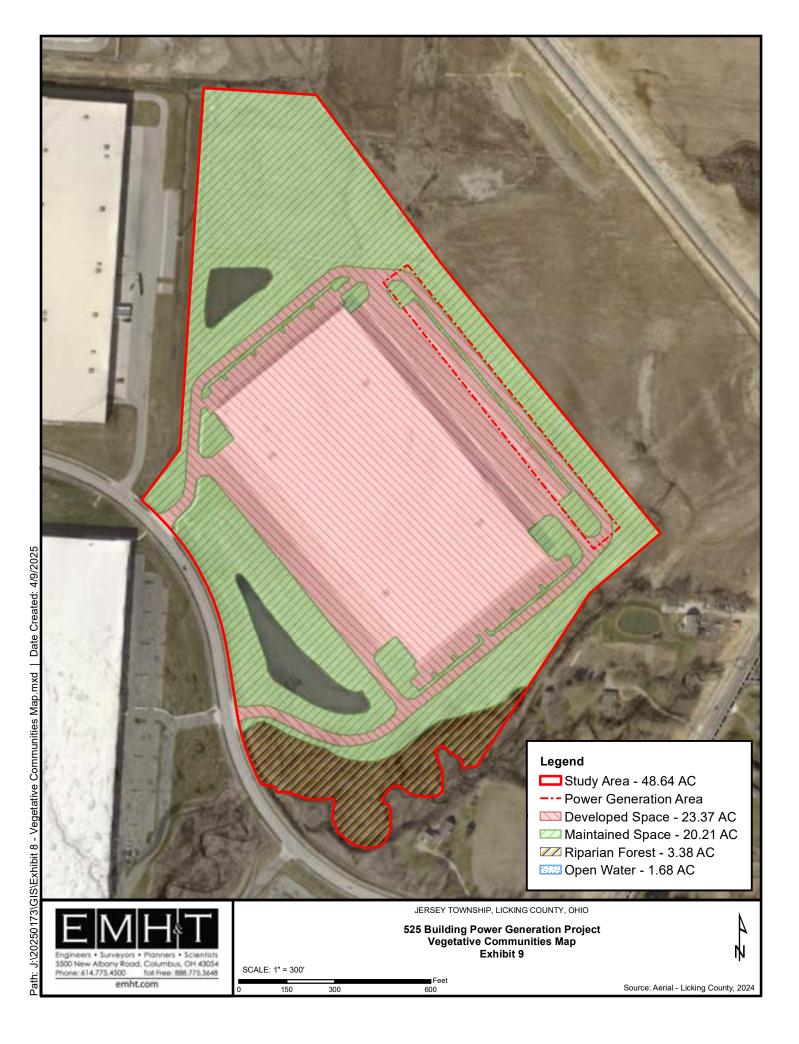




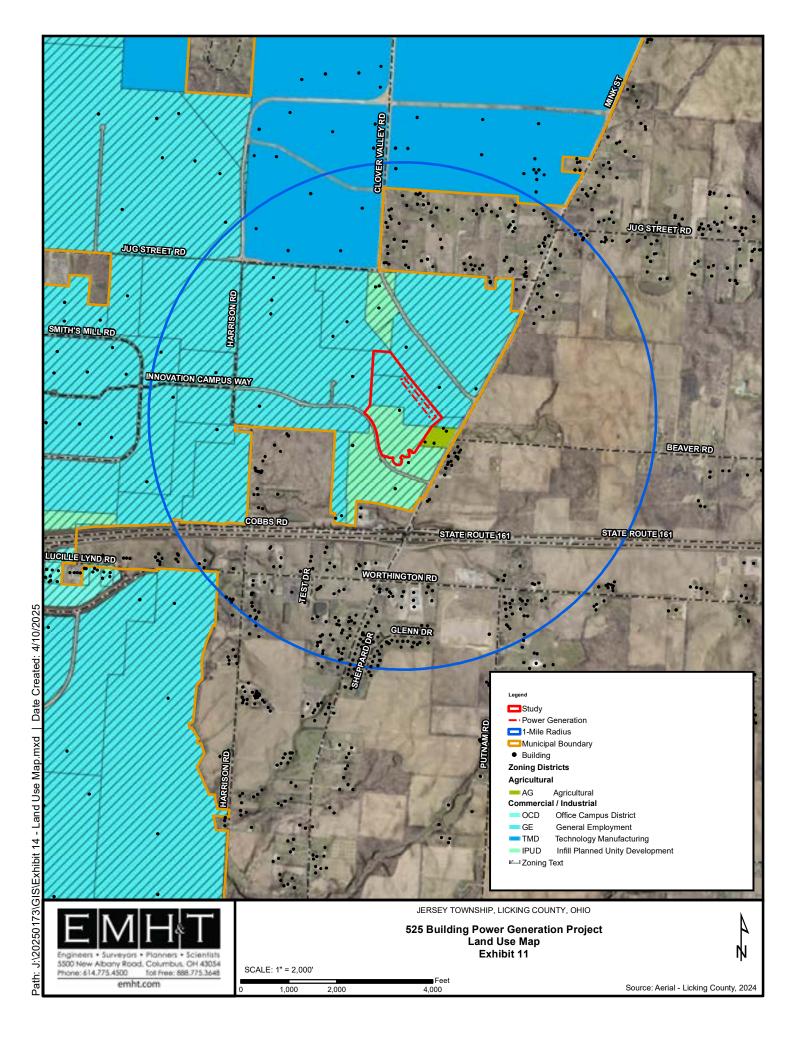


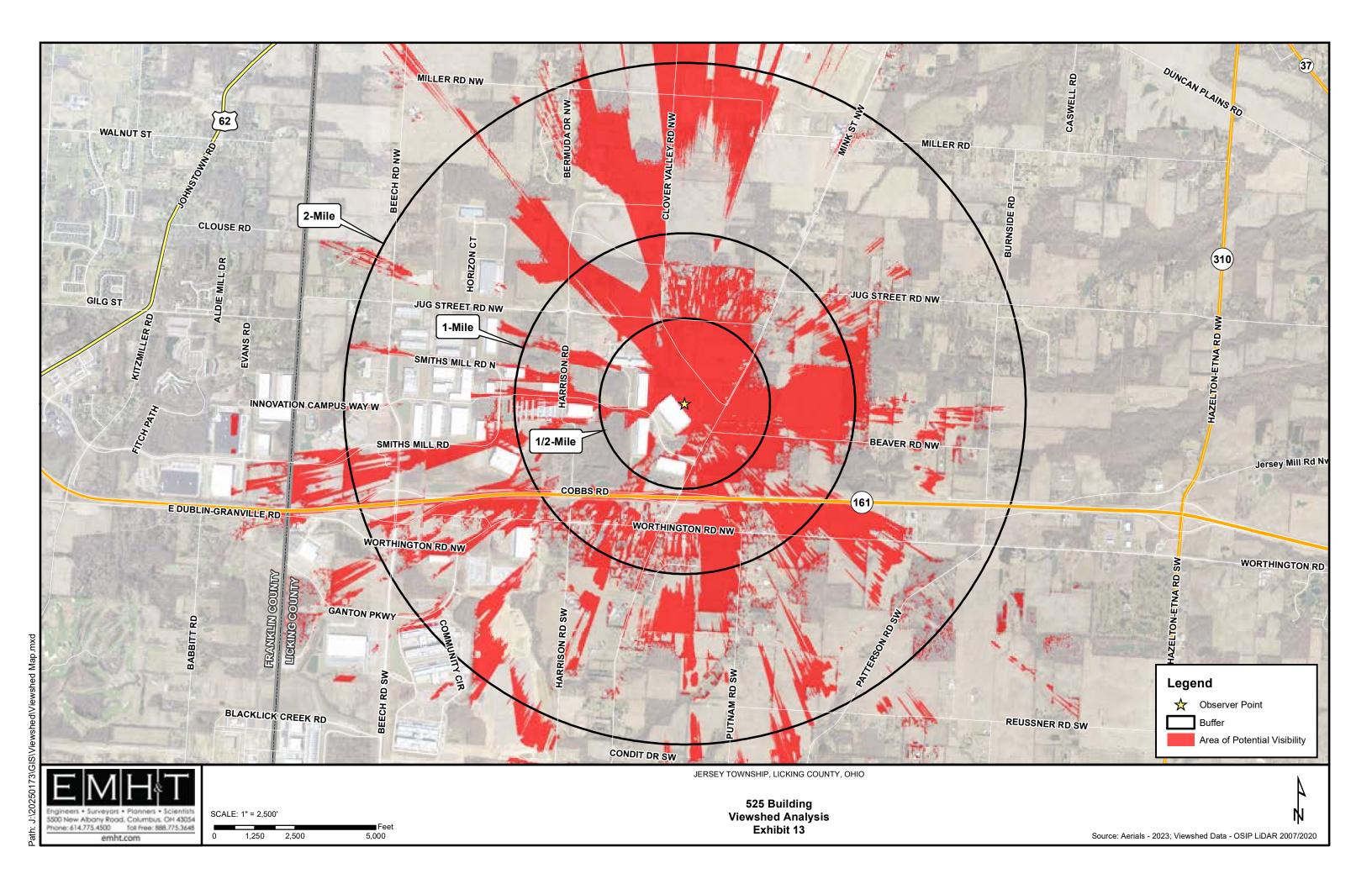


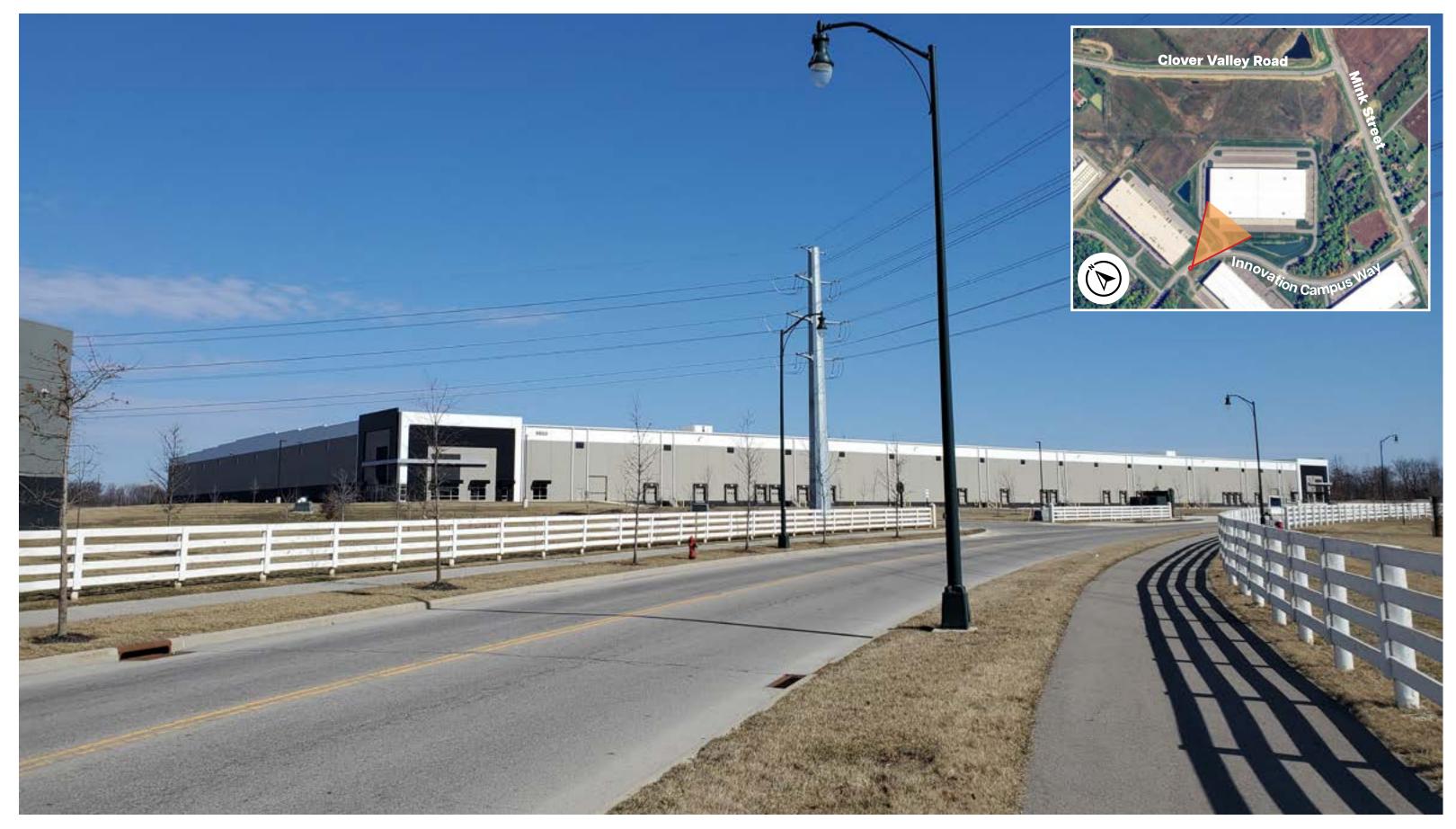




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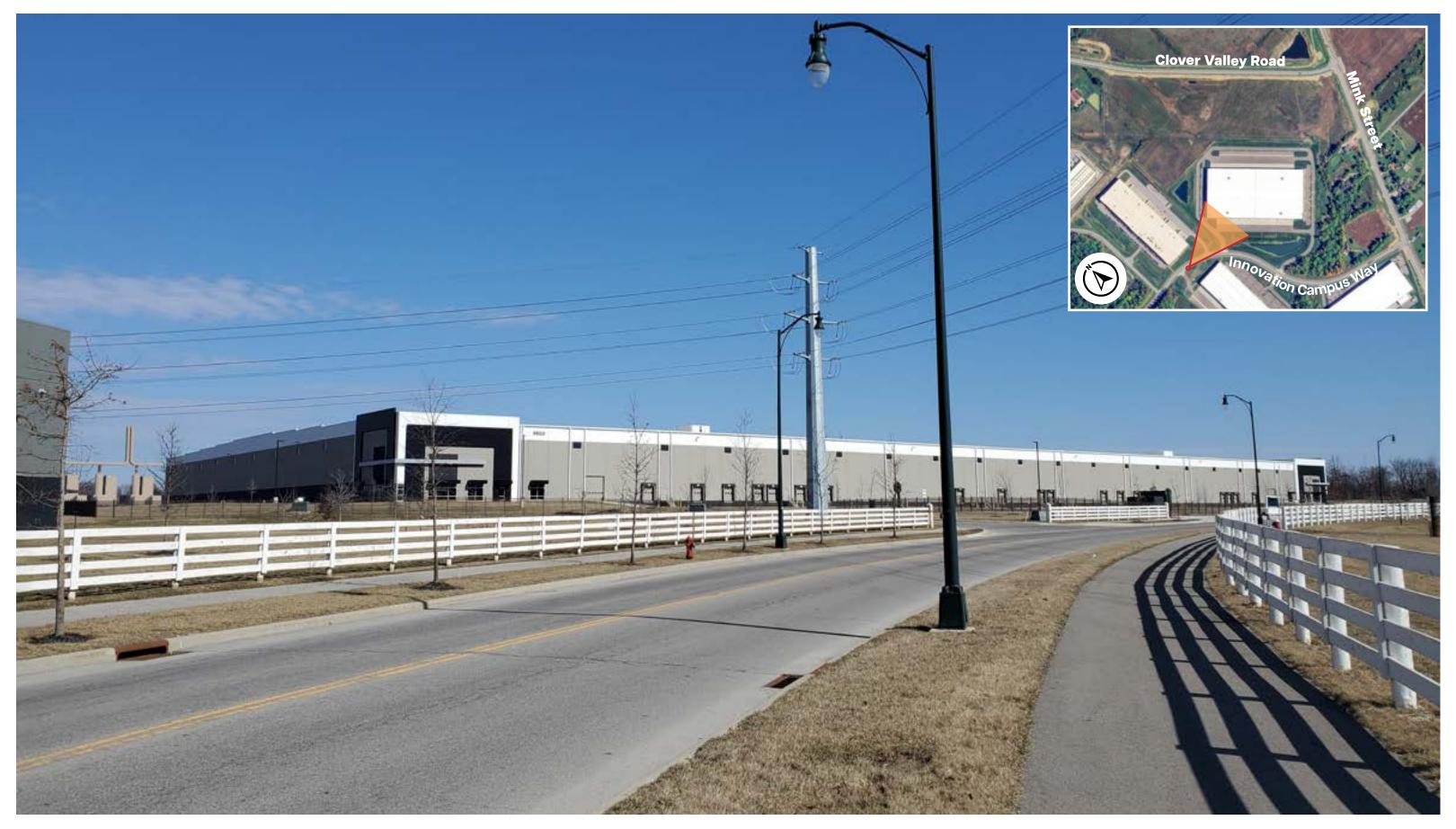




Innovation Campus Way Looking East Viewpoint Coordinates 40°05'17.0"N 82°43'35.0"W **Viewer Eye Elevation** 1184 ft msl

**Distance To Project** 460 ft

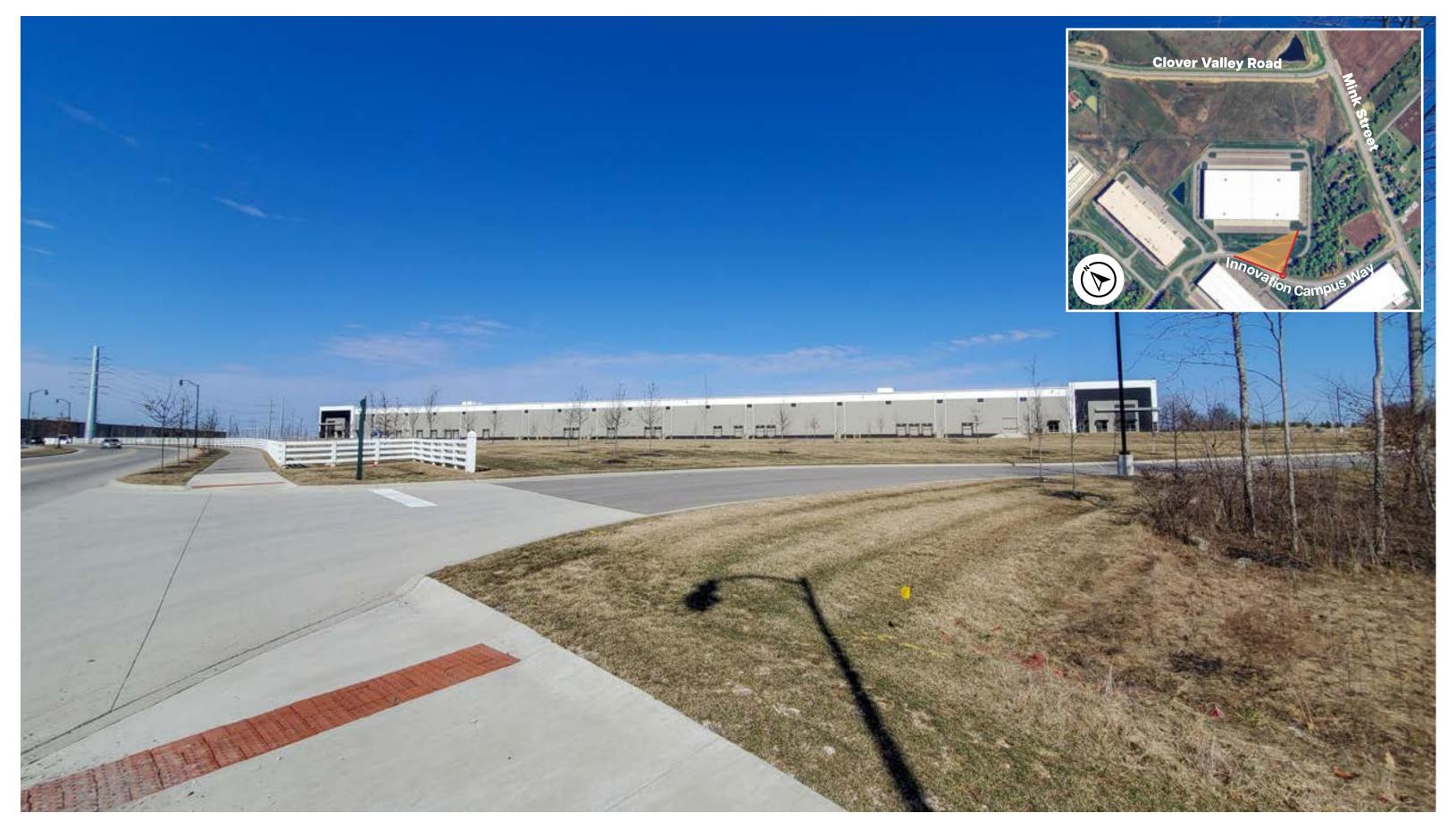
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Innovation Campus Way Looking East Viewpoint Coordinates 40°05'17.0"N 82°43'35.0"W **Viewer Eye Elevation** 1184 ft msl

**Distance To Project** 460 ft

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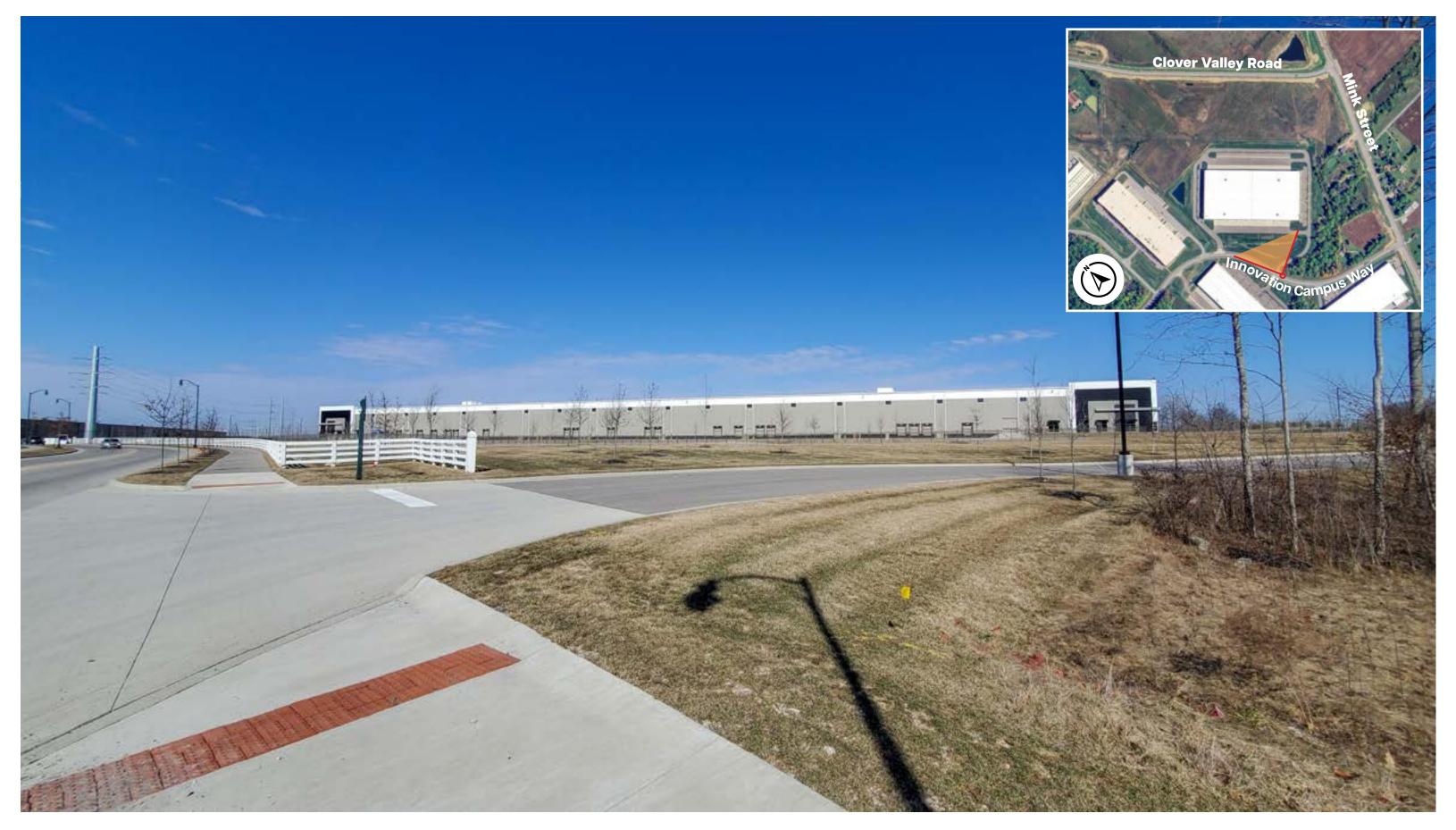
Innovation Campus Way
Looking North

**Viewpoint Coordinates** 40°05'08.9"N 82°43'26.9"W

**Viewer Eye Elevation** 1178 ft msl **Distance To Project** 410 ft

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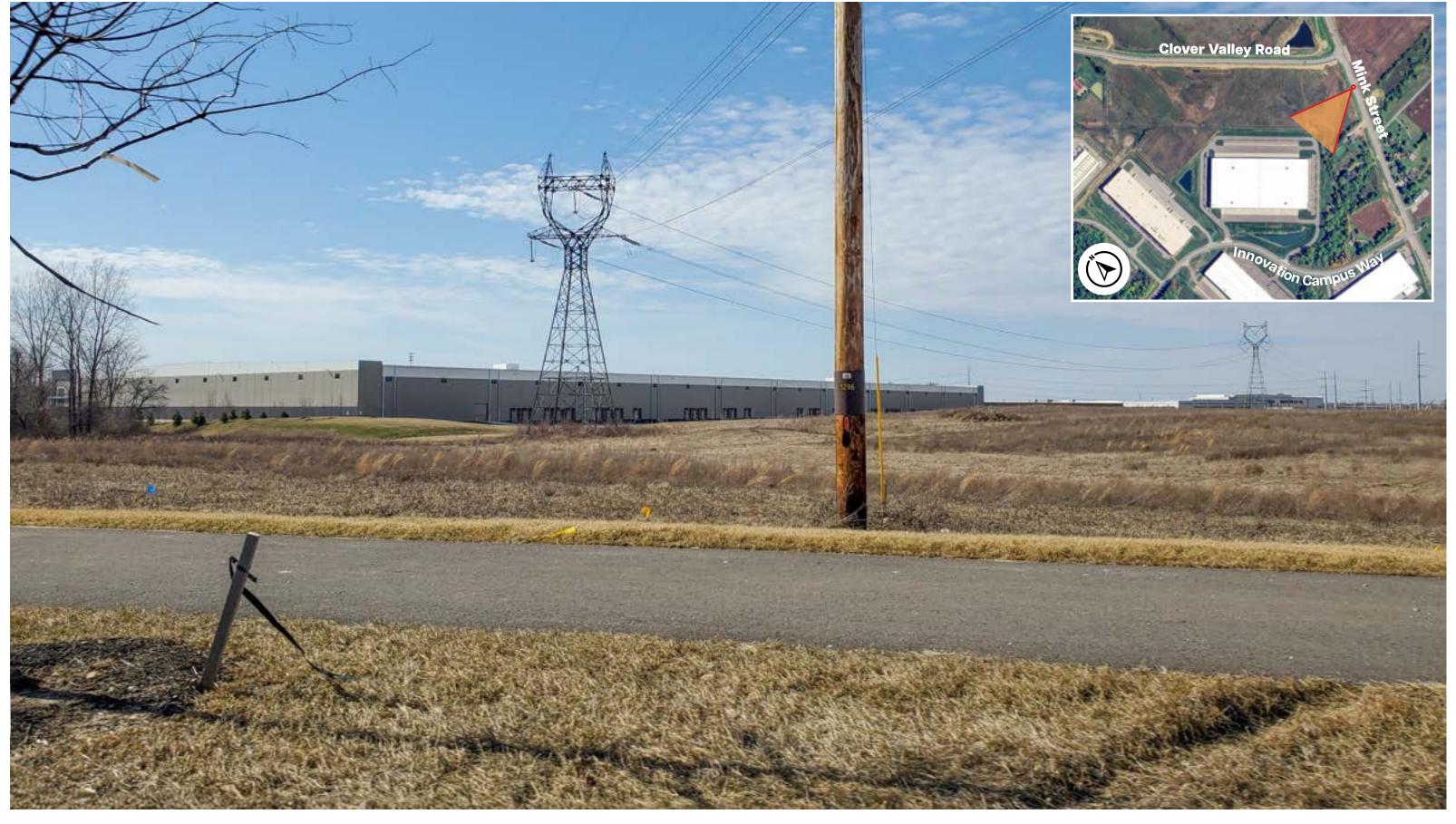
Innovation Campus Way
Looking North

Viewpoint Coordinates 40°05'08.9"N 82°43'26.9"W **Viewer Eye Elevation** 1178 ft msl

**Distance To Project** 410 ft

**Camera Lens** 14 mm **Date & Time**March 4, 2025 2:27 PM

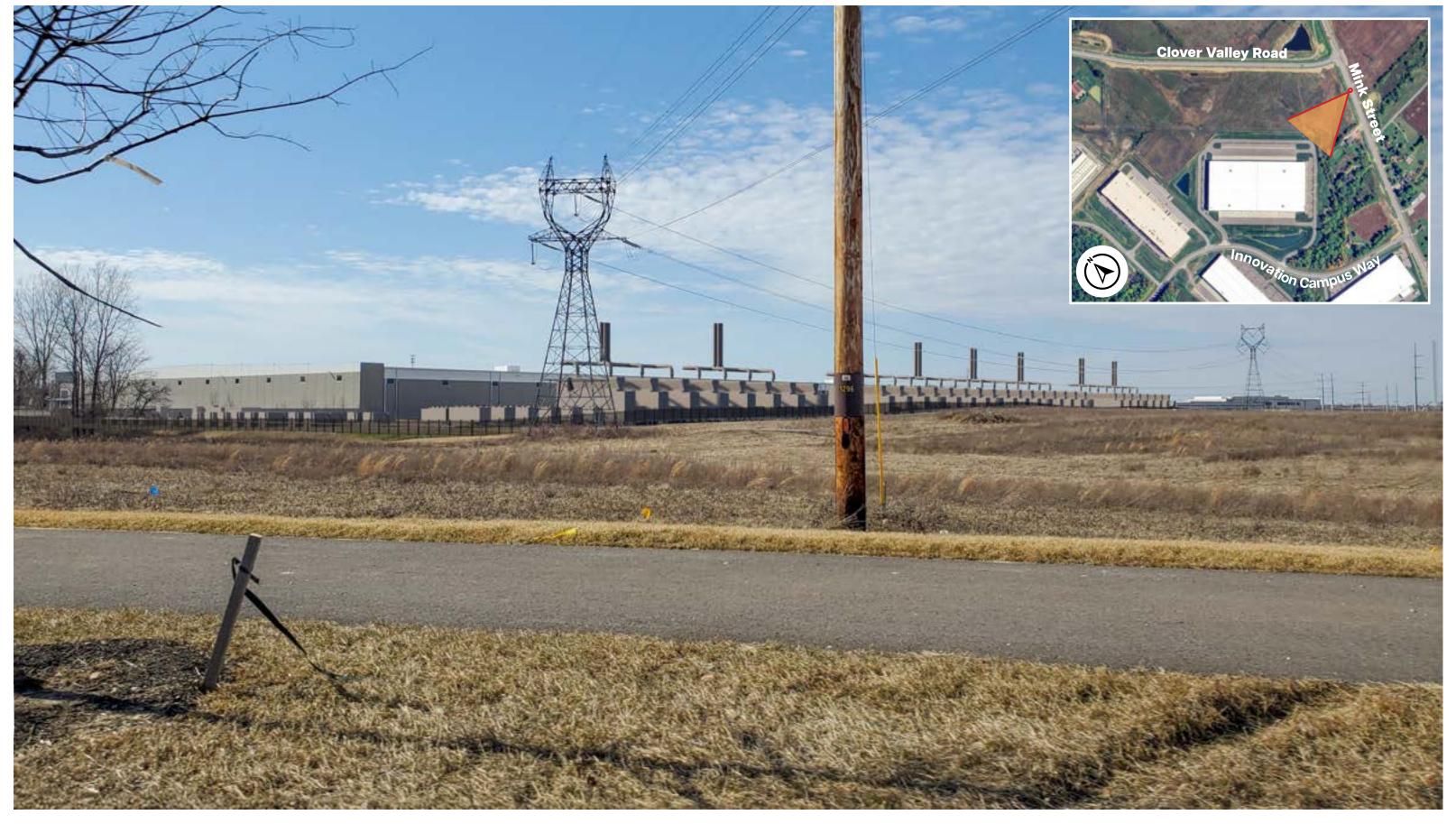




Mink Street Looking West Viewpoint Coordinates 40°05'15.1"N 82°43'03.7"W **Viewer Eye Elevation** 1199 ft msl **Distance To Project** 560 ft

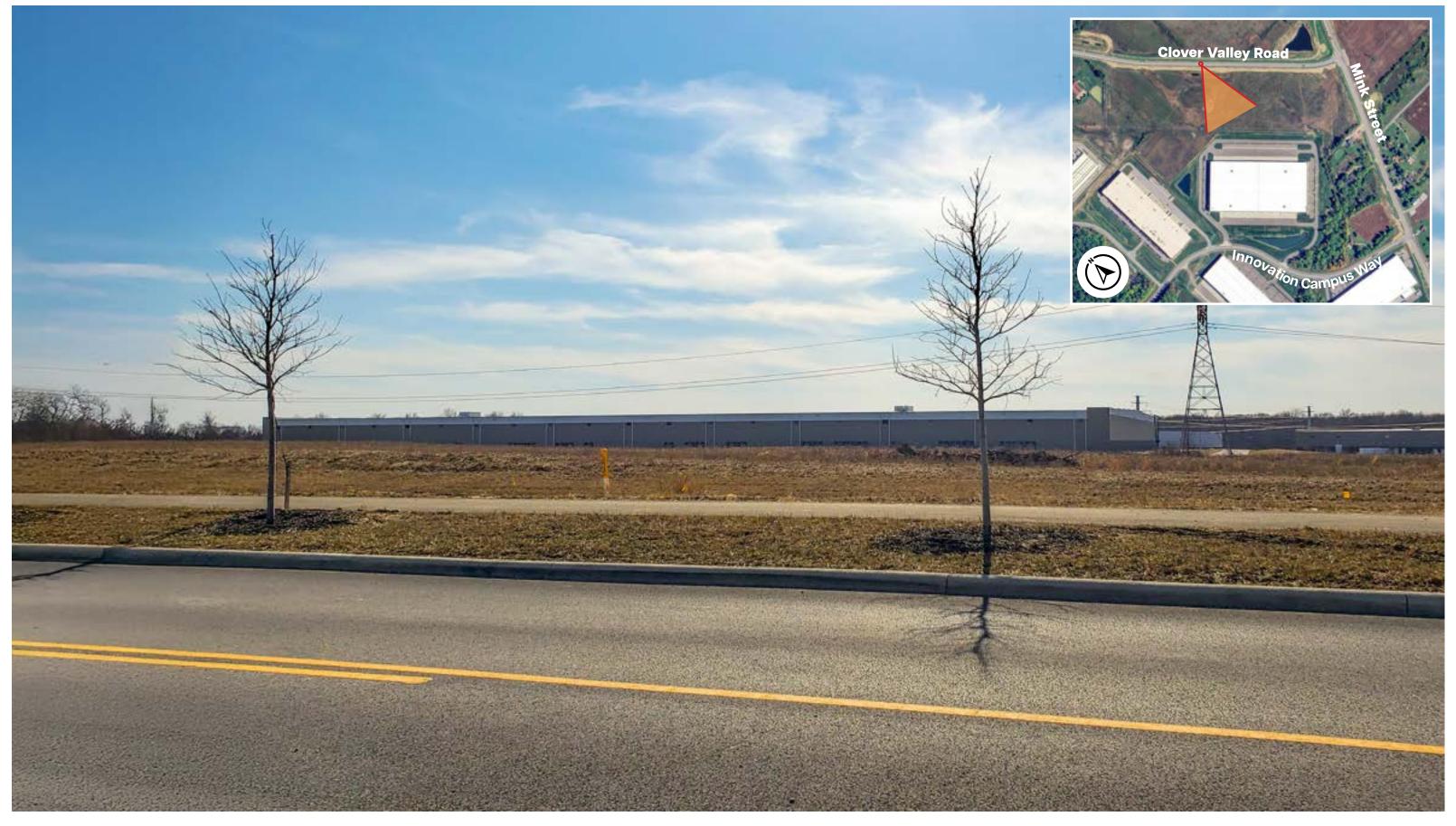
**Camera Lens** 28 mm **Date & Time**March 4, 2025 2:04 PM





Mink Street Looking West Viewpoint Coordinates 40°05'15.1"N 82°43'03.7"W **Viewer Eye Elevation** 1199 ft msl **Distance To Project** 560 ft

**Camera Lens** 28 mm **Date & Time**March 4, 2025 2:04 PM

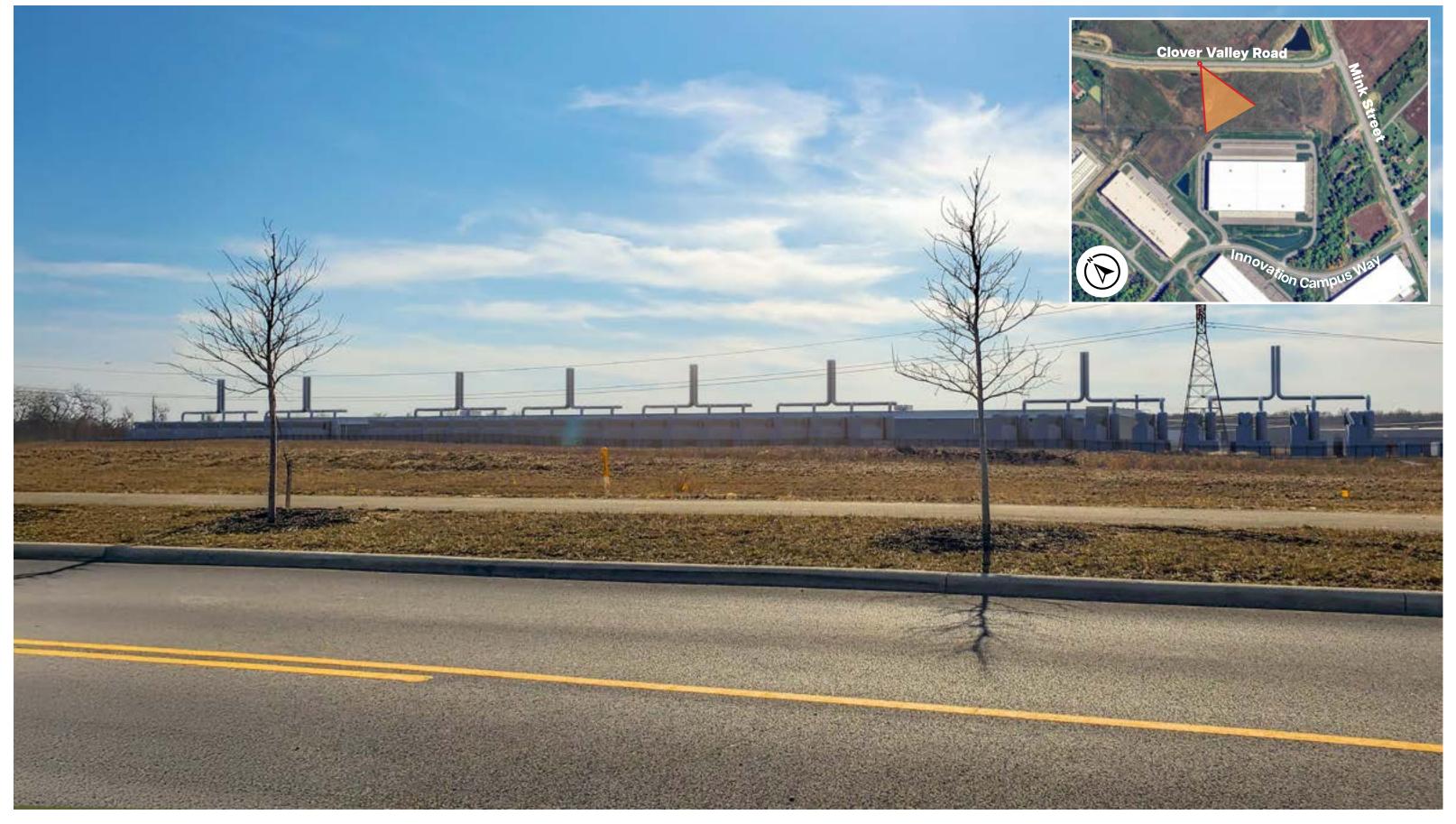


Clover Valley Road Looking South Viewpoint Coordinates 40°05'29.5"N 82°43'13.8"W **Viewer Eye Elevation** 1200 ft msl

**Distance To Project** 750 ft

**Camera Lens** 28 mm **Date & Time** March 4, 2025 2:36 PM





Clover Valley Road Looking South Viewpoint Coordinates 40°05'29.5"N 82°43'13.8"W

**Viewer Eye Elevation** 1200 ft msl

**Distance To Project** 750 ft

**Camera Lens** 28 mm **Date & Time**March 4, 2025 2:36 PM



## **PHOTOGRAPHS**





**Photograph No. 1** — Representative view of the maintained space and stormwater basins, facing northwest.



**Photograph No. 2** – Representative view of the riparian forest on the southern portion of the site, facing southwest.





**Photograph No. 3** — Representative view of the developed space and 525 Building, facing north.



**Photograph No. 4** – Representative view of the maintained space and developed space, facing northwest.



## APPENDIX A:

Threatened and Endangered Species Correspondence







Office of Real Estate & Land Management

Tara Paciorek - Chief 2045 Morse Road – E-2 Columbus, Ohio 43229-6693

April 3, 2025

Emilee Sites
EMH&T
5500 New Albany Road
Columbus, Ohio 43054

Re: 25-0365 - 525 Building Power Generation Project

Project: The proposed project involves adding power generation equipment to an existing building.

**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 endangered species. Because presence of a 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 endangered 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 recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if 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 of 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 eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as drier upland habitat. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonius*), 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.

The project is within the range of the sandhill crane (*Antigone canadensis*), a state threatened species. Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds, they require a rather large tract of wet meadow, shallow marsh, or bog for nesting. If grassland, prairie, or wetland habitat will be impacted, construction should be avoided in this habitat

during the species' nesting period of April 1 through August 31. If this habitat will not be impacted, this project is not likely to have an impact on 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.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the <u>local floodplain administrator</u> should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer <u>website</u> can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew (Environmental Services Administrator) at <a href="mailto:mike.pettegrew@dnr.ohio.gov">mike.pettegrew@dnr.ohio.gov</a> if you have questions about these comments or need additional information.

**Expiration:** ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.

# **USFWS IPaC Species List**



# United States Department of the Interior



#### FISH AND WILDLIFE SERVICE

Ohio Ecological Services Field Office 4625 Morse Road, Suite 104 Columbus, OH 43230-8355 Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To: 03/06/2025 18:39:33 UTC

Project Code: 2025-0065243

Project Name: 525 Building Power Generation Project

Subject: List of threatened and endangered species that may occur in your proposed project

location or may be affected by your proposed project

#### To Whom It May Concern:

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

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

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

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

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

Project code: 2025-0065243

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

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

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

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

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

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

Project code: 2025-0065243 03/06/2025 18:39:33 UTC

#### Attachment(s):

Official Species List

# **OFFICIAL SPECIES LIST**

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

This species list is provided by:

**Ohio Ecological Services Field Office** 4625 Morse Road, Suite 104 Columbus, OH 43230-8355 (614) 416-8993

## **PROJECT SUMMARY**

Project Code: 2025-0065243

Project Name: 525 Building Power Generation Project

Project Type: Power Gen - Other

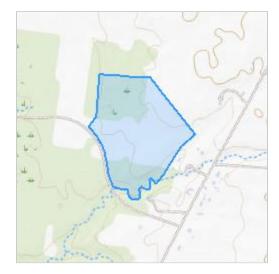
Project Description: The site encompasses approximately 42.2 acres of industrial development

property that includes a building/ warehouse, paved roadways, parking lots, a couple stormwater basins, riparian forest, and mowed areas. The proposed power generation equipment is expected to be situated on

existing pavement along the northeast boundary of the site.

### **Project Location:**

The approximate location of the project can be viewed in Google Maps: <a href="https://www.google.com/maps/@40.087402350000005">https://www.google.com/maps/@40.087402350000005</a>,-82.72216930221992,14z



Counties: Licking County, Ohio

## **ENDANGERED SPECIES ACT SPECIES**

Project code: 2025-0065243

There is a total of 3 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Project code: 2025-0065243 03/06/2025 18:39:33 UTC

#### **MAMMALS**

NAME STATUS

Indiana Bat Myotis sodalis

Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/5949

Northern Long-eared Bat Myotis septentrionalis

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>

Endangered

**INSECTS** 

NAME STATUS

Monarch Butterfly *Danaus plexippus* 

Proposed

There is **proposed** critical habitat for this species. Your location does not overlap the critical

habitat.

Species profile: https://ecos.fws.gov/ecp/species/9743

Threatened

## **CRITICAL HABITATS**

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

Project code: 2025-0065243 03/06/2025 18:39:33 UTC

## **IPAC USER CONTACT INFORMATION**

Agency: Private Entity
Name: Emilee Sites

Address: 5500 New Albany Road

City: Columbus

State: OH Zip: 43054

Email ebecker@emht.com

Phone: 6147754513



## APPENDIX B:

Surface Water Resources

## **Water Resources Delineation**

November 3, 2015



November 3, 2015

Ms. Lee A. Robinette
Regulatory Project Manager
U. S. Army Corps of Engineers, Huntington District
North Regulatory Branch
502 8th Street
Huntington, WV 25701

Subject: Smith Delineation: Addendum #3 to the Newton Family Farm Delineation

(LRH-2015-384-MUS-UT South Fork Licking River)

Dear Lee,

I refer to a previously submitted delineation of Waters of the United States for the Newton Family Farm site located in Jersey Township, Licking County, Ohio. This site was delineated by EMH&T at the request of the New Albany Company (NACO) in March and April of 2015 and the initial delineation report was submitted May 7, 2015. At that time, the site boundary for the project was approximately 150 acres. EMH&T found five (5) potentially jurisdictional wetlands; three (3) potentially isolated wetlands and four (4) jurisdictional streams. On April 27, 2015, a representative from your office completed a site visit to verify the delineation.

On June 19, 2015, an addendum to the Newton Family Farm delineation was submitted to your office following the purchase of additional land holdings by NACO. This purchase expanded the site by 25 acres, resulting in the total site area being approximately 175 acres. The additional land holdings contained two (2) potentially isolated wetland features.

An approved Jurisdictional Determination (JD) letter referencing the original Newton Family Farms delineation and the subsequent addendum letter (the 175-acre project area) was received by our office on August 3, 2015. The JD was assigned the file number LRH-2015-384-MUS-UT South Fork Licking River.

In September 2015, NACO expanded this site a second time by purchasing several additional parcels, referred to as the Pierfelice-Starkey parcels, which expanded the site by approximately 41 acres, bringing the total site to approximately 216 acres. A delineation addendum for the Pierfelice-Starkey parcels was submitted to your attention on October 6, 2015. Within this area one (1) new potentially isolated wetland and an extension of a previously identified potentially isolated wetland (Wetland J) were identified. A JD has not yet been issued regarding this area.

In October 2015, NACO expanded the site a third time by purchasing additional parcels to the southeast, referred to as the Smith parcels. This recent acquisition, which was necessary as part of the proposed business campus development to occur on the site, increases the total size of the site to approximately 288 acres. EMH&T completed a delineation of the 72-acre Smith property in October 2015. The parcels were found to include one (1) potentially jurisdictional, emergent

wetland (Wetland M) and four (4) potentially jurisdictional streams (Streams 5, 6, 7, and 8). Photographs of the surface water features and a delineation map showing the locations and area/length of the streams and wetlands on the Smith parcels are attached (Exhibit A). The wetland determination data forms and the Ohio Rapid Assessment Method (ORAM) data form for Wetland M are also attached.

Table 1, Extent of On-site Surface Water Features (Revised November 3, 2015), provides a summary of all of the surface water features identified on the expanded site, as described in the original delineation and three (3) subsequent addenda. As shown in Table 1, the approximately 288-acre site contains 7,980 linear feet (0.96 acre) of jurisdictional stream, 12.67 acres of jurisdictional wetlands, and 6.00 acres of isolated wetlands.

Please note that the October 6, 2015 addendum for the Pierfelice-Starkey delineation (Addendum #2) incorrectly identified Wetland J as being 5.06 acres in size (4.58 acres  $\pm$  0.48 acres). Once the two portions of Wetland J were mapped together, it was apparent that there was some overlap between the two portions delineated separately as part of Addendum #1 and Addendum #2. The area listed below, 4.92 acres, reflects the correct total size of Wetland J.

Table 1. Extent of On Site Surface Water Features (Revised November 3, 2015)

| Eastern Mana                        | Classification | Streams     |           | Jurisdictional | Isolated     | ORAM     |  |
|-------------------------------------|----------------|-------------|-----------|----------------|--------------|----------|--|
| Feature Name                        | Classification | Length (LF) | Area (ac) | Wetland (ac)   | Wetland (ac) | Category |  |
| Stream 1                            | Intermittent   | 1,551       | 0.26      |                |              |          |  |
| Stream 2                            | Ephemeral      | 665         | 0.04      |                |              | 0.50     |  |
| Stream 3                            | Ephemeral      | 766         | 0.05      |                |              |          |  |
| Stream 4                            | Ephemera!      | 385         | 0.04      |                |              |          |  |
| Stream 5<br>(S. Fork Licking River) | Intermittent   | 3,429       | 0.49      | 14             | -            | 1.       |  |
| Stream 6                            | Ephemeral      | 607         | 0.04      |                | -            |          |  |
| Stream 7                            | Ephemeral      | 432         | 0.03      |                |              |          |  |
| Stream 8                            | Ephemeral      | 145         | 0.01      |                |              |          |  |
| Stream Totals                       | -              | 7,980       | 0.96      | -              |              | 100      |  |
| Wetland A*                          | Forested       |             |           | 2.73 °         | -            | 3        |  |
| Wetland B                           | Forested       | -           |           | 0.54           | -            | 2        |  |
| Wetland C                           | Forested       | *           |           | 2.55           | -            | 2        |  |
| Wetland D                           | Forested       | -           | -         |                | 0.32         | 2        |  |
| Wetland E-F                         | Forested       | -           | -         |                | 0.14         | 2        |  |
| Wetland G                           | Forested       | - 80        | 1.60      | 0.03           |              | 1 or 2   |  |
| Wetland H                           | Emergent       | -           |           | -              | 0.12         | 1        |  |
| Wetland I                           | Forested       | - 2         | -         | 6.77           | 4            | 3        |  |
| Wetland J                           | Forested       | -           | -         | -              | 4.92 b       | 2        |  |
| Wetland K                           | Forested       |             |           |                | 0.37         | 2        |  |
| Wetland L                           | Emergent       | **          |           |                | 0.13         | 1        |  |
| Wetland M                           | Emergent       | -           | _         | 0.05           |              | 1        |  |
| Wetland Totals                      |                |             | -         | 12.67          | 6.00         |          |  |

a Feature continues off site.

<sup>&</sup>lt;sup>b</sup> Revised since the submission of Addendum #2.

Per your request, we have provided a revised delineation map (Exhibit 6) showing the locations and extent of the streams and wetlands located within the boundaries of the entire 288-acre site, which is now referred to as Harrison Road East. This map includes all of the surface waters delineated as part of the original Newton Family Farm delineation and the three (3) subsequent addenda, as listed in Table 1.

We appreciate your continued assistance and cooperation on this very important project. Do not hesitate to give me a call if you have any questions or need any additional information related to this addendum.

Sincerely,

Heather L. Dardinger

Senior Environmental Scientist

#### Enclosures:

Wetland Determination Data Forms (Wetland/Upland M)
Ohio Rapid Assessment Method (ORAM) Data Form
Exhibit A — Smith Property Delineation Map
Exhibit 6 — Harrison Road East Site Delineation Map
Photographs

## WETLAND DETERMINATION DATA FORM - Midwest Region

| Applicant/Owner:                            |                    |                   |                           |                   | State:  |              |               | □□□□d M    |
|---|--------------------|-------------------|---------------------------|-------------------|---|--------------|---------------|------------|
| Landform (hillslope, terrace, etc.):        |                    |                   | Section                   | Tarrest Par       |   |              |               |            |
|   |                    |                   | Section, Township, Range: |                   |   |              |               |            |
| Slope (%):Lat: 454                          |                    |                   |                           | Local relief      | (concave, convex, non                           | e):          |               |            |
|   |                    |                   | Long:                     | <b>1107</b> 11074 |   | Datum:       |               |            |
| Soil Map Unit Name:                         | 00 00 <b>6</b> 00r |                   |                           |                   | NWI class                                       | ification:   |               |            |
| Are climatic / hydrologic conditions on the | site typical for   | r this time of ye | ear? Yes                  |                   | (If no, explain in                              |              |               |            |
| Are Vegetation, Soil, or Hy                 |                    |                   |                           |                   | Normal Circumstances                            |              |               | No         |
| Are Vegetation Soil or Hy                   |                    |                   |                           |                   | eded, explain any ans                           |              |               | W 0        |
| SUMMARY OF FINDINGS – Atta                  |                    |                   |                           |                   |   |              |               | ures. etc  |
| Hydrophytic Vegetation Present?             | Yes X              | No                |                           | 0,1               |   |              |               |            |
| Hydric Soil Present?                        | Yes X              | No                |                           | s the Sampled     | Area  |              |               |            |
| Wetland Hydrology Present?                  | Yes X              | No                | V                         | within a Wetlar   | nd? Yes_  | × No         |               |            |
| Remarks:                                    |                    |                   |                           |                   |   |              |               |            |
|   |                    |                   |                           |                   |   |              |               |            |
|   |                    |                   |                           |                   |   |              |               |            |
| VEGETATION - Use scientific nar             | mes of pla         | nte               |                           |                   |   |              |               |            |
| TEGETATION - 000 ocionalio nai              | noo or pro         | Absolute          | Domin                     | nant Indicator    | Dominance Test wo                               | rksheet:     |               |            |
| Tree Stratum (Plot size:                    | )                  |                   |                           | es? Status        | Number of Dominant                              |              |               |            |
| 1   |                    |                   | _                         |                   | That Are OBL, FACV                              |              |               | (A)        |
| 2   |                    |                   | _                         |                   | Total Number of Don                             | ninant       |               |            |
| 3   |                    |                   |                           |                   | Species Across All S                            |              |               | (B)        |
| 4   |                    |                   | _                         |                   | Percent of Dominant                             | Species      |               |            |
| 5   |                    |                   |                           |                   | That Are OBL, FACV                              |              |               | (A/8)      |
| Sapling/Shrub Stratum (Plot size:           |                    | . —               | = Total                   | Cover             | Prevalence Index w                              | orksheet:    | 72            |            |
| 1   |                    |                   |                           |                   | Total % Cover o                                 |              | Multiply by   | v          |
| 2.  |                    |                   |                           |                   | OBL species                                     |              |               |            |
| 3   |                    |                   |                           |                   | FACW species                                    |              | 100000        |            |
| 4.  |                    |                   |                           |                   | FAC species                                     | x            | 3 =           |            |
| 5   |                    |                   |                           |                   | FACU species                                    | x            | 4 =           |            |
| 5   |                    |                   | = Total                   | Cover             | UPL species                                     | x            | 5 =           |            |
| Herb Stratum (Plot size: 5                  |                    | 7                 |                           |                   | Column Totals:                                  | (A           | )             | (B)        |
|   |                    | 7 -               |                           |                   | Prevalence Ind                                  | av = 0/6 =   |               |            |
| 3 00,000 00000                              |                    |                   |                           |                   | Hydrophytic Vegeta                              |              |               | _          |
|   |                    | 5                 |                           |                   | 1 - Rapid Test fo                               |              |               | n          |
| 5   |                    |                   |                           |                   | X 2 - Dominance T                               |              |               |            |
| 6   |                    |                   |                           |                   | 3 - Prevalence Ir                               |              |               |            |
| 7.  |                    |                   |                           |                   | 4 - Morphologica                                |              |               | supporting |
| 8.  |                    |                   |                           |                   | data in Rema                                    | irks or on a | separate she  | eet)       |
| 9.  |                    |                   |                           |                   | Problematic Hyd                                 | rophytic Ve  | getation* (Ex | xplain)    |
| 10  |                    |                   |                           |                   | 85 9 9  |              |               |            |
|   |                    |                   | = Total                   | Cover             | Indicators of hydric :<br>be present, unless di |              |               | gy must    |
| Woody Vine Stratum (Plot size:              |                    |                   |                           |                   | 200-02000000000000000000000000000000000         |              |               |            |
| 1   |                    |                   |                           |                   | Hydrophytic<br>Vegetation                       |              |               |            |
| 2   |                    | _                 |                           | Count             | Present?  | Yes_X_       | No            | 4          |
| Remarks: (Include photo numbers here of     | or on a sense      |                   | - Total                   | COVE              |   |              |               |            |

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SOIL Sampling Point \_ \_ M

| Depth<br>(inches)   | Color (moist)  | %   | Color (moist)   | dox Feature  | Type  | _Loc2             | Texture   | Remarks   |
|---|--|---|---|--|---|-------------------|---|---|
| ministr   |  |   |   |  |   |                   |   | Nellial Na  |
|   |  |   |   |  |   | _                 |   |   |
|   | ====R 4 ===  | -,  |   |  |   | M                 |   |   |
|   |  | _   |   |  |   | _                 |   |   |
|   | -  | -   | -   | -,   | -   | _                 |   |   |
|   |  |   |   | _  |   |                   |   |   |
|   |  | -   | -   |  |   |                   |   |   |
| Type: CeCr  | oncentration, D=De   | nletion RM  | Reduced Matrix  | MSaMaske   | d Sand G  | ains              | 2) ocation: P   | L=Pore Lining, M=Matrix.  |
| and the second section is a second section of   | Indicators:  | Jiesen, Ton   | Treadacta manage  | mo-maarc   | d Card C  | anna.             |   | Problematic Hydric Soils <sup>3</sup> :   |
| _ Histosol  | (A1)   |   | Sand  | y Gleyed M   | latrix (S4)   |                   | Coast Pra   | irie Redox (A16)  |
| Histic Ep   | pipedon (A2)   |   |   | y Redox (S   |   |                   | Dark Surf   |   |
| _ Black Hi  | istic (A3)   |   | Stripp  | ped Matrix (   | S6)   |                   | Iron-Mang   | panese Masses (F12)   |
| Hydroge   | n Sulfide (A4)   |   | Loam  | ry Mucky M   | ineral (F1)   |                   | Very Shall  | low Dark Surface (TF12)   |
| _ Stratified  | Layers (A5)  |   | Loam  | ry Gleyed N  | latrix (F2)   |                   | Other (Ex   | plain in Remarks)   |
|   | ick (A10)  |   |   | eted Matrix  |   |                   |   |   |
|   | d Below Dark Surfa   | ce (A11)  |   | x Dark Surf  |   |                   |   |   |
|   | ark Surface (A12)  |   |   | eted Dark S  |   | )                 |   | hydrophytic vegetation and  |
|   | Nucky Mineral (S1)   |   | Redo  | x Depressi   | ons (F8)  |                   |   | ydrology must be present,   |
| Active Programme Control of Street  | cky Peat or Peat (\$<br>Layer (if observed)  | economic and a second   |   |  |   |                   | unless dis  | turbed or problematic.  |
| Type:   |  |   |   |  |   |                   |   |   |
| · ypu.  |  |   |   |  |   |                   | Hydric Soil Pre   | esent? Yes X No   |
| Donth God   | dank.  |   |   |  |   |                   |   |   |
|   | ches):   |   |   |  |   |                   |   |   |
| emarks.   |  |   |   |  |   |                   |   |   |
| YDROLO  | GY   |   |   |  |   |                   |   |   |
| YDROLO Vetland Hyd  | GY<br>drology Indicators   |   |   | apoly)   |   |                   | Secondary   | Indicators (minimum of two require  |
| YDROLO Vetland Hyd  | GY<br>drology Indicators<br>cators (minimum of   |   | ired; check all that  |  | ves (B9)  |                   | 533 503 503   | Indicators (minimum of two require  |
| YDROLO Vetland Hyd Ymary Indic  | GY<br>drology Indicators<br>cators (minimum of<br>Water (A1)   |   | ired_check all that.<br>Water-S   | Stained Lea  |   |                   | Surface   | Soil Cracks (B6)  |
| YDROLO Vetland Hyo Surface High Wa  | GY<br>drology Indicators<br>cators (minimum of<br>Water (A1)<br>ster Table (A2)  |   | ired: check all that<br>Water-S<br>Aquatic  | Stained Lea<br>Fauna (B1   | 3)  |                   | X Drainag   | e Soil Cracks (B6)<br>ge Patterns (B10)   |
| YDROLO Vetland Hyd rimary Indic Surface High Wa Saturatio   | GY<br>drology Indicators<br>cators (minimum of<br>Water (A1)<br>ster Table (A2)<br>on (A3)   |   | ired: check all that<br>Water-S<br>Aquatic<br>True Aq   | Stained Lea<br>Fauna (B1:<br>juatic Plant  | 3)<br>s (B14)   |                   | Surface X Drainag Dry-Se  | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)  |
| YDROLO Vetland Hyd Surface High Wa Saturatic Water M  | GY<br>drology Indicators<br>cators (minimum of<br>Water (A1)<br>ster Table (A2)<br>on (A3)<br>larks (B1)   |   | ired: check all that  Water-S  Aquatic  True Aq  Hydroge  | Stained Lea<br>Fauna (B1<br>juatic Plant<br>en Sulfide C   | 3)<br>s (B14)<br>Odor (C1)  | ring Roots        | Surface X Drainag Dry-Se Crayfisl   | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)  |
| YDROLO Vetland Hyo Primary Indic Surface High Wa Saturatic Water M Sedimer  | GY<br>drology Indicators<br>cators (minimum of<br>Water (A1)<br>ster Table (A2)<br>on (A3)<br>larks (B1)<br>nt Deposits (B2)   |   | ired: check all that  Water-S Aquatic True Aq Hydroge X Oxidized  | Stained Lea<br>Fauna (B1:<br>juatic Plant<br>en Sulfide C<br>d Rhizosph  | 3)<br>s (B14)<br>Odor (C1)<br>eres on Li  |                   | Surface  Drainag  Dry-Se  Crayfisi  (C3)  Saturat                                     | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)<br>ion Visible on Aerial Imagery (C9)  |
| YDROLO Vetland Hyd rimary India Surface High Wa Saturatio Water M Sedimer Drift Deg   | GY<br>drology Indicators<br>cators (minimum of<br>Water (A1)<br>ater Table (A2)<br>on (A3)<br>larks (B1)<br>at Deposits (B2)<br>posits (B3)  |   | ired: check all that.  Water-S Aquatic True Aq Hydroge Oxidized Presence  | Stained Lea<br>Fauna (B1:<br>juatic Plants<br>en Sulfide C<br>d Rhizosph<br>ce of Reduc  | 3)<br>s (B14)<br>Odor (C1)<br>eres on Lined Iron (C                             | 4)                | Surface  Drainag  Dry-Se  Crayfisi  (C3) Saturat  Stunted                             | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)<br>ion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)                         |
| YDROLO Netland Hyd Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma   | GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)   |   | ired: check all that:  Water-S Aquatic True Aq Hydroge Presenc Recent   | Stained Lea<br>Fauna (B1:<br>juatic Plants<br>en Sulfide C<br>d Rhizosph<br>ce of Reduc<br>Iron Reduc  | 3)<br>s (B14)<br>Odor (C1)<br>eres on Lined Iron (C<br>tion in Tille            | 4)                | X   Surface   X   Drainag   Dry-Se   Crayfisl   C(C3)   Saturat   Stunted   X   Geomo | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)<br>ion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>irphic Position (D2) |
| YDROLO Vetland Hyo Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep  | GY drology Indicators cators (minimum of Water (A1) ster Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)   | ;<br>one is requi   | ired: check all that  Water-S Aquatic Hydroge Presenc Recent I Thin Mu  | Fauna (B1:<br>puatic Plants<br>en Sulfide C<br>d Rhizosph<br>ce of Reduc<br>liron Reducick Surface   | 3)<br>s (B14)<br>odor (C1)<br>eres on Li<br>ed Iron (C<br>tion in Tille<br>(C7) | 4)                | X   Surface   X   Drainag   Dry-Se   Crayfisl   C(C3)   Saturat   Stunted   X   Geomo | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)<br>ion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)                         |
| YDROLO Vetland Hyd Primary India Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep  | GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)   | :<br>one is requi   | ired: check all that  Water-S  Aquatic  True Aq  Hydroge  Oxidized  Presend  Recent I  Thin Mu  (37)  Gauge of  | Stained Lea<br>Fauna (B1:<br>juatic Plants<br>en Sulfide C<br>d Rhizosph<br>ce of Reduc<br>Iron Reduc  | 3) s (B14) odor (C1) eres on Li ed Iron (C tion in Tille (C7) s (D9)            | 4)                | X   Surface   X   Drainag   Dry-Se   Crayfisl   C(C3)   Saturat   Stunted   X   Geomo | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)<br>ion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>irphic Position (D2) |
| YDROLO Netland Hyd Primary India Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep X Inundatio Sparsely   | GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav                               | :<br>one is requi   | ired: check all that  Water-S  Aquatic  True Aq  Hydroge  Oxidized  Presend  Recent I  Thin Mu  (37)  Gauge of  | Fauna (B1:<br>puatic Plants<br>en Sulfide C<br>d Rhizosph<br>ce of Reduc-<br>iron Reduc-<br>ick Surface<br>or Well Data  | 3) s (B14) odor (C1) eres on Li ed Iron (C tion in Tille (C7) s (D9)            | 4)                | X   Surface   X   Drainag   Dry-Se   Crayfisl   C(C3)   Saturat   Stunted   X   Geomo | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)<br>ion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>irphic Position (D2) |
| YDROLO Vetland Hyd Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep X Inundatio Sparsely   | GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations:                      | :<br>one is requi<br>Imagery (B<br>re Surface (               | ired: check all that  Water-S  Aquatic  True Aq  Hydroge  X Oxidized  Presenc  Recent I  Thin Mu  (BB) Other (E | Stained Lea<br>Fauna (B1:<br>juatic Plants<br>en Sulfide C<br>d Rhizosph<br>ce of Reduc-<br>liron Reduc-<br>ick Surface<br>or Well Date<br>Explain in R  | 3) s (B14) odor (C1) eres on Li ed Iron (C tion in Title (C7) s (D9) emarks)    | 4)<br>d Solls (Ct | X   Surface   X   Drainag   Dry-Se   Crayfisl   C(C3)   Saturat   Stunted   X   Geomo | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)<br>ion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>irphic Position (D2) |
| YDROLO Netland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep X Inundatio Sparsely Field Observa   | GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concavivations: er Present?          | :<br>one is requi   | ired: check all that:  Water-S Aquatic True Aq Hydroge Presenc Recent   Thin Mu (BB) Other (B                   | Fauna (B1:<br>puatic Plants<br>en Sulfide C<br>d Rhizosph<br>ce of Reduction Reduction Reduction<br>ick Surface<br>or Well Data<br>Explain in Reduction Reductio | 3) s (B14) odor (C1) eres on Li ed Iron (C tion in Tille (C7) s (D9) emarks)    | 4)<br>d Soils (Ct | X   Surface   X   Drainag   Dry-Se   Crayfisl   C(C3)   Saturat   Stunted   X   Geomo | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)<br>ion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>irphic Position (D2) |
| YDROLO Netland Hyd Primary India Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep X Inundatio Sparsely Field Obsen   | GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations: er Present?          | ;<br>one is requ<br>Imagery (B<br>ve Surface (<br>Yes         | ired: check all that:   | Fauna (B1: partic Plants on Sulfide C d Rhizosph ce of Reduc lron Reduc ick Surface or Well Date explain in R (inches): (inches):  | 3) s (B14) odor (C1) eres on Li ed Iron (C tion in Tille (C7) s (D9) emarks)    | 4)<br>d Soils (Ct | Surface  X Drainag  Dry-Se  Crayfisi  (C3) Saturat  Stunted  FAC-Ne                   | e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) irphic Position (D2) eutral Test (D5)  |
| YDROLO Netland Hyo Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep X Inundatio Sparsely Field Observice Surface Water Table Saturation Princludes cap | GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations: er Present? Present? | :<br>one is requi<br>Imagery (B<br>re Surface (<br>Yes<br>Yes | ired: check all that  | Fauna (B1: partic Plants en Sulfide C d Rhizosph ce of Reduct fron Reduct ron Reduct ck Surface or Well Date explain in R (inches): (inches): (inches): (inches):  | 3) s (B14) odor (C1) eres on Li ed Iron (C tion in Tille (C7) s (D9) emarks)    | 4) d Soils (Ct    | Surface  X Drainag  Dry-Se  Crayfisi  (C3) Saturat  Stunted  Stunted  FAC-No          | e Soil Cracks (B6)<br>ge Patterns (B10)<br>ason Water Table (C2)<br>h Burrows (C8)<br>ion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>irphic Position (D2) |
| YDROLO Netland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep X Inundatic Sparsely Field Observation Princludes cap includes cap                 | drology Indicators cators (minimum of Water (A1) ster Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations: er Present? Present?    | :<br>one is requi<br>Imagery (B<br>re Surface (<br>Yes<br>Yes | ired: check all that  | Fauna (B1: partic Plants en Sulfide C d Rhizosph ce of Reduct fron Reduct ron Reduct ck Surface or Well Date explain in R (inches): (inches): (inches): (inches):  | 3) s (B14) odor (C1) eres on Li ed Iron (C tion in Tille (C7) s (D9) emarks)    | 4) d Soils (Ct    | Surface  X Drainag  Dry-Se  Crayfisi  (C3) Saturat  Stunted  Stunted  FAC-No          | e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) irphic Position (D2) eutral Test (D5)  |
| YDROLO Netland Hyd Primary Indic Surface High Wa Saturatio Water M Sedimer Drift Deg Algal Ma Iron Dep X Inundatic Sparsely Field Observation Princludes cap includes cap                 | GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations: er Present? Present? | :<br>one is requi<br>Imagery (B<br>re Surface (<br>Yes<br>Yes | ired: check all that  | Fauna (B1: partic Plants en Sulfide C d Rhizosph ce of Reduct fron Reduct ron Reduct ck Surface or Well Date explain in R (inches): (inches): (inches): (inches):  | 3) s (B14) odor (C1) eres on Li ed Iron (C tion in Tille (C7) s (D9) emarks)    | 4) d Soils (Ct    | Surface  X Drainag  Dry-Se  Crayfisi  (C3) Saturat  Stunted  Stunted  FAC-No          | e Soil Cracks (B6) ge Patterns (B10) ason Water Table (C2) h Burrows (C8) ion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) irphic Position (D2) eutral Test (D5)  |

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## WETLAND DETERMINATION DATA FORM - Midwest Region

| Applicant/Owner:  | 5  e site typical lydrology  lydrology  tach site         | for this time of yearing and the significantly pro    | Long:                         | Township, Ra Local relief | State: nge: (concave, convex, none NWI classi (If no, explain in Normal Circumstances' | Datum:  | /es_X        |           |
|---|---|---|-------------------------------|---------------------------|--|---|--------------|-----------|
| Landform (hillslope, terrace, etc.):  Slope (%): Lat: 4 55  Soil Map Unit Name: Soil or H  Are Vegetation Soil or H | 5 e site typical hydrology  hydrology                     | for this time of yearsignificantly                    | Long:<br>sar? Yes<br>disturbe | Local relief              | (concave, convex, none NWI classi (If no, explain in Normal Circumstances              | Datum:  | /es_X        | No        |
| Slope (%): Lat: 4   | 5 e site typical hydrology  hydrology  tach site          | for this time of ye                                   | Long:<br>ear? Yes<br>disturbe | X No_ ed? Are '           | NWI classi<br>(If no, explain in<br>Normal Circumstances                               | Datum:<br>fication:<br>Remarks.)<br>'present? \ | /es_X        | No        |
| Soil Map Unit Name: Soil or h  Are Vegetation Soil or h  Are Vegetation Soil or h                                   | e site typical<br>lydrology<br>lydrology<br>tach site     | for this time of yes                                  | ear? Yes<br>disturbe          | s_X_No_<br>ed? Are        | NWI classi<br>(If no, explain in<br>Normal Circumstances                               | Remarks.)                                       | /es_X        | No        |
| Are climatic / hydrologic conditions on the Are Vegetation Soil or have Vegetation Soil or h                        | e site typical<br>lydrology _<br>lydrology _<br>tach site | for this time of ye<br>significantly<br>naturally pro | ar? Yes<br>disturbe           | MO_NO_                    | (If no, explain in<br>Normal Circumstances   | Remarks.)                                       | /es_X        | No        |
| Are Vegetation Soil or F Are Vegetation Soil or F   | tydrology<br>tydrology<br>tach site                       | significantly<br>naturally pro                        | disturbe                      | ed? Are                   | Normal Circumstances   | present?  |              | No        |
| Are Vegetation Soil or F Are Vegetation Soil or F   | tydrology<br>tydrology<br>tach site                       | significantly<br>naturally pro                        | disturbe                      | ed? Are                   | Normal Circumstances   | present?  |              | No        |
| Are Vegetation Soil or F  | tach site   | naturally pro   | oblematic                     |                           |  |   |              |           |
|   | tach site   |   |                               | Sec. Print                | seems sugarmany strik sorres   | ACTION TO A CONTINUE                            |              |           |
|   |   |   | samp                          | ling point l              | ocations, transect   | s, import                                       |              | es, etc.  |
| Hydrophytic Vegetation Present?   | Yes   | No_X  |                               |                           |  | •   |              |           |
| Hydric Soil Present?  | Yes   | No X  | 1                             | s the Sampled             |  |   |              |           |
| Wetland Hydrology Present?  | Yes   | No X  | _ V                           | within a Wetlar           | nd? Yes  | No_   | <u> </u>     |           |
| Remarks:  |   |   |                               |                           |  |   |              |           |
|   |   |   |                               |                           |  |   |              |           |
| VEGETATION - Use scientific n   | ames of p   | lants.  |                               |                           | 0  |   |              |           |
|   |   | Absolute  | -                             | ant Indicator             | Dominance Test wo  | rksheet:  |              |           |
| Tree Stratum (Plot size:  |   |   |                               | es? Status                | Number of Dominant   |   |              | 0.00      |
| 1   |   |   |                               |                           | That Are OBL, FACW   | , or PAG:                                       |              | _ (A)     |
| 3.  |   | 100   |                               | 12.0                      | Total Number of Dom  |   |              | (B)       |
|   |   |   |                               |                           | Species Across All St  | rasa:   |              | _ (B)     |
| 5   |   |   |                               |                           | Percent of Dominant  |   | 5□           | (A/8)     |
|   |   |   | 11777-0-2010                  | Cover                     | That Are OBL, FACW   | , or PAC.                                       | 3            | _ (AVD)   |
| Sapling/Shrub Stratum (Plot size:   |   | _)  |                               | 309070                    | Prevalence Index w   |   |              |           |
| 1   |   |   | _                             |                           | Total % Cover of   |   | Multiply by: | _         |
| 2   |   |   | _                             |                           | 100000000000000000000000000000000000000  | ×1  |              | _         |
| 3   |   |   | _                             |                           | FACW species5  |   | 5□           |           |
| 4   |   |   | _                             |                           | FACIL species 75   |   | -            | _         |
| 5   |   |   | -                             |                           | PACO species   |   |              | -         |
| Herb Stratum (Plot size: 5□   | 10  |   | = Total                       | Cover                     | UPL species  | -   | □5□          | 100000    |
| , Dadiiii alla cralli   |   | 6□  |                               |                           | Column Totals:   | (A)   |              | (B)       |
| 2   |   | □5  |                               |                           | Prevalence Inde  | x = B/A =                                       | □5           |           |
| 3. 001d 000 000d 00011  |   |   |                               |                           | Hydrophytic Vegeta   |   |              |           |
|   |   | 5   |                               |                           | 1 - Rapid Test for   | Hydrophytic                                     | Vegetation   |           |
| 5.  |   |   |                               |                           | 2 - Dominance To   |   |              |           |
| 6   |   |   |                               |                           | 3 - Prevalence In  |   |              |           |
| 7   |   |   |                               |                           | 4 - Morphological  | Adaptations                                     | (Provide su  | upporting |
| 8   |   |   |                               |                           | data in Rema   |   |              |           |
| 9   |   |   |                               |                           | Problematic Hydr   | opnysic vege                                    | etation (Exp | iain)     |
| 10  |   |   |                               |                           | Indicators of hydric s   | oil and watta                                   | nd hudenlage | c mount : |
| Woody Vine Stratum (Plot size:  |   |   | = Total                       | Cover                     | be present, unless di  | sturbed or pri                                  | oblematic.   | must      |
| 1   |   |   |                               |                           | Hydrophytic  |   |              |           |
| 2   |   |   | _                             |                           | Vegetation   | es  | No X         |           |
| 25-58 17-38552 135 H  |   |   | = Total                       | Cover                     | Present? Y   |   | 110          | ii.       |
| Remarks: (Include photo numbers here  | e or on a sep   | arate sheet.)   |                               |                           |  |   |              |           |
|   |   |   |                               |                           |  |   |              |           |

US Army Corps of Engineers Midwest Region – Version 2.0

Soil Sampling Point \_\_\_\_M

| Depth  | Matrix   |   |   | x Feature   |   |                   | -   | _   |
|--|--|---|---|---|---|-------------------|---|---|
| (inches)   | Color (moist)  | _%  | Color (moist)   | _%_   | Type  | _Loc_             | Texture   | Remarks   |
|  |  |   | □□□R 4 16   |   |   | <u>M</u>          |   |   |
|  |  |   |   |   |   |                   |   |   |
|  |  |   |   |   |   |                   | -   |   |
|  |  |   |   |   | _   | _                 |   |   |
| 120  |  |   |   | -   |   | _                 |   |   |
|  |  |   |   |   |   |                   |   |   |
| 000  |  | -04   | 8   | The state of  | ove 3   | Sc                | 0   |   |
|  |  |   |   |   |   |                   |   |   |
| une CeCo   | ocentration D=De   | pletion DMr   | Reduced Matrix, M   | S-Marka   | d Sand Gr   | nine              | 2) ocation: 1   | PL=Pore Lining, M=Matrix.   |
| ydric Soil Ir  | and the former before and which are former and the first   | pieson, rosi-   | - Neddoed matrix, mi  | G-Maske   | u oanu on   | anta.             |   | r Problematic Hydric Soils3:  |
| Histosol (   |  |   | Sandy (   | Gleyed Ma   | atriv (SA)  |                   |   | airie Redox (A16)   |
| - 0.00000000000000000000000000000000000  | ipedon (A2)  |   |   | Redox (St   |   |                   |   | face (S7)   |
| Black His  |  |   |   | d Matrix (  |   |                   |   | ganese Masses (F12)   |
|  | n Sulfide (A4)   |   |   |   | neral (F1)  |                   |   | illow Dark Surface (TF12)   |
| Stratified   | Layers (A5)  |   |   |   | latrix (F2)   |                   | 1 The second of | xplain in Remarks)  |
| 2 cm Muc   | ck (A10)   |   |   | d Matrix (  |   |                   | Sale Personal Section   |   |
| _ Depleted   | Below Dark Surfa   | ce (A11)  | Redox l   | Dark Surf   | ace (F6)  |                   | .0.2700900000000000000000000000000000000  |   |
|  | rk Surface (A12)   |   |   |   | urface (F7  | )                 |   | f hydrophytic vegetation and  |
|  | ucky Mineral (S1)  |   | Redox l   | Depressio   | ons (F8)  |                   |   | ydrology must be present,   |
|  | cky Peat or Peat (S  |   |   |   |   |                   | unless di   | sturbed or problematic.   |
|  | ayer (if observed  | G.  |   |   |   |                   |   |   |
| Type:  |  |   |   |   |   |                   | Hydric Soil Pr  | resent? Yes No _X   |
|  |  |   |   |   |   |                   |   |   |
|  | hes):  |   |   |   |   |                   | Tryonc sour   |   |
|  | hes):  |   | _   |   |   |                   | Tryonc Sour   |   |
| emarks.  |  |   |   |   |   |                   | Tryonc source   |   |
| remarks:   |  |   |   |   |   |                   | Tryonc source   |   |
| POROLOG  | GY<br>Irology Indicators   | :   | red: check all that ap  | oply)   |   |                   |   | Indicators (minimum of two require  |
| YDROLOG<br>Vetland Hyd   | GY<br>Irology Indicators   | :   | red: check all that an  | 200000000   | ves (B9)  |                   | Secondary   |   |
| POROLOG Vetland Hyd Vrimary Indica   | GY<br>Irology Indicators<br>ators (minimum of  | :   | 7.557.3550.5  | ined Leav   |   |                   | Secondary<br>Surfac   | Indicators (minimum of two require  |
| YDROLOG<br>Vetland Hyd<br>Yrimary Indica<br>Surface V  | GY<br>Irology Indicators<br>ators (minimum of<br>Water (A1)<br>ter Table (A2)  | :   | Water-Sta   | ined Leav<br>auna (B13  | 3)  |                   | Secondary Surfac Draina   | Indicators (minimum of two require<br>e Soil Cracks (B6)  |
| POROLOG<br>Vetland Hyd<br>Irimary Indica<br>Surface V<br>High Wat<br>Saturatio   | GY<br>Irology Indicators<br>ators (minimum of<br>Water (A1)<br>ter Table (A2)  | :   | Water-Sta<br>Aquatic Fa<br>True Aqua  | ined Leav<br>suna (B13<br>stic Plants   | 3)<br>i (B14)   |                   | Secondary Surface Draina Dry-Se   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>eason Water Table (C2)  |
| PROLOG<br>Vetland Hyd<br>rimary Indica<br>Surface V<br>High Wat<br>Saturation<br>Water Ma  | GY<br>Irology Indicators<br>ators (minimum of<br>Water (A1)<br>ter Table (A2)<br>n (A3)  | :   | Water-Sta Aquatic Fa True Aqua Hydrogen   | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide O  | 3)<br>(B14)<br>Idor (C1)  | ing Roots         | Secondary Surfac Draina Dry-Se Crayfir  | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>ge Patterns (B10)   |
| YDROLOG<br>Vetland Hyd<br>Primary Indica<br>Surface V<br>High Wat<br>Saturation<br>Water Ma  | GY<br>Irology Indicators<br>ators (minimum of<br>Water (A1)<br>ter Table (A2)<br>on (A3)<br>arks (B1)  | :   | Water-Sta Aquatic Fa True Aqua Hydrogen   | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide O<br>Rhizosphe   | 3)<br>i (B14)<br>idor (C1)<br>eres on Liv   | 10.70             | Secondary Surfac Draina Dry-Se Crayfir  | Indicators (minimum of two require<br>te Soil Cracks (B6)<br>tige Patterns (B10)<br>teason Water Table (C2)<br>th Burrows (C8)  |
| YDROLOG<br>Vetland Hyd<br>Ymary Indica<br>Surface V<br>High Wat<br>Saturatio<br>Water Ma<br>Sediment<br>Drift Dep  | GY<br>trology Indicators<br>ators (minimum of<br>Water (A1)<br>ter Table (A2)<br>on (A3)<br>arks (B1)<br>t Deposits (B2)   | :   | Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence   | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide O<br>Rhizosphe<br>of Reduc   | 3)<br>(B14)<br>dor (C1)<br>eres on Liv<br>ed Iron (C  | 10.70             | Secondary Surfac Draina Dry-Se Crayfe (C3) Satura   | Indicators (minimum of two require<br>the Soil Cracks (B6)<br>tige Patterns (B10)<br>the Patterns (B10)<br>the Burrows (C8)<br>the Burrows (C8)   |
| YDROLOG Vetland Hyd Yimary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat   | GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) or (A3) arks (B1) t Deposits (B2) osits (B3)   | :   | Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence   | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide O<br>Rhizosphe<br>of Reduct<br>on Reduct   | 3)<br>(B14)<br>Idor (C1)<br>eres on Liv<br>ed Iron (Cation in Tille   | 4)                | Secondary Surfac Draina Dry-Se Crayfe (C3) Satura Stunte Geom   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>ge Patterns (B10)<br>eason Water Table (C2)<br>sh Burrows (C8)<br>tion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)  |
| YDROLOG Vetland Hyd Yimary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat   | GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)   | ;<br>one is requir  | Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck                            | ined Leav<br>auna (B13<br>stic Plants<br>Sulfide O<br>Rhizosphe<br>of Reduct<br>on Reduct<br>s Surface                                      | B) Idor (C1) Bres on Liv Bres on Liv Bres on III Bres | 4)                | Secondary Surfac Draina Dry-Se Crayfe (C3) Satura Stunte Geom   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>hason Water Table (C2)<br>sh Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)                      |
| YDROLOG Vetland Hyd Vimary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio  | GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)  | :<br>one is requir<br>Imagery (B)                                   | Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or                | ined Leavaran (B13<br>stic Plants<br>Sulfide O<br>Rhizosphe<br>of Reduct<br>on Reduct<br>Surface<br>Well Data                               | B) Idor (C1) Idor (C7) Idor (C7) Idor (C9)  | 4)                | Secondary Surfac Draina Dry-Se Crayfe (C3) Satura Stunte Geom   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>hason Water Table (C2)<br>sh Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)                      |
| YDROLOC Vetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely   | GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav                                | :<br>one is requir<br>Imagery (B)                                   | Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or                | ined Leavaran (B13<br>stic Plants<br>Sulfide O<br>Rhizosphe<br>of Reduct<br>on Reduct<br>Surface<br>Well Data                               | B) Idor (C1) Idor (C7) Idor (C7) Idor (C9)  | 4)                | Secondary Surfac Draina Dry-Se Crayfe (C3) Satura Stunte Geom   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>hason Water Table (C2)<br>sh Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)                      |
| YDROLOG Vetland Hyd Vimary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely ield Observ   | GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concaverations:                       | :<br>one is requir<br>one is requir<br>lmagery (B7<br>re Surface (f | Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Exp | ined Leav<br>auna (B13<br>atic Plants<br>Sulfide O<br>Rhizosphe<br>of Reduct<br>on Reduct<br>Surface<br>Well Data<br>plain in Re            | B) Idor (C1) Ideres on Lived Iron (Cition in Title (C7) Ideres on Lived | 4)<br>d Solls (C6 | Secondary Surfac Draina Dry-Se Crayfe (C3) Satura Stunte Geom   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>hason Water Table (C2)<br>sh Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)                      |
| YDROLOG Vetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depe Inundatio Sparsely Surface Water   | GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavirations: or Present?           | :<br>one is requir<br>Imagery (B7<br>ve Surface (B                  | Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or BB) Other (Ex  | ined Leav<br>auna (B13<br>stic Plants<br>Sulfide O<br>Rhizosphe<br>of Reduct<br>on Reduct<br>Surface<br>Well Data<br>plain in Ro<br>ches):  | B) i (B14) idor (C1) eres on Liv ed Iron (Ci ion in Tille (C7) i (D9) emarks)   | 4)<br>d Solls (C6 | Secondary Surfac Draina Dry-Se Crayfe (C3) Satura Stunte Geom   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>hason Water Table (C2)<br>sh Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)                      |
| YDROLOG Vetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Sparsely Field Observ Surface Water Vater Table F   | GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavirations: or Present?          | ;<br>one is requir<br>re Surface (f<br>Yes !                        |   | ined Leavaruna (B13 stic Plants Sulfide O Rhizosphe of Reduct on Reduct on Surface Well Data plain in Re ches): ches):                      | 3) i (B14) idor (C1) eres on Liv ed Iron (C- ion in Tille (C7) i (D9) emarks)   | 4)<br>d Soils (C6 | Secondary Surfac Draina Dry-Se Crayfe (C3) Satura Stunte FAC-N  | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>bason Water Table (C2)<br>sh Burrows (C8)<br>stion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)<br>leutral Test (D5) |
| YDROLOG Vetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Field Observ Surface Wate   | Irology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavirations: or Present?              | ;<br>one is requir<br>re Surface (f<br>Yes !                        | Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or BB) Other (Ex  | ined Leavaruna (B13 stic Plants Sulfide O Rhizosphe of Reduct on Reduct on Surface Well Data plain in Re ches): ches):                      | 3) i (B14) idor (C1) eres on Liv ed Iron (C- ion in Tille (C7) i (D9) emarks)   | 4)<br>d Soils (C6 | Secondary Surfac Draina Dry-Se Crayfe (C3) Satura Stunte FAC-N  | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>hason Water Table (C2)<br>sh Burrows (C8)<br>ation Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)                      |
| YDROLOG Vetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Sield Observ Surface Water Vater Table If Saturation Princludes cap                       | GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavirations: or Present? Present? | ;<br>one is requir<br>lmagery (B7<br>re Surface (f<br>Yes !         |   | ined Leavaruna (B13 stic Plants Sulfide O Rhizosphe of Reduct on Reduct on Surface Well Data plain in Re ches): ches): ches): ches):        | 3) i (B14) idor (C1) eres on Liv ed Iron (C- ion in Tille (C7) i (D9) emarks)   | 4) d Soils (C6    | Secondary Surfac Draina Dry-Se Crayfic (C3) Satura Stunte FAC-N   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>bason Water Table (C2)<br>sh Burrows (C8)<br>stion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)<br>leutral Test (D5) |
| YDROLOG Vetland Hyd Vetland Hyd Vetland Hyd Vetland Hyd Vetland Hyd Vetland Hyd Vater Ma Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Vetlace Water Vater Table If Saturation Proncludes cap | GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavirations: or Present? Present? | ;<br>one is requir<br>lmagery (B7<br>re Surface (f<br>Yes !         |   | ined Leavaruna (B13 stic Plants Sulfide O Rhizosphe of Reduct on Reduct on Surface Well Data plain in Re ches): ches): ches): ches): ches): | 3) i (B14) idor (C1) eres on Liv ed Iron (C- ion in Tille (C7) i (D9) emarks)   | 4) d Soils (C6    | Secondary Surfac Draina Dry-Se Crayfic (C3) Satura Stunte FAC-N   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>bason Water Table (C2)<br>sh Burrows (C8)<br>stion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)<br>leutral Test (D5) |
| YDROLOG Vetland Hyd Primary Indica Surface V High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely Sield Observ Surface Water Vater Table If Saturation Princludes cap                       | GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavirations: or Present? Present? | ;<br>one is requir<br>lmagery (B7<br>re Surface (f<br>Yes !         |   | ined Leavaruna (B13 stic Plants Sulfide O Rhizosphe of Reduct on Reduct on Surface Well Data plain in Re ches): ches): ches): ches): ches): | 3) i (B14) idor (C1) eres on Liv ed Iron (C- ion in Tille (C7) i (D9) emarks)   | 4) d Soils (C6    | Secondary Surfac Draina Dry-Se Crayfic (C3) Satura Stunte FAC-N   | Indicators (minimum of two require<br>e Soil Cracks (B6)<br>age Patterns (B10)<br>bason Water Table (C2)<br>sh Burrows (C8)<br>stion Visible on Aerial Imagery (C9)<br>d or Stressed Plants (D1)<br>orphic Position (D2)<br>leutral Test (D5) |

# **Background Information**

| Name:<br>Eric Nagy   |                       |
|--|-----------------------|
| Date: 10/23/2015   |                       |
| Affiliation:   |                       |
| EMH&T  |                       |
| Address:<br>5500 New Albany Road, Columbus OH 43054  |                       |
| Phone Number:<br>614-775-4518  |                       |
| e-mail address:<br>enagy@emht.com  |                       |
| Name of Wetland: Wetland M   |                       |
| Vegetation Communit(les):  |                       |
| Emergent   |                       |
| HGM Class(es):   |                       |
| Depressional   |                       |
| Location of Wetland: Include map, address, north arrow, landmarks, distances, roads, etc.  See Exhibit A |                       |
|  |                       |
|  |                       |
| Lat/Long or UTM Coordinate   | 40.085490, -82.719974 |
| USGS Quad Name   | Jersey                |
| County   | Licking               |
| Township   | Jersey                |
| Section and Subsection   |                       |
| Hydrologic Unit Code   | 050400060402          |
| Site Visit   | 10/23/15              |
| National Wetland Inventory Map   | USFWS, 2014           |

n/a

Licking County, NRCS, 2014

Exhibit A (EMH&T, 2015)

Ohio Wetland Inventory Map

Delineation report/map

Soil Survey

| Name of Wetland: Wetland M   | _    |         |
|--|------|---------|
| Wetland Size (acres, hectares):  |      | 0.05 ac |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.  See Exhibit A |      | 0.05 ac |
| Comments, Narrative Discussion, Justification of Category Changes:   |      |         |
| Final score : 27 Catego  | ory: | 1       |

### 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.  | х     |                |
| 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 bems 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.  | ×     |                |
| 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.   | х     |                |
| 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.  |       | х              |

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), <a href="http://www.dor.state.oh.us/dnap">http://www.dor.state.oh.us/dnap</a>. 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?   | YES  Wetland should be evaluated for possible                         | Go to Question 2    |
|    | 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).  | Category 3 status 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?   | Wetland is a Category 3 wetland.                                      | Go to Question 3    |
| 3  | Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?  | Go to Question 3 YES Wetland is a Category 3 wetland Go to Question 4 | 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                | 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 |
| 5  | Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> 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                  | 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               | Go to Question 8a   |
| Ba | "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              | Go to Question 8b   |

|     |  |  | 0                 |
|-----|--|--|-------------------|
| 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  | YES Wetland should be                                      | Go to Question 9a |
|     | diameters greater than 45cm (17.7in) dbh?  | evaluated for possible<br>Category 3 status.               |                   |
|     |  | 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  | YES  | NO)               |
| A1- | elevation, or along a tributary to Lake Erie that is accessible to fish?   | Go to Question 9b  | 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?                         | Wetland should be evaluated for possible Category 3 status | Go to Question 9c |
|     |  | Go to Question 10  |                   |
| 9c  | Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland  | YES  | (NO)              |
|     | border alterations), or the wetland can be characterized as an<br>"estuarine" wetland with lake and river influenced hydrology. These<br>include sandbar deposition wetlands, estuarine wetlands, river mouth<br>wetlands, or those dominated by submersed aquatic vegetation. | Go to Question 9d  | Go to Question 10 |
| 9d  | Does the wetland have a predominance of native species within its  | YES  | (NO)              |
|     | vegetation communities, although non-native or disturbance tolerant native species can also be present?  | Wetland is a Category                                      | Go to Question 9e |
|     |  | 3 wetland Go to Question 10                                |                   |
| 9e  | Does the wetland have a predominance of non-native or disturbance  | YES  | (NO)              |
|     | tolerant native plant species within its vegetation communities?   | Wetland should be evaluated for possible Category 3 status | Go to Question 10 |
|     |  |  |                   |
|     |  | Go to Question 10  | (10)              |
| 10  | Lake Plain Sand Prairies (Oak Openings) Is the welland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be  | YES  | (NO)              |
|     | 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  | Wetland is a Category 3 wetland.                           | Go to Question 11 |
|     | 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.                                       | Go to Question 11  |                   |
| 11  | Relict Wet Prairies. Is the wetland a relict wet prairie community   | YES  | (NO)              |
|     | dominated by some or all of the species in Table 1. Extensive prairies   | Mottand should be  | Complete          |
|     | were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion   | Wetland should be evaluated for possible                   | Quantitative      |
|     | Counties), Sandusky Flairs (Wyantod, Clawford, and Marion<br>Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),<br>and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,  | Category 3 status  | Rating            |
|     | Montgomery, Van Wert etc.)   | Complete Quantitative<br>Rating                            |                   |

| Table 1. | Characteristic | plant species. |
|----------|----------------|----------------|
|----------|----------------|----------------|

| invasive/exotic spp   | fen species  | bog species  | 0ak Opening species   | wet prairie species   |
|---|--|--|---|---|
| Najas minor<br>Phalaris arundinacea<br>Phragmites australis<br>Potamogeton crispus<br>Ranunculus ficaria<br>Rhamnus frangula<br>Typha angustifolia<br>Typha xglauca | Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruicosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum | Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticiliatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzerta palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis | Carex laslocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris | Calamogrostis stricto<br>Carex atherodes<br>Carex buxbaumi<br>Carex pellito<br>Carex sartwelli.<br>Gentiana andrewsi<br>Helianthus grosseserratus<br>Liatris spicato<br>Lystmachia quadriflora<br>Lystmachia quadriflora<br>Lystmachia quadriflora<br>Lystmachia pintanun<br>Siphium terebinthinaceun<br>Sorghastrum nutan<br>Spartina pectinate<br>Solidago riddelit |

End of Narrative Rating. Begin Quantitative Rating on next page.

| Metric 1. Wetland Ard  Metric 1. Wetland Ard  Select one size class and assign score.  >50 acres (>20 2ha) (6 pts)  25 to <50 acres (10 1 to <20)  | 2ha) (5 pts)<br>a) (4 pts)<br>(3 pts)<br>na) (2pts)  |   |
|--|--|---|
| >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.  | 2ha) (5 pts)<br>a) (4 pts)<br>(3 pts)<br>na) (2pts)  |   |
| 10 to <25 acres (4 to <10.1ha 3 to <10 acres (1.2 to <4ha) ( 0.3 to <3 acres (0.12 to <1.2ha) ( 0.1 to <0.3 acres (0.04 to <0.4ha) (0.04 to <0.5 acres (0.04ha) (0.04 |  |   |
| 10 10 Metric 2. Upland buf   | fers and surrounding land use.   |   |
| WIDE. Buffers average 50m MEDIUM. Buffers average 2 NARROW. Buffers average 3 VERY NARROW. Buffers average 50m VERY NARROW. Buffers average 50m VERY LOW. Old field (>10 years), 5 MODERATELY HIGH. Resident 10m MEDIUM. Buffers average 50m MEDIUM. Buffers average 50m MEDIUM. Buffers average 10m MEDIUM. Buffers average | elect only one and assign score. Do not double check. (164ft) or more around wetland perimeter (7) 5m to <50m (82 to <164ft) around wetland perimeter (4) 10m to <25m (32ft to <82ft) around wetland perimeter (1) erage <10m (<32ft) around wetland perimeter (0) Select one or double check and average. older forest, prairie, savannah, wildlife area, etc. (7) shrub land, young second growth forest. (5) dential, fenced pasture, park, conservation tillage, new falling pasture, row cropping, mining, construction. (1)  | ow field. (3)   |
| 9 19 Metric 3. Hydrology.  |  |   |
| max opts  3a. Source of Water. Score all that an High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lake 3c.  3c. Max mun water depth. Select only >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1) 3e. Mod on to natural methods.   | water (3)  or stream) (5)  one and assign score.  2)  100 year floodpla  Between stream. Part of wetland/u Part of injerian o injundation/sal Semi- to perman Regularly injundation/sal  | ain (1) flake and other human use (1) flake and other human use (1) fland (e.g. forest), complex (1) frupland corridor (1) furation. Score one or dbi check, ently inundated/saturated (4) fled/saturated (3) |
| None or none apparent (12)  Recovered (7) Recovering (3)  Recent or no recovery (1)  | ditch point source (not filling/grading road bed/RR trad dredging stormwater input point source (not filling/grading road bed/RR trad dredging other   |   |
| 8 27 Metric 4. Habitat Alte  | eration and Development.   |   |
| max of pts.  4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habital development. Select only of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)   | , and the second |   |
| Poor (1) 4c. Habitat alteration. Score one or on the None or none apparent (9) Recovered (6)   | Check all disturbances observed shrub/sapling real   |   |
| Recovering (3) Recent or no recovery (1)  27 subtotal this page last revised 1 February 2001 jjm   | grazing herbaceous/aqui clearcutting sedimentation selective cutting dredging woody debris removal toxic pollutants nutrient enrichment  | atic bed removal  |

| Site: Wetlar         | nd M, S          | Smith Property  | Rater(s): Eric Nag  | Date: 10/23/15   |       |
|----------------------|------------------|---|---|--|-------|
| 0 2                  | 7<br>7<br>btotal | Metric 5. Special W Check all that apply and score as inc Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (! Lake Erie coastal/tributary Lake Plain Sand Prairies ( Relict Wet Prairies (10) Known occurrence state/fe | dicated  5) wetland-unrestricted hydrowetland-restricted hydro Oak Openings) (10) | logy (5)   |       |
|                      |                  | Significant migratory song  | bird/water fowl habitat or  | usage (10)   |       |
| 0 2                  | 7                | Category 1 Wetland. See Metric 6. Plant con   |   | erspersion, microtopography.   |       |
|                      |                  | 6a. Wetland Vegetation Communitie   | venetation  | Community Cover Scale  |       |
| Trian 22 pts.        |                  | Score all present using 0 to 3 scale.   | 0   | Absent or comprises <0.1ha (0.2471 acres) contiguous a   | area  |
|                      |                  | <ul><li>Aquatic bed</li><li>Emergent</li></ul>  | 1   | Present and either comprises small part of wetland's<br>vegetation and is of moderate quality, or comprises a  |       |
|                      |                  | o Shrub   | 2   | Present and either comprises significant part of wetland   |       |
|                      |                  | o Forest o Mudflats o Open water  | 2   | vegetation and is of moderate quality or comprises a s   |       |
|                      |                  | 6b. horizontal (plan view) Interspers   | ion.  | Present and comprises significant part, or more, of wetland vegetation and is of high quality  | ınd's |
|                      |                  | Sefect only one.  High (5)  | Narrativa D   | escription of Vegetation Quality   |       |
|                      |                  | Moderately high(4)  Moderate (3)  | low   | Low spp diversity and/or predominance of normative or disturbance tolerant native species  |       |
|                      |                  | Moderately fow (2) Low (1) None (0)  Coverage of invasive plants. Reto Table 1 ORAM long form for list.   |   | Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp   |       |
| nalaris<br>undinacea |                  | or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-1)  Sparse 5-25% cover (-1)   | high  | A predominance of native species, with nonnative spp<br>and/or disturbance tolerant native spp absent or virtua<br>absent, and high spp diversity and often, but not alway<br>the presence of rare, threatened, or endangered spp  | -     |
|                      |                  | Nearly absent <5% cover   |   | TO THE STATE OF TH |       |
|                      |                  | Absent (1)  | -   | d Open Water Class Quality Absent <0.1ha (0.247 acres)   |       |
|                      |                  | 6d. Microtopography.  Score all present using 0 to 3 scale.   | - 0   | Low 0.1 to <1ha (0.247 acres)  |       |
|                      |                  | Vegetated hummucks/tuss   |   | Moderate 1 to <4ha (2.47 to 9.88 acres)  |       |
|                      |                  | Coarse woody debris >150  |   | High 4ha (9.88 acres) or more  |       |
|                      |                  | Standing dead >25cm (10     Amphibian breeding pools  | in) dbh   | raphy 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  |       |

27 Category 1

End of Quantitative Rating. Complete Categorization Worksheets.

# **ORAM Summary Worksheet**

|                        |  | circle<br>answer or<br>insert<br>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<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9b. Lake Erie Wetlands -<br>Restricted                        | YES (NO)                               | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands –<br>Unrestricted with native plants   | YES (NO)                               | if yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>Unrestricted with invasive plants | YES (NO)                               | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 10. Oak Openings  | YES (NO)                               | If yes, Category 3   |
|                        | Question 11. Relict Wet Prairies                                       | YES (NO)                               | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
| Quantitative<br>Rating | Metric 1. Size   | 0                                      |  |
| •                      | Metric 2. Buffers and surrounding land use                             | 10                                     | MOKSERLE   |
|                        | Metric 3. Hydrology  | 9                                      |  |
|                        | Metric 4. Habitat  | 8                                      |  |
|                        | Metric 5. Special Wetland Communities                                  | 0                                      |  |
|                        | Metric 6. Plant communities, interspersion, microtopography            | 0                                      |  |
|                        | TOTAL SCORE  | 27                                     | Category based on score breakpoints Category 1             |

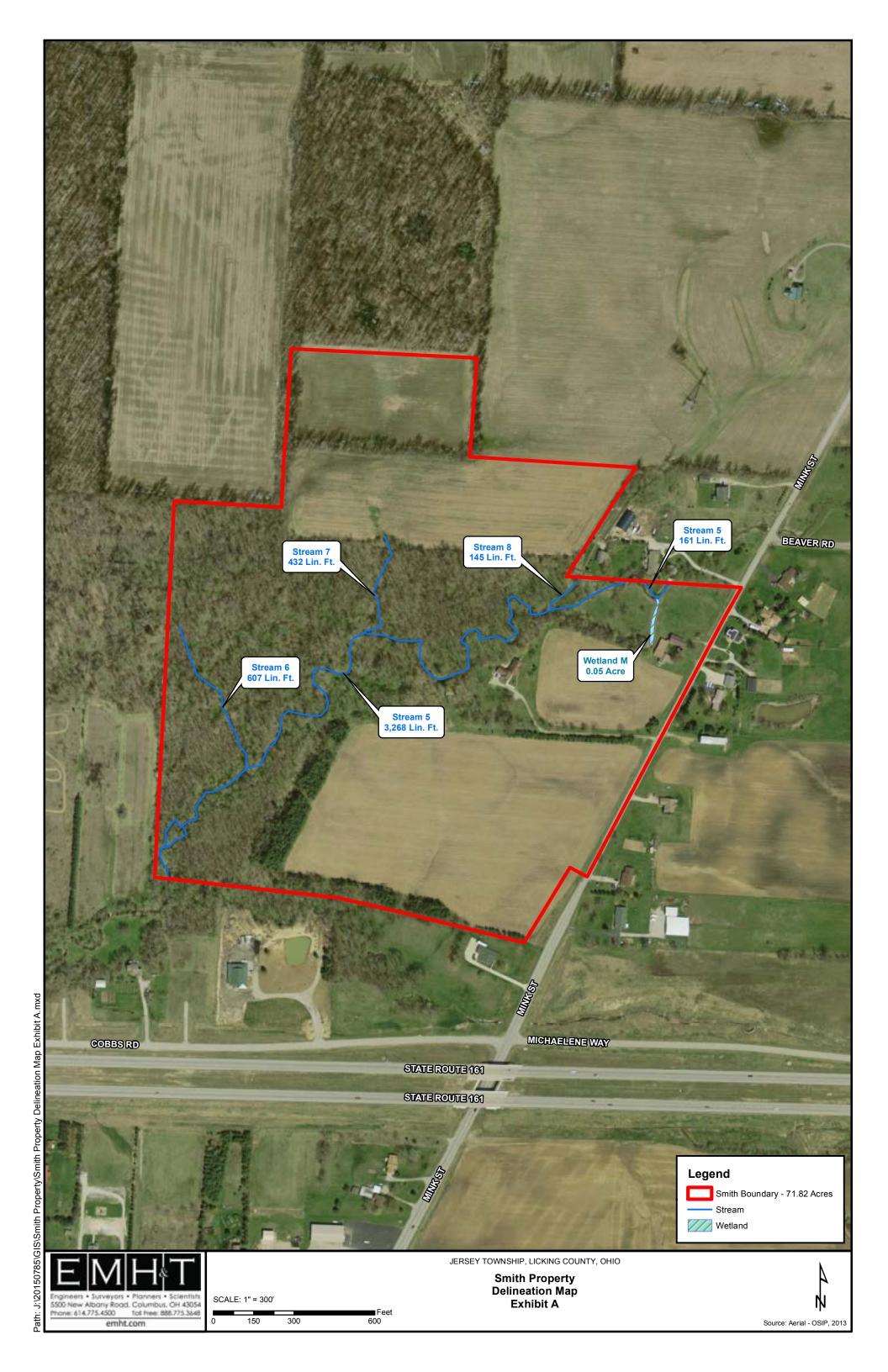
Complete Wetland Categorization Worksheet.

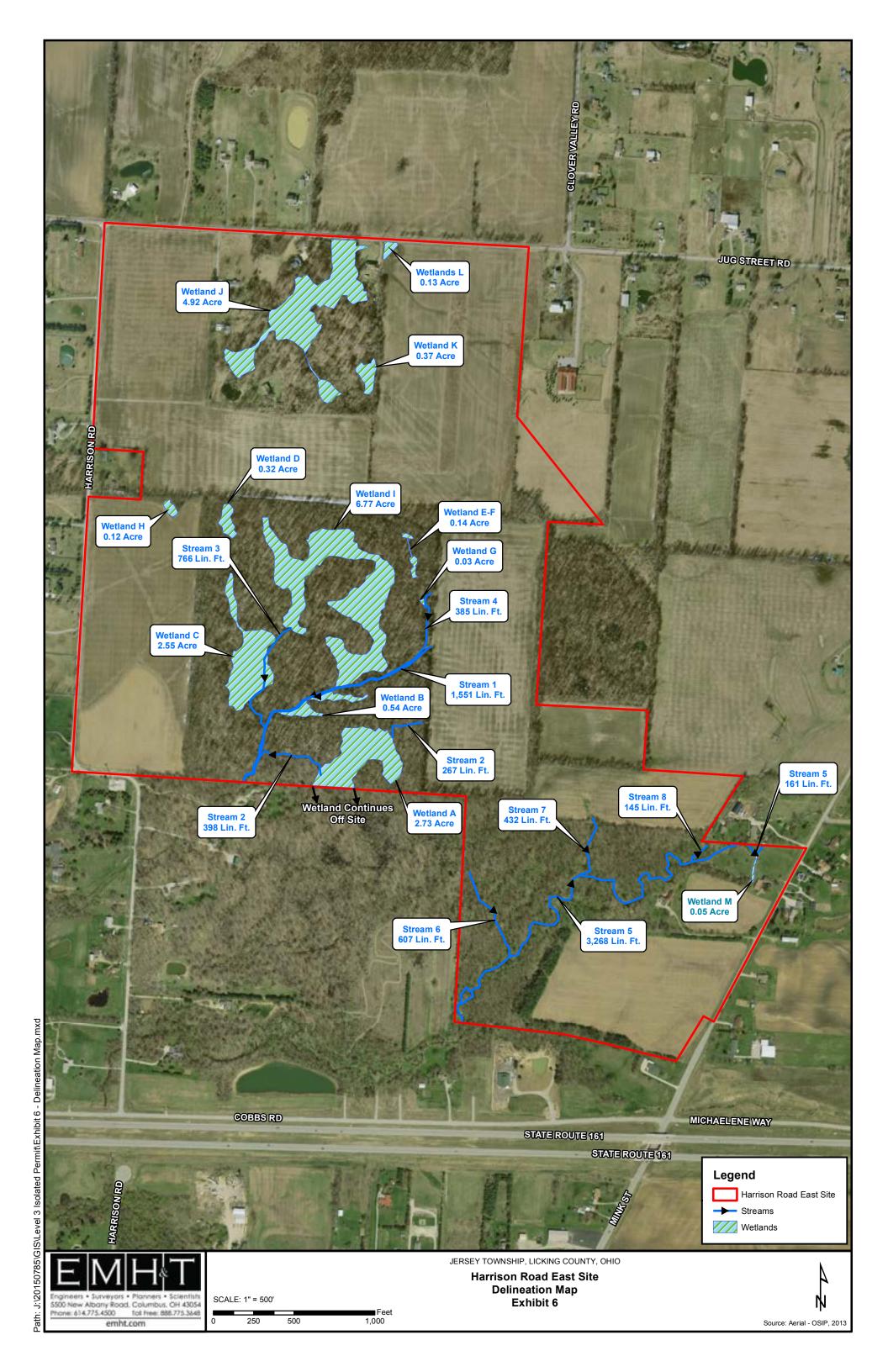
# Wetland Categorization Worksheet

| Choices  | Circle one   | $\sim$   | Evaluation of Categorization Result of ORAM  |
|--|--|--|--|
| Did you answer west of 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-  |
| 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) normalize 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 also be used to determine the wetland's category.   |
| Did you answer "Yes" to<br>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  |
| Does the <b>quantitative</b> score fall within the scoring range of a Category 1, 2, or 3 wetland?   | Welland is<br>assigned to the<br>appropriate<br>category based on<br>the score   | 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  | (80)   | 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 | Wetland is assigned to category as determined by the ORAM. | A welland 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 of 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.









**Photo 1:** Wetland M (EMH&T, 10/23/15)



**Photo 2**: Stream 5 (South Fork Licking River) (EMH&T, 9/15/15)





**Photo 3:** Stream 5 (South Fork Licking River) (EMH&T, 9/15/15)



**Photo 4**: Stream 5 (South Fork Licking River) (EMH&T, 9/15/15)





**Photo 5**: Stream 6 (EMH&T, 9/15/15)



**Photo 6**: Stream 7 (EMH&T, 9/15/15)

# **Water Resources AJD**

LRH-2021-152-MUS



#### **DEPARTMENT OF THE ARMY**

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

February 17, 2016

Regulatory Division North Branch LRH-2015-384-MUS-UT South Fork Licking River

#### APPROVED AND PRELIMINARY JURISDICTIONAL DETERMINATIONS

Mr. William Ebbing MBJ Holdings, LLC 8000 Walton Parkway, Suite 120 New Albany, Ohio 43054

Dear Mr. Ebbing:

I refer to the *Newton Family Farm Investigation of Waters of the U.S.* (report) dated May 7, 2015, *Addendum Letter* dated June 19, 2015 and a second *Addendum Letter* dated November 3, 2015 submitted on your behalf by EMH&T. You have requested an approved jurisdictional determination (JD) for the non-jurisdictional features and a preliminary JD for the potential jurisdictional aquatic resources on the approximate 288-acre project site. The property is located within the watershed of the South Fork of the Licking River east of Harrison Road, south of Jug Street, west of Mink Street and north of State Route 161 in Jersey Township, Licking County, Ohio. Your JD request has been assigned the following file number: LRH-2015-384-MUS-UT South Fork Licking River. Please reference this number on all future correspondence related to this project.

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 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.

#### Preliminary Jurisdictional Determination

Based upon a review of the submitted report and on-site field verification on April 27, 2015, July 15, 2015 and November 13, 2015, this office has determined 1,551 linear feet of one intermittent stream (Stream 1), 3,000 linear feet of seven ephemeral streams (Streams 2 – 4 and 6-8), 3,429 linear feet of one perennial stream (Stream 5) and 12.67 acres of five forested wetlands (Wetlands A, B, C, G, I, and M) are located within the proposed project area and may be waters of the United States in accordance with the Regulatory Guidance Letter for JDs issued by the Corps on June 26, 2008 (Regulatory Guidance Letter No. 08-02). 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 two copies of the Preliminary JD. If you agree with the findings of this Preliminary JD and understand your options regarding the same, please sign and date one (1) copy of 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 the following address:

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

## Approved Jurisdictional Determination

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 Clean Water Act jurisdiction. Based upon a review of the information provided, and other information available to us, four forested wetlands (Wetland D, Wetland E-F, Wetland J, and Wetland K) and two emergent wetlands (Wetland H and Wetland L) comprising 5.66 acres are completely surrounded by uplands, with no hydrological connections to surface tributary systems, and no ties to interstate or foreign commerce interests. Based on the absence of hydrological connections or adjacency to a water of the United States, Wetlands D, E-F, H, J, K and L are determined to be isolated. Approximately 0.23 acre of one open water pond (Pond 1) was constructed in uplands, does not outlet into a surface tributary system, and is not considered to be a jurisdictional water of the United States. Therefore, no authorization would be required from this office for the discharge of dredged and/or fill material into Wetlands D, E-F, H, J, K, and L and Pond 1. However, you should contact the Ohio Environmental Protection Agency, Division of Surface Water at 614-644-2000, 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 determination was coordinated with the USEPA Region 5 and Corps Headquarters, with coordination completed on February 12, 2016.

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:

Appeal Review Officer
United States Army Corps of Engineers
Great Lakes and Ohio River Division
550 Main Street, Room 10524
Cincinnati, OH 45202-3222
Phone: (513) 684-7261

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. Should you decide to submit an RFA form, it must be received at the above address by September 26, 2015. It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

A copy of this letter is being provided to your agent, Mr. Patrick Hoyng with EMH&T at 5500 New Albany Road, Columbus, Ohio 43054. If you have any questions concerning the above, please contact Ms. Lee Robinette of the North Branch at 304-399-5210, by mail at the above address, or by email at lee.a.robinette@usace.army.mil.

Sincerely,

SPAGNA.T Digitally signed by SPAGNATERESA.D.1229740519 DN: C=US, o=US. Government, ou=Dob, ou=PKI, ou=USA, cn=SPAGNATERESA.D.1229740 519 Date: 2016.02.17 12:30:11 -05'00'

Teresa D. Spagna Chief, North Branch

**Enclosures** 

# **Water Resources Permit**

(Ohio EPA ID No. 154756 and 154841)



John R. Kasich, Governor Mary Taylor, Lt. Governor Craig W. Butler, Director

OHIO E.P.A.

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

SEP 22 2016

LATERED DIRECTOR'S JOURNAY DONG LASSILLE Date:

Certified Mail

Re:

Harrison Road East Development Site

Permit - Intermediate Approval 401 Wetlands

Licking DSW401154756 and DSW401154841

September 22, 2016

MBJ Holdings, LLC 8000 Walton Parkway New Albany, Ohio

Subject:

Harrison Road East Development Site

Licking County / Jersey Township / City of New Albany

Grant of a Section 401 Water Quality Certification and Isolated Wetland

Permit

Modified Preferred Design Alternative

Corps No. LRH-2015-384-MUS

Ohio EPA ID No. 154756 and 154841

#### Dear Stakeholders:

I hereby authorize the above referenced project under the following authorities and it is subject to the following modifications and/or conditions:

#### Section 401 Water Quality Certification

Pursuant to Section 401 of the Federal Water Pollution Control Act, Public Law 95-217, I hereby certify that the above-referenced project will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act.

#### Ohio Isolated Wetland Permit

Pursuant to Ohio Revised Code Chapter 6111, I hereby conclude that the above-referenced project will comply with the applicable provisions of Ohio Revised Code Sections 6111.02 through 6111.028.

This authorization is specifically limited to a Section 401 Water Quality Certification and an Ohio Isolated Wetlands Permit (here after referred to as "certification") with respect to water pollution and does not relieve the Certification Holder of further Certifications or

Permits as may be necessary under the law. I have determined that a lowering of water quality in the Licking River Watershed (HUC 05040006) as authorized by this certification is necessary. I have made this determination based upon the consideration of all public comments, if submitted, and the technical, social, and economic considerations concerning this application and its impact on waters of the state.

# PART I ON-SITE WATER RESOURCES AND IMPACTS

#### A. Watershed Setting

The Project is located within the Headwaters South Fork Licking River Watershed (HUC 050400060402). The South Fork Licking River has a designated aquatic life use of warm water habitat in the vicinity of the project area.

# B. Project Description

The project will construct a 2.4 million square foot office building and warehouse complex, with associated utilities, roadways, storm water controls, and parking.

# C. Impacts

Under the Modified Preferred Design Alternative impacts to waters of the state are as follows:

#### 1. Streams

On-site streams will be impacted by the discharge of fill material to facilitate site development and construction of the office/warehouse development,

| Stream<br>ID | Existing<br>Use | Type*<br>E, I, or P | QHEI<br>Score* | Impact<br>Type | Total<br>Length on<br>Site (LF) | Total<br>Length<br>Impacted<br>(LF) | Percent<br>Avoided |
|--------------|-----------------|---------------------|----------------|----------------|---------------------------------|-------------------------------------|--------------------|
| Stream 1     | N/A             | E and I             | N/A            | Fill/Culvert   | 1,551                           | 631                                 | 59%                |
| Stream 2     | N/A             | E                   | N/A            | Fill           | 665                             | 0                                   | 100%               |
| Stream 3     | N/A             | E                   | N/A            | Fill           | 766                             | 635                                 | 17%                |
| Stream 4     | N/A             | E                   | N/A            | Fill           | 385                             | 385                                 | 0%                 |
| Stream 5     | WWH             | Р                   | 68             | Culvert        | 3,429                           | 222                                 | 94%                |
| Stream 6     | N/A             | E                   | N/A            | Fill           | 607                             | 556                                 | 8%                 |
| Stream 7     | N/A             | E                   | N/A            | Fill           | 432                             | 383                                 | 11%                |
| Stream 8     | N/A             | E                   | N/A            | Fill           | 145                             | 0                                   | 100%               |
|              |                 |                     |                | Totals         | 7,980                           | 2.812                               | 65%                |

<sup>\*</sup> As provided by applicant

#### 2. Wetlands

On-site wetlands will be impacted by the discharge of fill material to facilitate site development and construction of the office/warehouse development.

| Wetland ID  | Isolated<br>or<br>Non-<br>isolated | Forested or<br>Non-<br>Forested | Category | Total<br>Acreage on<br>Site | Total<br>Acreage<br>Impacted | Percent<br>Avoided |
|-------------|------------------------------------|---------------------------------|----------|-----------------------------|------------------------------|--------------------|
| Wetland A   | Non-<br>isolated                   | Forested                        | 3        | 2.73                        | 0                            | 100%               |
| Wetland B   | Non-<br>isolated                   | Forested                        | 2        | 0.54                        | 0.54                         | 0%                 |
| Wetland C   | Non-<br>isolated                   | Forested                        | 2        | 2.55                        | 2.55                         | 0%                 |
| Wetland D   | Isolated                           | Forested                        | 2        | 0.32                        | 0.32                         | 0%                 |
| Wetland E-F | Isolated                           | Forested                        | 2        | 0.14                        | 0.14                         | 0%                 |
| Wetland G   | Non-<br>isolated                   | Forested                        | 2        | 0.03                        | 0.03                         | 0%                 |
| Wetland H   | Isolated                           | Non-forested                    | 1        | 0.12                        | 0.12                         | 0%                 |
| Wetland I   | Non-<br>isolated                   | Forested                        | 3        | 6.77                        | 0                            | 100%               |
| Wetland J   | Isolated                           | Forested                        | 2        | 4.92                        | 4.49                         | 9%                 |
| Wetland K   | Isolated                           | Forested                        | 2        | 0.37                        | 0.37                         | 0%                 |
| Wetland L   | Isolated                           | Forested                        | 1        | 0.13                        | 0                            | 100%               |
| Wetland M   | Non-<br>isolated                   | Non-forested                    | 1        | .05                         | 0.04                         | 20%                |
|             |                                    |                                 | Totals   | 18.67                       | 8.60                         | 54%                |

# PART II TERMS & CONDITIONS

A. This certification shall remain valid and in effect as long as the 404 Permit issued by the U.S. Army Corps of Engineers for this project is in effect. Harrison Road East Development
Ohio EPA ID No. 154756 and 154841
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- B. Terms and conditions outlined in this section apply to project and mitigation construction as described in this certification.
- C. The Certification Holder shall notify Ohio EPA, in writing, and in accordance with Part IV (NOTIFICATIONS TO OHIO EPA) of this certification, upon the start and completion of site development and mitigation construction.
- D. A copy of this certification shall remain on-site for the duration of the project and mitigation construction activities.
- E. In the event of an inadvertent spill, the Certification Holder must immediately call the Ohio EPA Spill Hotline at 1-800-282-9378, as well as the Ohio EPA Section 401/Stormwater Manager (614-644-2001).
- F. Unpermitted impacts to surface water resources and/or their buffers occurring as a result of this project must be reported within 24 hours of occurrence to Ohio EPA, Division of Surface Water, Section 401/Stormwater Manager (614-644-2001), for further evaluation.
- G. Pesticide application(s) for the control of plants and animals shall be applied in accordance with rule 3745-1-01 of the Ohio Administrative Code, and may require a pesticide applicator license from the Ohio Department of Agriculture.
- H. Any authorized representative of the director shall be allowed to inspect the authorized activity at reasonable times to ensure that it is being or has been accomplished in accordance with the terms and conditions of this certification.
- In the event that there is a conflict between the certification application, including the mitigation plan, and the conditions within this certification, the condition shall prevail unless Ohio EPA agrees, in writing, that the certification application or other provision prevails.
- J. The Certification Holder shall provide electronic maps of the development area and the mitigation area to Ohio EPA 401/Stormwater Section within 30 days of the date of this certification. JPEG, TIFF, PDF or BMP files are acceptable. When sending the electronic files, include the Ohio EPA ID Number and the Army Corps of Engineers Number (if applicable). If possible, these electronic maps shall be GIS shape files or Geodatabase files. If this is not possible, the electronic maps shall be in another electronic format readable in GIS (GIF, TiF, etc). The electronic files shall be sent to the following e-mail address: <a href="mailto:EPA.401Webmail@epa.ohio.gov">EPA.401Webmail@epa.ohio.gov</a>

If the files are too large to send by e-mail, a disk containing the electronic files shall be mailed to the following address:

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Ohio Environmental Protection Agency
Division of Surface Water
Attn: 401/Stormwater Manager
50 West Town Street, Suite 700
PO Box 1049
Columbus, OH 43216-1049

K. This proposal may require other permits from Ohio EPA. For information concerning application procedures, contact the Ohio EPA District Office as follows:

Ohio Environmental Protection Agency Central District Office 50 W. Town Street, Suite 700 Columbus, Ohio 43215-1049 614-728-3778

Additional information regarding environmental permitting assistance at Ohio EPA can be found at <a href="http://www.epa.ohio.gov/dir/permit">http://www.epa.ohio.gov/dir/permit</a> assistance.aspx

- L. Best Management Practices (BMPs)
  - 1. All water resources and their buffers which are to be avoided, shall be clearly indicated on site drawings demarcated in the field and protected with suitable materials (e.g., silt fencing) prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process and removed after completion of construction.
  - 2. All BMPs for storm water management shall be designed and implemented in accordance with the most current edition of the Ohio Department of Natural Resources Rainwater and Land Development Manual, unless otherwise required by the National Pollutant Discharge Elimination System (NPDES) general permit for storm water discharges associated with construction activities (construction general permit), if required.

A copy of the Rainwater and Land Development Manual is available at: <a href="http://epa.ohio.gov/Portals/35/storm/technical-assistance/RLD-11-6-14All.pdf">http://epa.ohio.gov/Portals/35/storm/technical-assistance/RLD-11-6-14All.pdf</a>.

A copy of the NPDES construction general permit is available at: <a href="http://www.epa.ohio.gov/dsw/permits/GP">http://www.epa.ohio.gov/dsw/permits/GP</a> ConstructionSiteStormWater.as <a href="mailto:px">px</a>.

3. Straw bales shall not be used as a form of erosion/sediment control.

- 4. Grass filter strips shall be established adjacent to all avoided/relocated and un-culverted waters of the state, including wetlands and existing buffer areas. Filter strips shall be vegetated with non-invasive species native to Ohio and shall be designed and implemented in accordance with the most current edition of the Ohio Department of Natural Resources' Rainwater and Land Development Manual.
- Temporary fill shall consist of suitable non-erodible material and shall be stabilized to prevent erosion.
- 6. Materials used for fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded from use as fill or bank protection.
- Concrete rubble used for fill or bank stabilization shall be in accordance with ODOT specifications; free of exposed re-bar; and, free of all debris, soil and fines.
- 8. Chemically treated lumber which may include, but is not limited to, chromated copper arsenate and creosote treated lumber shall not be used in structures that come into contact with waters of the state.
- 9. Trees removed from temporary impact areas to facilitate construction shall be replaced with appropriate tree species native to Ohio.
- 10. All temporary fill material must be removed to an area that has no waters of the state at the completion of construction activities and the river bottom restored to pre-construction elevations to the maximum extent practicable.

#### 11. Culverts

- a. Stream culverts shall be installed and designed at the streambed slope to allow for the natural movement of aquatic organisms and bedload to form a stable bed inside the culvert.
- b. The culvert base or invert with the substrate shall be installed below the sediment to allow natural channel bottom to develop and to be retained.
- c. The channel bottom substrate shall be similar to and contiguous with the immediate upstream and downstream reaches of the stream. The culvert shall be designed and sized to accommodate bankfull discharge and match the existing depth of flow to facilitate the passage of aquatic organisms.

d. Where culverts are installed for temporary crossings, the bottom elevations of the stream shall be restored as nearly as possible to pre-project conditions.

# M. Wildlife Protection

- 1. No in-water work shall take place during the environmental window from April 15 through June 30, unless specifically approved by the Ohio Department of Natural Resources, Division of Wildlife, in writing, with a copy provided to Ohio EPA prior to undertaking any in-water work during the environmental window.
- If native mussels and/or mussel beds, not previously identified, are encountered at any time during construction or dredging activities, work must cease immediately and the Ohio Department of Natural Resources' Division of Wildlife must be contacted for further evaluation.

# PART III MITIGATION

# A. Description of Required Mitigation

# 1. Stream Mitigation

As compensatory mitigation for impacts to 2,812 linear feet of stream the certification holder shall implement a combination of on-site preservation, and off-site preservation and enhancement.

In accordance with the August 10, 2016 plans submitted by EMH&T, a total of 4,937 linear feet of stream, and 10.47 acres associated buffers on-site will be preserved. Additionally, at the off-site Harrison and Worthington Road Mitigation Site, 1,838 linear feet of stream, and 2.47 acres of associated buffers shall be preserved, and 2.19 acres of stream buffers shall be enhanced in accordance with Exhibit 12 of the Mitigation plan. All stream mitigation areas shall be protected in perpetuity via a conservation easement.

# Wetland Mitigation

As compensatory mitigation for impacts to 8.60 acres of wetlands listed above, the certification holder shall purchase 13.8 acres of wetland mitigation credits from the Stream + Wetlands In-lieu Fee program. The

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certification holder will also preserve in perpetuity 9.5 acres of on-site category 3 wetlands, and approximately 15.92 acres of forested wetland buffers via a conservation easement.

# B. Mitigation and Monitoring Plan

As mitigation for impacts described in Part I.C of this certification the Certification Holder shall implement the mitigation plan dated November 17, 2015, and as amended on July 21, 2016, and August 11, 2016 and in accordance with the conditions in this certification.

# C. Timing of Mitigation Requirements

- Stream buffer enhancement shall be completed prior to June 1, 2017.
  Forested stream buffer enhancement areas shall be monitored for a period
  of 10 years. If the enhancement area is shown to meet the specified
  performance criteria for two consecutive monitoring events, then additional
  monitoring years will not be required.
- A baseline wetland preservation monitoring shall be conducted prior to initiation of earth disturbing activities on-site. The monitoring period of the wetland preservation areas shall begin once at least 50% of the on-site area to be developed (as shown on Exhibit 2 of the Wetland Drainage Study submitted by EMH&T dated June 2016) is built or under construction, and shall extend for a period of five years.
- 3. Within 30 days of the date of the 404 Permit issued by the U.S. Army Corps of Engineers, a copy of the fully executed in-lieu fee program agreement with Stream + Wetlands Foundation shall be provided to Ohio EPA. Impacts to waters of the state shall not occur until the terms of this condition have been met.

# D. Long Term Protection

- 1. For each of the above described Stream and Wetland preservation areas including buffers, the Certification Holder shall submit to Ohio EPA an acceptable, notarized, recorded, and filed conservation easement. The Conservation Easements shall include, as attachments, a metes and bounds (survey) description of the protected area, survey map, and an aerial photograph showing the boundaries of the protected area and all mitigation areas inside the protected area. The Conservation Easements shall protect, in total, 9.5 acres of category 3 wetlands, 6,775 linear feet of streams, and 31.05 acres of upland buffers.
- 2. Signs shall be placed within visual distance of one another along the mitigation area boundaries that indicate the area is a protected stream and wetland mitigation project and that mowing, dumping, or any other activity that would result in a

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degradation of the streams and wetlands without prior authorization from Ohio EPA is prohibited.

## E. Agency Site Visits

For the stream buffer enhancement areas, the Certification Holder shall arrange on-site mitigation meetings with Ohio EPA during the growing season that follows the submittal of the third and fifth year mitigation monitoring reports, and after the seventh and tenth year mitigation monitoring reports if required.

For the wetland preservation areas, the Certification Holder shall arrange on-site mitigation meetings with Ohio EPA during the growing season that follows the submittal of the third and fifth year mitigation monitoring reports.

The purpose of these inspections is to determine if the mitigation project has been established in accordance with the mitigation and monitoring plan approved by Ohio EPA and the terms and conditions of this certification, as well as to determine progress toward compliance with the performance goals for the site. The Certification Holder is responsible for undertaking any modifications identified by Ohio EPA.

# F. Reporting

# 1. Annual Update Reports

A mitigation construction and project update report shall be submitted to Ohio EPA by December 31 of each year following the date of this certification and until mitigation construction is complete and a mitigation monitoring report is ready for submittal. Each update report shall contain, at a minimum, the following information:

- a. The status of all of the mitigation required for the project as specified in the application and certification including the filing of the required conservation easement.
- b. The status of the filling activities at the development site including dates filling was started and completed, or are expected to be started and completed. If filling activities have not been completed, a drawing shall be provided, which shows the locations and acreage/feet of wetlands/streams that have not yet been filled. If filling activities have been completed, then as-built drawings shall be submitted, which show where fill was placed.
- Mitigation construction start date, completion date, or expected start and completion date;

- A discussion of the extent to which the mitigation has been completed according to the timelines specified in this certification;
- e. Current contact information for all responsible parties including phone number, e-mail, and mailing addresses. For the purposes of this condition, responsible parties include, but may not be limited to the Certification Holder, consultant, conservation easement holder, and conservation easement owner.
- f. As-built drawings sized 11" by 17" (to scale) of each of the mitigation areas, once construction is complete.

# 2. Mitigation Monitoring Reports - Streams

- a. The mitigation monitoring period for the stream mitigation shall commence in the growing season following completion of the stream buffer enhancement and shall continue through a ten-year monitoring period, except as provided for in the contingency plan.
- b. The first mitigation monitoring report shall be submitted to Ohio EPA by December 31, 2018 following the end of the first full growing season following completion of the stream buffer enhancement. Subsequent reports shall be submitted by December 31st of the third, fifth, seventh and tenth monitoring years, as applicable.
- c. Mitigation monitoring reports shall be prepared in the format prescribed in the Ohio EPA Monitoring Report Guidelines document available at <a href="http://epa.ohio.gov/portals/35/401/401MonitoringReportGuidelines.pdf">http://epa.ohio.gov/portals/35/401/401MonitoringReportGuidelines.pdf</a> and include the Monitoring Report Checklist provided at <a href="http://epa.ohio.gov/portals/35/401/401MonitoringReportChecklistTable.pdf">http://epa.ohio.gov/portals/35/401/401MonitoringReportChecklistTable.pdf</a>.
- d. Each mitigation report shall contain the current contact information for the Certification Holder, agent, conservation easement holder, and conservation easement owner including phone number, e-mail, and mailing addresses.
- e. Each mitigation report shall clearly identify the specific monitoring period the report is intended to represent, as well as the calendar year the monitoring occurred. The report shall also provide a summary of current mitigation status, which compares the previous years' monitoring information with the current report including graphs and tables showing trends, etc.

- f. Each mitigation report shall include a cover letter. The cover letter shall identify the status of the mitigation project and identify any items needing immediate attention or questions for the regulatory agencies.
- g. The first monitoring report shall contain a full copy of the final U.S. Army Corps of Engineers 404 permit for the project.
- h. Each mitigation monitoring report shall contain a list of species planted in all mitigation areas.
- i. The first year report shall include an as-built planting plan for the stream buffer enhancement.
- j. At a minimum, the first, third, and fifth year reports shall contain updated drawings sized 11" by 17" or larger (to scale) of each of the mitigation streams reflecting the current conditions, corrective or other actions that occurred, changes in dominant vegetation, and other pertinent information.
- k. Each mitigation monitoring report shall include photographs to be collected as follows:
  - i. An adequate number of fixed observation points shall be selected, with no fewer than three fixed observation points per distinct mitigation area, to provide representative overviews of each distinct mitigation area. The use of stakes with unique numbers to designate photo locations is recommended.
  - ii. Photographs shall be taken from these points at the same position and angle during the growing season of each monitoring year. The fixed observation points shall be marked on the base map.
  - Additional photographs of areas of interest within each distinct mitigation area shall be marked on the base map and provided in each monitoring report.

# 3. Mitigation Monitoring Reports - Preserved Wetlands

a. The mitigation monitoring period for the wetland preservation areas shall commence once at least 50% of the on-site area to be developed (as shown on Exhibit 2 of the Wetland Drainage Study submitted by EMH&T dated June 2016) is built or under construction, and shall continue through a five-year monitoring period, except as provided for in the contingency plan.

- b. Once the 50% threshold has been met, the first mitigation monitoring report shall be submitted to Ohio EPA by December 31 of the first full year thereafter. Subsequent reports shall be submitted by December 31<sup>st</sup> of each of the monitoring years.
- c. Mitigation monitoring reports shall be prepared in the format prescribed in the Ohio EPA Monitoring Report Guidelines document available at <a href="http://epa.ohio.gov/portals/35/401/401MonitoringReportGuidelines.pdf">http://epa.ohio.gov/portals/35/401/401MonitoringReportGuidelines.pdf</a> and include the Monitoring Report Checklist provided at <a href="http://epa.ohio.gov/portals/35/401/401MonitoringReportChecklistTable.pdf">http://epa.ohio.gov/portals/35/401/401MonitoringReportChecklistTable.pdf</a>.
- d. Each monitoring report shall contain the current contact information for the Certification Holder, agent, conservation easement holder, and conservation easement owner including phone number, e-mail, and mailing addresses.
- e. Each monitoring report shall clearly identify the specific monitoring period the report is intended to represent, as well as the calendar year the monitoring occurred. The report shall also provide a summary of current mitigation status, which compares the previous years' monitoring information with the current report including graphs and tables showing trends, etc.
- f. Each monitoring report shall include a cover letter. The cover letter shall identify the status of the mitigation project and identify any items needing immediate attention or questions for the regulatory agencies.
- g. The first monitoring report shall contain a full copy of the final U.S. Army Corps of Engineers 404 permit for the project.
- h. At a minimum, the first, third, and fifth year annual reports shall contain updated drawings sized 11" by 17" or larger (to scale) of each of the preserved wetlands reflecting the current conditions, corrective or other actions that occurred, changes in dominant vegetation, and other pertinent information.
- i. Each annual report shall include photographs to be collected as follows:
  - An adequate number of fixed observation points shall be selected, with no fewer than three fixed observation points per distinct mitigation area, to provide representative overviews of

- each distinct mitigation area. The use of stakes with unique numbers to designate photo locations is recommended.
- Photographs shall be taken from these points at the same position and angle during the growing season of each monitoring year. The fixed observation points shall be marked on the base map.
- iii. Additional photographs of areas of interest within each distinct mitigation area shall be marked on the base map and provided in each monitoring report.

# G. Monitoring Requirements - Preserved Wetlands

# 1. Site Drawings

a. At a minimum, in the first, third and fifth year annual reports a plan view that provides information on the morphometry of all mitigation wetlands and the location of any water control devices shall be provided.

#### 2. Wetland Delineation

a. A delineation of the wetland preservation area(s) shall be performed during the growing season of the third and fifth year of monitoring. The wetland delineation shall be performed in accordance with the United States Army Corps of Engineers 1987 Wetland Delineation Manual and the applicable Regional Supplement to the Corps of Engineers Wetland Delineation Manual and shall include an assessment of soils, hydrology, and plants according to the manual.

# Hydrology Monitoring

- a. Water level data shall be collected Monthly at a minimum, between April 15<sup>th</sup> and October 15<sup>th</sup>, to generally represent the growing season. Ground water levels shall be measured in the absence of inundated conditions.
- b. Water Chemistry grab samples shall be collected quarterly at the basin discharge points within the preserved wetlands. The samples should be taken such that the first flush condition is analyzed. Water chemistry analyzed for total suspended solids.

# 4. Vegetation Monitoring

- a. The wetland preservation areas shall be assessed to obtain a baseline VIBI score according to methods and protocols approved by

  Ohio

  EPA

  (http://www.epa.ohio.gov/portals/35/wetlands/PART4 VIBI OH W

  TLDs.pdf) prior to initiation of earth disturbing activities, and during the growing season of the third and fifth years of the monitoring period.
- b. The location and name of each plant community type within the wetland mitigation area shall be marked on a scaled drawing or scaled aerial photograph (base map) and named. The dominant plant species shall be visually determined in each vegetation layer of each community type, and the scientific names of these species shall be included in the report.
- c. Species, diameter at breast height (dbh), vigor, dominance and stem count data shall be collected and graphed over time for the existing trees within the preserved wetland and upland buffer zone. A total of seven 100 ft x 100 ft sampling plots will be established to monitor trees within the preservation areas.
- d. The preserved wetlands shall be assessed to obtain ORAM scores according to methods and protocols approved by Ohio EPA (<a href="http://epa.ohio.gov/Portals/35/401/ORAM%20Manual%205.0.pdf">http://epa.ohio.gov/Portals/35/401/ORAM%20Manual%205.0.pdf</a>). A baseline ORAM shall be completed prior to construction activities and an ORAM shall be completed during the growing season of the third and fifth years of the monitoring period.

# Wildlife Monitoring

An amphibian visual encounter shall be conducted in the preserved wetlands during the spring (March – June) of the third and fifth year of monitoring. A baseline survey shall be completed in the spring season of 2017.

## H. Monitoring Requirements - Streams

# 1. Vegetation Monitoring

a. The location and extent of invasive plant communities within both the on-site and offsite mitigation buffer areas shall be marked on a scaled drawing or scaled aerial photograph (base map) and named. The relative cover of invasive species shall be calculated and included in the report. b. A total of three 100 ft x 100 ft sampling plots will be established to monitor the buffer enhancement areas. Species, stem count, and height data shall be collected for the offsite buffer enhancement areas. These data shall be graphed against time to demonstrate that the offsite enhancement area is developing into a functional forested ecosystem.

# I. Performance Goals - Preserved Wetlands

At the end of the five-year wetland monitoring period the Certification Holder shall have:

- Preserved wetlands and their buffers shall be subject to a conservation easement that specifies the activities that are allowed and/or prohibited within the boundaries of the wetland and associated buffers to be preserved. All provisions must protect the long-term health and existing functions of the wetlands and associated buffers.
- 2. Demonstrated that the preserved wetlands remain 9.5 acres in total size and consist of a forested wetland plant community.
- Demonstrated that the preserved wetlands have attained a Vegetation IBI score of 63 or higher. If the baseline VIBI score is lower than 63 then that score will be used as the VIBI performance goal.
- 4. Demonstrated that Wetland A has maintained an ORAM quantitative rating equal to or higher than 65, and that Wetland I has maintained an ORAM quantitative rating equal to or higher than 60.
- The preserved wetlands and their buffers shall have less than five percent relative cover of all invasive plant species listed in Appendix 7 of the Guidelines for Mitigation Banking in Ohio available at <a href="http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guidelineswetlandmitigation-Ohio.pdf">http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guidelineswetlandmitigation-Ohio.pdf</a>.
- 6. Demonstrated that the preserved wetlands contain at least 75 percent relative cover of native perennial hydrophytes.
- 7. Maintained an average 90 feet of native upland buffer, or a total of 15.9 acres as measured from the edge of the wetland with no more than five percent relative coverage of invasive species as listed in Appendix 7 of the Guidelines for Mitigation Banking in Ohio available at <a href="http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guidelineswetlandmitigation-Ohio.pdf">http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guidelineswetlandmitigation-Ohio.pdf</a>.

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- 8. Demonstrated that the discharges into the preserved wetlands shall not exceed 100 mg/L total suspended solids up to a 0.75-inch rainfall event within a 24-hour period.
- 9. Demonstrated that the amphibian species richness and relative abundance met the baseline conditions.

#### J. Performance Goals - Streams

Within ten years after completion of the mitigation, the Certification Holder shall have:

- 1. Preserved a minimum of 10.47 acres of native upland/floodplain buffer at the on-site stream preservation area measured from the top of the bank with no more than five percent relative coverage of invasive species as listed in Appendix 7 of the Guidelines for Mitigation Banking in Ohio available at <a href="http://www.irb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guidelineswetlandmitigation-Ohio.pdf">http://www.irb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guidelineswetlandmitigation-Ohio.pdf</a>.
- Preserved a minimum of 2.47 acres of native upland/floodplain buffer at the
  offsite stream preservation area measured from the top of the bank with no
  more than five percent relative coverage of invasive species as listed in
  Appendix 7 of the Guidelines for Mitigation Banking in Ohio available at
  <a href="http://www.irb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guide-lineswetlandmitigation-Ohio.pdf">http://www.irb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guide-lineswetlandmitigation-Ohio.pdf</a>.
- Demonstrated that a minimum of 2.19 acres of forested stream buffers have been established consisting of 400 native, live and healthy (disease and pest free) woody plants greater than 1 meter in height per acre (of which at least 200 are tree species) at the end of the monitoring period in the offsite upland buffer enhancement areas.

# K. Contingency Plans

If the off-site stream buffer enhancement area is shown to meet the specified performance criteria for two consecutive monitoring events, then additional stream monitoring will not be required. If the stream enhancement areas are not performing as proposed by the end of the tenth year of monitoring, the monitoring period may be extended and/or the Certification Holder may be required to revise the existing mitigation or seek out new or additional stream mitigation areas.

If the wetland preservation areas are not performing as proposed by the end of the fifth year of monitoring, the monitoring period may be extended and/or the Certification Holder may be required to revise the existing mitigation or seek out new or additional wetland mitigation areas.

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Ohio EPA may reduce or increase the number of years for which monitoring is required to be conducted based on the effectiveness of the mitigation.

#### PART IV NOTIFICATIONS TO OHIO EPA

All notifications, correspondence, and reports regarding this certification shall reference the following information:

Certification Holder Name: MBJ Holdings, LLC Project Name: Harrison Road East Ohio EPA ID No.: 154756 and 154841

and shall be sent to:

Ohio Environmental Protection Agency Division of Surface Water, 401/IWP Unit Lazarus Government Center 50 West Town Street P.O. Box 1049 Columbus, Ohio 43216-1049

You are hereby notified that this action of the director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within 30 days after notice of the director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the director within three days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission 77 South High Street, 17th Floor Columbus, Ohio 43215 Harrison Road East Development
Ohio EPA ID No. 154756 and 154841
Section 401 Water Quality Certification and Level 3 Isolated Wetland Permit
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Sincerely,

Craig W. Butler

Cy w. Buth

Director

CC: Lee Robinette, Department of the Army, Huntington District, Corps of Engineers Cory Wilson, Department of the Army, Huntington District, Corps of Engineers Peter Swenson, U.S. EPA, Region 5
Dan Everson, U.S. Fish & Wildlife Service
John Kessler, ODNR, Office of Real Estate
Dave Snyder, Ohio Historical Preservation Office
Michael See, Ohio EPA, DSW, Section 401/IWP
Jeff DeShon, Ohio EPA, DSW, EAS
Andrea Kilbourne, Ohio EPA, DSW, Mitigation Coordinator
Jeff Bohne, Ohio EPA, DSW, CDO
Vince Messerly, Stream + Wetlands Foundation
Heather Dardinger, EMH&T Inc.

Ohio EPA has developed a customer service survey to get feedback from regulated entities that have contacted Ohio EPA for regulatory assistance, or worked with the Agency to obtain a permit, license or other authorization. Ohio EPA's goal is to provide our customers with the best possible customer service, and your feedback is important to us in meeting this goal. Please take a few minutes to complete this survey and share your experience with us at <a href="http://www.surveymonkey.com/s/ohioepacustomersurvey">http://www.surveymonkey.com/s/ohioepacustomersurvey</a>.

# **Wetlands Delineation**

February 8, 2021



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20201308

# RUSMISEL AND SMITH PROPERTY INNOVATION CAMPUS WAY AND MINK STREET JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Delineation of Waters of the United States

The New Albany Company

February 8, 2021

emht.com



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#### 1.0 INTRODUCTION

A routine delineation of Waters of the United States, including streams and wetlands, has been conducted and a report prepared by EMH&T for an approximately 23.5-acre property (Rusmisel and Smith Property), located north of Innovation Campus Way and on the west side of Mink Street NW, in Jersey Township, Licking County, Ohio (Exhibit 1). This study was performed at the request of and is for the exclusive use of The New Albany Company. The New Albany Company requests an Approved Jurisdictional Determination (AJD) for the three (3) potentially isolated wetlands and one (1) potentially non-jurisdictional agricultural ditch within the boundaries of the Rusmisel and Smith Property.

The study area consists of a fallow agricultural field and woodlot. EMH&T observed mowed grass swales on the southeastern portion of the study area. An electrical easement is located along the northeastern boundary of the study area. Indications of disturbance, including trails and light dumping, were observed within the woodlot. The study area is surrounded by agricultural land, woodlots, rural residential lots, and warehouse buildings. The approximate center coordinates of the site are 40.088568°, -82.722215°.

The property is located in the Headwaters South Fork Licking River subbasin (HUC: 05040006-04-02) within the Licking Watershed. The study area is regulated by the U.S. Army Corps of Engineers (USACE) Huntington District.

The field investigation of the study area was conducted by EMH&T environmental scientists on January 19, 2021, in order to identify the location, extent, and quality of the wetland and stream features. Three (3) potentially isolated wetlands and one (1) potentially non-jurisdictional agricultural ditch has been identified for confirmation by the United States Army Corps of Engineers (USACE). The location and extent of the identified potentially isolated and non-jurisdictional 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 subject property is between the elevations of 1170 and 1200 feet (National Geodetic Vertical Datum) according to the USGS 7.5' Series Jersey, Ohio quadrangle (USGS, 1975). There were no streams, open water or marsh symbols shown on the subject property.

#### 2.2 Mapped Soils

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation [USDA Soil Conservation Service (SCS), 1985]. The mapped soils are listed in Table 1 along with their hydric status. As shown on the Web Soil Survey for Licking County, Ohio (Exhibit 3A), Pewamo silty clay loam (Pe) and Condit silt loam, 0 to 1 percent slopes (Cn) are listed as a hydric soil [Natural Resources Conservation Service (NRCS), 2019] on the subject property. As shown on Exhibit 3B, a drainage feature is mapped on the southeastern portion of the subject property. No marsh symbols were mapped on the USDA Soils Map (1992) for the subject property.



Table 1. Hydric Status of Onsite Soils

| Mapped Soil Unit   | Hydric                     | Hydric<br>Inclusions | Location of<br>Hydric<br>Inclusions |
|--|----------------------------|----------------------|-------------------------------------|
| Bennington silt loam, 0 to 2 percent slopes (BeA)                      | Non-hydric with inclusions | Pewamo (3%)          | Depressions                         |
| Bennington silt loam, 2 to 6 percent slopes (BeB),                     | Non-hydric with inclusions | Pewamo (3%)          | Depressions                         |
| Centerburg silt loam, 6 to 12 percent slopes, eroded (Cen1C2)          | Non-hydric with inclusions | Condit (4%)          | Drainageways                        |
| Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes (Pe) | Hydric                     |                      |                                     |
| Condit silt loam (Cn)  | Hydric                     |                      |                                     |

#### 2.3 Hydrologic Conditions

The United States Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) online mapping system was reviewed for the subject property (USFWS, 2019). As shown on Exhibit 4, two (2) NWI features are mapped on the subject property. Two (2) Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded (PFO1C) features are mapped within the wooded area on the site. During the field investigation, these two (2) features were observed to be isolated wetlands. No NWI stream features are mapped on the site.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was reviewed for the subject property (2017). The entirety of the subject property lies within Zone X (unshaded), which are areas mapped outside the 500-year floodplain.

#### 3.0 DELINEATION INVESTIGATION RESULTS

EMH&T field scientists conducted a field investigation on January 19, 2021, to identify the location, extent, and quality of wetland and stream features on the site. Three (3) potentially isolated wetlands and one (1) potentially non-jurisdictional agricultural ditch were identified for confirmation by the USACE. 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. The investigative methodology employed is summarized in Appendix A.

#### 3.1 Potential Non-Jurisdictional/Isolated Features

As shown on Exhibit 5, three (3) potentially isolated wetlands and one (1) potentially non-jurisdictional agricultural ditch 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.

Potentially isolated Wetlands A, B, and C are located in depressions within the woodlot on the study area. The woodlot is surrounded by a warehouse building and farmed land, further isolating these features from



any connections to other surface waters. EMH&T's opinion, these wetlands have no jurisdictional surface water connection and would therefore, be considered isolated.

The potential non-jurisdictional agricultural ditch begins at a drain tile blowout on the southeastern portion of the study area, along the southern boundary. The blow out is at the end of a well-drained grassy waterway (non-jurisdictional), which is planted in upland fescue and is frequently mowed. The agricultural ditch is the result of collapsed drain tile. Signs of excavation by the farmer were observed including sediment piling and concrete debris along the edges of the ditch. Based on the Navigable Water Protection Rule, (§ 120.2) Definitions of Waters of the United States, ditches that are not waters identified as (1)(i) territorial seas, (1)(ii) tributaries, or ditches constructed in (1)(iv) adjacent wetlands are excluded from jurisdiction. The agricultural ditch was not excavated in a tributary or adjacent wetland and therefore, would not be considered jurisdictional.

TABLE 2
Extent of Onsite Surface Water Features

| Feature ID         | Classification/Flow<br>Regime | Wetland (ac) | Linear Feet |
|--------------------|-------------------------------|--------------|-------------|
| Wetland A          | Forested                      | 0.55         |             |
| Wetland B          | Forested                      | 0.38         |             |
| Wetland C          | Emergent                      | 0.38         |             |
| Agricultural Ditch | Ephemeral                     |              | 85          |
| Total              |                               | 1.31         | 85          |

TABLE 3
Jurisdictional Classification of Onsite Surface Water Features

| Feature ID            | TNW | Perennial<br>Tributary | Intermittent<br>Tributary | Ephemeral<br>Tributary | Adjacent<br>Wetland | Isolated<br>Wetland | Non-<br>Jurisdictional<br>Agricultural<br>Ditch |
|-----------------------|-----|------------------------|---------------------------|------------------------|---------------------|---------------------|---|
| Wetland A             |     |                        |                           |                        |                     | Χ                   |   |
| Wetland B             |     |                        |                           |                        |                     | Χ                   |   |
| Wetland C             |     |                        |                           |                        |                     | Χ                   |   |
| Agricultural<br>Ditch |     |                        |                           |                        |                     |                     | X   |

- ●□ TNW: Traditional Navigable Water
- Perennial Tributary: River, stream, or similar surface water channel contributing flow to a TNW continuously year round.
- Intermittent Tributary: River, stream, or similar surface water channel contributing flow to a TNW during certain times of the year, and more than in direct response to precipitation.
- Jurisdictional Impoundment: Standing body of open water contributing surface flow to a water of the U.S., or inundated by flooding from a water of the U.S. in a typical year.
- Adjacent Wetland: Wetlands abutting a water of the U.S., inundated by flooding from a water of the U.S. in a typical year, or separated from a water of the U.S. only by a berm, bank, dike, culvert or similar feature such that the wetland has a direct hydrologic surface connection to a water of the U.S.

#### 4.0 WETLAND HABITAT ASSESSMENT

The Ohio Rapid Assessment Method (ORAM) Version 5 was developed by the Ohio EPA for use in determining wetland quality (OEPA, 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 adopted in 1998. 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. The ORAM asks a series of questions regarding wetland functions and characteristics and scores each wetland based on the answers provided. The result of the ORAM assessment is shown in Table 4 and the ORAM dataform is presented in Appendix C.

Table 4
Wetland Habitat Assessment Summary

| Wetland   | ORAM Score | ORAM Category       |
|-----------|------------|---------------------|
| Wetland A | 49.5       | Category 2          |
| Wetland B | 51         | Category 2          |
| Wetland C | 43.5       | Modified Category 2 |

#### 5.0 REGULATORY JURISDICTION

Impacts to WOTUS, including jurisdictional intermittent/perennial streams and wetlands, are regulated by the USACE and the U.S. Environmental Protection Agency (EPA) 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 or potentially jurisdictional intermittent/perennial streams 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 and ephemeral streams 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 or ephemeral streams without an appropriate Isolated Wetland Permit from the state.

#### 6.0 CONCLUSIONS

A routine delineation of Waters of the United States, including streams and wetlands, has been conducted and a report prepared by EMH&T for an approximately 23.5-acre property (Rusmisel and Smith Property), located north of Innovation Campus Way and on the west side of Mink Street NW, in Jersey Township, Licking County, Ohio. This study was performed at the request of and is for the exclusive use of The New Albany Company.

The results of the delineation identified three (3) potentially isolated wetlands (totaling 1.31-acres onsite) and one (1) potentially non-jurisdictional agricultural ditch within the study area boundaries. The boundaries and jurisdictional status of the features are potential until verified by the USACE.

#### 7.0 REFERENCES

Flood Emergency Management Agency. FEMA. 2010. Flood Insurance Rate Map for Licking County, Ohio and Unincorporated Areas. Available from: http://msc.fema.gov/portal.

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# **APPENDIX A:**

Investigative Methodology



### 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 (OEPA, 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, instream 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, 2012). 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 Ephemeral Aquatic Streams (modified/natural channel), Small Drainage Warm Water Streams (modified/natural channel), and Spring Water Streams. Spring Water Streams represent high quality, cold water streams, Small Drainage Warm Water Streams represent warm water streams, and Ephemeral Aquatic Streams (seasonally dry) with limited ecological function.

### **Open Water Habitat**

The boundaries of open water systems (ponds and lakes) are delineated either using recent aerial photography or by flagging boundaries in the field and locating them using a GPS unit.

### **REFERENCES**

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# **APPENDIX B:**

USACE Wetland and Upland Data Forms

| Project/Site: Rusmisel and Smith Property                    |                                       | City/Cou       | nty: Jersey T     | Fownship/Licking County Sampling Date: 1/19/2021                     |
|--|---------------------------------------|----------------|-------------------|--|
| Applicant/Owner: NACO  |                                       |                |                   | State: OH Sampling Point: WA-1                                       |
| Investigator(s): Rob Milligan, Bryan Lombard                 |                                       | Section, T     | —<br>Γownship, Ra | inge: T2N R15W   |
| Landform (hillside, terrace, etc.): Depression               |                                       | !              | Local relief (c   | concave, convex, none): Concave                                      |
| Slope (%): Lat: 40.088391°                                   |                                       | Long: -        | -82.723682°       | Datum:   |
| Soil Map Unit Name: Pewamo silty clay loam, low carb         | oonate till, 0                        | to 2 percent s | slopes            | NWI classification: PFO1C  |
| Are climatic / hydrologic conditions on the site typical for | or this time of                       | f year?        | Yes X             | No (If no, explain in Remarks.)                                      |
| Are Vegetation, Soil, or Hydrologys                          | significantly o                       | disturbed? F   | Are "Normal C     | Circumstances" present? Yes X No                                     |
| Are Vegetation, Soil, or Hydrologyr                          |                                       |                |                   | xplain any answers in Remarks.)                                      |
| SUMMARY OF FINDINGS – Attach site ma                         | ap showir                             | ıg samplin     | ıg point lo       | cations, transects, important features, etc.                         |
| Hydrophytic Vegetation Present? Yes X No                     | ) <u> </u>                            | Is the         | e Sampled Ai      | rea  |
| Hydric Soil Present? Yes X No                                |                                       | withir         | n a Wetland?      | ? Yes X No   |
| Wetland Hydrology Present? Yes X No                          | <u></u>                               |                |                   |  |
| Remarks:   |                                       |                |                   |  |
|  |                                       |                |                   |  |
| VEGETATION – Use scientific names of pla                     |                                       |                |                   |  |
| VEGETATION – Ose scientific fiames of pia                    | Absolute                              | Dominant       | Indicator         | Г  |
| Tree Stratum (Plot size: 30 feet )                           | % Cover                               | Species?       | Status            | Dominance Test worksheet:  |
| Quercus palustris  | 85                                    | Yes            | FACW              | Number of Dominant Species That                                      |
| 2. Ulmus americana   | 10                                    | No             | FACW              | Are OBL, FACW, or FAC: 3 (A)   |
| 3. Fraxinus pennsylvanica                                    | 5                                     | No             | FACW              | Total Number of Dominant Species                                     |
| 4  |                                       |                |                   | Across All Strata: 3 (B)   |
| 5  | 100 =                                 | =Total Cover   |                   | Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B) |
| Sapling/Shrub Stratum  | )                                     | -10101 0010.   |                   | 100.07. (12)   |
| 1. Lindera benzoin   | 15                                    | Yes            | FACW              | Prevalence Index worksheet:  |
| 2.   |                                       |                |                   | Total % Cover of: Multiply by:                                       |
| 3.   |                                       |                |                   | OBL species 0 x 1 = 0  |
| 4.   |                                       |                |                   | FACW species 130 x 2 = 260   |
| 5  |                                       |                |                   | FAC species 2 x 3 = 6  |
|  | 15=                                   | =Total Cover   |                   | FACU species 0 x 4 = 0   |
| Herb Stratum (Plot size: 5 feet )                            | _                                     |                |                   | UPL species 0 x 5 = 0  |
| 1. Carex sp.   | 2                                     | No             | FAC               | Column Totals: 132 (A) 266 (B)                                       |
| 2. Cinna arundinacea   | 15                                    | Yes            | FACW              | Prevalence Index = B/A = 2.02  |
| 3  |                                       |                |                   | Hydrophytic Vegetation Indicators:                                   |
| 5  |                                       |                |                   | 1 - Rapid Test for Hydrophytic Vegetation                            |
|  |                                       |                |                   | X 2 - Dominance Test is >50%   |
| 7.   | · · · · · · · · · · · · · · · · · · · |                |                   | X 3 - Prevalence Index is ≤3.0¹                                      |
| 8.   |                                       |                |                   | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting       |
| 9.   |                                       |                |                   | data in Remarks or on a separate sheet)                              |
| 10.  |                                       |                |                   | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)            |
|  |                                       | =Total Cover   |                   | <sup>1</sup> Indicators of hydric soil and wetland hydrology must    |
| Woody Vine Stratum (Plot size: 15 feet )                     |                                       |                |                   | be present, unless disturbed or problematic.                         |
| 1.   |                                       |                |                   | Hydrophytic  |
| 2  |                                       | <del></del>    |                   | Vegetation   |
|  |                                       | =Total Cover   |                   | Present?   |
| Remarks: (Include photo numbers here or on a separ           | ate sheet.)                           |                |                   |  |
|  |                                       |                |                   |  |

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: WA-1

| Depth  | Matrix   |  | Read   | x Featur   |  |                                       |  |   |   |            |
|--|--|--|--|--|--|---------------------------------------|--|---|---|------------|
| inches)  | Color (moist)  | %  | Color (moist)  | %  | Type <sup>1</sup>  | Loc <sup>2</sup>                      | Texture  |   | Remarks   |            |
| 0-12   | 10YR 2/1   | 90   | 10YR 5/6   | 10   | С  | PL/M                                  |  | Promine   | ent redox conce   | entrations |
|  |  |  |  |  |  |                                       |  |   |   |            |
|  |  |  |  |  |  |                                       |  |   |   |            |
|  |  | _  |  |  |  |                                       |  |   |   |            |
|  |  |  |  |  |  |                                       |  |   |   |            |
|  |  |  |  |  |  |                                       |  |   |   |            |
|  |  |  |  |  |  |                                       |  |   |   |            |
|  |  |  |  |  |  |                                       |  |   |   |            |
| ype: C=Co  | ncentration, D=D   | epletion, RN   | /I=Reduced Matrix,   | MS=Mas   | ked San  | d Grains.                             | <sup>2</sup> Lo  | cation: PL=Pore L   | ₋ining, M=Matri   | х.         |
| ydric Soil I   | ndicators:   |  |  |  |  |                                       | Ind  | licators for Proble   | ematic Hydric   | Soils³:    |
| Histosol (   | A1)  |  | Sandy Gle  | eyed Matı  | rix (S4)   |                                       | ?  | Coast Prairie Red   | dox (A16)   |            |
| Histic Epi   | pedon (A2)   |  | Sandy Re   | dox (S5)   |  |                                       |  | Iron-Manganese  | Masses (F12)  |            |
| Black His  | tic (A3)   |  | Stripped N   | /latrix (S6  | 3)   |                                       |  | Red Parent Mate   | rial (F21)  |            |
| —<br>Hydroger  | Sulfide (A4)   |  | Dark Surfa   | ace (S7)   |  |                                       |  | Very Shallow Dar  | rk Surface (F22   | )          |
| Stratified   | Layers (A5)  |  | Loamy Mu   | icky Mine  | eral (F1)  |                                       |  | Other (Explain in   | Remarks)  |            |
| 2 cm Muc   | ck (A10)   |  | Loamy Gl   | eyed Mat   | trix (F2)  |                                       |  | _   |   |            |
| Depleted   | Below Dark Surfa   | ce (A11)   | Depleted   | Matrix (F  | 3)   |                                       |  |   |   |            |
| Thick Dar  | k Surface (A12)  |  | Redox Da   | rk Surfac  | e (F6)   |                                       | <sup>3</sup> Inc                                       | dicators of hydroph   | nytic vegetation  | and        |
| Sandy Mu   | ucky Mineral (S1)  |  | X Depleted   | Dark Sur   | face (F7   | )                                     |  | wetland hydrolog  | y must be pres  | ent,       |
| 5 cm Muc   | ky Peat or Peat (  | S3)  | Redox De   | pressions  | s (F8)   |                                       |  | unless disturbed  | or problematic.   |            |
| estrictive L   | ayer (if observe   | d):  |  |  |  |                                       |  |   |   |            |
|  |  | ,  |  |  |  |                                       |  |   |   |            |
| Type:  | • (  |  |  |  |  |                                       |  |   |   |            |
| nis data forr  | ches):  n is revised from  |  | gional Supplement  |  |  |                                       |  |   | Yes X   | <b>No</b>  |
| Depth (in-<br>emarks:<br>his data forr   | ches):  n is revised from  |  |  |  |  |                                       | NRCS Field Ind   |   |   | _          |
| Depth (indexed) Depth (indexed | n is revised from<br>www.nrcs.usda.c   |  |  |  |  |                                       | NRCS Field Ind   |   |   | _          |
| Depth (incemarks: his data form rrata. (http://  | n is revised from<br>www.nrcs.usda.c   | ov/Internet/   |  |  |  |                                       | NRCS Field Ind   |   |   |            |
| Depth (included property of the property of th | n is revised from<br>www.nrcs.usda.c   | ov/Internet/   |  | 6/nrcs142  |  |                                       | NRCS Field Ind<br>)                                    |   | oils, Version 7.  | 0, 2015    |
| Depth (incended to be performed to be performe | ches):  n is revised from www.nrcs.usda.g  GY  rology Indicator ators (minimum o   | ov/Internet/   | FSE_DOCUMENTS  | S/nrcs142  | 2p2_051:   | 293.docx                              | NRCS Field Ind<br>)                                    | icators of Hydric S   | oils, Version 7.  | 0, 2015    |
| Depth (independent of the property of the prop | ches):  n is revised from www.nrcs.usda.g  GY  rology Indicator ators (minimum o   | ov/Internet/   | FSE_DOCUMENTS  | apply)<br>ined Lea   | ves (B9)   | 293.docx                              | NRCS Field Ind<br>)<br><u>Sec</u>                      | icators of Hydric S   | (minimum of tocks (B6)  | 0, 2015    |
| Depth (independent of the property of the prop | ches):  n is revised from /www.nrcs.usda.g  GY  lrology Indicator ators (minimum o Vater (A1) er Table (A2)  | ov/Internet/   | FSE_DOCUMENTS  uired; check all that  X Water-Sta  | apply)<br>ined Lea   | ves (B9)   | 293.docx                              | NRCS Field Ind<br>)<br><u>Sec</u>                      | icators of Hydric S  condary Indicators  Surface Soil Crac  | (minimum of tooks (B6) s (B10)  | 0, 2015    |
| Depth (independent of the property of the prop | ches):  In is revised from www.nrcs.usda.g  GY  Irology Indicator (ators (minimum of the value) (A1)  er Table (A2)  In (A3)   | ov/Internet/   | uired; check all that  X Water-Sta Aquatic Fa  | apply) ined Lea auna (B1 atic Plants   | ves (B9)<br>3)<br>s (B14)  | 293.docx                              | NRCS Field Ind<br>)<br><u>Sec</u>                      | icators of Hydric S  condary Indicators Surface Soil Crac Drainage Pattern  | (minimum of tooks (B6) s (B10) er Table (C2)  | 0, 2015    |
| Depth (included in the content of th | ches):  In is revised from www.nrcs.usda.g  GY  Irology Indicator (ators (minimum of the value) (A1)  er Table (A2)  In (A3)   | ov/Internet/   | uired; check all that  X Water-Sta  Aquatic Fa   | apply) ined Lea auna (B1 stic Plants   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1  | 293.docx                              | NRCS Field Ind )  Sec                                  | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate   | (minimum of tooks (B6) s (B10) er Table (C2)  | 0, 2015    |
| Depth (inemarks: his data formation (http://www.communication)  YDROLO  YDROLO  Yetland Hydrimary Indication  Surface V  High Wat  Saturation  Water Ma  | GY  Irology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1). Deposits (B2)  | ov/Internet/   | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  | apply) ined Lea auna (B1 sulfide ( Rhizosph  | ves (B9) 3) s (B14) Odor (C1 eres on   | 293.docx                              | NRCS Field Ind )  Sec  X  pots (C3) X                  | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows  | (minimum of tooks (B6) s (B10) er Table (C2) e (C8) e on Aerial Image                           | 0, 2015    |
| Depth (independent of the proof | GY  Irology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1). Deposits (B2)  | ov/Internet/   | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized I  | apply) ined Lea auna (B1 stic Plants Sulfide ( Rhizosph of Reduc   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>ced Iron   | )<br>Living Ro                        | NRCS Field Ind )  Sec  X  nots (C3)  X  X              | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible   | (minimum of tooks (B6) s (B10) er Table (C2) c (C8) e on Aerial Imaged Plants (D1)              | 0, 2015    |
| Depth (independent of the proof | ches):  In is revised from fowww.nrcs.usda.gethere (A1)  In it is revised from fowww.nrcs.usda.gethere (A2)  In it is revised from fowww.nrcs.usda.gethere (A3)  In it is revised from foww.nrcs.usda.gethere (A2)  In it is revised from foww.nrcs.usda.gethere (A3)  In it is revised from fow  | ov/Internet/   | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized I  Presence  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron  | )<br>Living Ro                        | NRCS Field Ind )  Sec  X  oots (C3) X X X X C(C6) X    | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress                                 | (minimum of tocks (B6) s (B10) er Table (C2) c (C8) e on Aerial Image ed Plants (D1) ition (D2) | 0, 2015    |
| Depth (incemarks: his data formata. (http://www.communications)  YDROLOG  YDROLOG  YDROLOG  Yetland Hyderimary Indication  X Surface V  X High Wate  X Saturation  X Sediment  Drift Depo  | ches):  In is revised from fowww.nrcs.usda.gethere (A1)  In it is revised from fowww.nrcs.usda.gethere (A2)  In it is revised from fowww.nrcs.usda.gethere (A3)  In it is revised from foww.nrcs.usda.gethere (A2)  In it is revised from foww.nrcs.usda.gethere (A3)  In it is revised from fow  | s:<br>f one is requ  | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized I  Presence  Recent Iro  Thin Muck                             | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduct on Reduct surface  | vves (B9) 3) s (B14) Odor (C1 eres on ced Iron tion in T   | )<br>Living Ro                        | NRCS Field Ind )  Sec  X  oots (C3) X X X X C(C6) X    | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi                 | (minimum of tocks (B6) s (B10) er Table (C2) c (C8) e on Aerial Image ed Plants (D1) ition (D2) | 0, 2015    |
| Depth (incemarks: his data formata. (http://www.communication.communicat | ches):  In is revised from www.nrcs.usda.g  GY  Irology Indicator ators (minimum of water (A1) er Table (A2) in (A3) arks (B1) in Deposits (B2) posits (B3) or Crust (B4) posits (B5)  | s: f one is requ   | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized I  Presence  Recent Ird  Thin Muck  37)  Gauge or              | apply) ined Lea auna (B1 atic Plant: Sulfide ( Rhizosph of Reduce on Reduce x Surface Well Data  | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ed Iron ition in T e (C7) a (D9)                         | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Sec  X  oots (C3) X X X X C(C6) X    | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi                 | (minimum of tocks (B6) s (B10) er Table (C2) c (C8) e on Aerial Image ed Plants (D1) ition (D2) | 0, 2015    |
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| Depth (included in the control of th | GY  Irology Indicator Avery (A1) er Table (A2) er Table (A2) er (A3) er Ks (B1) Deposits (B2) or Crust (B4) osits (B5) en Visible on Aeria Vegetated Conca   | s: f one is requ   | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized I  Presence  Recent Ird  Thin Muck  37)  Gauge or              | apply) ined Lea auna (B1 atic Plant: Sulfide ( Rhizosph of Reduce on Reduce x Surface Well Data  | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cition in T c (C7) a (D9) Remarks)                         | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Sec  X  oots (C3) X X X X C(C6) X    | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi                 | (minimum of tocks (B6) s (B10) er Table (C2) c (C8) e on Aerial Image ed Plants (D1) ition (D2) | 0, 2015    |
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| Depth (incomplete of the complete of the compl | GY  Irology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) er Ser Present?  Present?   | s: f one is required to the second of the se | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized I  Presence  Recent Ird  Thin Muck  37)  Gauge or  (B8)  No     | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc on Reduc | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ced Iron tion in T (C7) a (D9) Remarks) nches): _nches): | ) Living Ro (C4) illed Soils          | NRCS Field Ind )  Sec  X  pots (C3) X X X X            | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi                 | (minimum of tooks (B6) s (B10) er Table (C2) (C8) e on Aerial Imaged Plants (D1) it (D5)        | 0, 2015    |
| Depth (incomplete property)  Property (incomplete property)  P | rology Indicator (A2)  Irology Indicator (A3)  Irology Indicator (A3)  Irology Indicator (A3)  Irology Indicator (B4)  Irology | s: fone is requ I Imagery (Eve Surface Yes X Yes X   | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized I  Presence  Recent Ird  Thin Muck  37)  Gauge or  (B8)  No  No | apply) ined Lea auna (B1 atic Plant: Sulfide ( Rhizosph of Reduce on Reduce s Surface Well Data blain in R   | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ced Iron tion in T (C7) a (D9) Remarks) nches): _nches): | ) Living Ro (C4) illed Soils          | NRCS Field Ind )  Sec  X  pots (C3) X X X X            | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi                 | (minimum of tooks (B6) s (B10) er Table (C2) (C8) e on Aerial Imaged Plants (D1) it (D5)        | o, 2015    |
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| Depth (includes cap  | ris revised from www.nrcs.usda.com/www.nrcs.usda.com/www.nrcs.usda.com/www.nrcs.usda.com/www.nrcs.usda.com/www.nrcs.usda.com/www.nrcs.usda.com/www.nrcs.usda.com/www.nrcs.usda.com/water (A1) er Table (A2) er Table | s: I Imagery (Eve Surface Yes X Yes X  | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Ex         | apply) ined Lea auna (B1 attic Plants Sulfide ( Rhizosph of Reduce on Reduce Surface Well Data plain in R Depth (ii Depth (iii                                     | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron tion in T (C7) a (D9) Remarks) nches): nches):             | ) Living Ro (C4) illed Soils          | NRCS Field Ind )  Sec  X  Nots (C3) X X X X Wetland Hy | condary Indicators Surface Soil Crac Drainage Pattern Dry-Season Wate Crayfish Burrows Saturation Visible Stunted or Stress Geomorphic Posi FAC-Neutral Tes | (minimum of tooks (B6) s (B10) er Table (C2) (C8) e on Aerial Imaged Plants (D1) it (D5)        | o, 2015    |

US Army Corps of Engineers

Midwest Region – Version 2.0

| Project/Site: Rusmisel and Smith Property                              | City/County: Jersey T      | ownship/Licking County                          | Sampling Date: 1/19/2021                    |
|--|----------------------------|---|---|
| Applicant/Owner: NACO  |                            | State: OH                                       | Sampling Point: UA-1                        |
| Investigator(s): Rob Milligan, Bryan Lombard                           | Section, Township, Ra      | nge: T2N R15W                                   |   |
| Landform (hillside, terrace, etc.): Plain                              | Local relief (c            | concave, convex, none): <u>Co</u>               | onvex                                       |
| Slope (%): Lat: _40.088100°  | Long: <u>-82.723871°</u>   | Da  | atum:                                       |
| Soil Map Unit Name: Bennington silt loam, 2 to 6 percent slopes        |                            | NWI classifica                                  | ation:                                      |
| Are climatic / hydrologic conditions on the site typical for this time | of year? Yes X             | No (If no, expla                                | in in Remarks.)                             |
| Are Vegetation, Soil, or Hydrologysignificantly                        | / disturbed? Are "Normal C | Circumstances" present?                         | Yes X No                                    |
| Are Vegetation, Soil, or Hydrologynaturally pr                         | oblematic? (If needed, ex  | plain any answers in Rema                       | arks.)                                      |
| SUMMARY OF FINDINGS – Attach site map show                             | ing sampling point lo      | cations, transects, i                           | mportant features, etc.                     |
| Hydrophytic Vegetation Present? Yes No X                               | Is the Sampled A           | rea   |   |
| Hydric Soil Present? Yes No X  | within a Wetland?          |   | No X  |
| Wetland Hydrology Present? Yes No X                                    |                            |   |   |
| Remarks:   |                            |   |   |
|  |                            |   |   |
|  |                            |   |   |
| <b>VEGETATION</b> – Use scientific names of plants.                    | Dominant Indicator         | <b>-</b>  |   |
| Absolute Tree Stratum (Plot size: 30 feet ) % Cover                    |                            | Dominance Test works                            | sheet:                                      |
| 1.   |                            | Number of Dominant Sp                           | pecies That                                 |
| 2  |                            | Are OBL, FACW, or FAC                           | C: 0 (A)                                    |
| 3  | '                          | Total Number of Domina                          |   |
| 4  | !                          | Across All Strata:                              | (B)   |
| 5  | =Total Cover               | Percent of Dominant Sp<br>Are OBL, FACW, or FAC |   |
| Sapling/Shrub Stratum (Plot size: 15 feet )                            |                            | Alc Obe, I Nott, Si . 7.                        | J. <u>0.070</u> (7.25)                      |
| 1  |                            | Prevalence Index work                           | sheet:                                      |
| 2.   |                            | Total % Cover of:                               | Multiply by:                                |
| 3  | '                          | OBL species 0                                   | x 1 = 0                                     |
| 5.   | !                          | FACW species 0  FAC species 0                   | x 2 = 0<br>x 3 = 0                          |
| o  | =Total Cover               | FAC species 0<br>FACU species 15                | x 4 = 0<br>x 4 = 60                         |
| Herb Stratum (Plot size: 5 feet )                                      | -                          | UPL species 20                                  | x 5 = 100                                   |
| 1. Zea mays 20   | Yes UPL                    | Column Totals: 35                               | (A) 160 (B)                                 |
| 2. Festuca rubra 15  | Yes FACU                   | Prevalence Index = I                            | B/A = 4.57                                  |
| 3  | '                          |   |   |
| 4 5.   | !                          | Hydrophytic Vegetatio                           | on Indicators:<br>lydrophytic Vegetation    |
| 5.<br>6.   |                            | 2 - Dominance Test                              | , , , ,                                     |
| 7.   |                            | 3 - Prevalence Inde                             |   |
| 8.   |                            | 4 - Morphological A                             | daptations <sup>1</sup> (Provide supporting |
| 9.   |                            |   | or on a separate sheet)                     |
| 10   |                            | Problematic Hydrop                              | ohytic Vegetation <sup>1</sup> (Explain)    |
| Woody Vino Stratum (Diet size: 15 feet )                               | _=Total Cover              |   | and wetland hydrology must                  |
| Woody Vine Stratum (Plot size: 15 feet )  1.                           |                            | be present, unless distu                        | rbed or problematic.                        |
| 1  |                            | Hydrophytic<br>Vegetation                       |   |
|  | =Total Cover               | Present? Yes                                    | No X  |
| Remarks: (Include photo numbers here or on a separate sheet.)          | <del>-</del>               |   | <del></del>                                 |
|  |                            |   |   |

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: UA-1

| Depth  | Matrix  |                        |  | x Feature  |  | . 2                                   |                               |  |   |  |
|--|---|------------------------|--|--|--|---------------------------------------|-------------------------------|--|---|--|
| (inches)   | Color (moist)   | %                      | Color (moist)  | %  | Type <sup>1</sup>  | Loc <sup>2</sup>                      | Text                          | ure  | Rema  | rks  |
| 0-6  | 10YR 4/4  | 100                    |  |  |  |                                       |                               |  |   |  |
| 6-12   | 10YR 4/4  | 90                     | 10YR 4/6   | 10   | D  | M                                     |                               |  |   |  |
|  |   |                        |  |  |  |                                       |                               |  |   |  |
|  |   |                        |  |  |  |                                       |                               |  |   |  |
|  |   |                        |  |  |  |                                       |                               |  |   |  |
|  |   |                        |  |  |  |                                       |                               |  |   |  |
|  |   |                        |  |  |  |                                       |                               |  |   |  |
|  |   |                        |  |  |  |                                       |                               |  |   |  |
| Гуре: С=Со   | ncentration, D=Depl   | etion, RM:             | =Reduced Matrix, I   | MS=Masl  | ked San  | d Grains                              | •                             | <sup>2</sup> Location: PL  | .=Pore Lining, M=   | Matrix.  |
| lydric Soil I  | ndicators:  |                        |  |  |  |                                       |                               | Indicators fo  | r Problematic Hy  | dric Soils <sup>3</sup> :                              |
| Histosol (   | A1)   |                        | Sandy Gle  | eyed Matı  | rix (S4)   |                                       |                               | Coast Pra  | airie Redox (A16)   |  |
| Histic Epi   | pedon (A2)  |                        | Sandy Re   | dox (S5)   |  |                                       |                               | Iron-Man   | ganese Masses (F  | 12)  |
| Black His  | tic (A3)  |                        | Stripped N   | /latrix (S6  | 6)   |                                       |                               | Red Pare   | nt Material (F21)   |  |
| Hydroger   | Sulfide (A4)  |                        | Dark Surfa   | ace (S7)   |  |                                       |                               | Very Sha   | llow Dark Surface   | (F22)  |
| Stratified   | Layers (A5)   |                        | Loamy Μι   | icky Mine  | eral (F1)  |                                       |                               | Other (Ex  | plain in Remarks)   |  |
| 2 cm Muc   | k (A10)   |                        | Loamy Gle  | eyed Mat   | rix (F2)   |                                       |                               |  |   |  |
| Depleted   | Below Dark Surface  | (A11)                  | Depleted I   | Matrix (F  | 3)   |                                       |                               |  |   |  |
| Thick Dar  | k Surface (A12)   |                        | Redox Da   | rk Surfac  | e (F6)   |                                       |                               | <sup>3</sup> Indicators of   | hydrophytic veget   | ation and  |
| Sandy Mu   | ucky Mineral (S1)   |                        | Depleted I   | Dark Surf  | face (F7   | )                                     |                               | wetland h  | ydrology must be  | present,   |
| 5 cm Muc   | ky Peat or Peat (S3   | )                      | Redox De   | pressions  | s (F8)   |                                       |                               | unless dis   | sturbed or problen  | natic.   |
| Restrictive L  | ayer (if observed):   |                        |  |  |  |                                       |                               |  |   |  |
|  |   |                        |  |  |  |                                       |                               |  |   |  |
| Type:  |   |                        |  |  |  |                                       |                               |  |   |  |
| Depth (in-<br>Remarks:<br>This data forn   | ches):  n is revised from Mic www.nrcs.usda.gov   |                        |  |  |  |                                       | NRCS Field                    | il Present?  | Yes   |  |
| Depth (increments) This data form Errata. (http://   | n is revised from Mic<br>/www.nrcs.usda.gov   |                        |  |  |  |                                       | NRCS Field                    |  |   | No   |
| Depth (increment) Remarks: This data forr Errata. (http://   | n is revised from Mic<br>www.nrcs.usda.gov  |                        |  |  |  |                                       | NRCS Field                    |  |   |  |
| Depth (increase Depth (increas | n is revised from Mic<br>/www.nrcs.usda.gov   | /Internet/F            | SE_DOCUMENTS   | 6/nrcs142  |  |                                       | NRCS Field                    | I Indicators of I  | Hydric Soils, Versi   | on 7.0, 2015   |
| Depth (increment) Remarks: This data forretrata. (http:// YDROLOGO Wetland Hydo  | n is revised from Mid<br>/www.nrcs.usda.gov<br>GY<br>rology Indicators:<br>ators (minimum of o  | /Internet/F            | red; check all that  | S/nrcs142  | 2p2_051;   | 293.docx                              | NRCS Field                    | I Indicators of I  | Hydric Soils, Versi   | on 7.0, 2015   |
| Depth (increment) Remarks: This data form Errata. (http://  YDROLOG Vetland Hyd Primary Indicators Surface V   | GY  rology Indicators: ators (minimum of o  | /Internet/F            | SE_DOCUMENTS   | apply) ined Lea  | ves (B9)   | 293.docx                              | NRCS Field                    | Secondary Inc.   | Hydric Soils, Versi   | on 7.0, 2015   |
| Depth (increment) Remarks: This data forreferrata. (http:// YDROLOGY Vetland Hyde Surface V High Wat   | rology Indicators: ators (minimum of orvater (A1) er Table (A2)   | /Internet/F            | red; check all that Water-Sta Aquatic Fa   | apply)<br>ined Lea   | ves (B9)   | 293.docx                              | NRCS Field                    | Secondary Inc. Surface S Drainage  | Hydric Soils, Versi<br>dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)  | on 7.0, 2015   |
| Depth (increment) Remarks: This data forreferrata. (http://www.commont)  YDROLOG  Yetland Hyd  Primary Indicate  Surface V  High Watt  Saturation  | GY  rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3)   | /Internet/F            | red; check all that Water-Sta Aquatic Fa   | apply) ined Lea auna (B1)  | ves (B9)<br>3)<br>s (B14)  | 293.docx                              | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas   | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (C  | on 7.0, 2015   |
| Depth (increment) Remarks: This data forrestrata. (http:// PyDROLOGIA Vetland Hyde Primary Indication Surface V High Wat Saturation Water Ma   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1)   | /Internet/F            | red; check all that Water-Sta Aquatic Fa True Aqua Hydrogen  | apply) ined Lea auna (B1: atic Plants  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1  | 293.docx                              | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I                                      | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (G<br>Burrows (C8)  | on 7.0, 2015   |
| Depth (increment) Remarks: This data forrestrata. (http://www.com/com/com/com/com/com/com/com/com/com/   | rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2)  | /Internet/F            | red; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply) ined Lea auna (B1: atic Plants Sulfide C  | ves (B9)<br>3)<br>s (B14)<br>Ddor (C1<br>eres on   | 293.docx                              | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I                                      | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (C<br>Burrows (C8)<br>n Visible on Aerial   | on 7.0, 2015  of two require  C2)  Imagery (C9)        |
| Depth (increment) Remarks: This data forreferrata. (http://www.commont) Primary Indication Surface Water Mater Mater Mater Mater Drift Depo  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3)  | /Internet/F            | red; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply) ined Lea auna (B1: atic Plants Sulfide C Rhizosph   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on   | )<br>Living Ro                        | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I Saturation Stunted c                 | dicators (minimum<br>Boil Cracks (B6)<br>Patterns (B10)<br>on Water Table (G<br>Burrows (C8)<br>n Visible on Aerial<br>or Stressed Plants   | on 7.0, 2015  of two require  C2)  Imagery (C9)        |
| Primary Indicates Surface V High Water Mar Sediment Drift Depo   | rology Indicators: ators (minimum of o Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4)   | /Internet/F            | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro   | apply) ined Lea auna (B1: stic Plants Sulfide C Rhizosph of Reduc  | ves (B9) 3) s (B14) Odor (C1 eres on ed Iron ettion in Ti  | )<br>Living Ro                        | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I Saturation Stunted c Geomorp         | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (G<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)                   | on 7.0, 2015  of two require  C2)  Imagery (C9)        |
| Depth (increment) Remarks: This data forr Errata. (http://  YDROLOG  Wetland Hyd  Primary Indicate Surface V  High Wat  Saturation Water Mat  Sediment  Drift Depo   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) or Crust (B4) esits (B5)  | /Internet/F            | red; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck                                     | apply) ined Lea auna (B1: atic Plants Sulfide (CRhizosph of Reduce c Surface   | ep2_051:<br>vves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>eed Iron<br>tion in Ti<br>(C7)              | )<br>Living Ro                        | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I Saturation Stunted c Geomorp         | dicators (minimum<br>Boil Cracks (B6)<br>Patterns (B10)<br>on Water Table (G<br>Burrows (C8)<br>n Visible on Aerial<br>or Stressed Plants   | on 7.0, 2015  of two require  C2)  Imagery (C9)        |
| Depth (increment) Remarks: This data form Errata. (http://  YDROLOGI  Yetland Hyd Primary Indication Surface V High Wat Saturation Water Mat Sediment Drift Depot Algal Mat Iron Depot Inundatio   | ris revised from Mic<br>www.nrcs.usda.gov<br>GY  rology Indicators: ators (minimum of orwater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial In  | /Internet/F            | red; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck T) Gauge or                        | apply) ined Lea auna (B1: stic Plants Sulfide C Rhizosph of Reduc on Reduc c Surface Well Data                                 | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron tion in Ti (C7) a (D9)   | )<br>Living Ro<br>(C4)<br>illed Soil: | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I Saturation Stunted c Geomorp         | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (G<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)                   | on 7.0, 2015  of two require  C2)  Imagery (C9)        |
| Depth (increment) Remarks: This data forrestrata. (http://s  YDROLOG  Vetland Hyd  Primary Indication Surface Water Mater Mate | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial In Vegetated Concave  | /Internet/F            | red; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck T) Gauge or                        | apply) ined Lea auna (B1: stic Plants Sulfide C Rhizosph of Reduc on Reduc c Surface Well Data                                 | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron tion in Ti (C7) a (D9)   | )<br>Living Ro<br>(C4)<br>illed Soil: | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I Saturation Stunted c Geomorp         | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (G<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)                   | on 7.0, 2015  of two require  C2)  Imagery (C9)        |
| Print Depth (incomplete in the control of the contr | rology Indicators: ators (minimum of orvater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial Invegetated Concave  | nagery (B <sup>2</sup> | red; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck T) Gauge or B8) Other (Exp         | apply) ined Lea auna (B1: atic Plants Sulfide C Rhizosph of Reduc c Surface Well Data plain in R                               | ep2_051:<br>vves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>eed Iron<br>tion in Ti<br>(C7)<br>a (D9)    | )<br>Living Ro<br>(C4)<br>illed Soil: | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I Saturation Stunted c Geomorp         | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (G<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)                   | on 7.0, 2015  of two require  C2)  Imagery (C9)        |
| Depth (increment) Remarks: This data forr Errata. (http://  IYDROLOGIA  Wetland Hyde Primary Indication Surface V High Water Mater M | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial In Vegetated Concave rations: re Present?  | nagery (B'Surface (I   | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or Other (Exp             | apply) ined Lea auna (B1: atic Plants Sulfide C Rhizosph of Reduct on Reduct c Surface Well Data plain in R                    | ves (B9) 3) s (B14) Ddor (C1 eres on ted Iron (C7) a (D9) emarks)  | )<br>Living Ro<br>(C4)<br>illed Soil: | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I Saturation Stunted c Geomorp         | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (G<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)                   | on 7.0, 2015  of two require  C2)  Imagery (C9)        |
| Depth (increment) Remarks: This data forrestrata. (http://s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) or Crust (B4) orits (B5) n Visible on Aerial In Vegetated Concave ations: ar Present? Ye Present? Ye  | nagery (B: Surface (I  | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck (7) Gauge or B8) Other (Exp. No X | apply) ined Lea auna (B1: atic Plants Sulfide C Rhizosph of Reduc on Reduc on Reduc on Surface Well Data plain in R  Depth (in | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9) emarks) nches): _ nches): _                        | )<br>Living Ro<br>(C4)<br>illed Soil: | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I Saturatio Stunted of Geomorp FAC-Neu | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (C<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)<br>tral Test (D5) | on 7.0, 2015  of two require  C2)  Imagery (C9) (D1)   |
| Depth (increment) Remarks: This data forr Errata. (http://  IYDROLOG  Wetland Hyd Primary Indicator Surface V High Water Mater Table Increment Mater Table Increment Mater Table Increment Mater Mater Table Increment Material Mate | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) nrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial In Vegetated Concave rations: ar Present? Yeesent? Yeesent?   | nagery (B: Surface (I  | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or Other (Exp             | apply) ined Lea auna (B1: atic Plants Sulfide C Rhizosph of Reduct on Reduct c Surface Well Data plain in R                    | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9) emarks) nches): _ nches): _                        | )<br>Living Ro<br>(C4)<br>illed Soil: | NRCS Field                    | Secondary Inc. Surface S Drainage Dry-Seas Crayfish I Saturation Stunted c Geomorp         | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (C<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)<br>tral Test (D5) | on 7.0, 2015  of two requires  (C2)  Imagery (C9) (D1) |
| Depth (increments) Remarks: This data forrestrata. (http://s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/s/  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) nrks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) nr Visible on Aerial In Vegetated Concave rations: ar Present? Yee Present? Yeesent? Yeesent?   | nagery (B' Surface (I  | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  Presence  Recent Iro  Thin Muck  7)  Gauge or  Other (Exp  | apply) ined Lea auna (B1: atic Plants Sulfide C Rhizosph of Reduce Surface Well Data plain in R  Depth (in                     | ves (B9) 3) s (B14) Ddor (C1 eres on the tion in Tiere (C7) a (D9) hemarks) heches): _ heches): _ heches): _ | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field  pots (C3)  s (C6) | Secondary In- Surface S Drainage Dry-Seas Crayfish I Saturation Stunted of Geomorp FAC-Neu | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (C<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)<br>tral Test (D5) | on 7.0, 2015  of two require  C2)  Imagery (C9) (D1)   |
| Popth (increase of the company of th | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) nrks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial In Vegetated Concave rations: ar Present? Yeesent? Yeesent?   | nagery (B' Surface (I  | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  Presence  Recent Iro  Thin Muck  7)  Gauge or  Other (Exp  | apply) ined Lea auna (B1: atic Plants Sulfide C Rhizosph of Reduce Surface Well Data plain in R  Depth (in                     | ves (B9) 3) s (B14) Ddor (C1 eres on the tion in Tiere (C7) a (D9) hemarks) heches): _ heches): _ heches): _ | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field  pots (C3)  s (C6) | Secondary In- Surface S Drainage Dry-Seas Crayfish I Saturation Stunted of Geomorp FAC-Neu | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (C<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)<br>tral Test (D5) | on 7.0, 2015  of two require  C2)  Imagery (C9) (D1)   |
| Popth (incomplete Complete Com | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) nrks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) nr Visible on Aerial In Vegetated Concave rations: ar Present? Yee Present? Yeesent? Yeesent?   | nagery (B' Surface (I  | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  Presence  Recent Iro  Thin Muck  7)  Gauge or  Other (Exp  | apply) ined Lea auna (B1: atic Plants Sulfide C Rhizosph of Reduce Surface Well Data plain in R  Depth (in                     | ves (B9) 3) s (B14) Ddor (C1 eres on the tion in Tiere (C7) a (D9) hemarks) heches): _ heches): _ heches): _ | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field  pots (C3)  s (C6) | Secondary In- Surface S Drainage Dry-Seas Crayfish I Saturation Stunted of Geomorp FAC-Neu | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (C<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)<br>tral Test (D5) | on 7.0, 2015  of two require  C2)  Imagery (C9)        |
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| Popth (incomplete Complete Com | rology Indicators: ators (minimum of orvater (A1) er Table (A2) n (A3) arks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial Invegetated Concave ations: ar Present? Present? Ye esent? | nagery (B' Surface (I  | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  Presence  Recent Iro  Thin Muck  7)  Gauge or  Other (Exp  | apply) ined Lea auna (B1: atic Plants Sulfide C Rhizosph of Reduce Surface Well Data plain in R  Depth (in                     | ves (B9) 3) s (B14) Ddor (C1 eres on the tion in Tiere (C7) a (D9) hemarks) heches): _ heches): _ heches): _ | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field  pots (C3)  s (C6) | Secondary In- Surface S Drainage Dry-Seas Crayfish I Saturation Stunted of Geomorp FAC-Neu | dicators (minimum<br>Soil Cracks (B6)<br>Patterns (B10)<br>on Water Table (C<br>Burrows (C8)<br>in Visible on Aerial<br>or Stressed Plants<br>hic Position (D2)<br>tral Test (D5) | on 7.0, 2015  of two requires  (C2)  Imagery (C9) (D1) |

| Project/Site: Rusmisel and Smith Property                              |                | City/Cou                                | ınty: <u>Jersey T</u>        | Fownship/Licking County Sampling Date: 1/19/2021   |
|--|----------------|---|------------------------------|--|
| Applicant/Owner: NACO  |                |   |                              | State: OH Sampling Point: WB-1   |
| Investigator(s): Rob Milligan, Bryan Lombard                           |                | Section, 7                              | <del></del><br>Гownship, Ra  | ange: T2N R15W   |
| Landform (hillside, terrace, etc.): Depression                         |                |   | Local relief (d              | concave, convex, none): Concave  |
| Slope (%): Lat: 40.089328°   |                | Long: -                                 | -82.723144°                  | Datum:   |
| Soil Map Unit Name: Pewamo silty clay loam, low carb                   | oonate till, 0 |   |                              | NWI classification: PFO1C  |
| Are climatic / hydrologic conditions on the site typical for           |                |   | Yes X                        | No (If no, explain in Remarks.)  |
| Are Vegetation, Soil, or Hydrologys                                    |                | •                                       |                              |  |
| Are Vegetation , Soil , or Hydrology r                                 |                |   |                              | cplain any answers in Remarks.)  |
| <u> </u>   |                |   |                              | ocations, transects, important features, etc   |
|  |                |   | 2 1 1 4                      |  |
| Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No |                |   | e Sampled Ai<br>n a Wetland? |  |
| Wetland Hydrology Present? Yes X No                                    |                | *************************************** | II a Wenana.                 | : 165 <u>A</u> 110   |
| Remarks:   | <u>·</u>       |   |                              |  |
| Remains.   |                |   |                              |  |
|  |                |   |                              |  |
| VEGETATION – Use scientific names of pla                               | nts.           |   |                              |  |
|  | Absolute       | Dominant                                | Indicator                    |  |
| Tree Stratum (Plot size: 30 feet )                                     | % Cover        | Species?                                | Status                       | Dominance Test worksheet:  |
| Quercus palustris  | 65             | Yes                                     | FACW                         | Number of Dominant Species That  |
| 2. Ulmus americana   | 15             | No                                      | FACW                         | Are OBL, FACW, or FAC: 5 (A)   |
| 3. Fraxinus pennsylvanica  | 20             | Yes                                     | FACW                         | Total Number of Dominant Species   |
| 4  |                |   |                              | Across All Strata: 5 (B)   |
| 5  | 100            |   |                              | Percent of Dominant Species That   |
| O " (Ohmit Otmitum (District) 45 feet )                                | <u>100</u> =   | =Total Cover                            |                              | Are OBL, FACW, or FAC: 100.0% (A/B   |
| Sapling/Shrub Stratum (Plot size: 15 feet )                            | 10             | Voo                                     | EA C\\\                      | Prevalence Index worksheet:  |
| Lindera benzoin     Cephalanthus occidentalis                          | 35             | Yes<br>Yes                              | FACW_<br>OBL                 | Total % Cover of: Multiply by:   |
| 3.   |                | 163                                     | ODL                          | OBL species 37 x 1 = 37  |
| \[ \frac{3}{4} \]  |                |   |                              | FACW species 147 x 2 = 294   |
| 5.   |                |   |                              | FAC species 5 x 3 = 15   |
|  | 45             | =Total Cover                            |                              | FACU species 0 x 4 = 0   |
| Herb Stratum (Plot size: 5 feet )                                      |                |   |                              | UPL species 0 x 5 = 0  |
| 1. Carex sp.   | 5              | No                                      | FAC                          | Column Totals: 189 (A) 346 (B)   |
| 2. Cinna arundinacea   | 35             | Yes                                     | FACW                         | Prevalence Index = B/A = 1.83  |
| 3. Alisma subcordatum  | 2              | No                                      | OBL                          |  |
| 4. Symphyotrichum lateriflorum   | 2              | No                                      | FACW                         | Hydrophytic Vegetation Indicators:   |
| 5  |                |   |                              | 1 - Rapid Test for Hydrophytic Vegetation  |
| 6  |                |   |                              | X 2 - Dominance Test is >50%   |
| 7  |                |   |                              | X 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| 8.   |                |   |                              | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |
| 9.   |                |   |                              | data in Remarks or on a separate sheet)  |
| 10   |                | Tatal Cover                             |                              | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| Manda Vina Chatim (Diatoira: 15 foot )                                 |                | =Total Cover                            |                              | <sup>1</sup> Indicators of hydric soil and wetland hydrology must                                      |
| Woody Vine Stratum (Plot size: 15 feet )                               |                |   |                              | be present, unless disturbed or problematic.   |
| 1.<br>2.   |                |   |                              | Hydrophytic  |
| 2  |                | =Total Cover                            |                              | Vegetation<br>  Present?   |
|  |                | - Total Gover                           |                              | Flesent: 165 A NO  |
| Remarks: (Include photo numbers here or on a separ                     | ate sheet.)    |   |                              |  |
|  |                |   |                              |  |

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: WB-1

| Depth  | Matrix   |                    | Redo   | x Featur   | <u>es</u>  |                                       |                                       |   |  |                       |
|--|--|--------------------|--|--|--|---------------------------------------|---------------------------------------|---|--|-----------------------|
| inches)  | Color (moist)  | %                  | Color (moist)  | %  | Type <sup>1</sup>  | Loc <sup>2</sup>                      | Texture                               |   | Remarks  |                       |
| 0-6  | 10YR 2/1   | 98                 | 10YR 5/6   | 2  | С  | PL/M                                  |                                       |   |  |                       |
| 6-12   | 10YR 2/1   | 90                 | 10YR 5/6   | 10   | С  | M                                     |                                       | Promine   | ent redox conce  | entrations            |
|  |  |                    |  |  |  |                                       |                                       | _   |  |                       |
|  |  |                    |  |  |  |                                       |                                       | _   |  |                       |
|  |  |                    |  |  |  |                                       |                                       | _   |  |                       |
|  |  |                    |  |  |  |                                       |                                       |   |  |                       |
|  |  |                    |  |  |  |                                       |                                       |   |  |                       |
|  |  |                    |  |  |  |                                       |                                       |   |  |                       |
| -  |  | oletion, RM        | 1=Reduced Matrix, I  | MS=Mas   | ked San  | d Grains.                             |                                       | ion: PL=Pore L  |  |                       |
| lydric Soil I  |  |                    |  |  |  |                                       |                                       | tors for Proble   | -  | Soils <sup>3</sup> :  |
| Histosol   | ` ,  |                    | Sandy Gle  | -  | rix (S4)   |                                       |                                       | oast Prairie Red  |  |                       |
|  | ipedon (A2)  |                    | Sandy Re   |  |  |                                       |                                       | on-Manganese I  |  |                       |
| Black His  |  |                    | Stripped N   |  | 3)   |                                       |                                       | ed Parent Mate  |  |                       |
|  | n Sulfide (A4)   |                    | Dark Surfa   | ` '  |  |                                       |                                       | ery Shallow Dar   | `  | 2)                    |
|  | Layers (A5)  |                    | Loamy Mu   | -  |  |                                       | O                                     | ther (Explain in  | Remarks)   |                       |
| 2 cm Mu  | , ,  |                    | Loamy Glo  |  |  |                                       |                                       |   |  |                       |
|  | Below Dark Surfac  | e (A11)            | Depleted I   |  | •  |                                       | <b>3</b>                              |   |  |                       |
|  | rk Surface (A12)   |                    | Redox Da   |  | ` '  |                                       |                                       | ators of hydroph  |  |                       |
|  | ucky Mineral (S1)  |                    | X Depleted   |  | ` '  | )                                     |                                       | etland hydrology  | •  |                       |
|  | cky Peat or Peat (S  | -                  | Redox De   | pression   | s (F8)   | 1                                     | ur                                    | less disturbed  | or problematic.  |                       |
| estrictive l   | _ayer (if observed)  | :                  |  |  |  |                                       |                                       |   |  |                       |
|  |  |                    |  |  |  |                                       |                                       |   |  |                       |
| Type:  |  |                    |  |  |  |                                       |                                       |   |  |                       |
| Depth (in<br>lemarks:<br>his data for  | m is revised from M  |                    | gional Supplement \ FSE_DOCUMENTS  |  |  |                                       |                                       |   | Yes X  | <b>No</b> 0, 2015     |
| Depth (in<br>temarks:<br>his data for<br>rrata. (http:/  | m is revised from M<br>//www.nrcs.usda.go  |                    |  |  |  |                                       | NRCS Field Indica                     |   |  | _                     |
| Depth (in Depth  | m is revised from M<br>//www.nrcs.usda.go  | v/Internet/        |  |  |  |                                       | NRCS Field Indica                     |   |  | _                     |
| Depth (in Depth  | m is revised from M<br>//www.nrcs.usda.go  | v/Internet/        | FSE_DOCUMENTS  | 6/nrcs142  |  |                                       | NRCS Field Indica                     | tors of Hydric S  | oils, Version 7.   | 0, 2015               |
| Depth (in Depth  | m is revised from M<br>//www.nrcs.usda.go<br>GY<br>drology Indicators<br>ators (minimum of   | v/Internet/        | FSE_DOCUMENTS  | S/nrcs142  | 2p2_051;   | 293.docx                              | NRCS Field Indica )  Secon            | tors of Hydric S  | oils, Version 7.   | 0, 2015               |
| Depth (in lemarks: his data for rrata. (http://www.yprolo.com/etland Hydrimary Indic   | m is revised from M //www.nrcs.usda.go  GY drology Indicators eators (minimum of water (A1)  | v/Internet/        | FSE_DOCUMENTS  uired; check all that  X Water-Sta  | apply)<br>ined Lea   | ves (B9)   | 293.docx                              | NRCS Field Indica )  Secon            | tors of Hydric S  dary Indicators  urface Soil Crac   | (minimum of to   | 0, 2015               |
| Depth (in Depth  | m is revised from M //www.nrcs.usda.go  GY  drology Indicators eators (minimum of water (A1) ter Table (A2)  | v/Internet/        | uired; check all that  X Water-Sta   | apply)<br>ined Lea   | ves (B9)   | 293.docx                              | NRCS Field Indica )  Secon X D        | tors of Hydric S<br>dary Indicators<br>urface Soil Crac<br>rainage Patterns   | (minimum of to ks (B6) s (B10)   | 0, 2015               |
| Depth (in Depth  | GY  drology Indicators eators (minimum of Mater (A1) ter Table (A2) n (A3)   | v/Internet/        | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  | apply) ined Lea auna (B1 atic Plant  | ves (B9)<br>3)<br>s (B14)  | 293.docx                              | NRCS Field Indica )  Secon  X Di      | dary Indicators urface Soil Crac rainage Patterns   | (minimum of to ks (B10) or Table (C2)  | 0, 2015               |
| Depth (in Depth  | GY drology Indicators eators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1)  | v/Internet/        | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  | apply) ined Lea auna (B1 tic Plant Sulfide (   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1  | 293.docx                              | NRCS Field Indica )  Secon X Di Di Ci | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate  | (minimum of to<br>ks (B6)<br>s (B10)<br>or Table (C2)<br>(C8)                                      | 0, 2015               |
| Depth (in lemarks: his data for rrata. (http://www.yprata.)  YDROLO  Yetland Hydrimary Indict X Surface Note that the work of the wore of the work of  | GY drology Indicators eators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)  | v/Internet/        | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F  | apply)<br>ined Lea<br>auna (B1<br>sulfide (<br>Rhizosph  | ves (B9) 3) s (B14) Odor (C1 eres on   | 293.docx                              | Secon                                 | dary Indicators urface Soil Crace rainage Patternery-Season Water rayfish Burrows aturation Visible                               | (minimum of to<br>ks (B6)<br>s (B10)<br>or Table (C2)<br>(C8)<br>on Aerial Imag                    | 0, 2015  wo require   |
| Depth (in lemarks: his data for rrata. (http://www.rrata. (http://www. | GY  drology Indicators eators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)  | v/Internet/        | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa   | apply) ined Lea auna (B1 stic Plant Sulfide ( Rhizosph of Reduc  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on   | 293.docx ) Living Ro                  | Secon                                 | dary Indicators urface Soil Crace rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress               | (minimum of to<br>ks (B6)<br>s (B10)<br>er Table (C2)<br>(C8)<br>on Aerial Imaged Plants (D1)      | 0, 2015  wo requir    |
| Depth (in Depth  | m is revised from M //www.nrcs.usda.go  GY  drology Indicators eators (minimum of a //water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)  | v/Internet/        | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro   | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc  | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron of   | 293.docx ) Living Ro                  | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of to<br>ks (B6)<br>s (B10)<br>or Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015  wo requir    |
| Primary Indic X Surface V X High Wa' X Saturatio X Water Ma Sedimen Drift Dep Algal Ma Iron Dep  | GY  drology Indicators eators (minimum of Mater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)   | v/Internet/        | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck                                | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc  | exp2_051:<br>vves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>ced Iron<br>tion in Ti         | 293.docx ) Living Ro                  | Secon                                 | dary Indicators urface Soil Crace rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress               | (minimum of to<br>ks (B6)<br>s (B10)<br>or Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015  wo require   |
| Depth (in emarks: his data for rrata. (http://  YDROLO  Yetland Hyd rimary Indic  X Surface N X High Wa' X Saturatio X Water M Sedimen Drift Dep Algal Ma Iron Dept X Inundation   | GY drology Indicators eators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial   | v/Internet/        | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck  | apply) ined Lea auna (B1 stic Plant Sulfide ( Rhizosph of Reduce on Reduce s Surface Well Dat                            | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ed Iron ed Iron ed (C7) a (D9)                   | )<br>Living Ro<br>(C4)<br>illed Soils | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of to<br>ks (B6)<br>s (B10)<br>or Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015  wo requir    |
| Depth (in Depth  | GY  drology Indicators eators (minimum of  | v/Internet/        | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck  | apply) ined Lea auna (B1 stic Plant Sulfide ( Rhizosph of Reduce on Reduce s Surface Well Dat                            | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ed Iron ed Iron ed (C7) a (D9)                   | )<br>Living Ro<br>(C4)<br>illed Soils | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of to<br>ks (B6)<br>s (B10)<br>or Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015  wo requir    |
| Primary Indic X Surface V X High Wa' X Saturatio X Sedimen Drift Dep Algal Ma Iron Dep X Inundatic Sparsely Sedimen Sparsely   | m is revised from M //www.nrcs.usda.go  GY  drology Indicators eators (minimum of Mater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations:  | v/Internet/        | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  37)  Gauge or  (B8)  Other (Ex | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc on Reduc surface Well Dat                                | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cition in Ti c (C7) a (D9) Remarks)                | )<br>Living Ro<br>(C4)<br>illed Soils | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of to<br>ks (B6)<br>s (B10)<br>or Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015  wo requir    |
| Depth (in Remarks: This data for Errata. (http://www.primary Indicated Sedimen Drift Depth Algal Malron Depth Inundation Sparsely Surface Water Water Malgal Malron Depth Algal Malron Depth Algal Malron Depth Inundation Sparsely Surface Water Water Malgal Malron Depth Algal Malro | m is revised from M //www.nrcs.usda.go  GY  drology Indicators eators (minimum of Mater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav //ations:   | magery (Ee Surface | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Exp           | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduct on Reduct surface Well Dat blain in R                   | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron in Ti c (C7) a (D9) Remarks)                       | ) Living Ro (C4) iilled Soils         | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of to<br>ks (B6)<br>s (B10)<br>or Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015  wo require   |
| Prinary Indic X Surface V X High Wa' X Saturatio X Sedimen Drift Dep Algal Ma Iron Dep X Inundatic Sparsely Field Observious   | m is revised from M //www.nrcs.usda.go  GY  drology Indicators eators (minimum of Mater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Y  | magery (Ee Surface | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 37) Gauge or (B8) No No                 | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduce on Reduce s Surface Well Dat blain in R                  | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cet (C7) a (D9) Remarks) nches):nches): | )<br>Living Ro<br>(C4)<br>illed Soils | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of the ks (B6) s (B10) or Table (C2) (C8) on Aerial Imaged Plants (D1) tion (D2) (D5)     | 0, 2015 wo requir     |
| Depth (in Remarks: This data for Errata. (http://www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.com/www.communication.com/www.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.com/w | m is revised from M //www.nrcs.usda.go  GY  drology Indicators sators (minimum of water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Y Present? Y  | magery (Ee Surface | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Exp           | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduct on Reduct surface Well Dat blain in R                   | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cet (C7) a (D9) Remarks) nches):nches): | ) Living Ro (C4) illed Soils          | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of the ks (B6) s (B10) or Table (C2) (C8) on Aerial Imaged Plants (D1) tion (D2) (D5)     | 0, 2015 wo requir     |
| Depth (in Remarks: This data for the Internation of | m is revised from M //www.nrcs.usda.go  GY  drology Indicators sators (minimum of Mater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Y resent? Y resent? Y resent? Y resent? Y resent? Y | magery (Ee Surface | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 37) Gauge or (B8) No No                 | apply) ined Lea auna (B1 stic Plant Sulfide ( Rhizosph of Reduce on Reduce Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron den (D9) Remarks) nches): _ nches): _     | ) Living Ro (C4) illed Soils          | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of the ks (B6) s (B10) or Table (C2) (C8) on Aerial Imaged Plants (D1) tion (D2) (D5)     | 0, 2015 wo requir     |
| Depth (in Remarks: This data for iterata. (http://www.communication.com/wetland Hydromary Indication.com/wetland Hydromary Indication.com/wetland Market Mar | m is revised from M //www.nrcs.usda.go  GY  drology Indicators sators (minimum of Mater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Y resent? Y resent? Y resent? Y resent? Y resent? Y | magery (Ee Surface | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Ex            | apply) ined Lea auna (B1 stic Plant Sulfide ( Rhizosph of Reduce on Reduce Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron den (D9) Remarks) nches): _ nches): _     | ) Living Ro (C4) illed Soils          | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of the ks (B6) s (B10) or Table (C2) (C8) on Aerial Imaged Plants (D1) tion (D2) (D5)     | 0, 2015<br>wo require |
| Depth (in Remarks: This data for Errata. (http://www.communication.com/wetland Hydrox Surface Water Mater Table Saturation Princludes cap.   | m is revised from M //www.nrcs.usda.go  GY  drology Indicators sators (minimum of Mater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Y resent? Y resent? Y resent? Y resent? Y resent? Y | magery (Ee Surface | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Ex            | apply) ined Lea auna (B1 stic Plant Sulfide ( Rhizosph of Reduce on Reduce Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron den (D9) Remarks) nches): _ nches): _     | ) Living Ro (C4) illed Soils          | Secon                                 | dary Indicators urface Soil Crac rainage Patterns ry-Season Wate rayfish Burrows aturation Visible unted or Stress eomorphic Posi | (minimum of the ks (B6) s (B10) or Table (C2) (C8) on Aerial Imaged Plants (D1) tion (D2) (D5)     | 0, 2015 wo requir     |

US Army Corps of Engineers

Midwest Region – Version 2.0

| Project/Site: Rusmisel and Smith Property                       |                     | City/Cou          | nty: Jersey T       | ownship/Licking Co     | ounty Sampling Da                  | ate: <u>1/19/2021</u> |
|---|---------------------|-------------------|---------------------|------------------------|------------------------------------|-----------------------|
| Applicant/Owner: NACO   |                     |                   |                     | State: C               | OH Sampling Po                     | oint: UB-1            |
| Investigator(s): Rob Milligan, Bryan Lombard                    |                     | Section, T        | Гownship, Ra        | nge: T2N R15W          | 1                                  | _                     |
| Landform (hillside, terrace, etc.): Plain                       |                     | !                 | Local relief (c     | concave, convex, r     | none): Convex                      | _                     |
| Slope (%): Lat: 40.089046°                                      |                     | Long:             | 82.723189°          |                        | Datum:                             |                       |
| Soil Map Unit Name: Pewamo silty clay loam, low carb            | onate till, 0 t     | .o 2 percent s    | lopes               | NWI                    | classification:                    |                       |
| Are climatic / hydrologic conditions on the site typical fo     | r this time of      | year?             | Yes X               | No (If r               | no, explain in Remarl              | ks.)                  |
| Are Vegetation, Soil, or Hydrologys                             | ignificantly d      | listurbed? F      | Are "Normal C       | Circumstances" pre     | esent? Yes X                       | No                    |
| Are Vegetation, Soil, or Hydrologyn                             | aturally prob       | olematic? (       | If needed, ex       | plain any answers      | in Remarks.)                       |                       |
| SUMMARY OF FINDINGS - Attach site ma                            | ıp showin           | g samplin         | g point lo          | cations, trans         | ects, important                    | features, etc.        |
| Hydrophytic Vegetation Present? Yes X No                        | )                   | Is the            | e Sampled Ar        | rea                    | _                                  |                       |
|   | X                   |                   | n a Wetland?        |                        | No_X                               |                       |
|   | X                   |                   |                     | •                      |                                    |                       |
| Remarks:  |                     |                   |                     |                        |                                    |                       |
|   |                     |                   |                     |                        |                                    |                       |
|   |                     |                   |                     |                        |                                    |                       |
| VEGETATION – Use scientific names of plan                       |                     |                   |                     |                        |                                    |                       |
| Tree Stratum (Plot size: 30 feet )                              | Absolute<br>% Cover | Dominant Species? | Indicator<br>Status | Dominance Te           | est worksheet:                     |                       |
| 1. Fraxinus pennsylvanica                                       | 30                  | Yes               | FACW                |                        | ninant Species That                |                       |
| 2. Carpinus caroliniana   | 20                  | Yes               | FAC                 | Are OBL, FACV          | •                                  | 4 (A)                 |
| 3. Ulmus americana  | 20                  | Yes               | FACW                | Total Number o         | of Dominant Species                |                       |
| 4. Carya ovata  | 30                  | Yes               | FACU                | Across All Strat       | ta:                                | 6 (B)                 |
| 5   |                     |                   |                     |                        | ninant Species That                | (A/D)                 |
| (Dist size: 15 feet )   | 100 =               | =Total Cover      |                     | Are OBL, FACV          | N, or FAC:                         | 66.7% (A/B)           |
| Sapling/Shrub Stratum (Plot size: 15 feet )  1. Lindera benzoin | 10                  | Yes               | FACW                | Provalence Inc         | dex worksheet:                     |                       |
| 2. Rosa multiflora  | 15                  | Yes               | FACU                | Total % Co             |                                    | ultiply by:           |
| 3.  |                     |                   |                     | OBL species            | 0 x 1 =                            | 0                     |
| 4.  |                     |                   |                     | FACW species           |                                    | 120                   |
| 5.  |                     |                   |                     | FAC species            | 20 x 3 =                           | 60                    |
|   | 25 =                | Total Cover       |                     | FACU species           | 45 x 4 =                           | 180                   |
| Herb Stratum (Plot size: 5 feet )                               |                     |                   |                     | UPL species            | 0 x 5 =                            | 0                     |
| 1.  |                     |                   |                     | Column Totals:         | `` ′                               | 360 (B)               |
| 2.  |                     |                   |                     | Prevalence i           | ndex = B/A =                       | 2.88                  |
| 3   |                     |                   |                     | Hydronhytic V          | egetation Indicators               |                       |
| 5.  |                     |                   |                     |                        | est for Hydrophytic V              |                       |
| 6.  |                     |                   |                     |                        | ince Test is >50%                  | egotation             |
| 7.  |                     |                   |                     |                        | nce Index is ≤3.0 <sup>1</sup>     |                       |
| 8.  |                     |                   |                     | 4 - Morphol            | logical Adaptations <sup>1</sup> ( |                       |
| 9.  |                     |                   |                     | data in R              | Remarks or on a sepa               | arate sheet)          |
| 10  |                     |                   |                     | Problemation           | c Hydrophytic Vegeta               | ation¹ (Explain)      |
|   | =                   | =Total Cover      |                     |                        | ydric soil and wetland             |                       |
| Woody Vine Stratum (Plot size: 15 feet )                        |                     |                   |                     | be present, unle       | ess disturbed or prob              | lematic.              |
| 1.  |                     |                   |                     | Hydrophytic            |                                    |                       |
| 2   |                     | Total Cover       |                     | Vegetation<br>Present? | Yes X No                           |                       |
|   |                     | · Tutai Guvei     |                     | FIESCIII.              |                                    | <del></del>           |
| Remarks: (Include photo numbers here or on a separa             | ate sheet.)         |                   |                     |                        |                                    |                       |
|   |                     |                   |                     |                        |                                    |                       |

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: UB-1

| Profile Desc<br>Depth | cription: (Describe Matrix | to the depti   |                      | <b>ument tl</b><br>x Featur |                   | ator or c        | onfirm the absenc     | e of indicator   | S.)             |              |
|-----------------------|----------------------------|----------------|----------------------|-----------------------------|-------------------|------------------|-----------------------|------------------|-----------------|--------------|
| (inches)              | Color (moist)              | %              | Color (moist)        | % «                         | Type <sup>1</sup> | Loc <sup>2</sup> | Texture               |                  | Remarks         |              |
|                       |                            |                | Joior (moist)        | 70                          | . , , , ,         |                  | TOMULE                | _                | Remains         |              |
| 0-12                  | 10YR 2/2                   | 100            |                      |                             |                   |                  |                       | _                |                 |              |
|                       |                            |                |                      |                             |                   |                  |                       |                  |                 |              |
|                       |                            |                |                      |                             |                   |                  |                       | _                |                 |              |
|                       |                            |                |                      |                             |                   |                  |                       |                  |                 |              |
|                       |                            |                |                      |                             |                   |                  |                       |                  |                 |              |
|                       |                            |                |                      |                             |                   |                  |                       | _                |                 |              |
|                       |                            |                |                      |                             |                   |                  |                       | <del>-</del> -   |                 |              |
| 1- 0.0                |                            |                |                      |                             |                   |                  | 21                    |                  |                 |              |
|                       | oncentration, D=Dep        | letion, Rivi=i | Reduced Matrix, I    | vi5=ivias                   | ked San           | d Grains.        |                       |                  | _ining, M=Mati  |              |
| Hydric Soil I         |                            |                | 0                    |                             | -i (O.1)          |                  |                       |                  | ematic Hydric   | Solis":      |
| Histosol              | ` '                        |                | Sandy Gle            |                             | rix (S4)          |                  |                       | ast Prairie Re   |                 |              |
|                       | ipedon (A2)                |                | Sandy Red            |                             |                   |                  |                       | _                | Masses (F12)    |              |
| Black His             |                            |                | Stripped M           |                             | 5)                |                  |                       | d Parent Mate    | ,               | •            |
|                       | n Sulfide (A4)             |                | Dark Surfa           | , ,                         |                   |                  |                       | -                | rk Surface (F2  | 2)           |
|                       | Layers (A5)                |                | Loamy Mu             |                             |                   |                  | Oti                   | her (Explain in  | Remarks)        |              |
| 2 cm Mu               |                            |                | Loamy Gle            | •                           | , ,               |                  |                       |                  |                 |              |
|                       | Below Dark Surface         | e (A11)        | Depleted N           | •                           | ,                 |                  | 3                     |                  |                 |              |
|                       | rk Surface (A12)           |                | Redox Dai            |                             | ` '               |                  |                       |                  | nytic vegetatio |              |
|                       | lucky Mineral (S1)         |                | Depleted [           |                             |                   | )                |                       |                  | y must be pre   |              |
| 5 cm Mu               | cky Peat or Peat (S3       | )              | Redox De             | pression                    | s (F8)            |                  | unl                   | less disturbed   | or problemation | <b>).</b>    |
| Restrictive L         | Layer (if observed):       |                |                      |                             |                   |                  |                       |                  |                 |              |
| Type:                 |                            |                | _                    |                             |                   |                  |                       |                  |                 |              |
| Depth (in             | nches):                    |                | <u> </u>             |                             |                   |                  | Hydric Soil Prese     | ent?             | Yes             | No X         |
| <b>,</b> ,            | //www.nrcs.usda.gov        |                | _                    |                             | • =               |                  | ,                     |                  |                 |              |
| HYDROLO               | GY                         |                |                      |                             |                   |                  |                       |                  |                 |              |
| Wetland Hyd           | drology Indicators:        |                |                      |                             |                   |                  |                       |                  |                 |              |
| _                     | cators (minimum of o       | ne is require  | ed; check all that a | apply)                      |                   |                  | Second                | dary Indicators  | (minimum of     | wo required) |
| Surface \             | Water (A1)                 | •              | Water-Sta            | ined Lea                    | ves (B9)          | )                | Su                    | rface Soil Cra   | cks (B6)        | •            |
| High Wa               | ter Table (A2)             |                | Aquatic Fa           | auna (B1                    | 3)                |                  | Dra                   | ainage Pattern   | ıs (B10)        |              |
| Saturatio             | on (A3)                    |                | True Aqua            | tic Plant                   | s (B14)           |                  | Dry                   | y-Season Wat     | er Table (C2)   |              |
| Water Ma              | arks (B1)                  |                | Hydrogen             | Sulfide (                   | Odor (C1          | )                | Cra                   | ayfish Burrows   | s (C8)          |              |
| Sedimen               | t Deposits (B2)            |                | Oxidized F           | Rhizosph                    | eres on           | Living Ro        | oots (C3) Sa          | turation Visible | e on Aerial Ima | gery (C9)    |
| Drift Dep             | osits (B3)                 |                | Presence             | of Reduc                    | ed Iron           | (C4)             | Stu                   | unted or Stress  | sed Plants (D1  | )            |
| Algal Ma              | t or Crust (B4)            |                | Recent Iro           | n Reduc                     | tion in T         | illed Soils      | Ge (C6)               | omorphic Pos     | ition (D2)      |              |
| Iron Dep              | osits (B5)                 |                | Thin Muck            | Surface                     | (C7)              |                  | FA                    | .C-Neutral Tes   | t (D5)          |              |
| Inundatio             | on Visible on Aerial Ir    | magery (B7)    | Gauge or V           | Well Dat                    | a (D9)            |                  |                       |                  |                 |              |
| Sparsely              | Vegetated Concave          | Surface (B8    | 3) Other (Exp        | olain in R                  | lemarks)          | )                |                       |                  |                 |              |
| Field Observ          | vations:                   |                |                      |                             |                   |                  |                       |                  |                 |              |
| Surface Water         | er Present? Ye             | s              | No X                 | Depth (i                    | nches):           |                  |                       |                  |                 |              |
| Water Table           | Present? Ye                | s              | No X                 | Depth (i                    | nches):           |                  |                       |                  |                 |              |
| Saturation Pr         | resent? Ye                 | s              | No X                 | Depth (i                    | nches):           |                  | Wetland Hydro         | logy Present?    | ? Yes           | No X         |
| (includes cap         | oillary fringe)            |                |                      |                             |                   |                  |                       |                  |                 |              |
| Describe Red          | corded Data (stream        | gauge, mor     | nitoring well, aeria | l photos                    | , previou         | s inspect        | tions), if available: |                  |                 |              |
|                       |                            |                |                      |                             |                   |                  |                       |                  |                 |              |
| Remarks:              |                            |                |                      |                             |                   |                  |                       |                  |                 |              |
| None Observ           | /ed                        |                |                      |                             |                   |                  |                       |                  |                 |              |
|                       |                            |                |                      |                             |                   |                  |                       |                  |                 |              |

US Army Corps of Engineers

Midwest Region – Version 2.0

| Project/Site: Rusmisel and Smith Property                    |                 | City/Cou     | nty: Jersey T    | ownship/Licking County Sampling Date: 1/19/2021  |
|--|-----------------|--------------|------------------|--|
| Applicant/Owner: NACO  |                 | <u> </u>     |                  | State: OH Sampling Point: WC-1   |
| Investigator(s): Rob Milligan, Bryan Lombard                 |                 | Section, T   | <br>Гownship, Ra | nge: T2N R15W  |
| Landform (hillside, terrace, etc.): Depression               |                 | !            | Local relief (d  | concave, convex, none): Concave  |
| Slope (%): Lat: 40.089903°                                   |                 | Long: -      | 82.723735°       | Datum:   |
| Soil Map Unit Name: Bennington silt loam, 0 to 2 perc        | ent slopes      |              |                  | NWI classification:  |
| Are climatic / hydrologic conditions on the site typical for | •               | f year?      | Yes X            | No (If no, explain in Remarks.)  |
| Are Vegetation, Soil, or Hydrology:                          |                 | -            |                  |  |
| Are Vegetation , Soil , or Hydrology                         |                 |              |                  | cplain any answers in Remarks.)  |
| <u> </u>   |                 |              |                  | cations, transects, important features, etc.   |
| Hydrophytic Vegetation Present? Yes X No                     | 0               |              | Sampled A        |  |
| <u> </u>   | <u> </u>        | withir       | n a Wetland      | ? Yes X No   |
| Wetland Hydrology Present? Yes X No                          | <u> </u>        |              |                  |  |
| Remarks:  VEGETATION – Use scientific names of pla           | <br>ints.       |              |                  |  |
| (5)  | Absolute        | Dominant     | Indicator        |  |
| Tree Stratum (Plot size: 30 feet )                           | % Cover         | Species?     | Status           | Dominance Test worksheet:  |
| Quercus palustris     Ulmus americana                        | <u>15</u><br>40 | No<br>Yes    | FACW<br>FACW     | Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)   |
| Fraxinus pennsylvanica                                       | 10              | No           | FACW             | ,  |
| 4. Acer saccharinum  | 20              | Yes          | FACW             | Total Number of Dominant Species Across All Strata: 5 (B)  |
| 5. Carya laciniosa   | 15              | No           | FACW             | Percent of Dominant Species That   |
|  |                 | =Total Cover |                  | Are OBL, FACW, or FAC: 80.0% (A/B)   |
| Sapling/Shrub Stratum (Plot size: 15 feet                    | )               |              |                  |  |
| Fraxinus pennsylvanica                                       | 10              | No           | FACW             | Prevalence Index worksheet:  |
| 2. Ulmus americana   | 5               | No           | FACW             | Total % Cover of: Multiply by:   |
| 3. Rosa multiflora   | 20              | Yes          | FACU             | OBL species0 x 1 =0  |
| 4. Cornus racemosa   | 10              | No           | FAC              | FACW species 190 x 2 = 380   |
| 5. Crataegus sp.   | 15              | Yes          | FAC              | FAC species 40 x 3 = 120   |
| (District Front )  | 60=             | =Total Cover |                  | FACU species 20 x 4 = 80   |
| Herb Stratum (Plot size: 5 feet )                            | <b>-</b>        | No           | EAC              | UPL species 0 x 5 = 0 Column Totals: 250 (A) 580 (B)   |
| Carex sp.     Cinna arundinacea                              | <u>5</u>        | No<br>Yes    | FACW             | Column Totals: 250 (A) 580 (B)  Prevalence Index = B/A = 2.32  |
| Cinna arundinacea     Teucrium canadense                     | 15              | No Yes       | FACW             | Prevalence index - D/A   |
| 4. Polygonum sp.   | 10              | No           | FAC              | Hydrophytic Vegetation Indicators:   |
|  |                 |              | 1710             | 1 - Rapid Test for Hydrophytic Vegetation  |
| 5.<br>6.   |                 |              |                  | X 2 - Dominance Test is >50%   |
| 7.   |                 |              |                  | X 3 - Prevalence Index is ≤3.0 <sup>1</sup>  |
| 8.   |                 |              |                  | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting   |
| 9.   |                 |              |                  | data in Remarks or on a separate sheet)  |
| 10   |                 |              |                  | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| Woody Vine Stratum (Plot size: 15 feet                       | 90 =            | =Total Cover |                  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 1.   |                 |              |                  | Hydrophytic  |
| 2.   |                 |              |                  | Vegetation   |
|  |                 | =Total Cover |                  | Present? Yes X No  |
| Remarks: (Include photo numbers here or on a separ           | rate sheet.)    |              |                  |  |
|  |                 |              |                  |  |

US Army Corps of Engineers

SOIL Sampling Point: WC-1

| Depth  | Matrix  |                            | Redo  | x Featur   | <u>es</u>  |                                       |   |  |   |                      |
|--|---|----------------------------|---|--|--|---------------------------------------|---|--|---|----------------------|
| inches)  | Color (moist)   | %                          | Color (moist)   | %  | Type <sup>1</sup>  | Loc <sup>2</sup>                      | Texture   |  | Remarks   |                      |
| 0-8  | 10YR 2/1  | 100                        |   |  |  |                                       |   |  |   |                      |
| 8-12   | 10YR 2/1  | 95                         | 10YR 5/6  | 5  | С  | M                                     |   | Promine  | nt redox conce  | entrations           |
|  |   |                            |   |  |  |                                       |   |  |   |                      |
|  |   |                            |   |  |  |                                       |   | _  |   |                      |
|  |   |                            |   |  |  |                                       |   |  |   |                      |
|  |   |                            |   |  |  |                                       |   | _  |   |                      |
|  |   |                            |   |  |  |                                       |   | _  |   |                      |
|  |   |                            |   |  |  |                                       |   |  |   |                      |
| Type: C=Co   | oncentration, D=De  | pletion, RM                | /I=Reduced Matrix, I  | MS=Mas   | ked San  | d Grains.                             | <sup>2</sup> Locatio                            | n: PL=Pore L   | ining, M=Matri  | Х.                   |
| lydric Soil I  | Indicators:   |                            |   |  |  |                                       | Indicat   | ors for Proble   | matic Hydric  | Soils <sup>3</sup> : |
| Histosol   | (A1)  |                            | Sandy Gle   | yed Mat  | rix (S4)   |                                       | Coa   | ast Prairie Red  | ox (A16)  |                      |
| Histic Ep  | ipedon (A2)   |                            | Sandy Re  | dox (S5)   |  |                                       | Iror  | n-Manganese I  | Masses (F12)  |                      |
| Black His  | stic (A3)   |                            | Stripped N  | /latrix (Se  | 3)   |                                       | Rec   | d Parent Mater   | ial (F21)   |                      |
| Hydroger   | n Sulfide (A4)  |                            | Dark Surfa  | ace (S7)   |  |                                       | Ver   | y Shallow Dar  | k Surface (F22  | 2)                   |
| Stratified   | Layers (A5)   |                            | Loamy Mu  | icky Mine  | eral (F1)  |                                       | Oth   | er (Explain in   | Remarks)  |                      |
| 2 cm Mu  | ck (A10)  |                            | Loamy Gl  | eyed Ma  | trix (F2)  |                                       |   |  |   |                      |
| Depleted   | Below Dark Surfa  | ce (A11)                   | Depleted I  | Matrix (F  | 3)   |                                       |   |  |   |                      |
| Thick Da   | rk Surface (A12)  |                            | Redox Da  | rk Surfac  | e (F6)   |                                       | <sup>3</sup> Indicat                            | ors of hydroph   | ytic vegetation   | and                  |
| Sandy M  | ucky Mineral (S1)   |                            | X Depleted I  | Dark Sur   | face (F7   | )                                     | wet   | land hydrology   | / must be pres  | ent,                 |
| 5 cm Mu  | cky Peat or Peat (  | S3)                        | Redox De  | pression   | s (F8)   |                                       | unl   | ess disturbed o  | or problematic.   |                      |
| Restrictive L  | _ayer (if observed  | ):                         |   |  |  |                                       |   |  |   |                      |
|  |   |                            |   |  |  |                                       |   |  |   |                      |
| Type:  |   |                            |   |  |  |                                       |   |  |   |                      |
| Depth (in<br>Remarks:<br>This data for   | m is revised from N   |                            | gional Supplement \ FSE_DOCUMENTS   |  |  |                                       | Hydric Soil Prese NRCS Field Indicate )         |  | Yes X   | <b>No</b> 0, 2015    |
| Depth (in<br>Remarks:<br>This data fori<br>Errata. (http:/   | m is revised from N<br>//www.nrcs.usda.g  |                            |   |  |  |                                       | NRCS Field Indicate                             |  |   |                      |
| Depth (in<br>Remarks:<br>This data fori<br>Errata. (http:/   | m is revised from N<br>//www.nrcs.usda.g  |                            |   |  |  |                                       | NRCS Field Indicate                             |  |   |                      |
| Depth (in<br>Remarks:<br>This data for<br>Errata. (http:/  | m is revised from N<br>//www.nrcs.usda.g  | ov/Internet/               |   |  |  |                                       | NRCS Field Indicate                             |  |   |                      |
| Depth (in Remarks: This data for Errata. (http://www.communications)  YDROLO Wetland Hydeligan (in the properties)   | m is revised from M<br>//www.nrcs.usda.g<br>GY<br>drology Indicators  | ov/Internet/               | FSE_DOCUMENTS   | S/nrcs142  | 2p2_051;   | 293.docx                              | NRCS Field Indicato ) Second                    | ors of Hydric So   | oils, Version 7.  | 0, 2015              |
| Depth (in Remarks: This data for Frrata. (http://www.communication)  YDROLO  Vetland Hyder  X Surface (in Surface)   | m is revised from M//www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1)  | ov/Internet/               | FSE_DOCUMENTS  uired; check all that  X Water-Sta   | apply) ined Lea  | ves (B9)   | 293.docx                              | NRCS Field Indicato )  Second                   | ors of Hydric So<br>ary Indicators<br>face Soil Crac   | minimum of to   | 0, 2015              |
| Depth (in Remarks: This data for Errata. (http://www.communications.com/www.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www. | m is revised from M//www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2)   | ov/Internet/               | uired; check all that  X Water-Sta  | apply)<br>ined Lea   | ves (B9)   | 293.docx                              | NRCS Field Indicator )  Second Sur X Dra        | ary Indicators face Soil Crac  | (minimum of to  | 0, 2015              |
| Depth (in Remarks: This data for Errata. (http://www.communications.com/www.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www. | m is revised from M//www.nrcs.usda.g  GY  drology Indicators eators (minimum of Water (A1) ter Table (A2) in (A3)   | ov/Internet/               | uired; check all that  X Water-Sta  Aquatic Fa  | apply)<br>ined Lea<br>auna (B1   | ves (B9)<br>3)<br>s (B14)  | 293.docx                              | NRCS Field Indicato )  Second Sur X Dra         | ary Indicators face Soil Crac inage Patterns   | (minimum of to ks (B10) or Table (C2)   | 0, 2015              |
| Depth (in Remarks: This data for Errata. (http://www.communications)  YDROLO  YDROLO  Yetland Hydeliand Hy | m is revised from M//www.nrcs.usda.g  GY  drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)   | ov/Internet/               | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen   | apply) ined Lea auna (B1 stic Plant Sulfide (  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1  | )                                     | NRCS Field Indicator )  Second  X Dra  Dry  Cra | ary Indicators face Soil Crac inage Patterns -Season Wate  | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)                                      | 0, 2015              |
| Depth (in Remarks: This data for Frrata. (http://www.communications.com/www.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www. | GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2)  | ov/Internet/               | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply)<br>ined Lea<br>auna (B1<br>sulfide (<br>Rhizosph  | ves (B9) 3) s (B14) Odor (C1 eres on   | )<br>Living Ro                        | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate nyfish Burrows uration Visible   | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)<br>on Aerial Imag                    | 0, 2015  wo require  |
| Depth (in Remarks: This data for Frrata. (http://www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.com/www.communication.com/www.com/ww.com/www.com/www.com/www.com/www.com/ww.com/ww.com/ | m is revised from M//www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3)  | ov/Internet/               | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa  | apply) ined Lea auna (B1 stic Plant Sulfide ( Rhizosph of Reduc  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on   | )<br>Living Rc                        | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate nyfish Burrows uration Visible nted or Stress                                | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)<br>on Aerial Imaged Plants (D1)      | 0, 2015  wo require  |
| Primary Indice X Surface VX Saturatio X Sedimen Drift Dep Algal Marks:   | m is revised from M/www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)   | ov/Internet/               | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro  | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc  | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron of   | )<br>Living Rc                        | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate ryfish Burrows uration Visible nted or Stress                                | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015  wo require  |
| Depth (in Remarks: This data for Frrata. (http://www.primary.lndictox) X Surface No. X Saturation X Surface No. X Saturation X Sedimen Drift Dep Algal Mai   | m is revised from Market (A1)  ter Table (A2)  on (A3)  arks (B1)  t Deposits (B2)  osits (B3)  t or Crust (B4)  osits (B5)   | ov/Internet/               | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc  | exp2_051:<br>vves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>ced Iron<br>tion in Ti         | )<br>Living Rc                        | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate nyfish Burrows uration Visible nted or Stress                                | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015  wo require  |
| Depth (in Remarks: This data for this data for this data for this data for this data (http://www.communical.com/communical.com | GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial   | s: one is requ             | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck  | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduce on Reduce s Surface Well Dat                       | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ed Iron ed Iron ed (C7) a (D9)                   | )<br>Living Ro<br>(C4)<br>Illed Soils | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate ryfish Burrows uration Visible nted or Stress                                | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015 wo require   |
| Pepth (in Remarks: This data for Frrata. (http://www.communications.com/www.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www.communications.com/www. | m is revised from M/www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concar                                      | s: one is requ             | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck  | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduce on Reduce s Surface Well Dat                       | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ed Iron ed Iron ed (C7) a (D9)                   | )<br>Living Ro<br>(C4)<br>Illed Soils | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate ryfish Burrows uration Visible nted or Stress                                | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015 wo require   |
| Depth (in Remarks: This data for Frrata. (http://  YDROLO  Wetland Hyde  Primary Indic  X Surface ( X High Water Max  X Sedimen  Drift Dep  Algal Max  Iron Depo  Inundatic  Sparsely  Field Observiole  | m is revised from M/www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavations:                               | ov/Internet/               | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  37)  Gauge or  (B8)  Other (Ex   | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc on Reduc surface Well Dat                          | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cition in Ti c (C7) a (D9) Remarks)                | )<br>Living Ro<br>(C4)<br>Illed Soils | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate ryfish Burrows uration Visible nted or Stress                                | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015  wo require  |
| Depth (in Remarks: This data for Frrata. (http://  Primary Indic X Surface V X High Water May Sedimen Drift Dep Algal May Iron Deput Inundation Sparsely  Field Observious Control of the  | m is revised from M/www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavations: er Present?                   | Imagery (Eve Surface       | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Exp  | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc on Reduc s Surface Well Dat blain in F             | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron in Ti c (C7) a (D9) Remarks)                       | )<br>Living Rc<br>(C4)<br>Illed Soils | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate ryfish Burrows uration Visible nted or Stress                                | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015 wo require   |
| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd  Yetland Hyd X Surface V X High Wat X Saturatio X Water Ma Sedimen Drift Dep Algal Ma Iron Depo Inundatio Sparsely  Field Observ  Surface Water Water Table  | m is revised from Market (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concar vations: er Present?   | Imagery (Eve Surface       | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  37)  Gauge or  (B8)  No  No   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduce on Reduce s Surface Well Dat blain in F  Depth (i  | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cet (C7) a (D9) Remarks) nches):nches): | )<br>Living Ro<br>(C4)<br>Illed Soils | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate nyfish Burrows uration Visible nted or Stress comorphic Posit C-Neutral Test | (minimum of tooks (B6) s (B10) on Aerial Imaged Plants (D1) (D5)                                  | 0, 2015 wo require   |
| Depth (in Remarks: This data for Frrata. (http://  Primary Indic X Surface V X High Water May Sedimen Drift Dep Algal May Iron Deput Inundation Sparsely  Field Observious Control of the  | m is revised from M/www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavations: er Present? Present?          | Imagery (Eve Surface       | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Exp  | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc on Reduc s Surface Well Dat blain in F             | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cet (C7) a (D9) Remarks) nches):nches): | ) Living Ro (C4) Illed Soils          | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate nyfish Burrows uration Visible nted or Stress comorphic Posit C-Neutral Test | (minimum of to<br>ks (B6)<br>s (B10)<br>r Table (C2)<br>(C8)<br>on Aerial Image<br>ed Plants (D1) | 0, 2015 wo require   |
| Depth (in Remarks: This data for Frrata. (http://  Property Indicated Section 1  | m is revised from M/www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavations: er Present? Present? Present? | Imagery (Eve Surface Ves X | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  37)  Gauge or  (B8)  No  No   | apply) ined Lea auna (B1 titic Plant Sulfide ( Rhizosph of Reduce on Reduce Well Dat blain in F  Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron den (D9) Remarks) nches): _ nches): _     | ) Living Ro (C4) Illed Soils          | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate nyfish Burrows uration Visible nted or Stress comorphic Posit C-Neutral Test | (minimum of tooks (B6) s (B10) on Aerial Imaged Plants (D1) (D5)                                  | 0, 2015 wo require   |
| Depth (in Remarks: This data for Frrata. (http://  PYDROLO  Wetland Hyde  Primary Indic  X Surface \ X High Wat  X Saturatio  X Sedimen  Drift Dep  Algal Mai  Iron Depe  Inundation  Sparsely  Field Observ  Surface Water Table  Saturation Princludes cap   | m is revised from M/www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavations: er Present? Present? Present? | Imagery (Eve Surface Ves X | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck | apply) ined Lea auna (B1 titic Plant Sulfide ( Rhizosph of Reduce on Reduce Well Dat blain in F  Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron den (D9) Remarks) nches): _ nches): _     | ) Living Ro (C4) Illed Soils          | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate nyfish Burrows uration Visible nted or Stress comorphic Posit C-Neutral Test | (minimum of tooks (B6) s (B10) on Aerial Imaged Plants (D1) (D5)                                  | 0, 2015 wo require   |
| Depth (in Remarks: This data for this data (http://www.communicented.com/depth/dep | m is revised from M/www.nrcs.usda.g  GY  drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavations: er Present? Present? Present? | Imagery (Eve Surface Ves X | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck | apply) ined Lea auna (B1 titic Plant Sulfide ( Rhizosph of Reduce on Reduce Well Dat blain in F  Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron den (D9) Remarks) nches): _ nches): _     | ) Living Ro (C4) Illed Soils          | Second  | ary Indicators face Soil Crac inage Patterns -Season Wate nyfish Burrows uration Visible nted or Stress comorphic Posit C-Neutral Test | (minimum of tooks (B6) s (B10) on Aerial Imaged Plants (D1) (D5)                                  | 0, 2015 wo require   |

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| Project/Site: Rusmisel and Smith Property                |                    | _ City/Cour  | nty: Jersey Tov   | wnship/Licking Co          | ounty Samplir                            | ng Date: 1/19 | 9/2021      |
|--|--------------------|--------------|-------------------|----------------------------|--|---------------|-------------|
| Applicant/Owner: NACO                                    |                    |              |                   | State: C                   | OH Samplin                               | ng Point:     | UC-1        |
| Investigator(s): Rob Milligan, Bryan Lombard             |                    | _Section, Te | ownship, Ranç     | ge: T2N R15W               | <i>l</i>                                 |               |             |
| Landform (hillside, terrace, etc.): hillside             |                    | L            | .ocal relief (cor | ncave, convex, i           | none): Convex                            |               |             |
| Slope (%): Lat: 40.089909°                               |                    | Long:        |                   |                            | Datum:                                   |               |             |
| Soil Map Unit Name: Pewamo silty clay loam, low ca       | rbonate till, 0 to | 2 percent sl | opes              | NWI                        | classification:                          |               |             |
| Are climatic / hydrologic conditions on the site typical | for this time of y | ear? `       | Yes X             | No (If                     | no, explain in Re                        | marks.)       |             |
| Are Vegetation, SoilX_, or Hydrology                     | significantly dis  | turbed? A    | re "Normal Cir    | rcumstances" pr            | esent? Yes _                             | X No          | _           |
| Are Vegetation, Soil, or Hydrology                       | naturally proble   | ematic? (l   | f needed, expl    | ain any answers            | s in Remarks.)                           |               |             |
| SUMMARY OF FINDINGS – Attach site n                      | nap showing        | sampling     | g point loca      | ations, trans              | sects, import                            | ant feature   | s, etc.     |
| Hydrophytic Vegetation Present? Yes                      | No X               | Is the       | Sampled Area      |                            |  |               |             |
|  | No X               |              | a Wetland?        |                            | No                                       | Х             |             |
|  | No X               |              |                   | •                          |  |               |             |
| Remarks:   |                    | •            |                   |                            |  |               |             |
| Soil was recently disturbed by grading                   |                    |              |                   |                            |  |               |             |
| VEGETATION – Use scientific names of pl                  |                    |              |                   |                            |  |               |             |
| VEGETATION 000 colonial maines of p.                     |                    | Dominant     | Indicator         |                            |  |               |             |
| Tree Stratum (Plot size: 30 feet )                       | % Cover            | Species?     | Status            | Dominance Te               | est worksheet:                           |               |             |
| 1.<br>2.   |                    |              |                   |                            | minant Species T                         | hat<br>0      | <b>/</b> /\ |
| 3.   |                    |              |                   | Are OBL, FAC               | vv, or FAC.<br>of Dominant Spec          |               | (A)         |
| 4.   |                    |              |                   | Across All Strat           | •  | cies1         | (B)         |
| 5.   |                    |              |                   | Percent of Dom             | ninant Species Th                        | hat           | _ '         |
|  |                    | otal Cover   |                   | Are OBL, FAC               | •  | 0.0%          | (A/B)       |
| Sapling/Shrub Stratum (Plot size: 15 feet                | _)                 |              | <u> </u>          | Description on Inc         | -l aukahaati                             |               |             |
| 1.<br>2.   |                    |              | <del></del> [     | Total % Co                 | dex worksheet:                           | Multiply by:  |             |
| 3.   |                    |              | <del></del> [ ·   | OBL species                |  | 1 = 0         | _           |
| 4.   | ·                  |              |                   | FACW species               |  | 2 = 0         | _           |
| 5.   | ·                  |              |                   | FAC species                |  | 3 = 0         | _           |
|  | =T                 | otal Cover   |                   | FACU species               |  | 4 = 400       | _           |
| Herb Stratum (Plot size: 5 feet )   1. Festuca rubra     | 100                | Yes          | FACU              | UPL species Column Totals: |  | 5 = 0         | —<br>(B)    |
| 2  |                    |              | FACU              |                            | Index = B/A =                            | 4.00          | (B)         |
| 3.   |                    |              |                   | 110101                     |  |               | -           |
| 4.   |                    |              |                   | Hydrophytic V              | egetation Indica                         | ators:        |             |
| 5  |                    |              |                   |                            | Test for Hydrophy                        | _             |             |
| 6.   |                    |              |                   |                            | ance Test is >50%                        |               |             |
| 7.<br>8.   |                    |              | <u> </u>          |                            | ence Index is ≤3.0<br>ological Adaptatio |               | unnorting   |
|  |                    |              | <del></del>       |                            | Remarks or on a                          | •             |             |
| 10.  |                    |              |                   |                            | ic Hydrophytic Ve                        |               | •           |
|  | 100 =T             | otal Cover   |                   |                            | ydric soil and we                        | • , ,         | ,           |
| Woody Vine Stratum (Plot size: 15 feet                   | <b>-</b>           |              | L                 |                            | ess disturbed or                         |               |             |
| 1.   |                    |              |                   | Lludrophutio               |  |               |             |
| 2  |                    |              |                   | Hydrophytic                |  |               |             |
|  |                    | otal Cover   |                   | Vegetation                 | Voc                                      | No. Y         |             |
| Remarks: (Include photo numbers here or on a sep         | =T                 | otal Cover   |                   |                            | Yes                                      | No X          |             |

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SOIL Sampling Point: UC-1

| Profile Desc<br>Depth  | cription: (Describe to Matrix   | to the dep  |                        | <b>ument th</b><br>x Featur |                   | ator or c        | ontirm the absence    | of indicators                   | S.)             |               |
|------------------------|---------------------------------|-------------|------------------------|-----------------------------|-------------------|------------------|-----------------------|---------------------------------|-----------------|---------------|
| (inches)               | Color (moist)                   | %           | Color (moist)          | %                           | Type <sup>1</sup> | Loc <sup>2</sup> | Texture               |                                 | Remarks         |               |
| 0-4                    | 10YR 4/2                        | 100         | (5,00)                 |                             | 71 -              |                  | . 5,113               |                                 |                 |               |
|                        |                                 |             | 10VD 6/9               | 40                          |                   |                  | •                     |                                 |                 |               |
| 4-12                   | 10YR 5/4                        | 60          | 10YR 6/8               | 40                          | <u>D</u>          | <u>M</u>         |                       |                                 |                 |               |
|                        |                                 |             |                        |                             |                   |                  |                       |                                 |                 |               |
|                        |                                 |             |                        |                             |                   |                  |                       |                                 |                 |               |
|                        |                                 |             |                        |                             |                   |                  | -                     |                                 |                 |               |
|                        |                                 |             |                        |                             |                   |                  |                       |                                 |                 |               |
|                        |                                 |             | _                      |                             |                   |                  |                       |                                 |                 |               |
| <sup>1</sup> Type: C=C | oncentration, D=Depl            | etion, RM   | =Reduced Matrix, N     | /IS=Mas                     | ked San           | d Grains.        | <sup>2</sup> Locatio  | n: PL=Pore L                    | ining, M=Mat    | rix.          |
| Hydric Soil            |                                 |             |                        |                             |                   |                  |                       | ors for Proble                  |                 |               |
| Histosol               | (A1)                            |             | Sandy Gle              | yed Mat                     | rix (S4)          |                  | Coa                   | ast Prairie Red                 | lox (A16)       |               |
| Histic Ep              | pipedon (A2)                    |             | Sandy Red              |                             |                   |                  | Iror                  | n-Manganese                     | Masses (F12)    |               |
| Black Hi               | stic (A3)                       |             | Stripped M             | latrix (S6                  | 6)                |                  | Red                   | d Parent Mate                   | rial (F21)      |               |
| Hydroge                | n Sulfide (A4)                  |             | Dark Surfa             | ice (S7)                    |                   |                  | Ver                   | y Shallow Dar                   | k Surface (F2   | 2)            |
| Stratified             | d Layers (A5)                   |             | Loamy Mu               | cky Mine                    | eral (F1)         |                  | Oth                   | er (Explain in                  | Remarks)        |               |
| 2 cm Mu                | ıck (A10)                       |             | Loamy Gle              | yed Mat                     | rix (F2)          |                  |                       |                                 |                 |               |
| Depleted               | d Below Dark Surface            | (A11)       | Depleted N             | /latrix (F                  | 3)                |                  |                       |                                 |                 |               |
| Thick Da               | ark Surface (A12)               |             | Redox Dar              | k Surfac                    | e (F6)            |                  | <sup>3</sup> Indicat  | ors of hydroph                  | ytic vegetatio  | n and         |
| Sandy M                | lucky Mineral (S1)              |             | Depleted [             | Dark Sur                    | face (F7)         | )                | wet                   | land hydrolog                   | y must be pre   | sent,         |
| 5 cm Mu                | icky Peat or Peat (S3           | )           | Redox Dep              | oression                    | s (F8)            |                  | unle                  | ess disturbed                   | or problemation | ).            |
| Restrictive            | Layer (if observed):            |             |                        |                             |                   |                  |                       |                                 |                 |               |
| Type:                  |                                 |             |                        |                             |                   |                  |                       |                                 |                 |               |
| Depth (ir              | nches):                         |             |                        |                             |                   |                  | Hydric Soil Prese     | nt?                             | Yes             | No X          |
|                        |                                 |             |                        |                             |                   |                  |                       |                                 |                 |               |
| HYDROLC                | OGY                             |             |                        |                             |                   |                  |                       |                                 |                 |               |
| Wetland Hy             | drology Indicators:             |             |                        |                             |                   |                  |                       |                                 |                 |               |
| Primary Indi           | cators (minimum of o            | ne is requi | red; check all that a  | apply)                      |                   |                  | Second                | ary Indicators                  | (minimum of     | two required) |
| Surface                | Water (A1)                      |             | Water-Stai             | ned Lea                     | ves (B9)          |                  | Sur                   | face Soil Crac                  | ks (B6)         |               |
|                        | iter Table (A2)                 |             | Aquatic Fa             |                             |                   |                  |                       | inage Pattern                   | ` '             |               |
| Saturation             | ` '                             |             | True Aqua              |                             | ,                 | _                |                       | -Season Wate                    | , ,             |               |
|                        | larks (B1)                      |             | Hydrogen               |                             |                   |                  |                       | yfish Burrows                   |                 | (00)          |
|                        | nt Deposits (B2)                |             | Oxidized F             |                             |                   | _                | · · · · —             | uration Visible                 |                 |               |
|                        | oosits (B3)                     |             | Presence of Recent Iro |                             |                   | , ,              |                       | nted or Stress<br>omorphic Posi | -               | )             |
|                        | at or Crust (B4)<br>posits (B5) |             | Thin Muck              |                             |                   | ileu Soils       | ` ' —                 | C-Neutral Test                  | ` '             |               |
|                        | on Visible on Aerial Ir         | magery (B7  |                        |                             |                   |                  |                       | J-Nedual 163                    | . (D0)          |               |
|                        | / Vegetated Concave             | 0 , (       | , <u>—</u>             |                             | ` '               |                  |                       |                                 |                 |               |
| Field Obser            |                                 |             |                        |                             |                   |                  |                       |                                 |                 |               |
| Surface Wat            |                                 | s           | No X                   | Depth (i                    | nches):           |                  |                       |                                 |                 |               |
| Water Table            |                                 |             |                        |                             | nches):           |                  |                       |                                 |                 |               |
| Saturation P           |                                 |             |                        | Depth (i                    | _                 |                  | Wetland Hydrol        | ogy Present?                    | Yes             | No X          |
| (includes cap          | pillary fringe)                 |             |                        | , ,                         | · <b>-</b>        |                  | _                     |                                 |                 |               |
| Describe Re            | corded Data (stream             | gauge, mo   | onitoring well, aeria  | l photos                    | previou           | s inspect        | tions), if available: |                                 |                 |               |
|                        |                                 |             |                        |                             |                   |                  |                       |                                 |                 |               |
| Remarks:               |                                 |             |                        |                             |                   |                  |                       |                                 |                 |               |
| None Obser             |                                 |             |                        |                             |                   |                  |                       |                                 |                 |               |
| None Obser             | ved                             |             |                        |                             |                   |                  |                       |                                 |                 |               |

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### **APPENDIX C:**

**ORAM Data Forms** 

# **Background Information**

| Name:<br>Bryan Lombard   |                            |
|--|----------------------------|
| Date: 1/19/2021  |                            |
| Affiliation: EMH&T   |                            |
| Address:   |                            |
| 5500 New Albany Rd, Columbus, OH 43054   |                            |
| Phone Number: 614-775-4517   |                            |
| e-mail address:<br>blombard@emht.com   |                            |
| Name of Wetland: Wetland A   |                            |
| Vegetation Communit(ies):  |                            |
| Forested, Shrub  |                            |
| HGM Class(es): Depressional  |                            |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.  |                            |
| See Exhibit 1  |                            |
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|  |                            |
| Lat/Long or UTM Coordinate   |                            |
| Late Lang of a fine additional and a fine and a fine a fin | 40.088450/-82.723849       |
| USGS Quad Name   | Jersey                     |
| County   | Licking                    |
| Township   | Jersey                     |
| Section and Subsection   | T2N R15W                   |
| Hydrologic Unit Code   | 050400060402               |
| Site Visit   | 1/20/2021                  |
| National Wetland Inventory Map   | PFO1C                      |
| Ohio Wetland Inventory Map   | . 1 5 1 5                  |
| Soil Survey  | PFO1C                      |
|  | PFO1C                      |
| Delineation report/map   | PFO1C Exhibit 3a Exhibit 5 |

| Name of Wetland: Wetland A   |           |      |
|--|-----------|------|
| Wetland Size (acres, hectares):  |           | 0.55 |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zone | es, etc.  |      |
| See Exhibit 6  |           |      |
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| Comments, Narrative Discussion, Justification of Category Changes:                   |           |      |
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|  |           |      |
| Final score: 49.5  | 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.  | Х     |                |
| Step 2 | Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and humaninduced 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.  | Х     |                |
| 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.  |       | Х              |
| 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.  |       | Х              |

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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.

|    | <del>-</del>   |  |
|----|--|--|
| #  | 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   | Wetland should be evaluated for possible Category 3 status |
|    | had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).  | 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 NO Wetland is a Category Go to Question 3 3 wetland.   |
|    | Desumented High Quality Watland Is the wetland on record in  | Go to Question 3   |
| 3  | <b>Documented High Quality Wetland.</b> 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     |
| 4  | Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?  | YES NO Wetland is a Category Go to Question 5              |
|    |  | 3 wetland  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 <i>Phalaris arundinacea, Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?   | Wetland is a Category 1 wetland Go to Question 6           |
| 6  | <b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> 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       |
| Z  | 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    |
| 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 NO Wetland is a Category 3 wetland. 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             | YES                                      | NO<br>Go to Question 9a  |
|----|--|--|--------------------------|
|    | deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?                           | Wetland should be evaluated for possible | Go to Question 9a        |
|    | diameters greater than 45cm (17.7m) dbm:   | Category 3 status.                       |                          |
|    |  |  |                          |
|    |  | Go to Question 9a                        |                          |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at  | YES                                      | NO                       |
|    | 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? | Co to Ougation Ob                        | Go to Question 10        |
| 9b | Does the wetland's hydrology result from measures designed to  | Go to Question 9b                        | NO                       |
| 35 | prevent erosion and the loss of aquatic plants, i.e. the wetland is  | 120                                      | 110                      |
|    | partially hydrologically restricted from Lake Erie due to lakeward or  | Wetland should be                        | Go to Question 9c        |
|    | landward dikes or other hydrological controls?   | evaluated for possible                   |                          |
|    |  | Category 3 status                        |                          |
|    |  | Go to Question 10                        |                          |
| 9с | Are Lake Erie water levels the wetland's primary hydrological influence,   | YES                                      | NO                       |
|    | 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         | Go to Question 9d                        | Go to Question 10        |
|    | include sandbar deposition wetlands, estuarine wetlands, river mouth   |  |                          |
|    | wetlands, or those dominated by submersed aquatic vegetation.  |  |                          |
| 9d | Does the wetland have a predominance of native species within its  | YES                                      | NO                       |
|    | vegetation communities, although non-native or disturbance tolerant  |  |                          |
|    | native species can also be present?  | Wetland is a Category 3 wetland          | Go to Question 9e        |
|    |  | 3 wetland                                |                          |
|    |  | Go to Question 10                        |                          |
| 9e | Does the wetland have a predominance of non-native or disturbance  | YES                                      | NO                       |
|    | tolerant native plant species within its vegetation communities?   | Wetland should be                        | Go to Question 10        |
|    |  | evaluated for possible                   | Co to Question to        |
|    |  | Category 3 status                        |                          |
|    |  |  |                          |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in  | Go to Question 10 YES                    | NO                       |
| 10 | Lucas, Fulton, Henry, or Wood Counties and can the wetland be  | 123                                      | NO                       |
|    | characterized by the following description: the wetland has a sandy  | Wetland is a Category                    | Go to Question 11        |
|    | substrate with interspersed organic matter, a water table often within   | 3 wetland.                               |                          |
|    | several inches of the surface, and often with a dominance of the   | O- t- Oti 44                             |                          |
|    | gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of          | Go to Question 11                        |                          |
|    | Natural Areas and Preserves can provide assistance in confirming this  |  |                          |
|    | type of wetland and its quality.   |  |                          |
| 11 | Relict Wet Prairies. Is the wetland a relict wet prairie community   | YES                                      | NO                       |
|    | dominated by some or all of the species in Table 1. Extensive prairies   | Motland about he                         | Complete                 |
|    | were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion                     | Wetland should be evaluated for possible | Complete<br>Quantitative |
|    | Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),  | Category 3 status                        | Rating                   |
|    | and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,  |  |                          |
|    | Montgomery, Van Wert etc.).  | 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    |
| 0                     | 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                 |                          | 3                         |
|                       | Solidago ohioensis             | 33                              |                          |                           |
|                       | Tofieldia glutinosa            |                                 |                          |                           |
|                       | Triglochin maritimum           |                                 |                          |                           |
|                       | Triglochin palustre            |                                 |                          |                           |

End of Narrative Rating. Begin Quantitative Rating on next page.

| Site: We     | tland A                | Rater(s): Bryan Lombard   | <b>Date:</b> 1/19/2021  |
|--------------|------------------------|---|---|
| 2            | 2                      | Metric 1. Wetland Area (size).  |   |
| 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)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04ha) (0 pts)   |   |
| 8            | 10                     | Metric 2. Upland buffers and surrounding land us  | e.  |
| 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)  WIDE. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (10)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (10)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (10)  Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  LOW. Old field (>10 years), shrub land, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new  HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)  | 4)<br>· (1)   |
| 14           | 24                     | Metric 3. Hydrology.  |   |
| max 30 pts.  | subtotal               | Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3d. Duration inundation 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) <ul> <li><a href="#">Check all disturbances observed</a></li> </ul> Part of wetlan Part of riparia Part of riparia Part of riparia Part of wetlan Part of we | adplain (1) am/lake and other human use (1) and/upland (e.g. forest), complex (1) an or upland corridor (1) a/saturation. Score one or dbl check manently inundated/saturated (4) andated/saturated (3) andated (2) aturated in upper 30cm (12in) (1) |
|              |                        | Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  dike road bed/RR dredging other other  |   |
| 13.5         | 37.5                   | Metric 4. Habitat Alteration and Development.   |   |
| max 20 pts.  | subtotal               | <ul> <li>4a. Substrate disturbance. Score one or double check and average.</li> <li>None or none apparent (4)</li> <li>Recovered (3)</li> <li>Recovering (2)</li> <li>Recent or no recovery (1)</li> <li>4b. Habitat development. Select only one and assign score.</li> </ul>  |   |
|              |                        | Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)   |   |
| ſ            |                        | 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Reconstruction Recovering (3) Recent or no recovery (1)  Recovering (3) Recent or no recovery (1)   | aquatic bed removal   |
| sul          | 37.5<br>btotal this pa | woody debris removal farming toxic pollutants nutrient enric  | hment   |
| last revised | 1 Februa               | ry 2001 jjm   |   |

| Site: Wetland     | Α             | Rater  | ( <b>s):</b> Bryan Lo | ombard   | Date: 1/19/2021              |
|-------------------|---------------|--|-----------------------|--|------------------------------|
| Ofte: Welland     |               | Itator   | (3). Diyan Lo         | mbara  | <b>Butc.</b> 1/10/2021       |
| 0.7               | _             |  |                       |  |                              |
| 37.               | .5            |  |                       |  |                              |
| subtotal fir      | st page       |  |                       |  |                              |
| 0 07              | _ Metri       | ic 5. Special Wetlan   | ds.                   |  |                              |
| 0  37.            | 5             |  |                       |  |                              |
| max 10 pts. subto | tal 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-u                          | inrestricted hyd      | drology (10)   |                              |
|                   |               | Lake Erie coastal/tributary wetland-r                          | estricted hydro       | logy (5)   |                              |
|                   |               | Lake Plain Sand Prairies (Oak Open                             | ings) (10)            |  |                              |
|                   |               | Relict Wet Prairies (10) Known occurrence state/federal thre   | atened or ends        | engared enecies (10)   |                              |
|                   |               | Significant migratory songbird/water                           |                       |  |                              |
|                   |               | Category 1 Wetland. See Question                               |                       |  |                              |
| 10 47             | _ Metri       | ic 6. Plant communi  | ities. int            | erspersion, microto  | ppography.                   |
| 10 47.            | .5            |  | <b>,</b>              | ,  | -                            |
| max 20 pts. subto | tal 6a. Wetla | and Vegetation Communities.                                    | Vegetation            | Community Cover Scale  |                              |
|                   | Score all     | present using 0 to 3 scale.                                    | 0                     | Absent or comprises <0.1ha (0.2                                    | , <u> </u>                   |
|                   |               | Aquatic bed<br>Emergent  | 1                     | Present and either comprises sm vegetation and is of moderate of   | •                            |
|                   | 1             | Shrub  |                       | significant part but is of low qua                                 |                              |
|                   | 1             | Forest   | 2                     | Present and either comprises sig                                   |                              |
|                   | 0             | Mudflats   |                       | vegetation and is of moderate of                                   | quality or comprises a small |
|                   | 1             | Open water   | 3                     | part and is of high quality  | t nowt or more of watlandla  |
|                   | 6b. horiz     | Otherontal (plan view) Interspersion.                          | 3                     | Present and comprises significan vegetation and is of high quality |                              |
|                   | Select on     | . , , , , , , , , , , , , , , , , , , ,                        |                       | regeration and to entire quality                                   |                              |
|                   |               | High (5)   | Narrative D           | escription of Vegetation Quality                                   |                              |
|                   |               | Moderately high(4)   | low                   | Low spp diversity and/or predom                                    |                              |
|                   | <u> </u>      | Moderate (3)<br>Moderately low (2)                             | mod                   | disturbance tolerant native speral Native spp are dominant comport |                              |
|                   |               | Low (1)  |                       | although nonnative and/or distu                                    |                              |
|                   |               | None (0)   |                       | can also be present, and specie                                    | •                            |
|                   |               | rage of invasive plants. Refer                                 |                       | moderately high, but generally                                     | w/o presence of rare         |
|                   |               | I ORAM long form for list. Add points for coverage             | high                  | threatened or endangered spp A predominance of native specie       | s with nonnative spn         |
|                   | or deduct     | Extensive >75% cover (-5)                                      | ing.                  | and/or disturbance tolerant nati                                   |                              |
|                   |               | Moderate 25-75% cover (-3)                                     |                       | absent, and high spp diversity                                     | and often, but not always,   |
|                   |               | Sparse 5-25% cover (-1)  |                       | the presence of rare, threatene                                    | d, or endangered spp         |
|                   | <u> </u>      | Nearly absent <5% cover (0) Absent (1)                         | Mudflat and           | d Open Water Class Quality   |                              |
|                   | 6d. Micro     | otopography.   | 0                     | Absent <0.1ha (0.247 acres)  |                              |
|                   | Score all     | present using 0 to 3 scale.                                    | 1                     | Low 0.1 to <1ha (0.247 to 2.47 a                                   | cres)                        |
|                   | 0             | Vegetated hummucks/tussucks                                    | 2                     | Moderate 1 to <4ha (2.47 to 9.88                                   | 3 acres)                     |
|                   | 1             | Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh | 3                     | High 4ha (9.88 acres) or more                                      |                              |
|                   | 2             | Amphibian breeding pools                                       | Microtopog            | raphy Cover Scale  |                              |
|                   | <u></u>       | 1  | 0                     | Absent   |                              |
|                   |               |  | 1                     | Present very small amounts or if                                   | more common                  |
|                   |               |  | 2                     | of marginal quality  | ut not of highest            |
|                   |               |  | 2                     | Present in moderate amounts, but quality or in small amounts of h  |                              |
|                   |               |  | 3                     | Present in moderate or greater a                                   |                              |
| 47.5              |               |  |                       | and of highest quality   |                              |
| 47.5              | Category 2    |  |                       |  |                              |

End of Quantitative Rating. Complete Categorization Worksheets.

# **ORAM Summary Worksheet**

|                        |  | circle<br>answer or<br>insert<br>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 -<br>Restricted                        | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands –<br>Unrestricted with native plants   | YES (NO)                               | If yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>Unrestricted with invasive plants | YES (O)                                | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 10. Oak Openings  | YES NO                                 | If yes, Category 3   |
|                        | Question 11. Relict Wet Prairies                                       | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
| Quantitative<br>Rating | Metric 1. Size   | 2                                      | 2  |
| Ü                      | Metric 2. Buffers and surrounding land use                             | 8                                      | 10   |
|                        | Metric 3. Hydrology  | 14                                     | 24   |
|                        | Metric 4. Habitat  | 13.5                                   | 37.5   |
|                        | Metric 5. Special Wetland Communities                                  | 0                                      | 37.5   |
|                        | Metric 6. Plant communities, interspersion, microtopography            | 10                                     | 47.5   |
|                        | TOTAL SCORE  | 47.5                                   | 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 <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> 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 overcategorized 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 <i>greater</i> than the Category 2 scoring threshold <i>(including</i> 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<br>fall with the "gray zone" for<br>Category 1 or 2 or Category<br>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 | Wetland is<br>assigned to<br>category as<br>determined<br>by the<br>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:<br>Bryan Lombard  |                      |
|---|----------------------|
| Date:   |                      |
| 1/19/2021   |                      |
| Affiliation: EMH&T  |                      |
| Address:<br>5500 New Albany Rd, Columbus, OH 43054  |                      |
| Phone Number:   |                      |
| 614-775-4517 e-mail address:  |                      |
| blombard@emht.com   |                      |
| Name of Wetland: Wetland B  |                      |
| Vegetation Communit(ies): Forested  |                      |
| HGM Class(es):  |                      |
| Depressional  |                      |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. |                      |
| See Exhibit 1   |                      |
|   |                      |
|   |                      |
|   |                      |
|   |                      |
|   |                      |
|   |                      |
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|   |                      |
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|   |                      |
|   |                      |
|   |                      |
|   |                      |
| Lat/Long or UTM Coordinate  | 40.089434/-82.722900 |
| USGS Quad Name  | Jersey               |
| County  | Licking              |
| Township  | Jersey               |
| Section and Subsection  | T2N R15W             |
| Hydrologic Unit Code  | 050400060402         |
| Site Visit  |                      |
| National Wetland Inventory Map  | 1/20/2021            |
| Ohio Wetland Inventory Map  | 1/20/2021<br>PFO1C   |
|   |                      |
| Soil Survey   | PFO1C                |
| Soil Survey  Delineation report/map   | PFO1C                |

| Name of Wetland: Wetland B   |           |      |
|--|-----------|------|
| Wetland Size (acres, hectares):  |           | 0.38 |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zone | s, etc.   |      |
| See Exhibit 6  |           |      |
|  |           |      |
|  |           |      |
|  |           |      |
|  |           |      |
|  |           |      |
|  |           |      |
|  |           |      |
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| Comments, Narrative Discussion, Justification of Category Changes:                   |           |      |
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|  |           |      |
| Final score : <sub>51</sub>  | Category: | 2    |
| J 1  | - 5 - 5 - | د    |

## **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.   | Х     |                |
| 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. | Х     |                |
| 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.   | Х     |                |
| 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.  |       | Х              |
| Step 5 | In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.   |       | Х              |
| 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.   |       | Х              |

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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.

|    | <del>-</del>   |  |
|----|--|--|
| #  | 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   | Wetland should be evaluated for possible Category 3 status |
|    | had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).  | 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?   | Wetland is a Category  3 wetland.                          |
| 3  | Documented High Quality Wetland. Is the wetland on record in   | Go to Question 3 YES NO                                    |
| J  | Natural Heritage Database as a high quality wetland?   | Wetland is a Category 3 wetland  Go to Question 4          |
| 4  | Significant Breeding or Concentration Area. Does the wetland   | YES NO   |
|    | contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?   | Wetland is a Category 3 wetland                            |
|    |  | 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    |
| 6  | <b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> 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     |
| 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    |
| 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 NO Wetland is a Category 3 wetland.  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             | YES                                      | NO Co to Ougation Oc     |
|----|--|--|--------------------------|
|    | deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?                           | Wetland should be evaluated for possible | Go to Question 9a        |
|    | diameters greater than 45cm (17.7m) dbm:   | Category 3 status.                       |                          |
|    |  |  |                          |
|    |  | Go to Question 9a                        |                          |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at  | YES                                      | NO                       |
|    | 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? | Co to Ougation Ob                        | Go to Question 10        |
| 9b | Does the wetland's hydrology result from measures designed to  | Go to Question 9b                        | NO                       |
| 35 | prevent erosion and the loss of aquatic plants, i.e. the wetland is  | 120                                      | 110                      |
|    | partially hydrologically restricted from Lake Erie due to lakeward or  | Wetland should be                        | Go to Question 9c        |
|    | landward dikes or other hydrological controls?   | evaluated for possible                   |                          |
|    |  | Category 3 status                        |                          |
|    |  | Go to Question 10                        |                          |
| 9с | Are Lake Erie water levels the wetland's primary hydrological influence,   | YES                                      | NO                       |
|    | 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         | Go to Question 9d                        | Go to Question 10        |
|    | include sandbar deposition wetlands, estuarine wetlands, river mouth   |  |                          |
|    | wetlands, or those dominated by submersed aquatic vegetation.  |  |                          |
| 9d | Does the wetland have a predominance of native species within its  | YES                                      | NO                       |
|    | vegetation communities, although non-native or disturbance tolerant  |  |                          |
|    | native species can also be present?  | Wetland is a Category 3 wetland          | Go to Question 9e        |
|    |  | 3 wetland                                |                          |
|    |  | Go to Question 10                        |                          |
| 9e | Does the wetland have a predominance of non-native or disturbance  | YES                                      | NO                       |
|    | tolerant native plant species within its vegetation communities?   | Wetland should be                        | Go to Question 10        |
|    |  | evaluated for possible                   | Co to Question to        |
|    |  | Category 3 status                        |                          |
|    |  |  |                          |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in  | Go to Question 10 YES                    | NO                       |
| 10 | Lucas, Fulton, Henry, or Wood Counties and can the wetland be  | 123                                      | NO                       |
|    | characterized by the following description: the wetland has a sandy  | Wetland is a Category                    | Go to Question 11        |
|    | substrate with interspersed organic matter, a water table often within   | 3 wetland.                               |                          |
|    | several inches of the surface, and often with a dominance of the   | O- t- Oti 44                             |                          |
|    | gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of          | Go to Question 11                        |                          |
|    | Natural Areas and Preserves can provide assistance in confirming this  |  |                          |
|    | type of wetland and its quality.   |  |                          |
| 11 | Relict Wet Prairies. Is the wetland a relict wet prairie community   | YES                                      | NO                       |
|    | dominated by some or all of the species in Table 1. Extensive prairies   | Motland about he                         | Complete                 |
|    | were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion                     | Wetland should be evaluated for possible | Complete<br>Quantitative |
|    | Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),  | Category 3 status                        | Rating                   |
|    | and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,  |  |                          |
|    | Montgomery, Van Wert etc.).  | 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    |
| 0                     | 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             | 33                              |                          |                           |
|                       | Tofieldia glutinosa            |                                 |                          |                           |
|                       | Triglochin maritimum           |                                 |                          |                           |
|                       | Triglochin palustre            |                                 |                          |                           |

End of Narrative Rating. Begin Quantitative Rating on next page.

| Site: Wetland B      |  | Rater(s): Bryan Lombard   |  | <b>Date:</b> 1/19/2021  |
|----------------------|--|---|--|---|
| 2 2                  | Metric 1. Wetland A  | rea (size).   |  |   |
| max 6 pts. subtotal  | Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.7 3 to <10 acres (1.2 to <4ha v 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts)   | )<br>20.2ha) (5 pts)<br> ha) (4 pts)<br>a) (3 pts)<br>.2ha) (2pts)<br>:0.12ha) (1 pt)   |  |   |
| 13 15                | Metric 2. Upland bu  | iffers and surroundi  | ng land use.   |   |
| max 14 pts. subtotal | MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re  | m (164ft) or more around wetland pe<br>25m to <50m (82 to <164ft) around<br>1e 10m to <25m (32ft to <82ft) around<br>1average <10m (<32ft) around wetland | rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) perst. (5) ervation tillage, new fallo | ow field. (3)   |
| 10 25                | Metric 3. Hydrology  | <b>/.</b>   |  |   |
| max 30 pts. subtotal | 3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in V <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog None or none apparent (12 Recovered (7) | ice water (3) ke or stream) (5) 3d. nly one and assign score. ) (2) ic regime. Score one or double chec   | Part of wetland/u Part of riparian or Duration inundation/sati Semi- to permane Regularly inundar Seasonally inundar Seasonally satura       | in (1) lake and other human use (1) pland (e.g. forest), complex (1) rupland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3) ated (2) ated in upper 30cm (12in) (1) |
|                      | Recovering (3) Recent or no recovery (1)   | tile dike weir stormwater input   | filling/grading road bed/RR trac dredging other  | k   |
| 15 40                | Metric 4. Habitat Al   | teration and Develo   | pment.   |   |
| max 20 pts. subtotal | 4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select onl Excellent (7) Very good (6) V Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  | _   |  |   |
|                      | 4c. Habitat alteration. Score one or  None or none apparent (9)  |   |  |   |
| subtotal this p      | Recovered (6) Recovering (3) Recent or no recovery (1)   | mowing grazing clearcutting selective cutting woody debris removal toxic pollutants   | shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme   | itic bed removal  |

| Site: Wet   | tland B                | F   | Rater(s): Bryan Lo  | ombard   | <b>Date:</b> 1/19/2021                                       |
|-------------|------------------------|---|---|--|--|
| L           | 40<br>ototal first pag | ge  |   |  |  |
| 0           | 40                     | Metric 5. Special We  | etlands.  |  |  |
| max 10 pts. |                        | Check all that apply and score as indice Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary w Lake Erie coastal/tributary w Lake Plain Sand Prairies (0a Relict Wet Prairies (10) Known occurrence state/fede Significant migratory songbir Category 1 Wetland. See Q | etland-unrestricted hydro<br>etland-restricted hydro<br>ak Openings) (10)<br>eral threatened or enda<br>d/water fowl habitat or | angered species (10) usage (10)  |  |
| 11          | 51                     | Metric 6. Plant com   | nunities, int   | erspersion, microto  | ppography.   |
| max 20 pts. | subtotal               | 6a. Wetland Vegetation Communities.   | <u>Vegetation</u>   | Community Cover Scale  |  |
|             |                        | Score all present using 0 to 3 scale.  Aquatic bed Emergent   | 0   | Absent or comprises <0.1ha (0.2<br>Present and either comprises sm<br>vegetation and is of moderate of   | all part of wetland's<br><sub>l</sub> uality, or comprises a |
|             |                        | 1 Shrub 1 Forest Mudflats   | 2   | significant part but is of low qua<br>Present and either comprises sig<br>vegetation and is of moderate of   | nificant part of wetland's                                   |
|             |                        | 1 Open water  |   | part and is of high quality  |  |
|             |                        | Other  6b. horizontal (plan view) Interspersion   | 3<br>1.   | Present and comprises significan vegetation and is of high quality   |  |
|             |                        | Select only one.  | Norrotivo D   | accription of Vagatation Quality   |  |
|             |                        | High (5) Moderately high(4)  Moderate (3)   | low   | Low spp diversity and/or predominative specific disturbance tolerant native specific disturbance disturbance tolerant native specific disturbance disturbance tolerant native specific disturbance disturbance tolerant native specific disturbance |  |
|             |                        | Moderately low (2) Low (1) None (0)   | mod   | Native spp are dominant compon<br>although nonnative and/or distu<br>can also be present, and specie   | rbance tolerant native spp                                   |
|             |                        | 6c. Coverage of invasive plants. Refe<br>to Table 1 ORAM long form for list. Ac   |   | moderately high, but generally threatened or endangered spp  | w/o presence of rare   |
|             |                        | or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)   | high  | A predominance of native specie and/or disturbance tolerant nati absent, and high spp diversity at the presence of rare, threatene   | ve spp absent or virtually and often, but not always,        |
|             |                        | Nearly absent <5% cover (0)   |   | d Onen Water Class Ovelity   |  |
|             |                        | Absent (1) 6d. Microtopography.   | wudnat and  | Absent <0.1ha (0.247 acres)  |  |
|             |                        | Score all present using 0 to 3 scale.   | 1   | Low 0.1 to <1ha (0.247 to 2.47 acres)  | res)   |
|             |                        | Vegetated hummucks/tussue   |   | Moderate 1 to <4ha (2.47 to 9.88   |  |
|             |                        | <sup>2</sup> Coarse woody debris >15cm  |   | High 4ha (9.88 acres) or more  | <u> </u>   |
|             |                        | 1 Standing dead >25cm (10in)  | ` ′   | 3 (* * * * * * * * * * * * * * * * * * *   |  |
|             |                        | 2 Amphibian breeding pools  |   | raphy Cover Scale  |  |
|             |                        |   | 0   | Absent   |  |
|             |                        |   | 1   | Present very small amounts or if of marginal quality   |  |
|             |                        |   | 2   | Present in moderate amounts, bu quality or in small amounts of h   | ighest quality   |
| E 4         | 0-1                    |   | 3   | Present in moderate or greater at and of highest quality   | mounts   |
| 51          | Cate                   | egory 2   |   |  |  |

End of Quantitative Rating. Complete Categorization Worksheets.

# **ORAM Summary Worksheet**

|                        |  | circle<br>answer or<br>insert<br>sc <u>ore</u> | 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<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9b. Lake Erie Wetlands -<br>Restricted                        | YES NO   | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands –<br>Unrestricted with native plants   | YES NO   | If yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>Unrestricted with invasive plants | YES (O)  | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 10. Oak Openings  | YES NO   | If yes, Category 3   |
|                        | Question 11. Relict Wet Prairies                                       | YES NO   | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
| Quantitative<br>Rating | Metric 1. Size   | 2  | 2  |
| Ü                      | Metric 2. Buffers and surrounding land use                             | 13   | 15   |
|                        | Metric 3. Hydrology  | 10   | 25   |
|                        | Metric 4. Habitat  | 15   | 40   |
|                        | Metric 5. Special Wetland Communities                                  | 0  | 40   |
|                        | Metric 6. Plant communities, interspersion, microtopography            | 11   | 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 <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> 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 overcategorized 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 <i>greater</i> than the Category 2 scoring threshold <i>(including</i> 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<br>fall with the "gray zone" for<br>Category 1 or 2 or Category<br>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 | Wetland is<br>assigned to<br>category as<br>determined<br>by the<br>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. |

|            | Fin        | al Category |            |
|------------|------------|-------------|------------|
| Choose one | Category 1 | Category 2  | Category 3 |
| •          |            |             |            |

**End of Ohio Rapid Assessment Method for Wetlands.** 

# **Background Information**

| Name:<br>Bryan Lombard  |                         |
|---|-------------------------|
| Date: 1/20/2021   |                         |
| Affiliation: EMH&T  |                         |
| Address: 5500 New Albany Rd, Columbus, OH 43054   |                         |
| Phone Number:   |                         |
| 614.775.4517 e-mail address:  |                         |
| BLombard@emht.com   |                         |
| Name of Wetland: Wetland C  |                         |
| Vegetation Communit(ies): Forested, Shrub   |                         |
| HGM Class(es): Depressional   |                         |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. |                         |
| See Exhibit 1   |                         |
|   |                         |
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|   |                         |
|   |                         |
|   |                         |
| Lat/Long or UTM Coordinate  | 40.089903°, -82.723735° |
| USGS Quad Name  | Jersey                  |
| County  | Licking                 |
| Township  | Jersey                  |
| Section and Subsection  | T2N R15W                |
| Hydrologic Unit Code  | 050400060402            |
| Site Visit  | 1/19/2021               |
| National Wetland Inventory Map  | N/A                     |
| Ohio Wetland Inventory Map  | N/A                     |
| Soil Survey   | Exhibit 3a              |
| Delineation report/map  | Eyhihit 5               |

| Name of Wetland: Wetland C   |           |            |
|--|-----------|------------|
| Wetland Size (acres, hectares):  |           | 0.38       |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zone | es, etc.  |            |
| See Exhibit 5  |           |            |
|  |           |            |
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| Comments, Narrative Discussion, Justification of Category Changes:                   |           |            |
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|  |           |            |
|  |           |            |
| Final score: 43.5  | 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.   | Х     |                |
| 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. | Х     |                |
| 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.   | Х     |                |
| 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.  |       | Х              |
| Step 5 | In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.   |       | Х              |
| 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.   |       | Х              |

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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<br>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<br>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<br>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 <i>Phalaris arundinacea, Lythrum salicaria,</i> or <i>Phragmites australis</i> , 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<br>Go to Question 6  |
| 6  | <b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> 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<br>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<br>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<br>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<br>Go to Question 9a |
|----|--|---|-------------------------|
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at  | YES   | NO                      |
|    | 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?   | Go to Question 9b   | 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<br>Go to Question 9c |
| 9c | Are Lake Erie water levels the wetland's primary hydrological influence,   | YES   | NO                      |
|    | 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.   | Go to Question 9d   | Go to Question 10       |
| 9d | Does the wetland have a predominance of native species within its  | YES   | NO                      |
|    | vegetation communities, although non-native or disturbance tolerant native species can also be present?  | Wetland is a Category 3 wetland  Go to Question 10                                  | Go to Question 9e       |
| 9e | Does the wetland have a predominance of non-native or disturbance  | YES   | NO                      |
|    | tolerant native plant species within its vegetation communities?   | Wetland should be evaluated for possible Category 3 status  Go to Question 10       | Go to Question 10       |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in  | YES   | NO                      |
|    | 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. | Wetland is a Category 3 wetland.  Go to Question 11                                 | 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   | YES Wetland should be   | NO                      |
|    | 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,  | evaluated for possible<br>Category 3 status   | Quantitative<br>Rating  |
|    | Montgomery, Van Wert etc.).  | 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    |
| 0                     | 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                 |                          | 3                         |
|                       | Solidago ohioensis             | 33                              |                          |                           |
|                       | Tofieldia glutinosa            |                                 |                          |                           |
|                       | Triglochin maritimum           |                                 |                          |                           |
|                       | Triglochin palustre            |                                 |                          |                           |

End of Narrative Rating. Begin Quantitative Rating on next page.

|   | Site: Ru     | smisel and     | d Smith Property  | Rater(s): Bryan Lombard  |  | Date: 1/20/2021  |
|---|--------------|----------------|---|--|--|--|
|   | 2            | 2              | Metric 1. Wetland A   | rea (size).  |  |  |
|   | max 6 pts.   | subtotal       | Select one size class and assign scot >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha  0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to < <1.01 to <0.00 acres (0.04 to < 0.10 acres (0.04 to <0.10 acres (0.04 to )               | )<br>(0.2ha) (5 pts)<br>ha) (4 pts)<br>(3 pts)<br>(2ha) (2pts)<br>(0.12ha) (1 pt)  |  |  |
|   | 8            | 10             | Metric 2. Upland bu   |  | ing land use.  |  |
| 1 | max 14 pts.  | subtotal       | <ul> <li>MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers</li> <li>2b. Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (&gt;10 years) MODERATELY HIGH. Res</li> </ul>   | m (164ft) or more around wetland p<br>25m to <50m (82 to <164ft) around<br>e 10m to <25m (32ft to <82ft) arour<br>average <10m (<32ft) around wetlar | erimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. dlife area, etc. (7) forest. (5) servation tillage, new fallo       | ow field. (3)  |
|   | 12           | 22             | Metric 3. Hydrology   | <b>'.</b>  |  |  |
|   | max 30 pts.  | subtotal       | 3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) V <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologi None or none apparent (12 PRecovered (7) Recovering (3) Recent or no recovery (1) | ce water (3) ke or stream) (5) 3d. nly one and assign score. 1 (2) ic regime. Score one or double che  | Part of wetland/u Part of riparian or Duration inundation/sate Semi- to permane Regularly inundar Seasonally inundar Seasonally satura ck and average. | ain (1)  lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) ted/saturated (3) lated (2) ated in upper 30cm (12in) (1) |
|   | 11.5         | 33.5           | Metric 4. Habitat Al  | teration and Develo  | opment.  |  |
|   | max 20 pts.  | subtotal       | 4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  | y one and assign score.  |  |  |
|   | [            | 33.5           | 4c. Habitat alteration. Score one or of the None or none apparent (9)  Recovered (6)  Recovering (3)  Recent or no recovery (1)   |  | shrub/sapling ren herbaceous/aqua sedimentation dredging farming   |  |
|   |              | btotal this pa | •   | toxic pollutants   | nutrient enrichme  | ∍nt  |
|   | last revised | 1 Februa       | ry 2001 jjm   |  |  |  |

| Site: Rus   | smisel an               | d Smith Property   | Rater(s): Bryan Lo        | mbard  | Date: 1/20/2021             |
|-------------|-------------------------|--|---------------------------|--|-----------------------------|
| sul         | 33.5<br>ototal first pa | ge   |                           |  |                             |
| 0           | 33.5                    | Metric 5. Special W  | letlands.                 |  |                             |
| max 10 pts. | subtotal                | <b>]</b><br>Check all that apply and score as inc              | licated.                  |  |                             |
|             |                         | Bog (10)   |                           |  |                             |
|             |                         | Fen (10)   |                           |  |                             |
|             |                         | Old growth forest (10)   |                           |  |                             |
|             |                         | Mature forested wetland (5                                     | *                         |  |                             |
|             |                         | Lake Erie coastal/tributary                                    |                           |  |                             |
|             |                         | Lake Erie coastal/tributary                                    |                           | logy (5)   |                             |
|             |                         | Lake Plain Sand Prairies ( Relict Wet Prairies (10)            | Oak Operlings) (10)       |  |                             |
|             |                         | Known occurrence state/fe                                      | ederal threatened or enda | angered species (10)   |                             |
|             |                         | Significant migratory songl                                    |                           |  |                             |
|             |                         | Category 1 Wetland. See  | Question 1 Qualitative R  | ating (-10)  |                             |
| 10          | 40 F                    | Metric 6. Plant com  | nmunities, int            | erspersion, microto  | pography.                   |
| 10          | 43.5                    |  |                           | ,  | , p = 9. s.py.              |
| max 20 pts. | subtotal                | 』<br>6a. Wetland Vegetation Communitie                         | es. Vegetation            | Community Cover Scale  |                             |
|             |                         | Score all present using 0 to 3 scale.                          | 0                         | Absent or comprises <0.1ha (0.24                                     | 71 acres) contiguous area   |
|             |                         | Aquatic bed  | 1                         | Present and either comprises sma                                     |                             |
|             |                         | Emergent   |                           | vegetation and is of moderate q                                      |                             |
|             |                         | 1 Shrub  | 2                         | significant part but is of low qua                                   |                             |
|             |                         | 2 Forest Mudflats  | 2                         | Present and either comprises sign vegetation and is of moderate q    |                             |
|             |                         | Open water   |                           | part and is of high quality  | uanty or comprises a small  |
|             |                         | Other  | 3                         | Present and comprises significant                                    | part, or more, of wetland's |
|             |                         | 6b. horizontal (plan view) Interspers                          | ion.                      | vegetation and is of high quality                                    |                             |
|             |                         | Select only one.   |                           | •  |                             |
|             |                         | High (5)   |                           | escription of Vegetation Quality                                     |                             |
|             |                         | Moderately high(4) Moderate (3)                                | low                       | Low spp diversity and/or predoming disturbance tolerant native spec  |                             |
|             |                         | Moderately low (2)   | mod                       | Native spp are dominant compone                                      |                             |
|             |                         | Low (1)  | mod                       | although nonnative and/or distu                                      |                             |
|             |                         | None (0)   |                           | can also be present, and specie                                      | • •                         |
|             |                         | 6c. Coverage of invasive plants. Re                            |                           | moderately high, but generally v                                     | v/o presence of rare        |
|             |                         | to Table 1 ORAM long form for list.                            |                           | threatened or endangered spp   |                             |
|             |                         | or deduct points for coverage                                  | high                      | A predominance of native species                                     | · · ·                       |
|             |                         | Extensive >75% cover (-5)  Moderate 25-75% cover (-            |                           | and/or disturbance tolerant native absent, and high spp diversity a  |                             |
|             |                         | Sparse 5-25% cover (-1)  | 0)                        | the presence of rare, threatened                                     | -                           |
|             |                         | Nearly absent <5% cover  | (0)                       | ,  | , 5 11                      |
|             |                         | Absent (1)   | Mudflat and               | l Open Water Class Quality   |                             |
|             |                         | 6d. Microtopography.   | 0                         | Absent <0.1ha (0.247 acres)  |                             |
|             |                         | Score all present using 0 to 3 scale.  Vegetated hummucks/tuss | 1                         | Low 0.1 to <1ha (0.247 to 2.47 ac                                    |                             |
|             |                         | 2 Coarse woody debris >150                                     |                           | Moderate 1 to <4ha (2.47 to 9.88<br>High 4ha (9.88 acres) or more    | acres)                      |
|             |                         | 1 Standing dead >25cm (10i                                     | · · · · —                 | Thight 4tha (3.56 acres) of thore                                    |                             |
|             |                         | Amphibian breeding pools                                       |                           | raphy Cover Scale  |                             |
|             |                         |  | 0                         | Absent   |                             |
|             |                         |  | 1                         | Present very small amounts or if r                                   | more common                 |
|             |                         |  |                           | of marginal quality  |                             |
|             |                         |  | 2                         | Present in moderate amounts, bu                                      |                             |
|             |                         |  | 3                         | quality or in small amounts of hi  Present in moderate or greater ar |                             |
|             |                         |  | ა                         | and of highest quality   | nounts                      |
| 43.5        | Мо                      | dified Category 2  |                           | and or mignost quality   |                             |
|             |                         | · .  |                           |  |                             |

End of Quantitative Rating. Complete Categorization Worksheets.

# **ORAM Summary Worksheet**

|                        |  | ans<br>ir | ircle<br>wer or<br>sert<br>cone | 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<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9b. Lake Erie Wetlands -<br>Restricted                        | YES       | NO                              | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands –<br>Unrestricted with native plants   | YES       | NO                              | If yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>Unrestricted with invasive plants | YES       | NO                              | If yes, evaluate for<br>Category 3; may also be<br>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<br>Rating | Metric 1. Size   | 2         |                                 | 2  |
|                        | Metric 2. Buffers and surrounding land use                             |           | 8                               | 10   |
|                        | Metric 3. Hydrology  |           | 12                              | 22   |
|                        | Metric 4. Habitat  | ,         | 11.5                            | 33.5   |
|                        | Metric 5. Special Wetland Communities                                  |           | 0                               | 33.5   |
|                        | Metric 6. Plant communities, interspersion, microtopography            |           | 10                              | 43.5   |
|                        | TOTAL SCORE  | 43.5      |                                 | Category based on score breakpoints Category 2             |

**Complete Wetland Categorization Worksheet.** 

# **Wetland Categorization Worksheet**

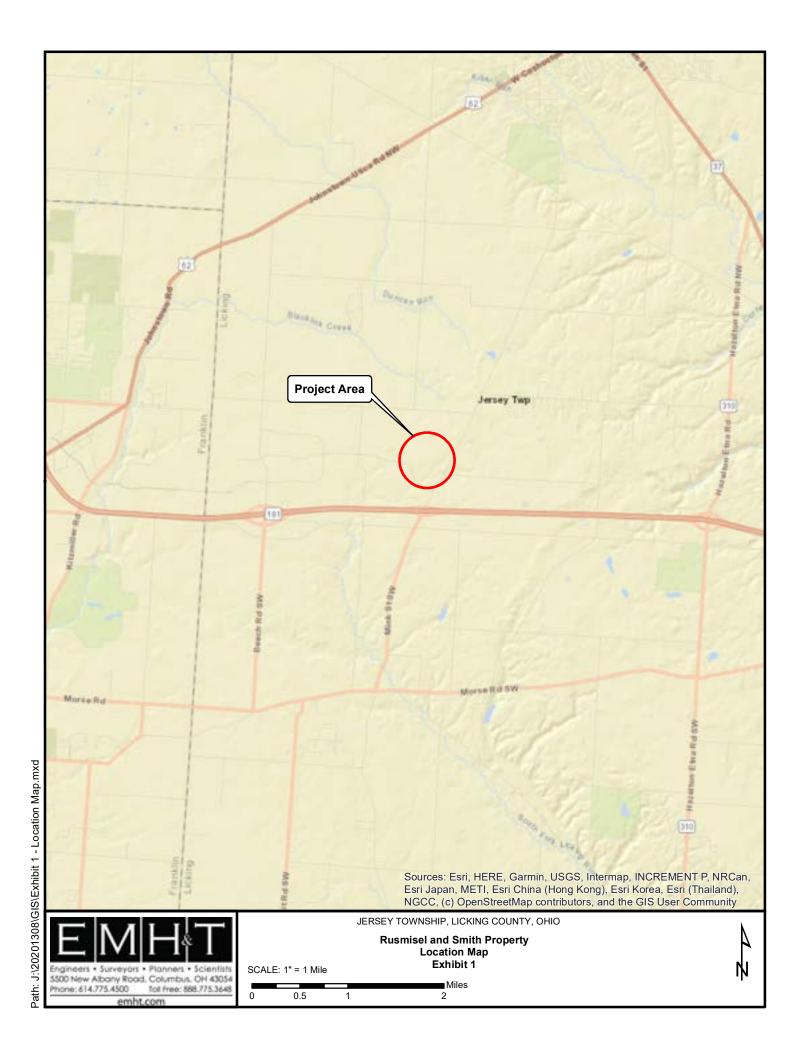
| Choices  | Circle one   |   | Evaluation of Categorization Result of ORAM   |
|--|--|---|---|
| Did you answer "Yes" to any of the following questions:  Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10   | YES Wetland is categorized as a Category 3 wetland   | NO  | Is quantitative rating score <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> 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 overcategorized by the ORAM  |
| Did you answer "Yes" to any<br>of the following questions:<br>Narrative Rating Nos. 1, 8b,<br>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  | МО  | Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold ( <i>including</i> 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 or detailed assessments and the narrative criteria  | МО  | 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 | Wetland is<br>assigned to<br>category as<br>determined<br>by the<br>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. |

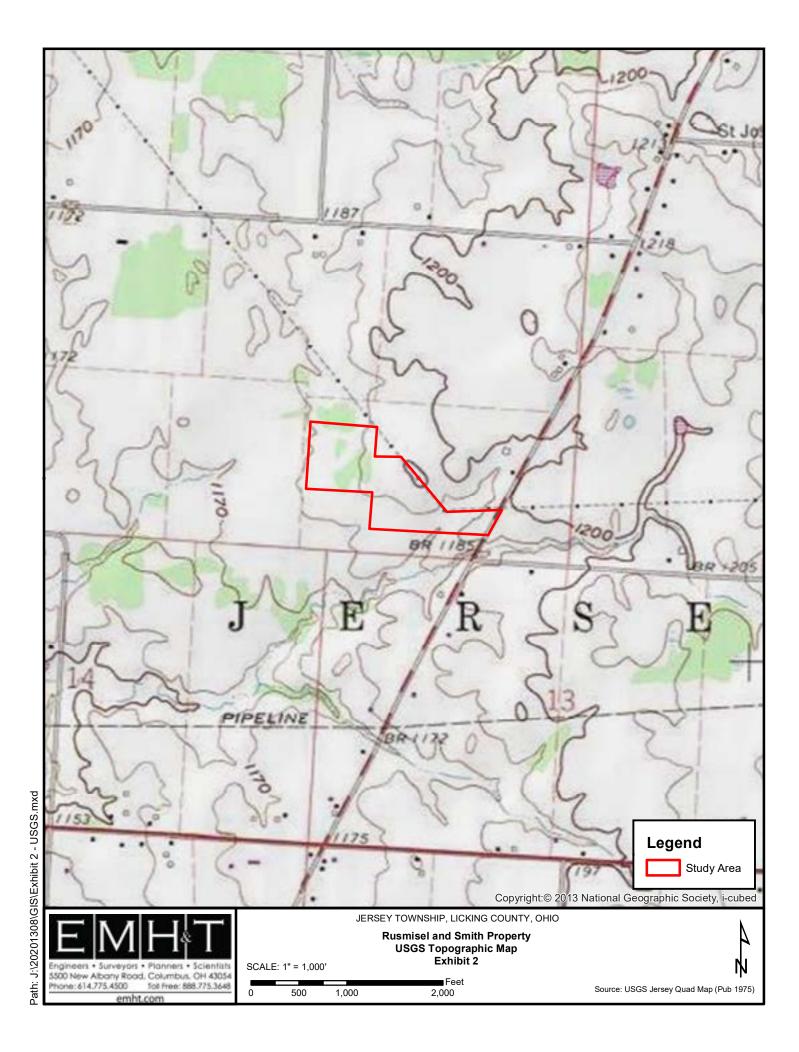
| Final Category |            |            |            |  |  |
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| Choose one     | Category 1 | Category 2 | Category 3 |  |  |
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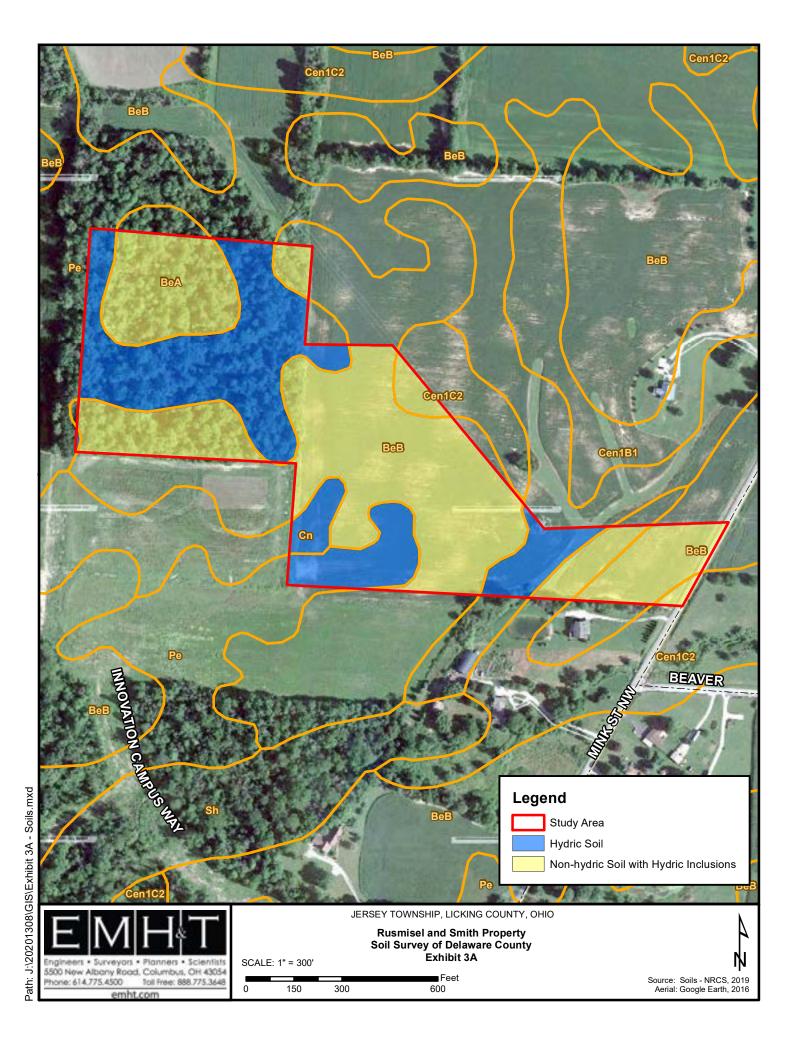
**End of Ohio Rapid Assessment Method for Wetlands.** 

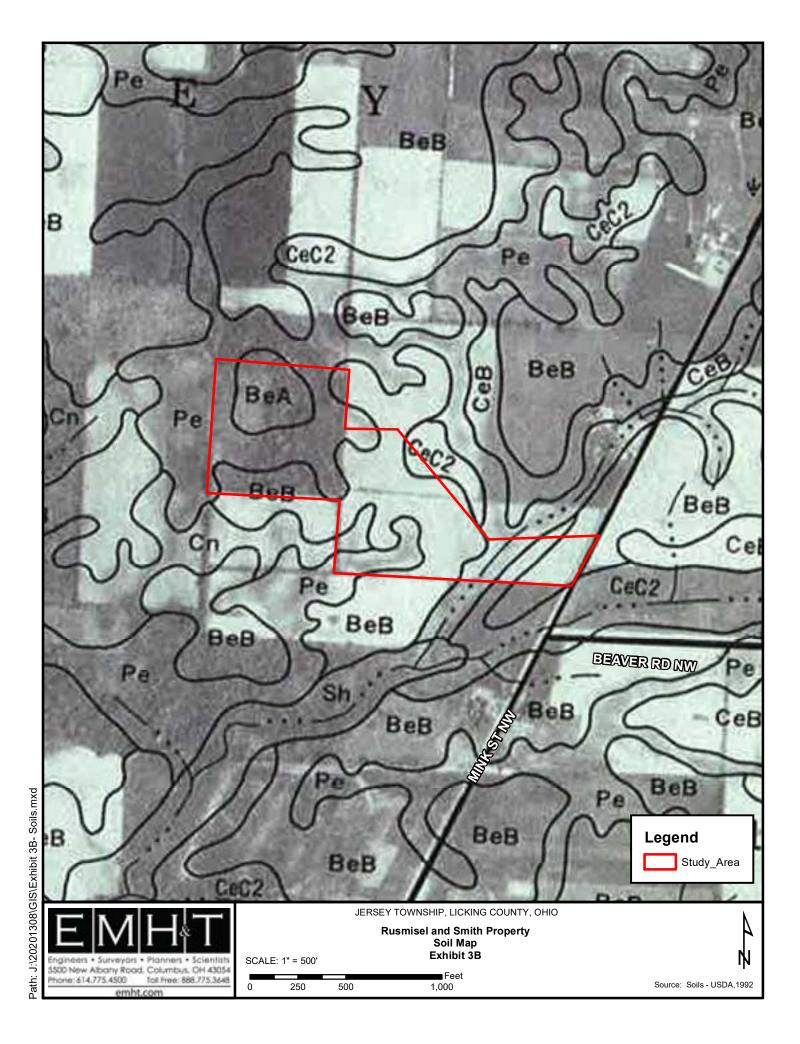


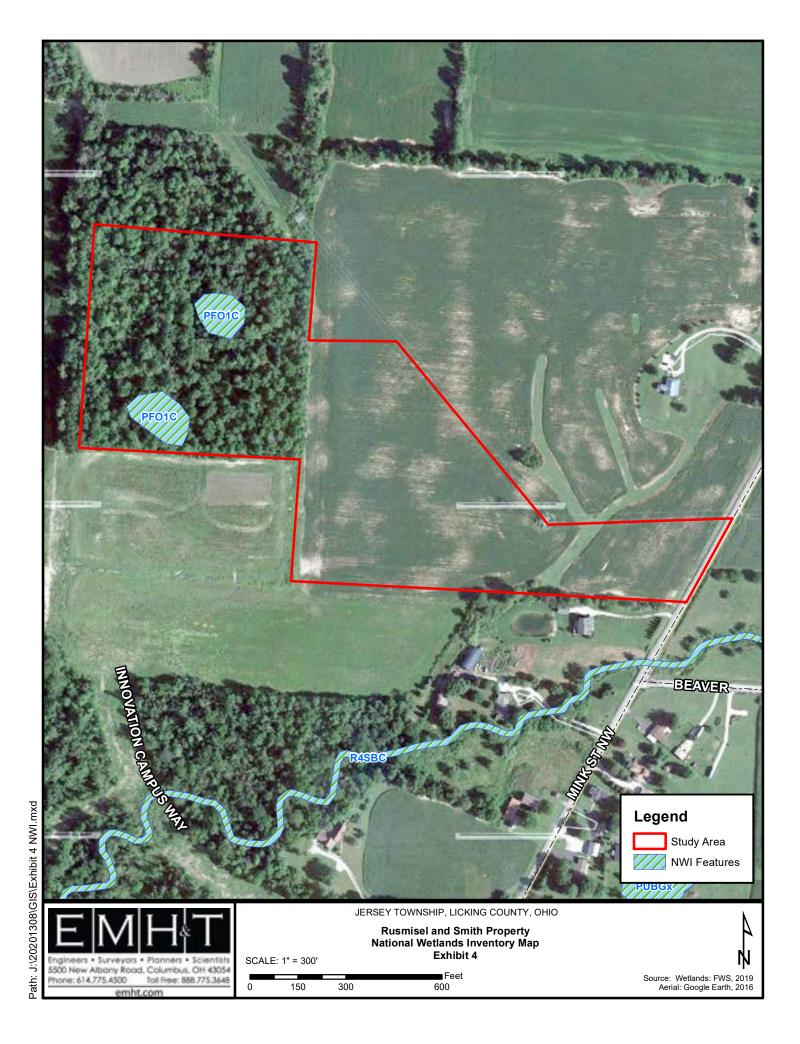
## **EXHIBITS**

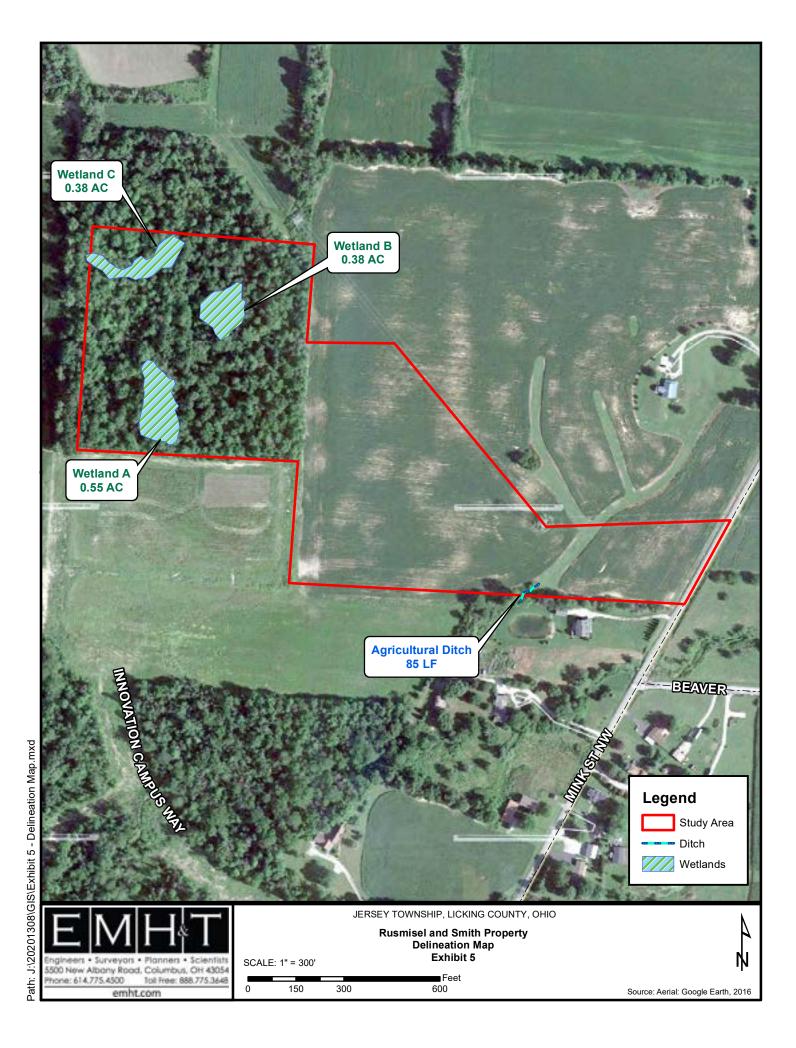














### **PHOTOGRAPHS**



Photograph No. 1

View of Wetland A facing north (EMH&T, 1/19/21)



Photograph No. 3

View of Wetland A facing east (EMH&T, 1/19/21)



Photograph No. 2

View of Wetland A facing south (EMH&T, 1/19/21)



Photograph No. 4

View of Wetland A facing south (EMH&T, 1/19/21)



Photograph No. 5

View of Wetland B facing north (EMH&T, 1/19/21)



Photograph No. 7

View of Wetland B facing east (EMH&T, 1/19/21)



Photograph No. 6

View of Wetland B facing south (EMH&T, 1/19/21)



Photograph No. 8

View of Wetland B facing west (EMH&T, 1/19/21)



Photograph No. 9

View of Wetland C facing north (EMH&T, 1/20/21)



Photograph No. 11

View of Wetland C facing east (EMH&T, 1/20/21)



Photograph No. 10

View of Wetland C facing south (EMH&T, 1/20/21)



Photograph No. 12

View of Wetland C facing west (EMH&T, 1/20/21)



Photograph No. 13

View of non-jurisdictional agricultural ditch facing east, showing drain tile (EMH&T, 1/19/21)



Photograph No. 15

View of non-jurisdictional agricultural ditch facing south at property boundary showing piled soil at banks (EMH&T, 1/19/21)



Photograph No. 14

View of non-jurisdictional agricultural ditch and concrete rubble facing south (EMH&T, 1/19/21)



Photograph No. 16

View of non-jurisdictional agricultural ditch facing north showing piled soils along banks (EMH&T, 1/19/21)





Photograph No. 17

View of non-jurisdictional grassy waterway facing south (EMH&T, 1/19/21)

## Wetlands AJD

LRH-2015-384-MUS-UT South Fork Licking River



#### DEPARTMENT OF THE ARMY

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

March 18, 2021

Regulatory Division North Branch LRH-2021-152-MUS

#### APPROVED JURISDICTIONAL DETERMINATION

Dick Roggenkamp The New Albany Company 8000 Walton Pkwy, Ste. 120 New Albany OH 43054

Dear Mr. Roggenkamp:

I refer to the report titled *Delineation of Waters of the United States Rumsmisel and Smith Property, Innovation Campus Way and Mink Street, Jersey Township, Licking County, Ohio* dated February 8, 2021 and submitted by EMH&T on behalf of The New Albany Company. You have requested an approved JD for the non-jurisdictional aquatic resources on the approximate 23.5-acre site. The property is located on the north of Innovation Campus Way and on the west side of Mink Street NW, in Jersey Township, Licking County, Ohio (40.088568 latitude, -82.722215 longitude). Your request has been assigned the following file number: LRH-2021-152-MUS. Please reference this number on all future correspondence related to this 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, including the amendments to 33 CFR 328.3 (85 Federal Register 22250), 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.

The Navigable Waters Protection Rule, which became effective on June 22, 2020, was followed in this verification of Section 404 jurisdiction for the features located within the approved JD boundary. Based upon a review of the submitted report and additional information available to us, this office has determined that:

- Wetlands A, B, and C (totaling 1.31 acres) do not meet the definition of an adjacent wetland, and are not considered a water of the United States per 33 CFR 323.8(b)(1),
- Agricultural Ditch (85 linear feet within the area of interest) exhibits ephemeral flow and is not waters of the United States per 33 CFR 328.3 (b)(3).



Wetlands A, B, and C and the agricultural ditch are not considered jurisdictional waters of the United States and are not subject to regulation under Section 404. These non-jurisdictional features are depicted on the enclosed map and also listed in the enclosed approved JD Table. You should contact the Ohio Environmental Protection Agency, Division of Surface Water, at (614) 664-2001 to determine state permit requirements.

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:

Appeal Review Officer
United States Army Corps of Engineers
Great Lakes and Ohio River Division
550 Main Street, Room 10-714
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.

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

A copy of this letter will be provided to the Ohio Environmental Protection Agency at Lazarus Government Building, Post Office Box 1049 Columbus, Ohio 43216-3669. If you have any questions concerning the above, please contact 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.

Sincerely,

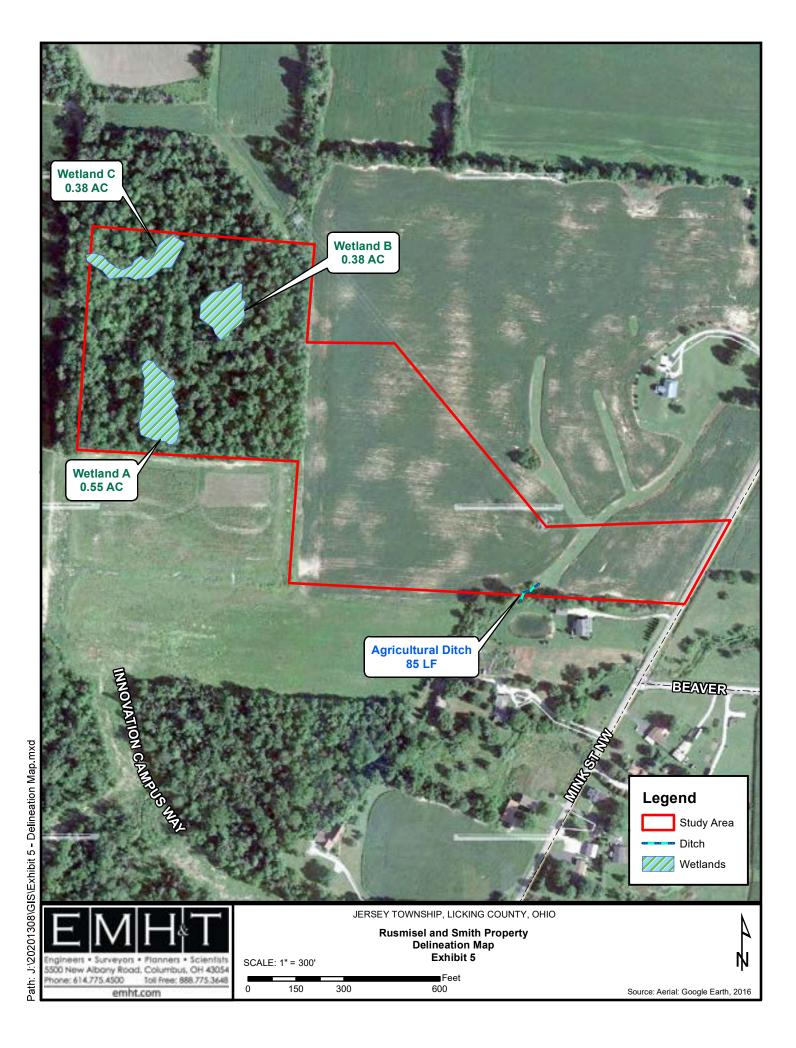
Laurie A. Moore

Regulatory Project Manager

LandMoor

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|    |   | □□□ □□□Exhibit 2: USGS Topographic Map (□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□                                   |  |  |  |  |  |
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## **Wetlands Permit**

(Ohio EPA ID No. 217323W)

#### Ohio EPA 9/7/2021 Entered Directors Journal



Mike DeWine, Governor Jon Husted, Lt. Governor Laurie A. Stevenson, Director HUNGINIK

9/7/2021

Re: Rusmisel & Smith Commercial Project
Permit - Intermediate
Approval
401 Wetlands
Licking
DSW401217323W

September 7, 2021

Brent Bradbury
MBJ Holdings, LLC
8000 Walton Parkway, Suite 120
New Albany, OH 43054
bbradbury@newalbanycompany.com

Subject: Rusmisel & Smith Commercial Project

Licking County / Jersey Township / New Albany Grant of a Level Two Isolated Wetland Permit

Ohio EPA ID No. 217323W

#### Dear Stakeholders:

I hereby authorize the above referenced project under the following authorities, and it is subject to the following modifications and/or conditions:

#### Ohio Isolated Wetland Permit

Pursuant to Ohio Revised Code Chapter 6111, I hereby conclude that the above-referenced project will comply with the applicable provisions of Ohio Revised Code Sections 6111.02 through 6111.028. This authorization is specifically limited to an Ohio Isolated Wetlands Permit (here after referred to as "permit") with respect to water pollution and does not relieve the Permittee of further Certifications or Permits as may be necessary under the law. I have determined that a lowering of water quality in the Licking Watershed (HUC 05040006) as authorized by this permit is necessary. I have made this determination based upon the consideration of all public comments, if submitted, and the requirements set forth in Ohio Revised Code Sections 6111.02 through 6111.028.

#### PART I ON-SITE WATER RESOURCES AND IMPACTS

#### A. Watershed Setting

The watershed in which this project is located, Headwaters South Fork Licking River (HUC 05040006-04-02), has an area of 15.43 square miles. The South Fork Licking River is a warmwater habitat (WWH) stream and primary contact recreation water with an antidegradation category of general high-quality water. Other Ohio EPA Aquatic Life Use Designations located in this watershed, as found in OAC rule 3745-1-24, include Warmwater Habitat (WWH).

#### B. Project Description

The project proposes to construct a commercial warehouse facility which will include truck and car parking areas, internal driveway areas and a stormwater detention pond.

## C. Impacts

Impacts to isolated wetlands are as follows:

A total of 1.33 acres of category 2 forested wetlands, including Wetlands A, B and C, will be filled and graded to accommodate the proposed warehouse development, including the associated parking areas and stormwater basin.

| Wetland ID | Isolated<br>or<br>Non-<br>isolated | Forested or<br>Non-<br>Forested | Category | Total<br>Acreage on<br>Site | Total<br>Acreage<br>Impacted | Percent<br>Avoided |
|------------|------------------------------------|---------------------------------|----------|-----------------------------|------------------------------|--------------------|
| Wetland A  | Isolated                           | Forested                        | 2        | 0.56                        | 0.56                         | 0%                 |
| Wetland B  | Isolated                           | Forested                        | 2        | 0.39                        | 0.39                         | 0%                 |
| Wetland C  | Isolated                           | Forested                        | 2        | 0.38                        | 0.38                         | 0%                 |
|            |                                    |                                 | Totals   | 1.33                        | 1.33                         | 0%                 |

#### **PART II TERMS & CONDITIONS**

- A. Terms and conditions outlined in this section apply to project and mitigation construction as described in this permit.
- B. This permit shall be valid for a period of 5 years from the date of issuance.
- C. The Permittee shall notify Ohio EPA, in writing, and in accordance with *Part IV* (*NOTIFICATIONS TO OHIO EPA*) of this permit, upon the start and completion of site development and mitigation construction.

Rusmisel & Smith Commercial Project Ohio EPA ID No. 217323W Isolated Wetland Permit Page 3 of 17

- D. A copy of this permit shall remain on-site for the duration of the project and mitigation construction activities.
- E. In the event of an inadvertent spill, the Permittee must immediately call the Ohio EPA Spill Hotline at 1-800-282-9378, as well as the Ohio EPA Section 401 Manager (614-644-2001).
- F. Unpermitted impacts to surface water resources and/or their buffers occurring as a result of this project must be reported within 24 hours of occurrence to Ohio EPA, Division of Surface Water, Section 401 Manager (614-644-2001), for further evaluation.
- G. Pesticide application(s) for the control of plants and animals shall be applied in accordance with the NPDES General Permit to Discharge Pesticides In, Over or Near Waters of the State available at: <a href="https://www.epa.ohio.gov/portals/35/permits/OHG870002%20FINAL%20PERMIT.pdf">https://www.epa.ohio.gov/portals/35/permits/OHG870002%20FINAL%20PERMIT.pdf</a> and may require a pesticide applicator license from the Ohio Department of Agriculture.
- H. Any authorized representative of the director shall be allowed to inspect the authorized activity at reasonable times to ensure that it is being or has been accomplished in accordance with the terms and conditions of this permit.
- In the event that there is a conflict between the permit application, including the mitigation plan, and the conditions within this permit, the condition shall prevail unless Ohio EPA agrees, in writing, that the permit application or other provision prevails.
- J. The Permittee shall provide electronic maps of the development area and the mitigation area to Ohio EPA 401 WQC and Isolated Wetland Permitting Section within 30 days of the date of this permit. When sending the electronic files, include the Ohio EPA ID Number and the Army Corps of Engineers Number (if applicable). If possible, these electronic maps shall be GIS shape files or Geodatabase files. If this is not possible, the electronic maps shall be in another electronic format readable in GIS (GIF, TIF, etc). The electronic files shall be sent to the following e-mail address: EPA.401Webmail@epa.ohio.gov

If the files are too large to send by e-mail (over 25 MB), a disk containing the electronic files shall be mailed to the following address:

Ohio Environmental Protection Agency
Division of Surface Water
Attn: 401 Section Manager
50 West Town Street, Suite 700
PO Box 1049
Columbus, OH 43216-1049

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K. This proposal may require other permits from Ohio EPA. For information concerning application procedures, contact the Ohio EPA District Office as follows:

Ohio Environmental Protection Agency Central District Office 50 W. Town Street, Suite 700 Columbus, Ohio 43215-1049 614-728-3778

Additional information regarding environmental permitting assistance at Ohio EPA can be found at <a href="http://www.epa.ohio.gov/dir/permit">http://www.epa.ohio.gov/dir/permit</a> assistance.aspx

- L. Best Management Practices (BMPs)
  - 1. All water resources and their buffers which are to be avoided shall be clearly indicated on site drawings, demarcated in the field and protected with suitable materials (e.g., silt fencing) prior to site disturbance. These materials shall remain in place and be maintained throughout the construction process.
  - 2. All BMPs for stormwater management shall be designed and implemented in accordance with the most current edition of the Ohio Department of Natural Resources Rainwater and Land Development Manual, unless otherwise required by the National Pollutant Discharge Elimination System (NPDES) general permit for stormwater discharges associated with construction activities (construction general permit), if required.

A copy of the Rainwater and Land Development Manual is available at: <a href="https://epa.ohio.gov/dsw/storm/rainwater">https://epa.ohio.gov/dsw/storm/rainwater</a>

- Straw bales shall not be used as a form of erosion/sediment control.
- 4. Fill material shall consist of suitable non-erodible material and shall be stabilized to prevent erosion.
- 5. Materials used for fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded from use as fill or bank protection.
- 6. Concrete rubble used for fill or bank stabilization shall be in accordance with ODOT specifications; free of exposed re-bar; and, free of all debris, soil and fines.

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- 7. Chemically treated lumber which may include, but is not limited to, chromated copper arsenate (CCA) and creosote treated lumber shall not be used in structures that come into contact with waters of the state.
- 8. Trees removed from temporary impact areas to facilitate construction shall be replaced with appropriate tree species native to Ohio.
- 9. The Stormwater Pollution Prevention Plan (SWPPP) and/or other appropriate plans related to stormwater that are developed will be submitted to Ohio EPA, Division of Surface Water, 401 and Storm Water Manager for review and approval so that compliance with 6111.023(C)(6) is validated before fill is placed into the wetlands.

#### M. Wildlife Protection

- 1. If native mussels and/or mussel beds, not previously identified, are encountered at any time during construction or dredging activities, work must cease immediately, and the Ohio Department of Natural Resources' Division of Wildlife must be contacted for further evaluation.
- 2. In the event that an eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) is encountered during construction of the project, work should immediately cease and the Ohio Department of Natural Resources, Division of Wildlife contacted. Caution should be employed during construction and during the snakes' active season (March 15 November 15).

#### PART III MITIGATION

#### A. Description of Required Mitigation

As mitigation for 1.33 acres of category 2 forested wetland impacts, the certification holder shall provide a minimum of 4.99 credits of forested wetland mitigation generated from the Avis Road Pooled Wetland Mitigation Site. Additionally, 1.62 credits have been allocated for other projects (Ohio EPA IDs 196623 [0.26 nonforested credit], 196620 [0.48 credit], 206766W [0.88 forested credit]) for a total minimum amount of 6.61 credits of required mitigation to be generated at the Avis Road Pooled site.

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## B. Mitigation and Monitoring Plan

As mitigation for impacts described in Part I.C of this certification the Certification Holder shall implement the Avis Road Pooled Mitigation Site (Avis Rd) mitigation plan updated September 1, 2021, and in accordance with the conditions in this certification.

The Avis Rd site is designed to re-establish (restore) 16.41 acres of forested wetland, rehabilitate (enhance) 2.78 acres of wetlands and restore 19.28 acres of forested upland buffers on a 38.47-acre site that will be preserved. Protected upland buffers on the site will at a minimum average 100 ft from the edge of the wetlands. The final acreages may change slightly based on the design and success of the Avis Road wetland mitigation site. The total wetland mitigation credits generated by Avis Road based on the design acreage listed above is 22.62 credits. As mentioned in Part III. A., 6.61 credits are required for this project and other projects. The remaining 16.01 credits at Avis Rd, will be available for future use by MBJ Holdings, LLC, provided Avis Road is successfully implemented, but not until the final mitigation plan is submitted and approved.

# C. Timing of Mitigation Requirements

- 1. The final mitigation plan for the Avis Road mitigation shall be submitted to the Ohio EPA within 90 days of this permit. The final mitigation plan must be approved by the Ohio EPA in writing prior to implementation of the plan.
- 2. Mitigation construction shall be initiated concurrently with wetland impacts and shall be completed within six months of the initial impacts.

## D. Long Term Protection

1. For the above-described wetland mitigation areas, including buffers, the Certification Holder shall submit to Ohio EPA an acceptable, notarized, recorded, and filed Conservation Easement within six months of substantial completion of the discharge of fill into waters of the state authorized in this certification. The Conservation Easement shall include, as attachments, a metes and bounds (survey) description of the protected area, survey map, and an aerial photograph showing the boundaries of the protected area and all mitigation areas inside the protected area and shall protect a total of 38.47-acre wetland mitigation area at Avis Road.

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2. Signs shall be placed within visual distance along the mitigation area that indicate the area is a protected wetland mitigation project and that mowing, dumping, or any other activity that would result in a degradation of the wetland without prior authorization from Ohio EPA is prohibited.

## E. Agency Site Visits

The Certification Holder shall arrange on-site mitigation meetings with Ohio EPA during the growing season that follows the submittal of the first, fifth, seventh, and tenth annual mitigation monitoring reports. The purpose of this inspection is to determine if the mitigation project has been constructed in accordance with the mitigation and monitoring plan approved by Ohio EPA and the terms and conditions of this certification, as well as to determine progress toward compliance with the performance goals for the site. The Certification Holder is responsible for undertaking any modifications identified by Ohio EPA.

# F. Reporting

## 1. Annual Update Reports

A mitigation construction and project update report shall be submitted to Ohio EPA by December 31 of each year following the date of this certification and until mitigation construction is complete and a mitigation monitoring report is ready for submittal. Each update report shall contain, at a minimum, the following information:

- a. The status of all of the mitigation required for the project as specified in the application and certification including the filing of the required Conservation Easements;
- b. The status of the filling activities at the development site including dates filling was started and completed, or are expected to be started and completed. If filling activities have not been completed, a drawing shall be provided, which shows the locations and acreage of wetlands that have not yet been filled. If filling activities have been completed, then as-built drawings shall be submitted, which show where fill was placed;
- c. Mitigation construction start date, completion date, or expected start and completion date;
- d. A discussion of the extent to which the mitigation has been completed according to the timelines specified in this certification;

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- e. Current contact information for all responsible parties including phone number, e-mail, and mailing addresses. For the purposes of this condition, responsible parties include, but may not be limited to the Certification Holder, consultant, Conservation Easements holder, and Conservation Easements owner(s);
- f. For sites with mitigation for multiple certifications, a complete list of all the certifications mitigating at the site including Certification Holder name, project name, Ohio EPA ID number, Corps ID number, and amount and type of mitigation approved by Ohio EPA and/or the Corps for each certification. Also include the acreage of remaining mitigation believed to still be available at the site and the type of mitigation (restoration, creation, enhancement, preservation, stream, wetland, etc.);
- g. As-built drawings sized 11" by 17" (to scale) of each of the mitigation areas, once construction is complete.

## 2. Annual Mitigation Monitoring Reports

- a. The mitigation monitoring period shall commence immediately following completion of mitigation construction and shall continue through a ten-year monitoring period, except as provided for in the contingency plan.
- b. Annual mitigation monitoring reports shall be submitted to Ohio EPA by December 31 of the first full year following the end of the first full growing season and completion of mitigation construction. All subsequent reports shall be submitted by December 31<sup>st</sup> of each of the monitoring years. The monitoring report years are years 1, 3, 5, 7, and 10.
- c. Annual mitigation monitoring reports shall be prepared in the format prescribed in the Ohio EPA Monitoring Report Guidelines document available at <a href="http://epa.ohio.gov/portals/35/401/401MonitoringReportGuidelines.">http://epa.ohio.gov/portals/35/401/401MonitoringReportGuidelines.</a>
  <a href="mailto:pdf">pdf</a> and include the Monitoring Report Checklist provided at <a href="http://epa.ohio.gov/portals/35/401/401MonitoringReportChecklistTa">http://epa.ohio.gov/portals/35/401/401MonitoringReportChecklistTa</a>
  <a href="mailto:ble.pdf">ble.pdf</a>.
- d. Each annual report shall contain the **current contact information** for the Certification Holder, agent, conservation easements holder, and conservation easements owner(s) including phone number, email, and mailing addresses.

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- e. Each annual report shall clearly identify the specific monitoring period the report is intended to represent, as well as the calendar year the monitoring occurred. The report shall also provide a summary of current mitigation status, which compares the previous years' monitoring information with the current report including graphs and tables showing trends, etc.
- f. Each annual report shall include a cover letter. The cover letter shall identify the status of the mitigation project and identify any items needing immediate attention or questions for the regulatory agencies.
- g. The first monitoring report shall contain a copy of any associated U.S. Army Corps of Engineers 404 permit for the project.
- h. Each annual monitoring report shall contain a list of species planted in all mitigation areas.
- The first-year report shall include plan views and cross sections of the as-built mitigation area including the location and types of planting.
- j. At a minimum, the first, third, and tenth year annual reports shall contain updated drawings sized 11" by 17" or larger (to scale) of each of the mitigation wetlands reflecting the current conditions, corrective or other actions that occurred, changes in dominant vegetation, and other pertinent information.
- k. Each annual report shall include photographs to be collected as follows:
  - An adequate number of fixed observation points shall be selected, with no fewer than three fixed observation points per distinct mitigation area, to provide representative overviews of each distinct mitigation area. The use of stakes with unique numbers to designate photo locations is recommended;
  - ii. Photographs shall be taken from these points at the same position and angle during the growing season of each monitoring year. The fixed observation points shall be marked on the base map;
  - iii. Additional photographs of areas of interest within each distinct mitigation area shall be marked on the base map and provided in each monitoring report.

# G. Monitoring Requirements – Wetlands

## 1. Site Drawings

At a minimum, in the first, third, and tenth year annual reports a plan view that provides information on the morphometry of all mitigation wetlands and the location of any water control devices shall be provided. Each constructed mitigation wetland shall include at least one cross-section through the short axis and another through the long axis.

#### 2. Wetland Delineation

- a. A delineation of the wetland mitigation area(s) shall be performed during the growing season of the third, seventh, and tenth year of monitoring after completion of construction of the mitigation wetlands. The wetland delineation shall be performed in accordance with the United States Army Corps of Engineers 1987 Wetland Delineation Manual and the applicable Regional Supplement to the Corps of Engineers Wetland Delineation Manual and shall include an assessment of soils, hydrology, and plants according to the manual.
- b. For wetlands mitigated adjacent to existing wetlands, the boundary of the existing wetlands shall be semi-permanently marked prior to the adjacent wetland mitigation construction activities. Enough semipermanent markers of adequate height and color shall be placed such that the wetland mitigation area can be easily identified and accurately measured.

#### 3. Hydrology Monitoring

a. For all of the mitigation wetlands, water level data shall be collected twice per year (once in May and once in August or September), to generally represent the growing season. Ground water levels shall be measured in the absence of inundated conditions.

## 4. Soil Monitoring

A minimum of one soil probe or test pit per acre of mitigated wetland shall be collected. Describe the soil profile and hydric soil indicators. Indicate the soil map unit name (soil series and phase) and the taxonomic subgroup.

## 5. Vegetation Monitoring

- a. The mitigation wetlands shall be assessed to obtain a VIBI-FQ score according to methods and protocols approved by Ohio EPA (<a href="http://www.epa.ohio.gov/Portals/35/401/VIBI-FQ-FINAL.pdf">http://www.epa.ohio.gov/Portals/35/401/VIBI-FQ-FINAL.pdf</a>) during the growing season of the fifth, seventh, and tenth years after completion of construction of the mitigation wetlands.
- b. The location and name of each plant community type within the wetland mitigation area shall be marked on a scaled drawing or scaled aerial photograph (base map) and named. The dominant plant species shall be visually determined in each vegetation layer of each community type, and the scientific names of these species shall be included in the report.
- c. The percent cover of invasive species cover shall be determined and reported in the first year's monitoring report to provide a baseline for any invasive species control that may be necessary or required. All subsequent monitoring reports shall report the percent cover of invasive species present in mitigation wetlands.
- d. Species, diameter at breast height (dbh), vigor, dominance and stem count data shall be collected and graphed over time for the proposed woody plant communities.

## H. Monitoring Requirements – Rehabilitated Wetlands

- 1. For wetlands to be rehabilitated as compensatory mitigation, the preenhancement condition of the wetland to be rehabilitated shall be assessed with VIBI-FQ, and the amount of invasive species cover shall be determined prior to the enhancement activities. This baseline data shall be reviewed and approved by Ohio EPA prior to the initiation of enhancement activities.
- 2. VIBI-FQ evaluations and scores shall be calculated and reported in years 5, 7, and 10.
- I. Monitoring Requirements Upland Buffer Restoration and Enhancement
  - 1. Vegetation Monitoring
    - a. The location and name of each plant community type within the upland buffer mitigation area shall be marked on a scaled drawing or scaled aerial photograph (base map) and named. The dominant plant species shall be visually determined in each vegetation layer of each community type, and the scientific names of these species shall be included in the report.

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- b. The percent cover of invasive species cover shall be determined and reported in the first year's monitoring report to provide a baseline for any invasive species control that may be necessary or required. All subsequent monitoring reports shall report the percent cover of invasive species present in mitigation upland buffer.
- c. Species, diameter at breast height (dbh), vigor, dominance and stem count data shall be collected and graphed over time for the proposed woody plant communities.
- J. Performance Goals Restored/Created Wetlands

Within ten years after completion of construction of the mitigation, the Certification Holder shall have:

- 1. Developed 16.41 acres of Category 2 and/or 3 forested wetlands at Avis Road.
- 2. By the end of the ten-year monitoring period, mitigation wetlands shall attain a VIBI-FQ score of 40 or higher.
- 3. Demonstrated that the mitigation wetland has less than five percent relative cover of all non-Typha invasive plant species listed in Appendix 7 of the Guidelines for Mitigation Banking in Ohio available http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guide lineswetlandmitigation-Ohio.pdf. Due to the difficulty of distinguishing the three species of cattails (Typha latifolia, Typha angustifolia, and Typha x glauca), as well as the likelihood that at least one of these will be present in many types of Ohio wetlands, the total relative cover of all invasive species, including Typha spp., will be less than ten percent.
- 4. Demonstrated that the forested wetland mitigation areas, including credit generating upland buffers, are on a trajectory to being forested. This demonstration is made by graphing basic forestry measures including frequency, density, and dominance per species against time. A minimum of 400 native, live and healthy (disease and pest free) woody plants per acre (of which at least 200 are tree species that are at least 2 meters tall) must be present at the end of the monitoring period.
- 5. Developed 19.28 acres of native upland forested buffer at Avis Road. Native upland buffer shall be measured from the edge of the wetland with no more than five percent relative coverage of invasive species as listed in Appendix 7 of the Guidelines for Mitigation Banking in Ohio available at <a href="http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guide-lineswetlandmitigation-Ohio.pdf">http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guide-lineswetlandmitigation-Ohio.pdf</a>.

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#### K. Performance Goals – Rehabilitated Wetlands

- 1. For the mitigation wetlands, the VIBI-FQ score shall maintain, or increase compared to the baseline VIBI-FQ score by the end of year 7.
- 2. The rehabilitated mitigation wetland shall have less than five percent relative cover of all non-Typha invasive plant species listed in Appendix 7 of the Guidelines for Mitigation Banking in Ohio available at <a href="http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guidelineswetlandmitigation-Ohio.pdf">http://www.lrb.usace.army.mil/Portals/45/docs/regulatory/MitandMon/guidelineswetlandmitigation-Ohio.pdf</a>. Due to the difficulty of distinguishing the three species of cattails (*Typha latifolia, Typha angustifolia,* and *Typha x glauca*), as well as the likelihood that at least one of these will be present in many types of Ohio wetlands, the total relative cover of all invasive species, including Typha spp., will be less than ten percent.

# L. Contingency Plans

If the mitigation areas are not performing as proposed by the end of the tenth year of post construction monitoring, the monitoring period may be extended and/or the Certification Holder may be required to revise the existing mitigation or seek out new or additional mitigation areas.

Ohio EPA may reduce or increase the number of years for which monitoring is required to be conducted based on the effectiveness of the mitigation.

#### PART IV NOTIFICATIONS TO OHIO EPA

All notifications, correspondence, and reports regarding this permit shall reference the following information:

Permittee Name: Project Name: Ohio EPA ID No.:

and shall be sent to:

Ohio Environmental Protection Agency Division of Surface Water, 401/IWP Unit Lazarus Government Center 50 West Town Street P.O. Box 1049 Columbus, Ohio 43216-1049 Rusmisel & Smith Commercial Project Ohio EPA ID No. 217323W Isolated Wetland Permit Page 14 of 17

You are hereby notified that this action of the director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within 30 days after notice of the director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Treasurer, State of Ohio," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the director within three days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission 30 East Broad Street, 4<sup>th</sup> Floor Columbus, Ohio 43215

Sincerely,

Laurie A. Stevenson

Director

ec: Zack Abbott, <u>jonathan.z.abbott@usace.army.mil</u>, Department of the Army,

Huntington District, Corps of Engineers

Candice Bauer, <u>bauer.candice@epa.gov</u>, U.S. EPA, Region 5

Dana Rzeznik, <u>rzeznik.dana@epa.gov</u>, U.S. EPA, Region 5 Patrice Ashfield, <u>Ohio@fws.gov</u>, U.S. Fish & Wildlife Service

Mike Pettegrew, Mike.Pettegrew@dnr.state.oh.us, ODNR, Office of Real Estate

Diana Welling, dwelling@ohiohistory.org, Ohio Historical Preservation Office

Cara Hardesty, <a href="mailto:cara.hardesty@epa.ohio.gov">cara.hardesty@epa.ohio.gov</a>, Ohio EPA, DSW,

401/Wetlands/Mitigation Section

Marianne Piekutowski, <u>Marianne.Piekutowski@epa.ohio.gov</u>, Ohio EPA, DSW Andrea Kilbourne. Andrea.Kilbourne@epa.ohio.gov. Ohio EPA. DSW.

Mitigation Coordinator

Mike Gallaway, michael.gallaway@epa.ohio.gov, DSW, CDO

Heather Dardinger, hdardinger@emht.com, EMH&T

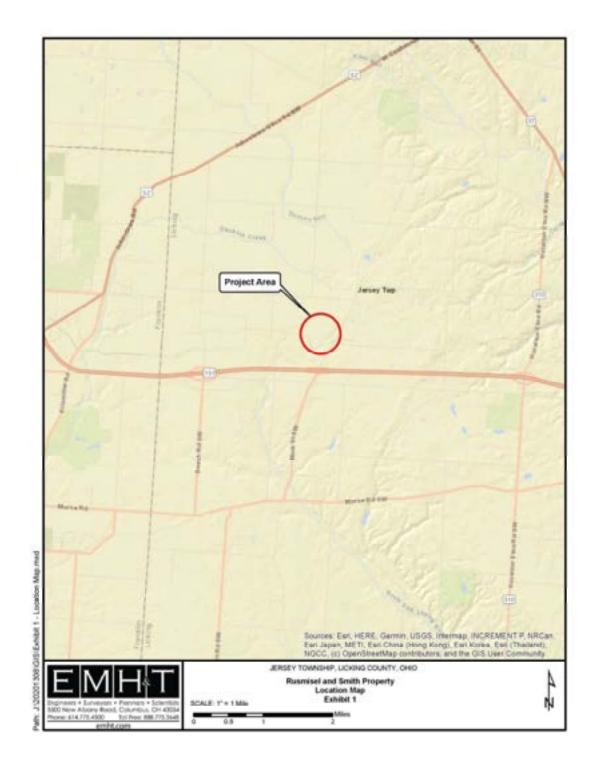
Attachments: Site Location Map (project)

Site Location Map (mitigation)

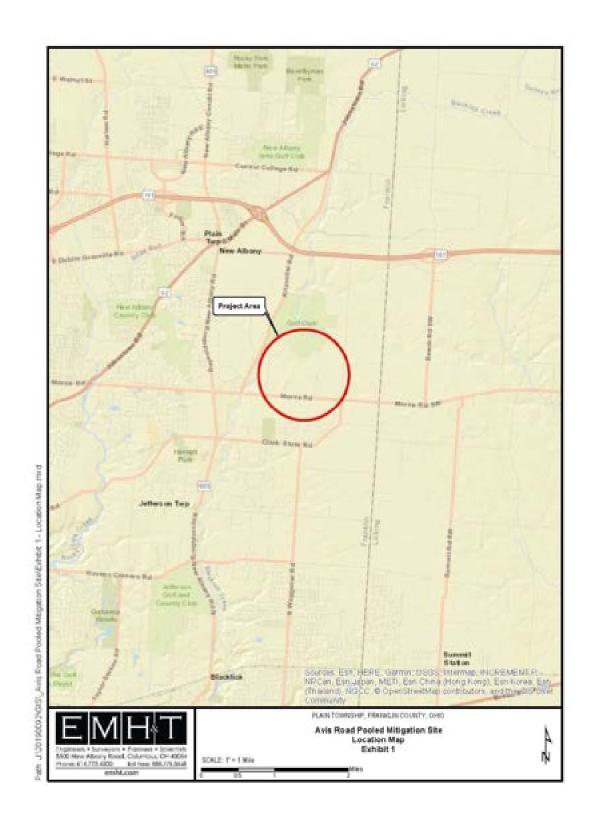
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Ohio EPA has developed a customer service survey to get feedback from regulated entities that have contacted Ohio EPA for regulatory assistance, or worked with the Agency to obtain a permit, license or other authorization. Ohio EPA's goal is to provide our customers with the best possible customer service, and your feedback is important to us in meeting this goal. Please take a few minutes to complete this survey and share your experience with us at <a href="http://www.surveymonkey.com/s/ohioepacustomersurvey.">http://www.surveymonkey.com/s/ohioepacustomersurvey.</a>

**Site Location Map (project)** 



# **Site Location Map (mitigation)**



# **Water Resources Delineation**

November 29, 2021



5500 New Albany Rd., Columbus, OH 43054 p. 614.775.4500

f. 614.775.4800 info@emht.com

20210556

145-ACRE PROPERTY
(TO BE KNOWN AS INNOVATION EAST DEVELOPMENT AREA)
LOCATED ON THE WEST SIDE OF MINK STREET AND THE SOUTH
SIDE OF JUG STREET
JERSEY TOWNSHIP, LICKING COUNTY, OHIO

Delineation of Waters of the United States

MBJ Holdings, LLC

November 29, 2021

emht.com



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#### 1.0 INTRODUCTION

A routine delineation of Waters of the United States, including streams and wetlands, has been conducted and a report prepared by EMH&T for an approximately 145-acre property (to be known as Innovation East Development Area), located on the west side of Mink Street NW and the south side of Jug Street Road NW, in Jersey Township, Licking County, Ohio (Exhibit 1). This study was performed at the request of and is for the exclusive use of MBJ Holdings, LLC.

The study area consists of active/fallow agricultural land, farmsteads, residential lots, and wooded areas. The subject property is developed with multiple residential dwellings and farmsteads. An AEP electrical easement crosses through the southwestern portion of the subject property and bounds the southwestern corner of the subject property. The approximate center coordinates of the site are 40.091436°, -82.720029°.

The northern portion of the site is located in the Headwaters of Blacklick Creek subbasin (HUC:05060001-15-03) within the Upper Scioto Watershed. The southern portion of the site is located in the Headwaters of South Fork Licking River subbasin (HUC:05040006-04-02) within the Muskingum River Watershed. The study area is regulated by the U.S. Army Corps of Engineers (USACE) Huntington District.

The field investigation of the study area was conducted by EMH&T environmental scientists on August 11, 2021 in order to identify the location, extent, and quality of the wetland and stream features. Six (6) potentially non-jurisdictional isolated wetlands and two (2) potentially non-jurisdictional ponds were identified for confirmation by the United States Army Corps of Engineers (USACE). The location and extent of the identified potentially non-jurisdictional 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 site is between the elevations of 1180 and 1210 feet (National Geodetic Vertical Datum) according to the USGS 7.5' Series Jersey, Ohio quadrangle (USGS, 1974). No streams, open water ponds, or marsh symbols are mapped for the study area.

#### 2.2 Mapped Soils

According to the Web Soil Survey for Licking County, Ohio (USDA, 2019) as shown on Exhibit 3, the site contains six (6) soil types. 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). These soils are listed in Table 1 along with their hydric status. According to



the USACE Soils Map (1992), drainage features are mapped on the southeastern portion of the site. A marsh symbol is shown on the northeastern portion of the site.

TABLE 1
Hydric Status of Onsite Soils

| Mapped Soil Unit                 | Hydric Status   | Hydric Inclusions    | Location of Hydric Inclusions |
|----------------------------------|-----------------|----------------------|-------------------------------|
| Bennington silt loam, 0 to       | Non-hydric      | Condit and Pewamo    | Drainageways and              |
| 2 percent slopes (BeA)           | with Inclusions | Condit dila rewalilo | Depressions                   |
| Bennington silt loam, 2 to 6     | Non-hydric      | Condit and Pewamo    | Drainageways and              |
| percent slopes (BeB)             | with Inclusions | Condii dha rewamo    | Depressions                   |
| Centerburg silt loam, 2 to 6     | Non-hydric      | Condit and Marengo   | Drainageways and              |
| percent slopes (Cen1B1)          | with Inclusions | Condit and Marengo   | Depressions                   |
| Centerburg silt loam, 6 to 12    | Non-hydric      | Condit               | Drainageways and              |
| percent slopes, eroded (Cen1C2)  | with Inclusions | Condii               | Depressions                   |
| Condit silt loam, 0 to 1 percent | Hydric          | -                    | -                             |
| slopes (Cn)                      | ,               |                      |                               |
| Pewamo silty clay loam, low      |                 |                      |                               |
| carbonate till, 0 to 2 percent   | Hydric          | -                    | -                             |
| slopes (Pe)                      |                 |                      |                               |

## 2.3 Hydrologic Conditions

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was reviewed for the site (FEMA, 2018). As shown on Exhibit 4, the site lies within Zone X (unshaded), which is an area determined to be outside the 500-year floodplain.

The United States Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) map for Delaware County, Ohio was reviewed for the site (USFWS, 2019). As shown on Exhibit 5, two (2) NWI features are mapped on the subject property. The NWI features are both described as Palustrine, Unconsolidated Bottom, Intermittently Exposed, Excavated (PUBGx). No other NWI features are mapped on the subject property. During the field investigation, the NWI mapped features were observed as farm/excavated ponds.

#### 3.0 DELINEATION INVESTIGATION RESULTS

The field investigation of the study area was conducted by EMH&T environmental scientists on August 11, 2021 in order to identify the location, extent, and quality of the wetland and stream features. Six (6) potentially non-jurisdictional isolated wetlands and two (2) potentially non-jurisdictional ponds were identified for confirmation by the USACE. 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. The investigative methodology employed is summarized in Appendix A.

The northeastern portion of the site was historically farmed for grain. MBJ Holdings, LLC interviewed the current property owner and they indicated that the old clay drain tiles stopped working several years ago. The property owner repaired the damaged tiles in recent years, which allowed them to



farm the property in hay in 2019 through 2021. Wetland C is located within this area. EMH&T collected three (3) upland points in this area. Upland Points UPC-1, UPC-2, and UPC-3 are included Appendix C.

#### 3.1 Potential Non-Jurisdictional Features

The identified surface water features within the study area are shown on Exhibit 6. 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 C. Photographs of the surface water features are included in the photograph log.

TABLE 2
Extent of Onsite Surface Water Features

| Feature ID | Classification/Flow<br>Regime  | Wetland (ac) | Pond (ac) |
|------------|--|--------------|-----------|
| Wetland A  | Emergent   | 0.37         |           |
| Wetland B  | Emergent   | 0.43         |           |
| Wetland C  | Emergent   | 0.07         |           |
| Wetland D  | Emergent   | 0.05         |           |
| Wetland E  | Emergent   | 0.06         |           |
| Wetland F  | Emergent   | 0.28         |           |
| Pond 1     | Palustrine, Unconsolidated Bottom, Intermittently Exposed, Excavated (PUBGx) |              | 0.3       |
| Pond 2     | Palustrine, Unconsolidated Bottom, Intermittently Exposed, Excavated (PUBGx) |              | 0.19      |
| Total      |  | 1.26         | 0.49      |



TABLE 3

Jurisdictional Classification of Onsite Surface Water Features

| Feature ID | Traditionall<br>y Navigable<br>Water<br>(TNW) | Relatively<br>Permanen<br>t Water<br>(RPW) | Non-<br>RPWs | Wetlands<br>abutting<br>a RPW | Wetlands<br>adjacent<br>to a RPW<br>or non-<br>RPW | Isolated<br>Wetland<br>s | Non-<br>Jurisdictiona<br>I Waters |
|------------|---|--|--------------|-------------------------------|--|--------------------------|-----------------------------------|
| Wetland A  |   |  |              |                               |  | Χ                        |                                   |
| Wetland B  |   |  |              |                               |  | Х                        |                                   |
| Wetland C  |   |  |              |                               |  | Х                        |                                   |
| Wetland D  |   |  |              |                               |  | Х                        |                                   |
| Wetland E  |   |  |              |                               |  | Х                        |                                   |
| Wetland F  |   |  |              |                               |  | Х                        |                                   |
| Pond 1     |   |  |              |                               |  |                          | Х                                 |
| Pond 2     |   |  |              |                               |  |                          | Х                                 |

#### 4.0 WETLAND HABITAT ASSESSMENT

The Ohio Rapid Assessment Method (ORAM) Version 5 was developed by the Ohio EPA for use in determining wetland quality (OEPA, 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 adopted in 1998. 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. The ORAM asks a series of questions regarding wetland functions and characteristics and scores each wetland based on the answers provided. As shown in Table 4, the onsite wetlands scored in the Category 1 range. ORAM scores are potential until confirmed by the Ohio EPA. ORAM dataforms are located in Appendix D.

TABLE 4
Wetland Habitat Assessment Summary

| Feature ID | Туре     | Area (ac) | ORAM Score | Wetland<br>Category |
|------------|----------|-----------|------------|---------------------|
| Wetland A  | Emergent | 0.37      | 12         | 1                   |
| Wetland B  | Emergent | 0.43      | 24         | 1                   |
| Wetland C  | Emergent | 0.07      | 12         | 1                   |
| Wetland D  | Emergent | 0.05      | 15         | 1                   |
| Wetland E  | Emergent | 0.06      | 13         | 1                   |
| Wetland F  | Emergent | 0.28      | 16.5       | 1                   |



#### 5.0 REGULATORY JURISDICTION

Impacts to WOTUS, including jurisdictional streams and wetlands, are regulated by the USACE and the U.S. Environmental Protection Agency (EPA) 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.

#### 6.0 CONCLUSIONS

A routine delineation of Waters of the United States, including streams and wetlands, has been conducted and a report prepared by EMH&T for an approximately an approximately 145-acre property (to be known as Innovation East Development Area), located on the west side of Mink Street NW and the south side of Jug Street Road, NW, in Jersey Township, Licking County, Ohio. This study was performed at the request of and is for the exclusive use of MBJ Holdings, LLC.

The results of the delineation identified six (6) potentially non-jurisdictional isolated wetlands and two (2) potentially non-jurisdictional ponds within the study area. The boundaries and jurisdictional status of the features are potential until verified by the USACE.

#### 7.0 REFERENCES

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# **APPENDIX A:**

Investigative Methodology



#### 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 (OEPA, 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, 2012). 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 Ephemeral Aquatic Streams (modified/natural channel), Small Drainage Warm Water Streams (modified /natural channel), and Spring Water Streams. Spring Water Streams represent high quality, cold water streams, Small Drainage Warm Water Streams represent warm water streams, and Ephemeral Aquatic Streams (seasonally dry) with limited ecological function.

#### **Open Water Habitat**

The boundaries of open water systems (ponds and lakes) are delineated either using recent aerial photography or by flagging boundaries in the field and locating them using a GPS unit.

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# APPENDIX B:

USACE Wetland and Upland Dataforms

# WETLAND DETERMINATION DATA FORM - Midwest Region

| Project/Site: Innovation East Wetland A                    |                 | City/Cou             | nty: Jersey     | TWP/Licking                               | Sampling Date:                                    | 08/11/2021     |
|--|-----------------|----------------------|-----------------|---|---|----------------|
| Applicant/Owner: MBJ Holdings                              |                 |                      |                 | State: OH                                 | Sampling Point:                                   | WA-1           |
| Investigator(s): Bryan Lombard                             |                 | Section, T           | rownship, Ra    | ange: Jersey                              |   |                |
| Landform (hillside, terrace, etc.): Field                  |                 | !                    | Local relief (c | concave, convex, none):                   | concave   |                |
| Slope (%): 2 Lat: 40.090554                                |                 | Long:                | 82.718435       |   | Datum: NAD83 UT                                   | M Zone 17 N    |
| Soil Map Unit Name: BeB- Bennington silt loam, 2 to 6      | percent slop    | oes                  |                 | NWI classit                               | fication:   |                |
| Are climatic / hydrologic conditions on the site typical f | for this time o | f year?              | Yes X           | No (If no, exp                            | olain in Remarks.)                                |                |
| Are Vegetation, Soil, or Hydrology                         | significantly ( | disturbed? A         | Are "Normal (   | <br>Dircumstances" present?               | Yes X No  | o              |
| Are Vegetation, Soil, or Hydrology                         |                 |                      |                 | κρlain any answers in Re                  |   |                |
| SUMMARY OF FINDINGS – Attach site m                        |                 |                      | g point lo      | cations, transects                        | , important fea                                   | tures, etc.    |
| Hydrophytic Vegetation Present? Yes X N                    | lo              | Is the               | Sampled A       | rea                                       |   |                |
|  | lo              | withir               | n a Wetland?    | ? Yes X                                   | No  |                |
| Wetland Hydrology Present? Yes X N                         | lo              |                      |                 |   |   |                |
| Remarks:   |                 |                      |                 |   |   |                |
|  |                 |                      |                 |   |   |                |
|  |                 |                      |                 |   |   |                |
| <b>VEGETATION</b> – Use scientific names of pla            | ants.           |                      |                 |   |   |                |
| T Chrotum (Distoire:                                       | Absolute        | Dominant<br>Species? | Indicator       | Dominanaa Taat wa                         |   |                |
| <u>Tree Stratum</u> (Plot size:)  1. <i>N/A</i>            | % Cover         | Species?             | Status          | Dominance Test wor                        |   |                |
|  |                 |                      |                 | Number of Dominant<br>Are OBL, FACW, or F | •   | 2 (A)          |
| 3.   |                 |                      |                 | Total Number of Dom                       |   |                |
| 4.   |                 |                      |                 | Across All Strata:                        |   | 2 (B)          |
| 5.   |                 |                      |                 | Percent of Dominant                       | Species That                                      |                |
|  |                 | =Total Cover         |                 | Are OBL, FACW, or F                       | •   | 0.0% (A/B)     |
| Sapling/Shrub Stratum (Plot size:                          | )               |                      |                 |   |   |                |
| 1. <u>N/A</u>  |                 |                      |                 | Prevalence Index wo                       |   |                |
| 2.   |                 |                      |                 | Total % Cover of                          |   |                |
| 3.<br>4.   |                 |                      |                 | OBL species 7 FACW species 2              |   | 70<br>50       |
| 5.   |                 |                      |                 | FAC species (                             |   | 0              |
| J  |                 | =Total Cover         |                 |   |   | 20             |
| Herb Stratum (Plot size: )                                 |                 |                      |                 | UPL species (                             |   | 0              |
| 1. Leersia oryzoides                                       | 60              | Yes                  | OBL             | Column Totals: 10                         |   | 140 (B)        |
| 2. Bidens aristosa   | 20              | Yes                  | FACW            | Prevalence Index                          | = B/A = 1.40                                      | )              |
| 3. Typha angustifolia                                      | 10              | No                   | OBL             |   |   |                |
| 4. Carex grayi   | 5               | No                   | FACW            | Hydrophytic Vegetat                       |   |                |
| 5. Echinochloa   | 5               | No                   | FACU            | l <del>—</del>                            | Hydrophytic Veget                                 | ation          |
| 6  |                 |                      |                 | X 2 - Dominance Te                        |   |                |
| 7.   | -               |                      |                 | X 3 - Prevalence Inc                      | dex is ≤3.0 '<br>∣ Adaptations <sup>1</sup> (Prov | ide eupporting |
| 8.<br>9.   |                 |                      |                 |   | Adaptations (Prov                                 |                |
| 10.  | -               |                      |                 |   | ophytic Vegetation <sup>1</sup>                   | •              |
| 10   | 100             | =Total Cover         |                 | <sup>1</sup> Indicators of hydric s       |   | ` ' '          |
| Woody Vine Stratum (Plot size:                             | )               | 1016                 |                 | be present, unless dis                    |   |                |
| 1. <i>N/A</i>  | ,               |                      |                 |   |   |                |
| 2.   |                 |                      |                 | Hydrophytic<br>Vegetation                 |   |                |
|  |                 | =Total Cover         |                 | •   | XNo   | _              |
| Remarks: (Include photo numbers here or on a sepa          | rate sheet.)    |                      |                 |   |   |                |
| , .  |                 |                      |                 |   |   |                |
|  |                 |                      |                 |   |   |                |

US Army Corps of Engineers

SOIL Sampling Point: WA-1

| Depth  | Matrix   |                                   | Redo   | x Featur  | es  |                                       |  |  |   |                     |
|--|--|-----------------------------------|--|---|---|---------------------------------------|--|--|---|---------------------|
| (inches)   | Color (moist)  | %                                 | Color (moist)  | %   | Type <sup>1</sup>   | Loc <sup>2</sup>                      | Texture  |  | Remarks   |                     |
| 0-5  | 10YR 3/2   | 90                                | 10YR 3/6   | 10  | С   | M                                     | Loamy/Clayey   | Prominent  | redox conce   | entrations          |
| 5-10   | 10YR 3/1   | 90                                | 10YR 6/8   | 10  | С   | M                                     | Loamy/Clayey   | Prominent  | redox conce   | entrations          |
| 10-15  | 10YR 2/1   | 80                                | 10YR 5/8   | 20  | С   | М                                     | Loamy/Clayey   | Prominent  | redox conce   | entrations          |
|  |  | <u> </u>                          |  |   | <u> </u>  |                                       |  |  |   |                     |
| Type: C=Co   | oncentration, D=Dep  | letion RM                         | <br>I=Reduced Matrix I   | MS=Mas  | ked San   | d Grains                              | <sup>2</sup> I ocation   | : PL=Pore Lini   | ing M=Matri   | x                   |
| Hydric Soil I  |  | 1001011, 1101                     | T Ttoudood Matrix, 1   | vic ivido   | nou cum   | a Graine                              |  | s for Problem  |   |                     |
| Histosol   |  |                                   | Sandy Gle  | eved Mat  | rix (S4)  |                                       |  | t Prairie Redox  | -   |                     |
|  | ipedon (A2)  |                                   | Sandy Re   | -   | ()  |                                       |  | Manganese Ma   |   |                     |
| Black His  |  |                                   | Stripped N   |   | 3)  |                                       |  | Parent Material  |   |                     |
|  | n Sulfide (A4)   |                                   | Dark Surfa   |   | -,  |                                       |  | Shallow Dark S   |   | P)                  |
|  | Layers (A5)  |                                   | Loamy Mu   | ` '   | eral (F1)   |                                       |  | r (Explain in Re   |   | -,                  |
| 2 cm Mu  |  |                                   | Loamy Gl   | •   | , ,   |                                       |  | (Explain in re   | orriar (to)   |                     |
|  | Below Dark Surface   | Δ(Δ11)                            | X Depleted I   | -   |   |                                       |  |  |   |                     |
|  | rk Surface (A12)   | , (, (, 1, 1,                     | X Redox Da   |   | •   |                                       | <sup>3</sup> Indicator   | s of hydrophyti  | ic vegetation   | and                 |
|  | ucky Mineral (S1)  |                                   | Depleted I   |   |   | )                                     |  | nd hydrology n   | -   |                     |
|  | cky Peat or Peat (S3   | 3)                                | Redox De   |   | `   | ,                                     |  | s disturbed or   |   |                     |
|  | _ayer (if observed):   |                                   |  |   | ( - /   |                                       |  |  |   |                     |
|  | Layer (ii observed).   |                                   |  |   |   |                                       |  |  |   |                     |
| Type:  | NI/A   |                                   |  |   |   |                                       |  |  |   |                     |
| Type:  | N/A  |                                   |  |   |   |                                       | Hydric Soil Present  | ?  | Yes   | No                  |
| Depth (in<br>Remarks:<br>This data for   | iches):  |                                   |  |   |   |                                       | Hydric Soil Present NRCS Field Indicators )  |  | Yess, Version 7.  | <b>No</b>           |
| Depth (in<br>Remarks:<br>This data fori<br>Errata. (http:/   | rches):<br>m is revised from Mi<br>//www.nrcs.usda.go\   |                                   |  |   |   |                                       | NRCS Field Indicators  |  |   |                     |
| Depth (in<br>Remarks:<br>This data fori<br>Errata. (http:/   | rches):<br>m is revised from Mi<br>//www.nrcs.usda.go\   |                                   |  |   |   |                                       | NRCS Field Indicators  |  |   |                     |
| Depth (in Remarks: This data for Errata. (http://www.communication)  | m is revised from Mi<br>//www.nrcs.usda.gov  | r/Internet/I                      | SE_DOCUMENTS   | 6/nrcs142   |   |                                       | NRCS Field Indicators  | of Hydric Soils  | s, Version 7  | .0, 2015            |
| Depth (in Remarks: This data for Errata. (http://www.communication)  YDROLO Wetland Hyderimary Indice  | m is revised from Mi<br>//www.nrcs.usda.gov<br>GY<br>drology Indicators:   | r/Internet/I                      | SE_DOCUMENTS   | S/nrcs142   | 2p2_051:  | 293.docx                              | NRCS Field Indicators )  Seconda   | s of Hydric Soils  | s, Version 7  | .0, 2015            |
| Depth (in Remarks: This data for Frrata. (http://www.communication)  YDROLO  Vetland Hyden  Surface (  | m is revised from Mi<br>//www.nrcs.usda.gov<br>GY<br>drology Indicators:<br>eators (minimum of o   | r/Internet/I                      | ired; check all that  X Water-Sta  | apply)<br>ined Lea  | ves (B9)  | 293.docx                              | NRCS Field Indicators )  Seconda X Surfa   | s of Hydric Soils y Indicators (m  | s, Version 7.   | .0, 2015            |
| Depth (in Remarks: This data for Errata. (http://  YDROLO Wetland Hyde Surface \ High Wat  | m is revised from Mi<br>//www.nrcs.usda.gov<br>GY<br>drology Indicators:<br>eators (minimum of o<br>Water (A1)<br>ter Table (A2)   | r/Internet/I                      | ired; check all that  X Water-Sta  | apply)<br>ined Lea  | ves (B9)  | 293.docx                              | NRCS Field Indicators )  Seconda X Surfa X Drair   | y Indicators (m<br>ce Soil Cracks<br>age Patterns (l   | ninimum of to   | .0, 2015            |
| Depth (in Remarks: This data for Frrata. (http://www.communication)  YDROLO  Yetland Hydromany Indication  Surface \( \)  High Watanows Saturation   | m is revised from Mi//www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of of Mater (A1) ter Table (A2) n (A3)  | r/Internet/I                      | nired; check all that  X Water-Sta  Aquatic Fa  True Aqua  | apply)<br>ined Lea<br>auna (B1<br>atic Plant  | ves (B9)<br>3)<br>s (B14)   | 293.docx                              | NRCS Field Indicators )  Seconda  X Surfa  X Drair  X Dry-s  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water 1   | ninimum of to<br>(B6)<br>B10)<br>Table (C2)   | .0, 2015            |
| Depth (in Remarks: This data for Errata. (http://  YDROLO  Vetland Hyd  Surface \ High Wat  Saturatio  X Water Ma  | m is revised from Mi<br>//www.nrcs.usda.gov<br>GY<br>drology Indicators:<br>eators (minimum of o<br>Water (A1)<br>ter Table (A2)<br>in (A3)<br>arks (B1)   | r/Internet/I                      | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen   | apply) ined Lea auna (B1 stic Plant Sulfide (   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1   | 293.docx                              | NRCS Field Indicators )  Seconda  X Surfa  X Drair  X Dry-5  Cray  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water 1   | ninimum of to<br>(B6)<br>B10)<br>Table (C2)   | 0, 2015             |
| Depth (in Remarks: This data for Errata. (http://  YDROLO  Vetland Hyde  Surface \ High Wat  Saturatio  X Water Ma  Sedimen  | m is revised from Mi //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)  | r/Internet/I                      | iired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F  | apply) ined Lea auna (B1 stic Plant Sulfide ( Rhizosph  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on  | 293.docx                              | Seconda   X   Surfa   X   Dry-S   Cray   Cray   South (C3)   X   Saturation (C3)   X   Saturation (C3)   X   Saturation (C3)   X   Saturation (C3)   Saturation (C3)   X   Saturation (C3)   S | y Indicators (m<br>ce Soil Cracks<br>age Patterns (l<br>Season Water T<br>ish Burrows (C<br>ation Visible or   | ninimum of to<br>(B6)<br>B10)<br>Table (C2)<br>C8)  | 0, 2015  wo require |
| Primary Indicated Saturation X Water Marson Depth (in Page 1)    Primary Indicated Surface (in Page 1)    Water Marson Sedimen Drift Dep   | m is revised from Mi //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o Water (A1) ter Table (A2) nn (A3) arks (B1) t Deposits (B2) osits (B3)  | r/Internet/I                      | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa X Presence   | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>ced Iron                                    | 293.docx ) Living Ra                  | Seconda   X Surfa   X Drair   X Dry-5   Cray   Cray   Stundard   | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>rish Burrows (C<br>ration Visible or<br>ed or Stressed                                       | ninimum of to<br>( (B6)<br>B10)<br>Table (C2)<br>C8)<br>In Aerial Imag                                | 0, 2015  wo require |
| Primary Indicated Surface Value Saturatio Xaturatio Drift Dep Algal Marks  | m is revised from Mi //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)  | r/Internet/I                      | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa X Presence Recent Iro  | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron   | 293.docx ) Living Ra                  | Seconda  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>fish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position                   | ninimum of to<br>6 (B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)      | 0, 2015  wo require |
| Depth (in Remarks: This data for Errata. (http://  YDROLO  Wetland Hyd  Surface \ High Wat  Saturatio  X Water Ma  Sedimen  Drift Dep  Algal Ma'  X Iron Dep   | m is revised from Mi //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) nn (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)   | ne is requ                        | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  X Presence  Recent Iro  Thin Muck                           | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc on Reduc  | vves (B9) 3) s (B14) Odor (C1 eres on ced Iron tion in T  | 293.docx ) Living Ra                  | Seconda  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>rish Burrows (C<br>ration Visible or<br>ed or Stressed                                       | ninimum of to<br>6 (B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)      | 0, 2015  wo require |
| Depth (in Remarks: This data for Errata. (http://www.communication)  YDROLO  YDROLO  Yetland Hyde  Surface \( \)  High Wat  Saturatio  X Water Material  Sedimen  Drift Dep  Algal Material  X Iron Depo   | GY  Grology Indicators: eators (minimum of or Mater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In  | ne is requ                        | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa X Presence Recent Iro Thin Muck Gauge or                         | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduce on Reduce c Surface Well Dat                     | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ed Iron ition in T e (C7) a (D9)                | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>fish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position                   | ninimum of to<br>6 (B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)      | 0, 2015  wo require |
| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd  Surface \ High Wat  Saturatio  X Water Ma  Sedimen  Drift Dep  Algal Mat  X Iron Depo  X Inundatic  Sparsely  | m is revised from Mi //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial II Vegetated Concave   | ne is requ                        | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa X Presence Recent Iro Thin Muck Gauge or                         | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduce on Reduce c Surface Well Dat                     | exp2_051:  ves (B9) 3) s (B14) Odor (C1 eres on ed Iron ition in T e (C7) a (D9)                | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>fish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position                   | ninimum of to<br>6 (B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)      | 0, 2015  wo require |
| Depth (in Remarks: This data forterrata. (http:// Primary Indices Surface Verimary Indices Algal Marxito Veriman Drift Dependary Incompany Incompa | m is revised from Mi //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) nr (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial II Vegetated Concave   | ne is requested and the magery (B | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  X Presence  Recent Iro  Thin Muck  Gauge or  (B8) Other (Ex | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc on Reduc c Surface Well Dat blain in R            | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cition in T c (C7) a (D9) Remarks)                | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>fish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position                   | ninimum of to<br>6 (B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)      | 0, 2015  wo require |
| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd Surface V High Wat Saturatio X Water Ma Sedimen Drift Dep Algal Mat X Iron Depo X Inundatio Sparsely  Field Observ Surface Water   | m is revised from Mid/www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of or Mater (A1) ter Table (A2) in (A3) earks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Ye  | magery (B                         | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa X Presence Recent Iro Thin Muck F7) Gauge or (B8) Other (Exp     | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduct on Reduct c Surface Well Dat blain in R          | ves (B9) 3) s (B14) Odor (C1) eres on ced Iron ition in T r (C7) a (D9) Remarks)                | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>fish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position                   | ninimum of to<br>6 (B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)      | 0, 2015  wo require |
| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd Primary Indio Surface \( \) High Wat Saturatio X Water Ma Sedimen Drift Dep Algal Ma X Iron Depo X Inundatio Sparsely Field Observ Surface Water Water Table   | m is revised from Mi //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of or Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial II Vegetated Concave vations: er Present? Yee Present? Yee                          | magery (B                         | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa X Presence Recent Iro Thin Muck Fa Total Other (Exp              | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduce on Reduce (Surface Well Dat blain in R           | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron tion in T r (C7) a (D9) Remarks) nches): _nches): | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>ish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position<br>Neutral Test (E | ninimum of to<br>(B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)<br>D5) | 0, 2015  wo require |
| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd Primary Indic Surface \( \) High Wat Saturatio X Water Ma Sedimen Drift Dep Algal Ma X Iron Depo X Inundatio Sparsely  Field Observ Surface Water Water Table Saturation Pr  | m is revised from Mi //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of or Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Present? Ye resent? Ye                    | magery (B                         | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa X Presence Recent Iro Thin Muck F7) Gauge or (B8) Other (Exp     | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduct on Reduct c Surface Well Dat blain in R          | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron tion in T r (C7) a (D9) Remarks) nches): _nches): | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>ish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position<br>Neutral Test (E | ninimum of to<br>6 (B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)      | 0, 2015  wo require |
| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd  Surface \ High Wat  Saturatio  X Water Ma  Sedimen  Drift Dep  Algal Ma'  X Iron Dept  X Inundatio  Sparsely  Field Observ  Surface Water  Water Table  Saturation Pr  (includes cap  | m is revised from Mid/www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of orwater (A1) ter Table (A2) in (A3) earks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Invegetated Concave vations: er Present? Yee Present? Yee esent? Yee oillary fringe) | magery (B                         | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck F7) Gauge or Other (Ext           | apply) ined Lea auna (B1 attic Plant Sulfide ( Rhizosph of Reduce on Reduce Well Dat plain in F Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron tion in T (C7) a (D9) Remarks) nches): nches):    | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  X Surfa  X Drair  X Dry-s  Cray  Poots (C3) X Satur  Stunt  Geor  FAC-  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>ish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position<br>Neutral Test (E | ninimum of to<br>(B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)<br>D5) | o, 2015  wo require |
| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd  Surface \ High Wat  Saturatio  X Water Ma  Sedimen  Drift Dep  Algal Ma'  X Iron Dept  X Inundatio  Sparsely  Field Observ  Surface Water  Water Table  Saturation Pr  (includes cap  | m is revised from Mi //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of or Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Present? Ye resent? Ye                    | magery (B                         | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck F7) Gauge or Other (Ext           | apply) ined Lea auna (B1 attic Plant Sulfide ( Rhizosph of Reduce on Reduce Well Dat plain in F Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron tion in T (C7) a (D9) Remarks) nches): nches):    | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  X Surfa  X Drair  X Dry-s  Cray  Poots (C3) X Satur  Stunt  Geor  FAC-  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>ish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position<br>Neutral Test (E | ninimum of to<br>(B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)<br>D5) | 0, 2015  wo require |
| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd  Surface \ High Wat  Saturatio  X Water Ma  Sedimen  Drift Dep  Algal Ma'  X Iron Dept  X Inundatio  Sparsely  Field Observ  Surface Water  Water Table  Saturation Pr  Includes cap   | m is revised from Mid/www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of orwater (A1) ter Table (A2) in (A3) earks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Invegetated Concave vations: er Present? Yee Present? Yee esent? Yee oillary fringe) | magery (B                         | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck F7) Gauge or Other (Ext           | apply) ined Lea auna (B1 attic Plant Sulfide ( Rhizosph of Reduce on Reduce Well Dat plain in F Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron tion in T (C7) a (D9) Remarks) nches): nches):    | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  X Surfa  X Drair  X Dry-s  Cray  Poots (C3) X Satur  Stunt  Geor  FAC-  | y Indicators (m<br>ce Soil Cracks<br>age Patterns (I<br>Season Water T<br>ish Burrows (C<br>ration Visible or<br>ed or Stressed<br>norphic Position<br>Neutral Test (E | ninimum of to<br>(B6)<br>B10)<br>Table (C2)<br>C8)<br>n Aerial Imag<br>I Plants (D1)<br>n (D2)<br>D5) | 0, 2015  wo require |

# WETLAND DETERMINATION DATA FORM - Midwest Region

| Project/Site: Innovation East Wetland A                  |                  | City/Cour    | nty: Jersey T   | WP/Licking  | Sampling Date:                 | 08/11/2021             |
|--|------------------|--------------|-----------------|---|--------------------------------|------------------------|
| Applicant/Owner: MBJ Holdings                            |                  |              |                 | State: OH   | Sampling Point:                | UPA-1                  |
| Investigator(s): Bryan Lombard                           |                  | Section, T   | ownship, Rar    | nge: Jersey   |                                |                        |
| Landform (hillside, terrace, etc.): Field                |                  | l            | Local relief (c | oncave, convex, none):  | convex                         |                        |
| Slope (%):1 Lat: _40.090554                              |                  | Long: _{     | 82.718435       |   | Datum: NAD83 U                 | īM Zone 17 N           |
| Soil Map Unit Name: BeB- Bennington silt loam, 2 to      | 6 percent slop   | es           |                 | NWI classi  | fication:                      |                        |
| Are climatic / hydrologic conditions on the site typical | for this time of | f year?      | Yes X           | No (If no, ex   | plain in Remarks.)             |                        |
| Are Vegetation , Soil , or Hydrology                     | significantly of | disturbed? A | \re "Normal C   | ircumstances" present   | Yes X N                        | 0                      |
| Are Vegetation, Soil, or Hydrology                       | _                |              |                 | olain any answers in Re                                       |                                |                        |
| SUMMARY OF FINDINGS – Attach site m                      | <del></del>      |              | g point lo      | cations, transects  | , important fea                | itures, etc.           |
| Hydrophytic Vegetation Present? Yes                      | No X             | Is the       | Sampled Ar      | ea  |                                |                        |
| Hydric Soil Present? Yes X                               | No               | within       | n a Wetland?    | Yes   | No X                           |                        |
| Wetland Hydrology Present? Yes                           | No X             |              |                 |   |                                |                        |
| Remarks:   |                  |              |                 |   |                                |                        |
| VEGETATION – Use scientific names of pl                  | ants.            |              |                 |   |                                |                        |
|  | Absolute         | Dominant     | Indicator       |   |                                |                        |
| Tree Stratum (Plot size:)                                | % Cover          | Species?     | Status          | Dominance Test wo   | rksheet:                       |                        |
| 1.   |                  |              |                 | Number of Dominant  | •                              | 0 (4)                  |
| 2.<br>3.   |                  |              |                 | Are OBL, FACW, or F   |                                | 0 (A)                  |
| 3<br>4.  | - ——             |              |                 | Total Number of Dom<br>Across All Strata:                     | inant Species                  | 2 (B)                  |
| 5.   | - ——             |              |                 |   | Cassian That                   | 2 (5)                  |
| o  | :                | =Total Cover |                 | Percent of Dominant<br>Are OBL, FACW, or F                    | •                              | 0.0% (A/B)             |
| Sapling/Shrub Stratum (Plot size:                        |                  |              |                 |   |                                | ``                     |
| 1.   | <u> </u>         |              |                 | Prevalence Index w  | orksheet:                      |                        |
| 2.   |                  |              |                 | Total % Cover o   | f: Multiply                    | y by:                  |
| 3  |                  |              |                 |   | x 1 =                          | 0                      |
| 4.   |                  |              |                 |   | x 2 =                          | 0                      |
| 5  |                  |              |                 | - '   | 0 x 3 =                        | 30                     |
| /Dist =:===  |                  | =Total Cover |                 | · —   |                                | 200                    |
| Herb Stratum (Plot size:)                                | 10               | No           | FAC             | · · · · · · · · · · · · · · · · · · ·                         |                                | 200<br>430 (B)         |
| Plantago major     Oxalis albicans                       | 40               | No<br>Yes    | FAC<br>UPL      | Prevalence Index  | . ,                            |                        |
| 3. festuca rubra   | 50               | Yes          | FACU            | Frevalence index  | - B/A - 4.3                    | <u></u>                |
| 4.   |                  | 163          | 1700            | Hydrophytic Vegeta  | tion Indicators                |                        |
| 5.   |                  |              |                 |   | r Hydrophytic Vege             | tation                 |
| 6.   | - ——             |              |                 | 2 - Dominance T   | , , , ,                        |                        |
| 7.   |                  |              |                 | 3 - Prevalence In   | dex is ≤3.0 <sup>1</sup>       |                        |
| 8.   |                  |              |                 | 4 - Morphologica  | Adaptations <sup>1</sup> (Prov | /ide supporting        |
| 9.   |                  |              |                 | data in Remar   | ks or on a separate            | sheet)                 |
| 10   |                  |              |                 | Problematic Hyd   | rophytic Vegetation            | <sup>1</sup> (Explain) |
| Woody Vine Stratum (Plot size:                           | 100=             | =Total Cover |                 | <sup>1</sup> Indicators of hydric s<br>be present, unless dis |                                |                        |
| 1  |                  |              |                 | Hydrophytic   |                                |                        |
| 2  | - ——             |              |                 | Vegetation  |                                |                        |
|  |                  | =Total Cover |                 | Present? Yes  | No X                           | _                      |
| Remarks: (Include photo numbers here or on a sepa        | arate sheet.)    |              |                 |   |                                |                        |

SOIL Sampling Point: UPA-1

| Depth   | Matrix   |                                  | Redo   | x Featur   | es  |                                       |   |   |
|---|--|----------------------------------|--|--|---|---------------------------------------|---|---|
| (inches)  | Color (moist)  | %                                | Color (moist)  | %  | Type <sup>1</sup>   | Loc <sup>2</sup>                      | Texture   | Remarks   |
| 0-6   | 10YR 4/2   | 100                              |  |  | С   | M                                     | Loamy/Clayey  |   |
| 6-12  | 10YR 4/2   | 75                               | 10YR 5/6   | 25   | С   | M                                     | Loamy/Clayey  | Prominent redox concentrations  |
| 12-18   | 10YR 5/3   | 50                               | 10YR 6/8   | 50   | С   | M                                     | Loamy/Clayey  | Prominent redox concentrations  |
| 12 10   | 10111 0/0  |                                  | 10111 0/0  |  |   | 101                                   | Loumy/olayey  | T TOTALICATE TO GOA GOTTO CHILDREN  |
|   |  |                                  |  |  |   |                                       |   | -   |
|   |  |                                  |  |  |   |                                       |   |   |
|   |  |                                  |  |  |   |                                       |   |   |
| <sup>1</sup> Type: C=C  | oncentration, D=Depl   | etion RM                         | =Reduced Matrix I  | MS=Mas   | ked San   | d Grains                              | <sup>2</sup> I ocation  | : PL=Pore Lining, M=Matrix.   |
| Hydric Soil   |  | otion, rtivi                     | Treduced Matrix, 1   | vio ivido  | itou ouri   | a Oranio.                             |   | rs for Problematic Hydric Soils <sup>3</sup> :  |
| Histosol  |  |                                  | Sandy Gle  | yed Mat  | rix (S4)  |                                       |   | st Prairie Redox (A16)  |
|   | oipedon (A2)   |                                  | Sandy Re   | -  |   |                                       |   | Manganese Masses (F12)  |
| Black His   | stic (A3)  |                                  | Stripped M   | 1atrix (S6   | 3)  |                                       | Red   | Parent Material (F21)   |
| Hydroge   | en Sulfide (A4)  |                                  | Dark Surfa   | ace (S7)   |   |                                       | Very  | Shallow Dark Surface (F22)  |
| Stratified  | d Layers (A5)  |                                  | Loamy Mu   | cky Mine   | eral (F1)   |                                       | Othe  | r (Explain in Remarks)  |
| 2 cm Mu   | ıck (A10)  |                                  | Loamy Gle  | eyed Mat   | trix (F2)   |                                       |   |   |
| Depleted  | d Below Dark Surface   | (A11)                            | X Depleted I   | Иatrix (F  | 3)  |                                       |   |   |
| Thick Da  | ark Surface (A12)  |                                  | Redox Da   | rk Surfac  | e (F6)  |                                       | <sup>3</sup> Indicator  | rs of hydrophytic vegetation and  |
|   | lucky Mineral (S1)   |                                  | Depleted [   |  | ` '   | )                                     |   | and hydrology must be present,  |
| 5 cm Mu   | ıcky Peat or Peat (S3  | )                                | Redox De   | pression   | s (F8)  |                                       | unles   | ss disturbed or problematic.  |
|   | Layer (if observed):   |                                  |  |  |   |                                       |   |   |
| Type:   | N/A  |                                  |  |  |   |                                       |   |   |
| Depth (ir   | nches):  |                                  |  |  |   |                                       | Hydric Soil Present   | t? Yes <u>X</u> No  |
| Errata. (http:  | ://www.nrcs.usda.gov   |                                  |  |  |   |                                       |   | s of Hydric Soils, Version 7.0, 2015  |
|   | ://www.nrcs.usda.gov   |                                  |  |  |   |                                       |   | s of Hydric Soils, Version 7.0, 2015  |
| HYDROLO   | ://www.nrcs.usda.gov   |                                  |  |  |   |                                       |   | s of Hydric Soils, Version 7.0, 2015  |
| HYDROLO   | OGY drology Indicators:  | /Internet/F                      | SE_DOCUMENTS   | i/nrcs142  |   |                                       | )   |   |
| HYDROLO Wetland Hy  | OGY drology Indicators: cators (minimum of o   | /Internet/F                      | SE_DOCUMENTS   | apply)   | 2p2_051;  | 293.docx                              | )<br><u>Seconda</u>   | ry Indicators (minimum of two required  |
| HYDROLO Wetland Hy Primary India  | OGY drology Indicators: cators (minimum of o   | /Internet/F                      | SE_DOCUMENTS   | apply)<br>ined Lea   | ves (B9)  | 293.docx                              | Secondal  | ry Indicators (minimum of two required<br>ace Soil Cracks (B6)  |
| HYDROLO Wetland Hyd Primary India Surface High Wa   | OGY drology Indicators: cators (minimum of o Water (A1) ater Table (A2)  | /Internet/F                      | ired; check all that a water-Sta Aquatic Fa  | apply)<br>ined Lea   | ves (B9)  | 293.docx                              | Seconda Surfa Drair   | ry Indicators (minimum of two required<br>ace Soil Cracks (B6)<br>aage Patterns (B10)   |
| HYDROLO  Wetland Hydrology Primary India Surface High Wa Saturatio  | OGY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3)  | /Internet/F                      | ired; check all that a water-Sta Aquatic Fa  | apply)<br>ined Lea<br>auna (B1<br>tic Plant  | ves (B9)<br>3)<br>s (B14)   | 293.docx                              | Seconda Surfa Drair Dry-S                                       | ry Indicators (minimum of two required<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)  |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M   | OGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1)  | /Internet/F                      | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen   | apply)<br>ined Lea<br>auna (B1<br>tic Plant<br>Sulfide (   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1   | 293.docx                              | Secondal Surfa Drair Dry-5 Cray                                 | ry Indicators (minimum of two required<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)   |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer   | OGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)   | /Internet/F                      | ired; check all that a water-Sta Aquatic Fa  | apply)<br>ined Lea<br>auna (B1<br>tic Plant<br>Sulfide (<br>Rhizosph   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on  | 293.docx                              | SecondaSurfaDrairDry-3Cray poots (C3)Satu                       | ry Indicators (minimum of two required ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2)   |
| HYDROLO  Wetland Hy  Primary India  Surface  High Wa  Saturatic  Water M  Sedimer  Drift Dep  | OGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1)  | /Internet/F                      | ired; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F  | apply)<br>ined Lea<br>auna (B1<br>tic Plant<br>Sulfide (<br>Rhizosph<br>of Reduc                                     | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on  | 293.docx ) Living Ro                  | Seconda  Surfa  Drair  Dry-s  Cray  pots (C3)  Stunt            | ry Indicators (minimum of two required<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)  |
| HYDROLO  Wetland Hyde  Primary India  Surface  High Wa  Saturatio  Water M  Sedimer  Drift Dep  Algal Ma  | OGY Idrology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)  | /Internet/F                      | ired; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F  | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron of  | 293.docx ) Living Ro                  | Seconda   | ry Indicators (minimum of two required<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)                       |
| HYDROLO  Wetland Hydrology Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep  | OGY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)   | /Internet/F                      | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro  | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface                                       | exp2_051:<br>vves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>ced Iron<br>tion in Ti              | 293.docx ) Living Ro                  | Seconda   | ry Indicators (minimum of two required ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)                   |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio   | drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)   | ne is requi                      | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck                             | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat                              | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cetion in Ti  | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda   | ry Indicators (minimum of two required ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)                   |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio   | drology Indicators: cators (minimum of orward (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In  | ne is requi                      | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck                             | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat                              | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cetion in Ti  | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda   | ry Indicators (minimum of two required ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)                   |
| HYDROLO  Wetland Hy  Primary India  Surface  High Wa  Saturatic  Water M  Sedimer  Drift Dep  Algal Ma  Iron Dep  Inundatic  Sparsely   | OGY Idrology Indicators: cators (minimum of o) Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave   | ne is requinagery (B'            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck (7) Gauge or B8) Other (Exp | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat                              | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cition in Ti c (C7) a (D9) Remarks)                     | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda   | ry Indicators (minimum of two required ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)                   |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatia Sparsely  Field Obser Surface Water Water Table                                     | drology Indicators: cators (minimum of orwater (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave rvations: ter Present? Ye   | ne is requinagery (B' Surface (I | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck (7) Gauge or B8) Other (Exp | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc n Reduc Surface Well Dat blain in R           | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cet (C7) a (D9) Remarks) nches): _nches):               | )<br>Living Ro<br>(C4)<br>illed Soils | Secondal Surfa Dry-5 Cray Doots (C3) Satura Stuni s (C6) FAC-   | ry Indicators (minimum of two required ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5) |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely  Field Obser Surface Water Table Saturation P                              | OGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Ir y Vegetated Concave rvations: ter Present? Ye resent? Ye resent? Ye              | nagery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or Other (Exp.     | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R                   | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cet (C7) a (D9) Remarks) nches): _nches):               | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda   | ry Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5) |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely  Field Obser Surface Wat Water Table Saturation P (includes car            | oGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Ir y Vegetated Concave rvations: ter Present? Ye resent? Ye pillary fringe)         | magery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Facent Iro Thin Muck To Gauge or Other (Exp No X No X No X   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron eres (C7) a (D9) Remarks) nches): _ nches): _  | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drair Dry-S Cray pots (C3) Satur Stuni S (C6) FAC | ry Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5) |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely  Field Obser Surface Wat Water Table Saturation P (includes car            | OGY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Ir y Vegetated Concave rvations: ter Present? Ye resent? Ye resent? Ye              | magery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Facent Iro Thin Muck To Gauge or Other (Exp No X No X No X   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron eres (C7) a (D9) Remarks) nches): _ nches): _  | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drair Dry-S Cray pots (C3) Satur Stuni S (C6) FAC | ry Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5) |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re | oGY drology Indicators: cators (minimum of orwater (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave rvations: ter Present? Yelloresent? Yelloresent? Yelloresent? | magery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Facent Iro Thin Muck To Gauge or Other (Exp No X No X No X   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron deres (C7) a (D9) Remarks) nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drair Dry-S Cray pots (C3) Satur Stuni S (C6) FAC | ry Indicators (minimum of two required ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5) |
| HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes car             | oGY drology Indicators: cators (minimum of orwater (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave rvations: ter Present? Yelloresent? Yelloresent? Yelloresent? | magery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Facent Iro Thin Muck To Gauge or Other (Exp No X No X No X   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron ced Iron deres (C7) a (D9) Remarks) nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drair Dry-S Cray pots (C3) Satur Stuni S (C6) FAC | ry Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) Neutral Test (D5) |

# WETLAND DETERMINATION DATA FORM - Midwest Region

| Project/Site: Innovation East                              |                     | City/Cour            | nty: Jersey/l            | Licking   | Sampling Date:                  | 8-11-21     |
|--|---------------------|----------------------|--------------------------|---|---------------------------------|-------------|
| Applicant/Owner: MBJ Holdings                              |                     |                      | ·<br>                    | State: OH   | Sampling Point:                 | WB-1        |
| Investigator(s): BDL                                       |                     | Section, T           | rownship, Ra             | inge: T2N R15W  |                                 |             |
| Landform (hillside, terrace, etc.): field                  |                     | l                    | Local relief (c          | concave, convex, none):                                       | concave                         |             |
| Slope (%): 6 Lat: 40.092477                                |                     | <br>Long:{           | 82.717421                |   | Datum: NAD83 UTI                | M Zone 17 N |
| Soil Map Unit Name: Pewamo                                 |                     |                      |                          | NWI classi  | fication: N/A                   |             |
| Are climatic / hydrologic conditions on the site typical f | or this time o      | f year?              | Yes X                    | No (If no, ex   | olain in Remarks.)              |             |
| Are Vegetation, Soil, or Hydrology                         | significantly of    | disturbed? A         | Are "Normal (            | Circumstances" present?                                       | Yes X No                        | · _         |
| Are Vegetation, Soil, or Hydrology                         |                     |                      |                          | xplain any answers in Re                                      |                                 |             |
| SUMMARY OF FINDINGS – Attach site m                        |                     |                      | ıg point lo              | cations, transects  | , important feat                | ures, etc.  |
| Hydric Soil Present? Yes X N                               | lo<br>lo            |                      | e Sampled Ain a Wetland? |   | No                              |             |
| Remarks:<br>pond fringe                                    |                     |                      |                          |   |                                 |             |
| <b>VEGETATION</b> – Use scientific names of pla            | ants.               |                      |                          |   |                                 |             |
| <u>Tree Stratum</u> (Plot size: )                          | Absolute<br>% Cover | Dominant<br>Species? | Indicator<br>Status      | Dominance Test wo   | rkehoot:                        |             |
| 1. Salix nigra 2.  | 40                  | Yes                  | OBL                      | Number of Dominant<br>Are OBL, FACW, or F                     | Species That                    | 3 (A)       |
| 3.<br>4.   |                     |                      |                          | Total Number of Dom<br>Across All Strata:                     | inant Species                   | 3 (B)       |
| 5.   |                     |                      |                          | Percent of Dominant   |                                 | ` '         |
| Sapling/Shrub Stratum (Plot size:                          |                     | =Total Cover         |                          | Are OBL, FACW, or F   | •                               | 0.0% (A/B)  |
| 1. <i>N/A</i>  | ,<br>               |                      |                          | Prevalence Index wo   | orksheet:                       |             |
| 2.   |                     |                      |                          | Total % Cover of  | : Multiply                      | by:         |
| 3.   |                     |                      |                          |   |                                 | 50          |
| 4  |                     |                      |                          | · ·   | <del></del>                     | 90          |
| 5  |                     | <del></del>          |                          |   |                                 | 0           |
| Link Stratum   |                     | =Total Cover         |                          |   |                                 | 0           |
| Herb Stratum (Plot size:)  1. Phalaris arundinacea         | 25                  | Yes                  | FACW                     | UPL species (Column Totals: 9                                 |                                 | 0<br>40 (B) |
| Echinochloa crus-galli                                     | 20                  | Yes                  | FACW                     | Prevalence Index  | `` /                            | ``          |
| Eupatorium perfoliatum                                     | 10                  | No                   | OBL                      | 1 16valorios mass   | - D/A                           |             |
| 4.   |                     |                      |                          | Hydrophytic Vegeta  | tion Indicators:                |             |
| 5.   |                     |                      |                          |   | · Hydrophytic Vegeta            | ation       |
| 6.   |                     |                      |                          | X 2 - Dominance Te  | , , ,                           |             |
| 7.   |                     |                      |                          | X 3 - Prevalence In   | dex is ≤3.0 <sup>1</sup>        |             |
| 8.   |                     |                      |                          |   | Adaptations <sup>1</sup> (Provi |             |
| 9.   |                     |                      |                          |   | s or on a separate              | ·           |
| 10   |                     |                      |                          | Problematic Hydr  | ophytic Vegetation <sup>1</sup> | (Explain)   |
| Woody Vine Stratum (Plot size:                             | 55                  | =Total Cover         |                          | <sup>1</sup> Indicators of hydric s<br>be present, unless dis |                                 |             |
| 1  |                     |                      |                          | Hydrophytic   |                                 |             |
| 2  |                     | <del></del>          |                          | Vegetation  |                                 |             |
|  |                     | =Total Cover         |                          | Present? Yes  | No                              | -           |
| Remarks: (Include photo numbers here or on a sepa          | rate sheet.)        |                      |                          |   |                                 |             |

US Army Corps of Engineers

SOIL Sampling Point: WB-1

| Depth  | Matrix   |                                   | Read   | x Featur   | <u> </u>   |                                       |  |  |  |                   |
|--|--|-----------------------------------|--|--|--|---------------------------------------|--|--|--|-------------------|
| (inches)   | Color (moist)  | %                                 | Color (moist)  | %  | Type <sup>1</sup>  | Loc <sup>2</sup>                      | Texture  |  | Remarks  |                   |
| 0-9  | 10YR 2/1   | 80                                | 10YR 5/4   | 20   | С  | M                                     | Loamy/Clayey   | Distinct   | redox concer   | trations          |
| 9-12   | 10YR 2/1   | 75                                | 10YR 5/6   | 25   | <u>C</u>   | <u>M</u>                              | Loamy/Clayey   | Prominen   | t redox conce  | entrations        |
|  |  |                                   |  | _  |  |                                       |  |  |  |                   |
|  |  |                                   |  |  |  |                                       |  |  |  |                   |
|  |  |                                   |  |  |  |                                       | 2  |  |  |                   |
| -  | oncentration, D=Dep  | letion, RN                        | I=Reduced Matrix, I  | MS=Mas   | ked San  | d Grains.                             |  | : PL=Pore Lir  |  |                   |
| lydric Soil I  |  |                                   | Sandy Cla  | wad Mat  | riv (C1)   |                                       |  | rs for Problen   | -  | Solis":           |
| Histosol   | ipedon (A2)  |                                   | Sandy Gle<br>Sandy Re  | -  | IIX (34)   |                                       |  | st Prairie Redo<br>Manganese M   |  |                   |
| Black His  |  |                                   | Stripped N   |  | 3)   |                                       |  | Manganese M<br>Parent Materia  |  |                   |
|  | n Sulfide (A4)   |                                   | Dark Surfa   |  | ))   |                                       |  | Shallow Dark   |  | `                 |
| · ·  | ` ,  |                                   |  | ` '  | oral (E1)  |                                       |  |  | •  | ,                 |
|  | Layers (A5)  |                                   | Loamy Mu   | •  | , ,  |                                       | Otne   | r (Explain in R  | temarks)   |                   |
| 2 cm Mu  | ` '  | (444)                             | Loamy Gl   | -  |  |                                       |  |  |  |                   |
|  | Below Dark Surface   | e (A11)                           | Depleted I   | •  | •  |                                       | 31, 11, 11, 11   |  | 4:4-4:   |                   |
|  | rk Surface (A12)   |                                   | X Redox Da   |  |  |                                       |  | s of hydrophyt   | -  |                   |
|  | lucky Mineral (S1)   |                                   | Depleted   |  | ` '  | )                                     |  | and hydrology<br>ss disturbed or   |  | ent,              |
|  | cky Peat or Peat (S3   |                                   | Redox De   | pression   | 5 (10)   |                                       | unies  | ss distuibed of  | problematic.   |                   |
| lestrictive L  | Layer (if observed):   |                                   |  |  |  |                                       |  |  |  |                   |
| -  |  |                                   |  |  |  |                                       |  |  |  |                   |
| Type:  |  |                                   |  |  |  |                                       |  |  |  |                   |
| Depth (in<br>Remarks:<br>This data for   | <u> </u>   | ,                                 |  |  |  |                                       | Hydric Soil Present NRCS Field Indicators  |  | Yes X ils, Version 7.  | <b>No</b> 0, 2015 |
| Depth (in<br>Remarks:<br>This data for<br>Errata. (http:/  | m is revised from Mi<br>//www.nrcs.usda.gov  | ,                                 |  |  |  |                                       | NRCS Field Indicators  |  |  |                   |
| Depth (in<br>Remarks:<br>This data for<br>Errata. (http:/  | m is revised from Mi<br>//www.nrcs.usda.gov  | ,                                 |  |  |  |                                       | NRCS Field Indicators  |  |  |                   |
| Depth (in Remarks: This data for Errata. (http://www.communications)   | m is revised from Mi<br>//www.nrcs.usda.gov  | //Internet/l                      | FSE_DOCUMENTS  | 6/nrcs142  |  |                                       | NRCS Field Indicators  | s of Hydric Soi  | ils, Version 7.  | 0, 2015           |
| Depth (in Depth  | m is revised from Mi<br>//www.nrcs.usda.gov<br>PGY<br>drology Indicators:<br>cators (minimum of c  | //Internet/l                      | SE_DOCUMENTS   | apply)   | 2p2_0512   | 293.docx                              | NRCS Field Indicators )  Seconda   | s of Hydric Soi  | ils, Version 7.  | 0, 2015           |
| Depth (in Remarks: This data for Trata. (http:// YDROLO Vetland Hyd Surface N  | m is revised from Mi<br>//www.nrcs.usda.gov<br>PGY<br>drology Indicators:<br>cators (minimum of co   | //Internet/l                      | ired; check all that Water-Sta   | apply) ined Lea  | ves (B9)   | 293.docx                              | NRCS Field Indicators )  Seconda X Surfa   | s of Hydric Soi<br>ry Indicators (r  | minimum of tv  | 0, 2015           |
| Depth (in Depth  | m is revised from Mi //www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o  Water (A1) ter Table (A2)   | //Internet/l                      | ired; check all that Water-Sta Aquatic Fa  | apply)<br>ined Lea   | ves (B9)   | 293.docx                              | NRCS Field Indicators )  Seconda X Surfa Drair   | s of Hydric Soi<br>ry Indicators (r<br>ace Soil Crack:<br>age Patterns   | minimum of tv<br>s (B6)<br>(B10)   | 0, 2015           |
| Depth (in Depth  | m is revised from Mi //www.nrcs.usda.gov  OGY  drology Indicators: cators (minimum of o  Water (A1) ter Table (A2) on (A3)   | //Internet/l                      | ired; check all that Water-Sta Aquatic Fa  | apply)<br>ined Lea<br>auna (B1<br>atic Plant   | ves (B9)<br>3)<br>s (B14)  | 293.docx                              | NRCS Field Indicators )  Seconda  X Surfa  Drair  Dry-S  | ry Indicators (race Soil Cracks) rage Patterns Season Water  | minimum of tv<br>s (B6)<br>(B10)<br>Table (C2)                                       | 0, 2015           |
| Depth (in Depth  | m is revised from Mi //www.nrcs.usda.gov  OGY  drology Indicators: cators (minimum of  | //Internet/l                      | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen   | apply)<br>ined Lea<br>auna (B1<br>atic Plant<br>Sulfide (  | ves (B9)<br>3)<br>s (B14)<br>Ddor (C1  | 293.docx                              | NRCS Field Indicators )  Seconda  X Surfa  Drair  Dry-5  Cray  | ry Indicators (race Soil Cracks<br>nage Patterns<br>Season Water<br>fish Burrows (f  | minimum of two (B10) Table (C2)  | 0, 2015           |
| Depth (in Remarks: This data for the remarks and the remarks  | m is revised from Mi //www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o  Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)  | //Internet/l                      | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F  | apply) ined Lea auna (B1 sulfide ( Rhizosph  | ves (B9) 3) s (B14) Odor (C1 eres on   | 293.docx                              | Seconda  | ry Indicators (race Soil Cracks) age Patterns Season Water fish Burrows (0   | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Image                           | 0, 2015           |
| Depth (in Depth  | m is revised from Mi<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ter Table (A2)<br>on (A3)<br>arks (B1)<br>at Deposits (B2)<br>posits (B3)   | //Internet/l                      | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa   | apply) ined Lea auna (B1 stic Plant Sulfide ( Rhizosph of Reduc  | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron ced  | )<br>Living Ro                        | Seconda   X Surfa   Drair   Dry-Seconds   Cray   South   Stundard   Stundar | ry Indicators (r<br>ace Soil Cracke<br>age Patterns<br>Season Water<br>fish Burrows (f<br>ration Visible of  | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1)              | 0, 2015           |
| Depth (in Remarks: This data for items of the control of the contr | m is revised from Mi //www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4)   | //Internet/l                      | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro   | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc  | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron etion in Ti  | )<br>Living Ro                        | Secondar   X Surfar   Dry-5   Cray   Stundards   C(C6)   X George   X George   X Saturation   Stundards   X George   Construction   Stundards   X George   X George | ry Indicators (race Soil Cracks) age Patterns Season Water fish Burrows (varion Visible of the complete or Stressen                                | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015           |
| Primary Indic Surface V High Water Mater M | m is revised from Mi //www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) osits (B5)   | ne is requ                        | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro   | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc c Surface  | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cettion in Ti  | )<br>Living Ro                        | Secondar   X Surfar   Dry-5   Cray   Stundards   C(C6)   X George   X George   X Saturation   Stundards   X George   Construction   Stundards   X George   X George | ry Indicators (r<br>ace Soil Cracke<br>age Patterns<br>Season Water<br>fish Burrows (f<br>ration Visible of  | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015           |
| Primary Indic Saturatio Water Ma Sedimen Drift Dep X Algal Ma Iron Dep Indepth (in   | m is revised from Mi //www.nrcs.usda.gov  GGY  drology Indicators: cators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In   | ne is requ                        | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck T) Gauge or   | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduce on Reduce x Surface Well Dat  | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cetion in Ti   | )<br>Living Ro<br>(C4)<br>illed Soils | Secondar   X Surfar   Dry-5   Cray   Stundards   C(C6)   X George   X George   X Saturation   Stundards   X George   Construction   Stundards   X George   X George | ry Indicators (race Soil Cracks) age Patterns Season Water fish Burrows (varion Visible of the complete or Stressen                                | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015           |
| Primary Indic Saturatio Water Ma Sedimen Drift Dep X Algal Ma Iron Depo X Inundatic Sparsely   | m is revised from Mi //www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) oosits (B3) ot or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave  | ne is requ                        | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck T) Gauge or   | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduce on Reduce x Surface Well Dat  | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cetion in Ti   | )<br>Living Ro<br>(C4)<br>illed Soils | Secondar   X Surfar   Dry-5   Cray   Stundards   C(C6)   X George   X George   X Saturation   Stundards   X George   Construction   Stundards   X George   X George | ry Indicators (race Soil Cracks) age Patterns Season Water fish Burrows (varion Visible of the complete or Stressen                                | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015           |
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| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd Primary Indic Surface \( \) High Wa' Saturatio Water May Sedimen Drift Dep X Algal Ma Iron Depo X Inundatio Sparsely  Field Observ Surface Water Water Table   | m is revised from Mi //www.nrcs.usda.gov  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In vegetated Concave vations: er Present? Yee  | magery (B                         | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Irc Thin Muck (7) Gauge or (B8) Other (Exp                        | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc on | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cetion in Ti (C7) a (D9) Remarks) nches): _nches):   | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  X Surfa  Drair  Dry-S  Cray  oots (C3) X Satur  Stuni  (C6) X Geor  X FAC-  | ry Indicators (r<br>ace Soil Cracks<br>age Patterns<br>Season Water<br>fish Burrows (t<br>ration Visible of<br>ted or Stressed<br>morphic Position | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | o, 2015           |
| Depth (in Remarks: This data for Errata. (http://  YDROLO  Wetland Hyde  Primary Indication  Surface Naturation  Water Mary Sedimen  Drift Depty  X Algal Ma  Iron Depty  X Inundation  Sparsely  Field Observ  Surface Water Table  Saturation Primary Indication Primary Indication  Surface Water Table  Saturation Primary Indication Indic | m is revised from Mi //www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Present? Ye resent? Ye                      | magery (B                         | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck To Gauge or B8) Other (Exp                          | apply) ined Lea auna (B1 atic Plant Sulfide ( Rhizosph of Reduc on | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron cetion in Ti (C7) a (D9) Remarks) nches): _nches):   | )<br>Living Ro<br>(C4)<br>illed Soils | Secondar   X Surfar   Dry-5   Cray   Stundards   C(C6)   X George   X George   X Saturation   Stundards   X George   Construction   Stundards   X George   X George | ry Indicators (r<br>ace Soil Cracks<br>age Patterns<br>Season Water<br>fish Burrows (t<br>ration Visible of<br>ted or Stressed<br>morphic Position | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015           |
| Depth (in Remarks: This data for Errata. (http://  PYDROLO  Wetland Hyde  Primary Indic  Surface V High War  Saturation Water Mary Sedimen Drift Dep  X Algal Ma Iron Depi X Inundation Sparsely  Field Observ  Surface Water Table Saturation Princludes cap  | m is revised from Mi //www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial II v Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye oillary fringe) | magery (B                         | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  (37) Gauge or Other (Ex)  No X  No X  No X | apply) ined Lea auna (B1 attic Plant Sulfide ( Rhizosph of Reduce on Reduce Surface Well Dat plain in R Depth (ii Depth (iii   | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron ced Iron et (C7) a (D9) Remarks) nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  X Surfa Drair Dry-s Cray sots (C3) X Satur Stunt S (C6) X Geor X FAC-   | ry Indicators (r<br>ace Soil Cracks<br>age Patterns<br>Season Water<br>fish Burrows (t<br>ration Visible of<br>ted or Stressed<br>morphic Position | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | vo requir         |
| Depth (in Remarks: This data for Errata. (http://  PYDROLO  Wetland Hyde  Primary Indic  Surface V High War  Saturation Water Mary Sedimen Drift Dep  X Algal Ma Iron Depi X Inundation Sparsely  Field Observ  Surface Water Table Saturation Princludes cap  | m is revised from Mi //www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Present? Ye resent? Ye                      | magery (B                         | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  (37) Gauge or Other (Ex)  No X  No X  No X | apply) ined Lea auna (B1 attic Plant Sulfide ( Rhizosph of Reduce on Reduce Surface Well Dat plain in R Depth (ii Depth (iii   | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron ced Iron et (C7) a (D9) Remarks) nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  X Surfa Drair Dry-s Cray sots (C3) X Satur Stunt S (C6) X Geor X FAC-   | ry Indicators (r<br>ace Soil Cracks<br>age Patterns<br>Season Water<br>fish Burrows (t<br>ration Visible of<br>ted or Stressed<br>morphic Position | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | o, 2015           |
| Depth (in Remarks: This data for the Internation of | m is revised from Mi //www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial II v Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye oillary fringe) | magery (B                         | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  (37) Gauge or Other (Ex)  No X  No X  No X | apply) ined Lea auna (B1 attic Plant Sulfide ( Rhizosph of Reduce on Reduce Surface Well Dat plain in R Depth (ii Depth (iii   | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron ced Iron et (C7) a (D9) Remarks) nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda  X Surfa Drair Dry-s Cray sots (C3) X Satur Stunt S (C6) X Geor X FAC-   | ry Indicators (r<br>ace Soil Cracks<br>age Patterns<br>Season Water<br>fish Burrows (t<br>ration Visible of<br>ted or Stressed<br>morphic Position | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | o, 2015           |

# WETLAND DETERMINATION DATA FORM - Midwest Region

| Project/Site: Innovation East                                | City/County: Jersey T               | ΓWP/Licking   | Sampling Date: 8-11-21                       |
|--|-------------------------------------|---|--|
| Applicant/Owner: MBJ Holdings                                |                                     | State: OH   | Sampling Point: UPB-1                        |
| Investigator(s): BDL   | Section, Township, Rar              | nge: T2N R15W   |  |
| Landform (hillside, terrace, etc.): field                    | Local relief (c                     | concave, convex, none):   | convex                                       |
| Slope (%): 3 Lat: 40.092275                                  | Long: <u>-82.716958</u>             |   | Datum:                                       |
| Soil Map Unit Name: pewamo                                   |                                     | NWI classifi  | ication: N/A                                 |
| Are climatic / hydrologic conditions on the site typical for | this time of year?                  | No (If no, exp  | olain in Remarks.)                           |
| Are Vegetation, Soil, or Hydrologysig                        | nificantly disturbed? Are "Normal C | Circumstances" present?   | Yes No                                       |
| Are Vegetation, Soil, or Hydrologyna                         | turally problematic? (If needed, ex | plain any answers in Rer  | marks.)                                      |
| SUMMARY OF FINDINGS – Attach site map                        | showing sampling point lo           | cations, transects,   | important features, etc.                     |
| Hydrophytic Vegetation Present? Yes No                       | X Is the Sampled Ar                 | ·ea   |  |
| Hydric Soil Present? Yes X No                                | within a Wetland?                   |   | No X   |
| Wetland Hydrology Present? Yes No                            | X                                   |   |  |
| Remarks:   |                                     |   |  |
|  |                                     |   |  |
| NECETATION III exicutife names of plant                      |                                     |   |  |
| VEGETATION – Use scientific names of plant                   | S. Absolute Dominant Indicator      |   |  |
|  | % Cover Species? Status             | Dominance Test wor  | ksheet:                                      |
| 1. <u>N/A</u>  |                                     | Number of Dominant S  | Species That                                 |
| 2  |                                     | Are OBL, FACW, or FA  | AC: 0 (A)                                    |
| 3  |                                     | Total Number of Domi  | •  |
| 4  |                                     | Across All Strata:  | 1(B)   |
| 5  | =Total Cover                        | Percent of Dominant S<br>Are OBL, FACW, or F                    | •  |
| Sapling/Shrub Stratum (Plot size: )                          | -10(2) 00701                        | AIG ODE, I AON, O. I.   | AO. 0.070 (142)                              |
| 1. <u>N/A</u>  |                                     | Prevalence Index wo   | rksheet:                                     |
| 2.   |                                     | Total % Cover of:   | : Multiply by:                               |
| 3.   |                                     | OBL species 0   |  |
| 4  |                                     | FACW species 0  |  |
| 5  | T 4-1 0                             | FACILIANDE IN ACID  |  |
| Herb Stratum (Plot size: )                                   | =Total Cover                        | FACU species 10 UPL species 0                                   | x = 400<br>x = 5                             |
| 1. Trifolium repens  | 10 No FACU                          | Column Totals: 10   |  |
| 2. Festuca arundinacea                                       | 90 Yes FACU                         | Prevalence Index =  | ``   |
| 3.   |                                     | 1   |  |
| 4.   |                                     | Hydrophytic Vegetat   | ion Indicators:                              |
| 5.   |                                     | 1 - Rapid Test for  | Hydrophytic Vegetation                       |
| 6.   |                                     | 2 - Dominance Te  |  |
| 7  |                                     | 3 - Prevalence Ind  |  |
| 8  |                                     |   | Adaptations <sup>1</sup> (Provide supporting |
| 9  |                                     |   | s or on a separate sheet)                    |
| 10   | 100 T-1-1 O                         |   | ophytic Vegetation <sup>1</sup> (Explain)    |
| Woody Vine Stratum (Plot size: )                             | 100 =Total Cover                    | <sup>1</sup> Indicators of hydric so<br>be present, unless dist | oil and wetland hydrology must               |
| 1. N/A   | ŀ                                   | •   | turbed or problematic.                       |
| 2.   |                                     | Hydrophytic<br>Vegetation                                       |  |
|  | =Total Cover                        | Present? Yes_   | No X   |
| Remarks: (Include photo numbers here or on a separat         |                                     |   | <u> </u>                                     |
| Troniano. (moidas presse manižore mere pr                    | o onest.                            |   |  |

SOIL Sampling Point: UPB-1

| Depth  | Matrix  |                          | Redo  | x realure  | <del></del>  |                                       |  |   |           |  |
|--|---|--------------------------|---|--|--|---------------------------------------|--|---|-----------|--|
| (inches)   | Color (moist)   | %                        | Color (moist)   | %  | Type <sup>1</sup>  | Loc <sup>2</sup>                      | Texture  | Remarks   |           |  |
| 0-6  | 10YR 3/2  | 90                       | 10YR 5/4  | 10   | С  | M                                     | Loamy/Clayey                                     |   |           |  |
| 6-12   | 10YR 3/2  | 85                       | 10YR 5/4  | 15   | С  | M                                     | Loamy/Clayey                                     | _   |           |  |
|  |   |                          | _   |  |  |                                       |  | -   |           |  |
|  |   |                          |   |  |  |                                       |  |   |           |  |
|  |   |                          |   |  |  |                                       |  |   |           |  |
|  |   |                          |   |  |  |                                       |  | -   |           |  |
|  |   |                          |   |  |  |                                       |  |   |           |  |
|  |   |                          |   |  |  |                                       |  |   |           |  |
|  | oncentration, D=Dep   | etion, RM                | =Reduced Matrix, N  | ΛS=Masl  | ked Sand   | d Grains.                             |  | on: PL=Pore Lining, M=Matrix  |           |  |
| Hydric Soil I  |   |                          | 0 1 01 -  |  | -i- (O.4)  |                                       |  | ors for Problematic Hydric S  | ioils":   |  |
| Histosol (A1)  |   |                          | Sandy Gle   |  | rix (S4)   |                                       | Coast Prairie Redox (A16)                        |   |           |  |
| Histic Epipedon (A2) Black Histic (A3)   |   |                          | Sandy Red   |  | •  |                                       | Iron-Manganese Masses (F12)                      |   |           |  |
|  |   |                          | Stripped M  |  | ))   |                                       |  | d Parent Material (F21)   |           |  |
|  | n Sulfide (A4)  |                          |   | Dark Surface (S7) Loamy Mucky Mineral (F1)   |  |                                       |  | Very Shallow Dark Surface (F22)   |           |  |
|  | Layers (A5)   |                          |   | •  | , ,  |                                       | Otr  | ner (Explain in Remarks)  |           |  |
| 2 cm Mu  | ck (A10)<br>Below Dark Surface  | (Δ11)                    | Loamy Gle   |  |  |                                       |  |   |           |  |
|  | rk Surface (A12)  | (A11)                    |   | Depleted Matrix (F3)  X Redox Dark Surface (F6)  |  |                                       |  | ors of hydrophytic vegetation a   | and       |  |
|  | ucky Mineral (S1)   |                          |   | Depleted Dark Surface (F6)   |  |                                       |  | tland hydrology must be prese   |           |  |
|  | cky Peat or Peat (S3  | Redox Depressions (F8)   |   |  |  | unless disturbed or problematic.      |  |   |           |  |
|  | _ayer (if observed):  | ,                        |   |  | (. 0)  |                                       | <u> </u>   |   |           |  |
|  | ayer (ii observed).   |                          |   |  |  |                                       |  |   |           |  |
| Type:  |   |                          |   | _  |  |                                       |  |   |           |  |
|  | ches).  |                          |   |  |  |                                       | Hydric Soil Prese                                | nt? Yes X   | No        |  |
| Depth (in<br>Remarks:<br>This data for   | <u></u>   |                          |   |  |  |                                       |  | nt? Yes X  ors of Hydric Soils, Version 7.0   | <b>No</b> |  |
| Depth (in<br>Remarks:<br>This data for<br>Errata. (http:/  | m is revised from Mio<br>//www.nrcs.usda.gov  |                          |   |  |  |                                       | NRCS Field Indicate                              |   |           |  |
| Depth (in<br>Remarks:<br>This data for<br>Errata. (http://   | m is revised from Mio<br>//www.nrcs.usda.gov  |                          |   |  |  |                                       | NRCS Field Indicate                              |   |           |  |
| Depth (in Remarks: This data for Errata. (http://  | m is revised from Mio<br>//www.nrcs.usda.gov  |                          |   |  |  |                                       | NRCS Field Indicato                              | ors of Hydric Soils, Version 7.0  | , 2015    |  |
| Depth (in Remarks: This data for Errata. (http://www.def.)  HYDROLO  Wetland Hydeliand | m is revised from Mid/www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o   | /Internet/F              | SE_DOCUMENTS  | apply)   | 2p2_0512   |                                       | NRCS Field Indicato                              | ors of Hydric Soils, Version 7.0  | , 2015    |  |
| Depth (in Remarks: This data for Errata. (http://ht | m is revised from Mid/www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o   | /Internet/F              | SE_DOCUMENTS  | apply)   | ves (B9)   |                                       | NRCS Field Indicato                              | ors of Hydric Soils, Version 7.0  | , 2015    |  |
| Depth (in Remarks: This data for Errata. (http:// HYDROLO Wetland Hyo Primary Indic Surface \( \) High Wa  | m is revised from Mic<br>//www.nrcs.usda.gov<br>GY<br>drology Indicators:<br>ators (minimum of o<br>Water (A1)<br>ter Table (A2)  | /Internet/F              | ired; check all that a  Water-Sta Aquatic Fa  | apply)<br>ined Lea   | ves (B9)   |                                       | NRCS Field Indicato                              | lary Indicators (minimum of two   | , 2015    |  |
| Depth (in Remarks: This data for Errata. (http:// HYDROLO Wetland Hyd Primary Indic Surface V High Wa' Saturatio   | GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) n (A3)   | /Internet/F              | ired; check all that a water-Sta Aquatic Fa True Aqua   | apply)<br>ined Lear<br>auna (B1;   | ves (B9)<br>3)<br>s (B14)  | 293.docx                              | NRCS Field Indicato )  Second Sur Dra            | lary Indicators (minimum of two<br>face Soil Cracks (B6)<br>sinage Patterns (B10)<br>r-Season Water Table (C2)  | , 2015    |  |
| Depth (in Remarks: This data for Errata. (http://www.communication)  HYDROLO  Wetland Hyde  Surface V  High Wat  Saturatio  Water Mater Mater  Depth (in page 1)  Surface V  Saturation  | GY drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1)  | /Internet/F              | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  | apply) ined Lea auna (B1; tic Plants   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1  | 293.docx                              | NRCS Field Indicator  Second  Sun  Dra  Dry  Cre | lary Indicators (minimum of two face Soil Cracks (B6) minage Patterns (B10) r-Season Water Table (C2) myfish Burrows (C8)   | o require |  |
| Depth (in Remarks: This data for Errata. (http://www.mary.indic  | GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)   | /Internet/F              | ired; check all that a  Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F  | apply)<br>ined Lea<br>auna (B1:<br>titc Plants<br>Sulfide C  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on I   | )<br>Living Ro                        | Second Sumpre Dry Cra ots (C3)                   | lary Indicators (minimum of two<br>face Soil Cracks (B6)<br>ninage Patterns (B10)<br>r-Season Water Table (C2)<br>nyfish Burrows (C8)<br>curation Visible on Aerial Image   | o require |  |
| Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyd Primary Indic Surface ( High Wat Saturatio Water Mater | GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)  | /Internet/F              | ired; check all that a  Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F  | apply) ined Lear auna (B1: tic Plants Sulfide C Rhizospho  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on I   | )<br>Living Rc                        | Second Sur Dra Dry Cra ots (C3) Sat              | lary Indicators (minimum of two<br>face Soil Cracks (B6)<br>ninage Patterns (B10)<br>r-Season Water Table (C2)<br>nyfish Burrows (C8)<br>curation Visible on Aerial Imagented or Stressed Plants (D1)                                 | o require |  |
| Depth (in Remarks: This data for Errata. (http://www.primary Indic   | m is revised from Mid/www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)   | /Internet/F              | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro  | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on letton (tion in Ti  | )<br>Living Rc                        | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) re-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Imaginted or Stressed Plants (D1) comorphic Position (D2)                       | o require |  |
| Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyde  Primary Indic  Surface V  High Wa'  Saturatio  Water Mater | GY  Grology Indicators: ators (minimum of o Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)  | /Internet/F              | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck   | apply) ined Lear auna (B13 tic Plants Sulfide C Rhizospho of Reduct n Reduct Surface                                 | ep2_0512<br>vves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on I<br>ed Iron (<br>tion in Ti<br>(C7)             | )<br>Living Rc                        | Second   | lary Indicators (minimum of two<br>face Soil Cracks (B6)<br>ninage Patterns (B10)<br>r-Season Water Table (C2)<br>nyfish Burrows (C8)<br>curation Visible on Aerial Imagented or Stressed Plants (D1)                                 | o require |  |
| Depth (in Remarks: This data for Errata. (http://  IYDROLO  Wetland Hyd Primary Indic Surface \( \) High Wa' Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo   | GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In   | ne is requi              | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck  | apply) ined Lear auna (B1; tic Plants Sulfide C Rhizospho of Reduc n Reduc Surface Well Data                         | ves (B9) 3) s (B14) Odor (C1 eres on led Iron ( tion in Ti (C7) a (D9)   | )<br>Living Ro<br>(C4)<br>Illed Soils | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) re-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Imaginted or Stressed Plants (D1) comorphic Position (D2)                       | o require |  |
| Depth (in Remarks: This data for Errata. (http://www.mc.)  HYDROLO  Wetland Hyde  Surface (high War Mare Mare Mare Mare Mare Mare Mare Ma  | GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Ir   | ne is requi              | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck  | apply) ined Lear auna (B1; tic Plants Sulfide C Rhizospho of Reduc n Reduc Surface Well Data                         | ves (B9) 3) s (B14) Odor (C1 eres on led Iron ( tion in Ti (C7) a (D9)   | )<br>Living Ro<br>(C4)<br>Illed Soils | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) re-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Imaginted or Stressed Plants (D1) comorphic Position (D2)                       | o require |  |
| Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyd Surface ( High Wat Saturatio Water Mater M | m is revised from Mid/www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations:   | nagery (B                | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck T) Gauge or B8) Other (Exp.              | apply) ined Lear auna (B1; tic Plants Sulfide C Rhizosph of Reduct n Reduct Surface Well Data                        | ep2_0512  vves (B9) 3) s (B14) Odor (C1 eres on I ed Iron ( tion in Ti (C7) a (D9)                             | )<br>Living Ro<br>(C4)<br>Illed Soils | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) re-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Imaginted or Stressed Plants (D1) comorphic Position (D2)                       | o require |  |
| Depth (in Remarks: This data for Errata. (http://www.primary.lndic   | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave //ations:   | nagery (B'<br>Surface (I | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or Sea Other (Exp.               | apply) ined Lear auna (B13 tic Plants Sulfide C Rhizosphof Reduct n Reduct Surface Well Data blain in R              | ves (B9) 3) s (B14) Odor (C1 eres on I ted Iron ( tion in Ti (C7) a (D9) emarks)                               | )<br>Living Ro<br>(C4)<br>Illed Soils | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) re-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Imaginted or Stressed Plants (D1) comorphic Position (D2)                       | o require |  |
| Depth (in Remarks: This data for Errata. (http://www.primary.lndic   | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: ators (minimum of o  Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Ir Vegetated Concave  vations: er Present? Ye Present? Ye                                     | nagery (B: Surface (I    | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck (7) Gauge or State Other (Exp. No X No X | apply) ined Lear auna (B1; tic Plants Sulfide C Rhizospho of Reduct n Reduct Surface Well Data blain in R  Depth (ir | ves (B9) 3) s (B14) Odor (C1 eres on I ed Iron ( (C7) a (D9) emarks) nches): _ nches): _                       | )<br>Living Ro<br>(C4)<br>Illed Soils | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) (-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Image Inted or Stressed Plants (D1) comorphic Position (D2) (C-Neutral Test (D5) | o require |  |
| Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyd Primary Indic Surface V High Wat Saturatio Water Mater | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o  Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave  vations: er Present? Ye Present? Ye eresent? Ye                        | nagery (B: Surface (I    | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck (7) Gauge or State Other (Exp. No X No X | apply) ined Lear auna (B13 tic Plants Sulfide C Rhizosphof Reduct n Reduct Surface Well Data blain in R              | ves (B9) 3) s (B14) Odor (C1 eres on I ed Iron ( (C7) a (D9) emarks) nches): _ nches): _                       | )<br>Living Ro<br>(C4)<br>Illed Soils | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) (-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Image Inted or Stressed Plants (D1) comorphic Position (D2) (C-Neutral Test (D5) | o require |  |
| Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyd Primary Indic Surface V High War Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely  Field Observ Surface Water Water Table Saturation Pr (includes cap   | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o  Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave  vations: er Present? Ye Present? Ye eresent? Ye                        | nagery (B' Surface (I    | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X  | apply) ined Lear auna (B1: tic Plants Sulfide C Rhizosphof Reduc n Reduci Surface Well Data blain in R Depth (ir     | ves (B9) 3) s (B14) Ddor (C1 eres on I ced Iron ( tion in Ti (C7) a (D9) emarks) nches): _ nches): _ nches): _ | )<br>Living Ro<br>C4)<br>Illed Soils  | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) (-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Image Inted or Stressed Plants (D1) comorphic Position (D2) (C-Neutral Test (D5) | o require |  |
| Depth (in Remarks: This data for Errata. (http://www.primary.indic   | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o // vater (A1) ter Table (A2) n (A3) earks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Ir Vegetated Concave // vations: er Present? Ye Present? Ye esent? Ye esent? Ye esent? Ye | nagery (B' Surface (I    | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X  | apply) ined Lear auna (B1: tic Plants Sulfide C Rhizosphof Reduc n Reduci Surface Well Data blain in R Depth (ir     | ves (B9) 3) s (B14) Ddor (C1 eres on I ced Iron ( tion in Ti (C7) a (D9) emarks) nches): _ nches): _ nches): _ | )<br>Living Ro<br>C4)<br>Illed Soils  | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) (-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Image Inted or Stressed Plants (D1) comorphic Position (D2) (C-Neutral Test (D5) | o require |  |
| Depth (in Remarks: This data for Errata. (http://www.primary.indic   | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: eators (minimum of o // vater (A1) ter Table (A2) n (A3) earks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Ir Vegetated Concave // vations: er Present? Ye Present? Ye esent? Ye esent? Ye esent? Ye | nagery (B' Surface (I    | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X  | apply) ined Lear auna (B1: tic Plants Sulfide C Rhizosphof Reduc n Reduci Surface Well Data blain in R Depth (ir     | ves (B9) 3) s (B14) Ddor (C1 eres on I ced Iron ( tion in Ti (C7) a (D9) emarks) nches): _ nches): _ nches): _ | )<br>Living Ro<br>C4)<br>Illed Soils  | Second   | lary Indicators (minimum of two face Soil Cracks (B6) ainage Patterns (B10) (-Season Water Table (C2) ayfish Burrows (C8) curation Visible on Aerial Image Inted or Stressed Plants (D1) comorphic Position (D2) (C-Neutral Test (D5) | o require |  |

| Project/Site: Innovation East  |                  | City/Cour   | nty: Jersey T     | WP/Licking   | Sampling Date:                  | 8-11-2021   |
|--|------------------|-------------|-------------------|--|---------------------------------|-------------|
| Applicant/Owner: MBJ Holdings  |                  |             |                   | State: OH  | Sampling Point:                 | WC-1        |
| Investigator(s): BDL   |                  | Section, To | _<br>ownship, Rar | nge: T2N R15W  |                                 |             |
| Landform (hillside, terrace, etc.): field  |                  | L           | _ocal relief (c   | oncave, convex, none):   | concave                         |             |
| Slope (%): 3 Lat: 40.092119  |                  | <br>Long:8  | 32.720100         |  | Datum: NAD83 UT                 | M Zone 17 N |
| Soil Map Unit Name: pewamo   |                  |             |                   | NWI classif  | ication: N/A                    |             |
| Are climatic / hydrologic conditions on the site typical fo  | r this time of   | year?       | Yes X             | No (If no, exp   | olain in Remarks.)              |             |
| Are Vegetation, Soil, or Hydrologys  | significantly di | isturbed? A | re "Normal C      | ircumstances" present?   | Yes X No                        | )           |
| Are Vegetation , Soil , or Hydrology n   |                  |             | f needed, exp     | olain any answers in Re  | marks.)                         |             |
| SUMMARY OF FINDINGS – Attach site ma   | p showin         | g samplin   | g point lo        | cations, transects,  | important feat                  | tures, etc. |
| Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No |                  |             | Sampled Are       |  | No                              |             |
| Remarks:  VEGETATION – Use scientific names of plan  | nte              |             |                   |  |                                 |             |
|  | Absolute         | Dominant    | Indicator         |  |                                 |             |
| Tree Stratum (Plot size:)  | % Cover          | Species?    | Status            | Dominance Test wor   | ksheet:                         |             |
| 1. <u>N/A</u><br>2   |                  |             |                   | Number of Dominant S<br>Are OBL, FACW, or F                    | •                               | 2 (A)       |
| 3.<br>4.   |                  |             |                   | Total Number of Domi   | nant Species                    | 2 (B)       |
| 5.   |                  |             |                   | Percent of Dominant S  | Species That                    | `` /        |
| Sapling/Shrub Stratum (Plot size: )  | =                | Total Cover |                   | Are OBL, FACW, or F  | •                               | 0.0% (A/B)  |
| Sapling/Shrub Stratum (Plot size:)  1. N/A   |                  |             | ŀ                 | Prevalence Index wo  | rksheet:                        |             |
| 2  |                  |             |                   | Total % Cover of   |                                 | by:         |
| 3.   |                  |             |                   | OBL species 10   |                                 | 10          |
| 4.   |                  |             |                   | FACW species 80  | x 2 = 1                         | 60          |
| 5  |                  |             |                   | FAC species 0  |                                 | 0           |
| ,  | =                | Total Cover |                   | FACU species 0   |                                 | 0           |
| Herb Stratum (Plot size:)  | 4.5              | V           | E 4 (C) 4/        | UPL species 0  |                                 | 0<br>70 (B) |
| Polygonum SP     Echinochloa crus-galli  | <u>45</u><br>35  | Yes<br>Yes  | FACW FACW         | Column Totals: 90 Prevalence Index =                           | `` /                            | 70 (B)      |
| Ecninocnioa crus-gaiii     Eleocharis palustris  | 10               | No          | OBL               | Prevalence index .   | = b/A - 1.0 <i>a</i>            |             |
|  | 10               | INO         | — DDL             | Hydrophytic Vegetat  | ion Indicators:                 |             |
| 5.   |                  |             |                   |  | Hydrophytic Vegeta              | ation       |
| 6.   |                  |             |                   | X 2 - Dominance Te   |                                 |             |
| 7.   |                  |             | [                 | X 3 - Prevalence Inc   |                                 |             |
| 8.   |                  |             |                   |  | Adaptations <sup>1</sup> (Provi | 0           |
| 9.   |                  |             |                   |  | s or on a separate              | ,           |
| 10   |                  |             |                   |  | ophytic Vegetation <sup>1</sup> | ` ' '       |
| Woody Vine Stratum (Plot size:)  | 90 =             | Total Cover |                   | <sup>1</sup> Indicators of hydric so<br>be present, unless dis |                                 |             |
| 1. <i>N/A</i>  |                  |             |                   | Hydrophytic  |                                 |             |
| 2.   |                  | Total Cover |                   | Vegetation Present? Yes  | X No                            |             |
| Remarks: (Include photo numbers here or on a separa  |                  |             |                   |  |                                 |             |
| Tromano. (morado prioto muniporo noto di di a separe   | ato 51100t.j     |             |                   |  |                                 |             |

SOIL Sampling Point: WC-1

| Depth  | Matrix   |                                  | Redo   | x Feature  |  |                                       |  |  |
|--|--|----------------------------------|--|--|--|---------------------------------------|--|--|
| (inches)   | Color (moist)  | <u>%</u>                         | Color (moist)  | %  | Type <sup>1</sup>  | Loc <sup>2</sup>                      | Texture  | Remarks  |
| 0-8  | 10YR 2/1   | 90                               | 10YR 5/6   | 10   | С  | M                                     | Loamy/Clayey   | Prominent redox concentrations   |
| 8-12   | 10YR 2/1   | 90                               | 10YR 5/6   | 10   | <u>C</u>   | <u>M</u>                              | Loamy/Clayey   | Prominent redox concentrations   |
|  |  |                                  |  | _  |  |                                       |  |  |
|  |  |                                  |  |  |  |                                       |  |  |
|  |  |                                  |  |  |  |                                       |  |  |
| <sup>1</sup> Type: C=C   | oncentration, D=Dep  | etion, RM                        | =Reduced Matrix, N   | ์<br>ИS=Masl   | ked Sand   | d Grains.                             | <sup>2</sup> Locatio   | n: PL=Pore Lining, M=Matrix.   |
| Hydric Soil  |  |                                  |  |  |  |                                       |  | rs for Problematic Hydric Soils <sup>3</sup> :   |
| Histosol   | ,  |                                  | Sandy Gle  |  | rix (S4)   |                                       |  | st Prairie Redox (A16)   |
|  | ipedon (A2)  |                                  | Sandy Red  |  |  |                                       |  | Manganese Masses (F12)   |
| Black Hi   |  |                                  | Stripped M   |  | 6)   |                                       |  | Parent Material (F21)  |
|  | n Sulfide (A4)   |                                  | Dark Surfa   | ` '  |  |                                       |  | Shallow Dark Surface (F22)   |
|  | Layers (A5)  |                                  | Loamy Mu   | •  | , ,  |                                       | Othe   | er (Explain in Remarks)  |
| 2 cm Mu  |  |                                  | Loamy Gle  |  |  |                                       |  |  |
|  | l Below Dark Surface   | (A11)                            | Depleted N   | •  | •  |                                       | 2  |  |
| Thick Da   | rk Surface (A12)   |                                  | X Redox Da   | rk Surfac  | e (F6)   |                                       |  | rs of hydrophytic vegetation and   |
| Sandy M  | lucky Mineral (S1)   |                                  | Depleted [   |  |  | )                                     | wetl   | and hydrology must be present,   |
| 5 cm Mu  | cky Peat or Peat (S3   | )                                | Redox De   | pressions  | s (F8)   |                                       | unle   | ss disturbed or problematic.   |
| Restrictive  | Layer (if observed):   |                                  |  |  |  |                                       |  |  |
| Type:  |  |                                  |  |  |  |                                       |  |  |
| . , , , ,  |  |                                  |  |  |  |                                       |  |  |
| Depth (in<br>Remarks:<br>This data for   | · -  |                                  |  |  |  |                                       |  | rs of Hydric Soils, Version 7.0, 2015  |
| Depth (in Remarks: This data for Errata. (http:  | m is revised from Mio<br>//www.nrcs.usda.gov   |                                  |  |  |  |                                       | NRCS Field Indicator   |  |
| Depth (in Remarks: This data for Errata. (http:  | m is revised from Mic<br>//www.nrcs.usda.gov   |                                  |  |  |  |                                       | NRCS Field Indicator   |  |
| Depth (in Remarks: This data for Errata. (http://www.defand.com/de | m is revised from Mid<br>//www.nrcs.usda.gov   | /Internet/F                      | SE_DOCUMENTS   | i/nrcs142  |  |                                       | NRCS Field Indicator   | s of Hydric Soils, Version 7.0, 2015   |
| Depth (in Remarks: This data for Errata. (http://www.depth.com/dep | m is revised from Mid<br>//www.nrcs.usda.gov<br>PGY<br>drology Indicators:<br>cators (minimum of o   | /Internet/F                      | SE_DOCUMENTS   | apply)   | 2p2_0512   |                                       | NRCS Field Indicator   | s of Hydric Soils, Version 7.0, 2015   |
| Depth (in Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary India Surface  | m is revised from Mid//www.nrcs.usda.gov  OGY  drology Indicators: cators (minimum of o  | /Internet/F                      | SE_DOCUMENTS   | apply)   | ves (B9)   |                                       | NRCS Field Indicator  Seconda X Surf                               | s of Hydric Soils, Version 7.0, 2015  ary Indicators (minimum of two required ace Soil Cracks (B6)   |
| Depth (in Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary India Surface High Wa  | m is revised from Mic //www.nrcs.usda.gov  OGY  drology Indicators: cators (minimum of o  Water (A1) ter Table (A2)  | /Internet/F                      | ired; check all that a   | apply)<br>ined Leavauna (B1:   | ves (B9)   |                                       | NRCS Field Indicator  Seconda X Surf Drai                          | ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10)   |
| Depth (in Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary India Surface High Wa Saturatio  | m is revised from Mic<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ter Table (A2)<br>on (A3)  | /Internet/F                      | ired; check all that a water-Sta Aquatic Fa True Aqua  | apply)<br>ined Lear<br>auna (B1;   | ves (B9)<br>3)<br>s (B14)  | 293.docx                              | NRCS Field Indicator  Seconda X Surf Drai Dry-                     | ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)   |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M   | m is revised from Mid<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ter Table (A2)<br>on (A3)<br>arks (B1)   | /Internet/F                      | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua  Hydrogen   | apply) ined Lea auna (B1; tic Plants   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1  | )                                     | NRCS Field Indicator  Seconda  X Surf Drai Dry-                    | ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)  offish Burrows (C8)  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer   | m is revised from Mid<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ter Table (A2)<br>on (A3)<br>arks (B1)<br>at Deposits (B2)   | /Internet/F                      | ired; check all that a  Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply)<br>ined Lea<br>auna (B1:<br>titc Plants<br>Sulfide C  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on I   | )<br>Living Ra                        | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) Irration Visible on Aerial Imagery (C9)  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep   | m is revised from Mid<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ter Table (A2)<br>on (A3)<br>arks (B1)<br>arks (B1)<br>to Deposits (B2)<br>posits (B3)   | /Internet/F                      | ired; check all that a  Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence  | apply)<br>ined Lea<br>auna (B1:<br>tic Plants<br>Sulfide C<br>Rhizospho  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on I   | )<br>Living Ro                        | Seconda  | ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rish Burrows (C8) aration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1)   |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Drift Dep X Algal Ma   | m is revised from Mid//www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) ot Deposits (B2) osits (B3) at or Crust (B4)   | /Internet/F                      | ired; check all that a  Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro   | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on led from (tion in Ti  | )<br>Living Ro                        | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Affish Burrows (C8) Buration Visible on Aerial Imagery (C9) Attended or Stressed Plants (D1) Broomphic Position (D2)              |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLC  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep X Algal Ma Iron Dep   | m is revised from Michael Mich | /Internet/F                      | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck  | apply) ined Lear auna (B13 tic Plants Sulfide C Rhizospho of Reduct n Reduct Surface                                 | exp2_0512<br>vves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on I<br>ed Iron (<br>tion in Ti<br>(C7)            | )<br>Living Ro                        | Seconda  | ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rish Burrows (C8) aration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1)   |
| Depth (ii Remarks: This data for Errata. (http:  IYDROLC  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Inundation  | m is revised from Mid<br>//www.nrcs.usda.gov<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ter Table (A2)<br>on (A3)<br>arks (B1)<br>at Deposits (B2)<br>osits (B3)<br>at or Crust (B4)<br>osits (B5)<br>on Visible on Aerial In   | ne is requi                      | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck  | apply) ined Lear auna (B1; tic Plants Sulfide C Rhizospho of Reduc n Reduc Surface Well Data                         | ves (B9) 3) s (B14) Odor (C1 eres on led Iron ( tion in Ti (C7) a (D9)   | )<br>Living Ro<br>(C4)<br>Illed Soils | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Affish Burrows (C8) Buration Visible on Aerial Imagery (C9) Attended or Stressed Plants (D1) Broomphic Position (D2)              |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep X Algal Ma Iron Dep X Inundatic Sparsely   | m is revised from Mid/www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) to Deposits (B2) oosits (B3) tt or Crust (B4) oosits (B5) on Visible on Aerial In   | ne is requi                      | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck  | apply) ined Lear auna (B1; tic Plants Sulfide C Rhizospho of Reduc n Reduc Surface Well Data                         | ves (B9) 3) s (B14) Odor (C1 eres on led Iron ( tion in Ti (C7) a (D9)   | )<br>Living Ro<br>(C4)<br>Illed Soils | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Affish Burrows (C8) Buration Visible on Aerial Imagery (C9) Attended or Stressed Plants (D1) Broomphic Position (D2)              |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep X Algal Ma Iron Dep X Inundatic Sparsely   | m is revised from Mic//www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations:   | ne is requinagery (B'            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck T) Gauge or B8) Other (Exp.              | apply) ined Lear auna (B1; tic Plants Sulfide C Rhizosph of Reduct n Reduct Surface Well Data                        | ep2_0512  vves (B9) 3) s (B14) Odor (C1 eres on I ed Iron ( tion in Ti (C7) a (D9)                             | )<br>Living Ro<br>(C4)<br>Illed Soils | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Affish Burrows (C8) Buration Visible on Aerial Imagery (C9) Attended or Stressed Plants (D1) Broomphic Position (D2)              |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLC  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Inundatia Sparsely  Field Obser Surface Water   | m is revised from Mic //www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Ye   | ne is requinagery (B' Surface (I | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or Sea Other (Exp.              | apply) ined Lear auna (B13 tic Plants Sulfide C Rhizosphof Reduct n Reduct Surface Well Data blain in R              | ves (B9) 3) s (B14) Odor (C1 eres on I ted Iron ( tion in Ti (C7) a (D9) emarks)                               | )<br>Living Ro<br>(C4)<br>Illed Soils | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Affish Burrows (C8) Buration Visible on Aerial Imagery (C9) Attended or Stressed Plants (D1) Broomphic Position (D2)              |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary Indie Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Inundatie Sparsely  Field Obser Surface Water Table   | m is revised from Mic //www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In vegetated Concave  vations: er Present? Ye Present? Ye  | nagery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or 188) Other (Exp.             | apply) ined Lear auna (B1; tic Plants Sulfide C Rhizospho of Reduct n Reduct Surface Well Data blain in R  Depth (ir | ves (B9) 3) s (B14) Odor (C1 eres on I ed Iron ( (C7) a (D9) emarks) nches): _ nches): _                       | )<br>Living Ro<br>(C4)<br>Illed Soils | Seconda  X Surf Drai Dry- Cray ots (C3) Satu Stur (C6) X Geo X FAC | ary Indicators (minimum of two required ace Soil Cracks (B6) anage Patterns (B10) Season Water Table (C2) Arish Burrows (C8) aration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5) |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Inundatio Sparsely  Field Obser Surface Wat Water Table Saturation P  | m is revised from Mic //www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) osits (B5) on Visible on Aerial In / Vegetated Concave vations: er Present? Present? Ye resent? Ye  | nagery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or 188) Other (Exp.             | apply) ined Lear auna (B13 tic Plants Sulfide C Rhizosphof Reduct n Reduct Surface Well Data blain in R              | ves (B9) 3) s (B14) Odor (C1 eres on I ed Iron ( (C7) a (D9) emarks) nches): _ nches): _                       | )<br>Living Ro<br>(C4)<br>Illed Soils | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) anage Patterns (B10) Season Water Table (C2) artion Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)                     |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Inundatio Sparsely  Field Obser Surface Wat Water Table Saturation P (includes ca   | m is revised from Mic //www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) osits (B5) on Visible on Aerial In / Vegetated Concave vations: er Present? Present? Ye resent? Ye  | magery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X | apply) ined Lear auna (B1: tic Plants Sulfide C Rhizosphof Reduc n Reduci Surface Well Data blain in R Depth (ir     | ves (B9) 3) s (B14) Ddor (C1 eres on I ced Iron ( tion in Ti (C7) a (D9) emarks) nches): _ nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) anage Patterns (B10) Season Water Table (C2) Arish Burrows (C8) aration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5) |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep X Algal Ma Iron Dep X Inundatia Sparsely Field Obser Surface Water Table Saturation P (includes cal Describe Re   | m is revised from Mid/www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Ir v Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye oillary fringe)  | magery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X | apply) ined Lear auna (B1: tic Plants Sulfide C Rhizosphof Reduc n Reduci Surface Well Data blain in R Depth (ir     | ves (B9) 3) s (B14) Ddor (C1 eres on I ced Iron ( tion in Ti (C7) a (D9) emarks) nches): _ nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) anage Patterns (B10) Season Water Table (C2) Arish Burrows (C8) aration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5) |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep X Algal Ma Iron Dep X Inundatio Sparsely  Field Obser Surface Wat Water Table Saturation P (includes ca   | m is revised from Mid/www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Ir v Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye oillary fringe)  | magery (B' Surface (I            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X | apply) ined Lear auna (B1: tic Plants Sulfide C Rhizosphof Reduc n Reduci Surface Well Data blain in R Depth (ir     | ves (B9) 3) s (B14) Ddor (C1 eres on I ced Iron ( tion in Ti (C7) a (D9) emarks) nches): _ nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Seconda  | ary Indicators (minimum of two required ace Soil Cracks (B6) anage Patterns (B10) Season Water Table (C2) Arish Burrows (C8) aration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5) |

| Project/Site: Innovation East                                |                     | City/Cour         | nty: Jersey T\      | WP/Licking                          | Sampling Date:                     | 8-11-21     |
|--|---------------------|-------------------|---------------------|-------------------------------------|------------------------------------|-------------|
| Applicant/Owner: NACO  |                     | <u> </u>          |                     | State: OH                           | Sampling Point:                    | UPC-1       |
| Investigator(s): BDL   |                     | Section, To       | ownship, Ran        | ge: T2N R15W                        |                                    |             |
| Landform (hillside, terrace, etc.): field                    |                     | L                 | _ocal relief (co    | ncave, convex, none)                | : convex                           |             |
| Slope (%): 3 Lat: 40.092275                                  |                     | Long:8            | 82.716958           |                                     | Datum: NAD83 UT                    | M Zone 17 N |
| Soil Map Unit Name: pewamo                                   |                     |                   |                     | NWI class                           | ification: N/A                     |             |
| Are climatic / hydrologic conditions on the site typical for | r this time of      | year?             | Yes X               | No (If no, ex                       | rplain in Remarks.)                | <del></del> |
| Are Vegetation, Soil, or Hydrologysi                         | gnificantly di      | isturbed? A       | re "Normal Ci       | rcumstances" present                | ? Yes X No                         | )           |
| Are Vegetation, Soil, or Hydrologyna                         | aturally probl      | lematic? (I       | f needed, exp       | lain any answers in Re              | emarks.)                           | _           |
| SUMMARY OF FINDINGS – Attach site ma                         | p showing           | g samplin         | g point loc         | ations, transects                   | s, important feat                  | tures, etc. |
| Hydrophytic Vegetation Present? Yes No                       | Х                   | Is the            | Sampled Are         | ea                                  |                                    |             |
| Hydric Soil Present? Yes X No                                |                     | within            | n a Wetland?        | Yes                                 | No X                               |             |
| Wetland Hydrology Present? Yes No                            | Х                   |                   |                     |                                     |                                    |             |
| Remarks:   |                     |                   |                     |                                     |                                    |             |
|  |                     |                   |                     |                                     |                                    |             |
|  |                     |                   |                     |                                     |                                    |             |
| VEGETATION – Use scientific names of plan                    |                     | Deminant          | la dinotor          |                                     |                                    | 1           |
| <u>Tree Stratum</u> (Plot size: )                            | Absolute<br>% Cover | Dominant Species? | Indicator<br>Status | Dominance Test wo                   | orksheet:                          |             |
| 1. <u>N/A</u>  |                     |                   |                     | Number of Dominant                  |                                    |             |
| 2.   |                     |                   |                     | Are OBL, FACW, or                   | •                                  | 0 (A)       |
| 3  |                     |                   |                     | Total Number of Don                 | ninant Species                     |             |
| 4  |                     |                   |                     | Across All Strata:                  |                                    | 1 (B)       |
| 5  |                     | - : ! O » · · ·   |                     | Percent of Dominant                 | •                                  | 22/ /A/D)   |
| Sapling/Shrub Stratum (Plot size: )                          | =                   | Total Cover       |                     | Are OBL, FACW, or                   | FAC: U.                            | .0% (A/B)   |
| 1. N/A   |                     |                   | <br>                | Prevalence Index w                  | orksheet:                          |             |
| 2.   |                     |                   |                     | Total % Cover of                    |                                    | bv:         |
| 3.   |                     |                   |                     | -                                   |                                    | 0           |
| 4.   |                     |                   |                     | FACW species                        | 0 x 2 =                            | 0           |
| 5.   |                     |                   |                     | · ·                                 | 0 x 3 =                            | 0           |
|  | =                   | Total Cover       |                     |                                     |                                    | .00         |
| Herb Stratum (Plot size:)                                    | 40                  |                   |                     |                                     | 0 x 5 =                            | 0 (D)       |
| 1. Trifolium repens  | 10                  | No<br>Voc         | FACU                |                                     | ( )                                | .00 (B)     |
| Festuca arundinacea     3.                                   | 90                  | Yes               | <u>FACU</u>         | Prevalence Index                    | = B/A = 4.00                       |             |
|  |                     |                   | —— <u> </u>         | Hydrophytic Vegeta                  | ation Indicators:                  |             |
| 5.   |                     |                   |                     |                                     | r Hydrophytic Veget                | ation       |
| 6.   |                     |                   |                     | 2 - Dominance T                     | , , ,                              |             |
| 7.   |                     |                   |                     | 3 - Prevalence Ir                   | ndex is ≤3.0 <sup>1</sup>          |             |
| 8.   |                     |                   |                     |                                     | al Adaptations <sup>1</sup> (Provi |             |
| 9  |                     |                   |                     |                                     | ks or on a separate                | -           |
| 10   |                     |                   |                     | <del></del>                         | rophytic Vegetation <sup>1</sup>   | ` ' '       |
| 1 1  | 100 =               | Total Cover       |                     | <sup>1</sup> Indicators of hydric s |                                    |             |
| Woody Vine Stratum (Plot size:)                              |                     |                   | -                   | be present, unless di               | sturbed or problema                | tic.        |
| 1. <u>N/A</u><br>2.  |                     |                   |                     | Hydrophytic                         |                                    |             |
|  |                     | Total Cover       |                     | Vegetation<br>Present? Yes          | No X                               |             |
| Remarks: (Include photo numbers here or on a separa          |                     |                   |                     |                                     |                                    | _           |
| Tremains. (include prioto numbers here of on a separa        | ile sileet.)        |                   |                     |                                     |                                    |             |
|  |                     |                   |                     |                                     |                                    |             |

SOIL Sampling Point: UPC-1

| Depth  | Matrix   |                        |   | x Feature  |   | 2                                     |   |   |  |                        |
|--|--|------------------------|---|--|---|---------------------------------------|---|---|--|------------------------|
| inches)  | Color (moist)  | %                      | Color (moist)   | %  | Type <sup>1</sup>   | Loc <sup>2</sup>                      | Texture   |   | Remarks  |                        |
| 0-6  | 10YR 3/2   | 90                     | 10YR 5/4  | 10   | С   | M                                     | Loamy/Clay  | ey  |  |                        |
| 6-12   | 10YR 3/2   | 85                     | 10YR 5/4  | 15   | С   | M                                     | Loamy/Clay  | еу  |  |                        |
|  |  |                        |   |  |   |                                       |   |   |  |                        |
|  |  |                        |   |  |   |                                       |   |   |  |                        |
|  |  |                        |   |  |   |                                       |   |   |  |                        |
|  |  |                        |   |  |   |                                       |   |   |  |                        |
|  |  |                        |   |  |   |                                       |   |   |  |                        |
| Tuno: C=Co   | noontration D=Donl   | etien DM               | -Daduard Matrix I   |  |   | d Crains                              | 21.0  | cation: PL=Pore   | Lining M-Matr  | .,                     |
| lydric Soil Ir   | ncentration, D=Depl  | elion, Kivi            | -Reduced Mairix, I  | VIO-IVIASK   | eu San  | u Grains                              |   | licators for Prob   |  |                        |
| Histosol (   |  |                        | Sandy Gle   | wed Matr   | iv (S4)   |                                       | IIIG  | Coast Prairie R   | =  | Julis .                |
|  | pedon (A2)   |                        | Sandy Re  | -  | ix (O+)   |                                       |   | Iron-Manganese  |  |                        |
| Black Hist   |  |                        | Stripped M  |  | )   |                                       |   | Red Parent Mat  |  |                        |
|  | Sulfide (A4)   |                        | Dark Surfa  |  | ,   |                                       |   | -   | ark Surface (F22   | 2)                     |
|  | Layers (A5)  |                        | Loamy Mu  | ` '  | ral (F1)  |                                       |   | Other (Explain i  |  | -,                     |
| 2 cm Muc   |  |                        | Loamy Gle   | •  | , ,   |                                       |   | (   | ,  |                        |
|  | Below Dark Surface   | (A11)                  | Depleted I  | •  | , ,   |                                       |   |   |  |                        |
|  | k Surface (A12)  | ,                      | X Redox Da  |  |   |                                       | <sup>3</sup> Inc  | dicators of hydro   | ohytic vegetation  | and                    |
| Sandy Mu   | ıcky Mineral (S1)  |                        | Depleted [  | Dark Surf  | ace (F7   | )                                     |   | wetland hydrolo   | gy must be pres  | ent,                   |
| 5 cm Muc   | ky Peat or Peat (S3  | )                      | Redox De  | pressions  | (F8)  |                                       |   | unless disturbed  | d or problematic   |                        |
| Restrictive L  | ayer (if observed):  |                        |   |  |   |                                       |   |   |  |                        |
| -  |  |                        |   |  |   |                                       |   |   |  |                        |
| Type:  |  |                        |   |  |   |                                       |   |   |  |                        |
| Depth (ind<br>Remarks:<br>This data form   | n is revised from Mic  |                        |   |  |   |                                       |   |   | Yes X Soils, Version 7   | No<br>.0, 2015         |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://   | n is revised from Mic<br>www.nrcs.usda.gov   |                        |   |  |   |                                       | NRCS Field Ind  |   |  |                        |
| Depth (inc<br>Remarks:<br>This data forn<br>Errata. (http://   | n is revised from Mic<br>www.nrcs.usda.gov   |                        |   |  |   |                                       | NRCS Field Ind  |   |  |                        |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://   | n is revised from Mic<br>www.nrcs.usda.gov   | /Internet/F            | SE_DOCUMENTS  | 6/nrcs142  |   |                                       | NRCS Field Ind<br>)                                     | icators of Hydric   | Soils, Version 7   | .0, 2015               |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://<br>YDROLOG<br>Wetland Hyd   | is revised from Midwww.nrcs.usda.gov   | /Internet/F            | rSE_DOCUMENTS   | S/nrcs142  | p2_051:   | 293.docx                              | NRCS Field Ind<br>)                                     | icators of Hydric   | Soils, Version 7   | .0, 2015               |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://<br>YDROLOG<br>Wetland Hyd<br>Primary Indica<br>Surface W  | GY rology Indicators: ators (minimum of or   | /Internet/F            | ired; check all that  | apply)<br>ined Leav  | p2_051:   | 293.docx                              | NRCS Field Ind<br>)                                     | icators of Hydric  condary Indicator  Surface Soil Cra  | Soils, Version 7   | .0, 2015               |
| Depth (ind Remarks: This data forn Errata. (http:// YDROLOG Wetland Hyd Primary Indicat Surface W High Wate  | GY rology Indicators: ators (minimum of or Vater (A1) er Table (A2)  | /Internet/F            | ired; check all that a Water-Sta Aquatic Fa   | apply)<br>ined Leavaura (B13   | p2_051;<br>ves (B9)   | 293.docx                              | NRCS Field Ind<br>)                                     | icators of Hydric<br>condary Indicator<br>Surface Soil Cra<br>Drainage Patter   | Soils, Version 7   | .0, 2015               |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Wetland Hyd  Primary Indica  Surface W  High Wate  Saturation  | ar is revised from Michael Mic | /Internet/F            | ired; check all that a water-Sta Aquatic Fa True Aqua   | apply)<br>ined Leav<br>auna (B13   | /es (B9)  | 293.docx                              | NRCS Field Ind<br>)                                     | condary Indicator<br>Surface Soil Cra<br>Drainage Patter  | Soils, Version 7  rs (minimum of tracks (B6) rns (B10) ater Table (C2)   | .0, 2015               |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma  | an is revised from Mic<br>www.nrcs.usda.gov<br>GY<br>rology Indicators:<br>ators (minimum of on<br>vater (A1)<br>er Table (A2)<br>in (A3)<br>rks (B1)  | /Internet/F            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen  | apply) ined Leav auna (B13 atic Plants Sulfide C   | ves (B9)  | 293.docx                              | NRCS Field Ind ) Sec                                    | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow  | Soils, Version 7  rs (minimum of tracks (B6) rns (B10) ater Table (C2) vs (C8)   | .0, 2015<br>wo require |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://<br>YDROLOG<br>Wetland Hyd<br>Primary Indica<br>Surface W<br>High Wate<br>Saturation<br>Water Ma<br>Sediment   | rology Indicators: ators (minimum of or<br>Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2)  | /Internet/F            | ired; check all that a water-Sta Aquatic Fa True Aqua   | apply) ined Leav auna (B13 attic Plants Sulfide C Rhizosphe  | ves (B9)<br>3)<br>6 (B14)<br>dor (C1  | 293.docx                              | NRCS Field Ind ) Sec                                    | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib                                      | Soils, Version 7  TS (minimum of tracks (B6) This (B10) Her Table (C2) VS (C8) File on Aerial Ima  | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Wetland Hyd  Primary Indica  Surface W  High Wate  Saturatior  Water Ma  Sediment  Drift Depo  | rology Indicators: ators (minimum of or<br>Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2)  | /Internet/F            | ired; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply) ined Leavauna (B13 atic Plants Sulfide C Rhizosphe of Reduc   | ves (B9) 3) 6 (B14) 6 dor (C1 6 eres on 6 dor lon   | 293.docx ) Living Ra                  | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib                                      | Soils, Version 7  TS (minimum of tracks (B6) TRS (B10) Atter Table (C2) AS (C8) Ale on Aerial Imalessed Plants (D1)  | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturatior Water Ma Sediment Drift Depo  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)  | /Internet/F            | ired; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply) ined Leavaura (B13 atic Plants Sulfide C Rhizosphe of Reduct  | ves (B9) s) s (B14) dor (C1 eres on ed Iron ion in T  | 293.docx ) Living Ra                  | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stres                  | Soils, Version 7  The second of the second o | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)  | /Internet/F            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro   | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct   | ves (B9) 3) 6 (B14) dor (C1 eres on ed Iron ion in T (C7)   | 293.docx ) Living Ra                  | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  The second of the second o | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Vetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation  | ris revised from Michael Market (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) visits (B3) or Crust (B4) sits (B5)   | ne is requ             | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or                              | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct x Surface Well Data                                 | yes (B9) 3) 4 (B14) 4 dor (C1 4 eres on 6 ed Iron 6 ion in T 6 (C7) 6 (D9)                              | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  The second of the second o | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial Invegetated Concave   | ne is requ             | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or                              | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct x Surface Well Data                                 | yes (B9) 3) 4 (B14) 4 dor (C1 4 eres on 6 ed Iron 6 ion in T 6 (C7) 6 (D9)                              | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  The second of the second o | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely W  Field Observ   | ris revised from Mic<br>www.nrcs.usda.gov<br>rology Indicators:<br>ators (minimum of or<br>Vater (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sits (B5)<br>n Visible on Aerial Invegetated Concave<br>ations:  | nagery (B              | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or                              | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct x Surface Well Data                                 | ves (B9) B) G(B14) Gor (C1 Gres on Gorin T G(C7) G(D9) Gemarks)   | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  Tes (minimum of tracks (B6) This (B10) Atter Table (C2) As (C8) Allel on Aerial Imales (D1) As its (D1) As its (D1) As its (D1) As its (D1)  | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indicator Surface W High Water Saturation Water Mater Sediment Drift Depote Algal Mater Iron Depote X Inundation Sparsely Water Water Water Table F   | ris revised from Michael Water (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) visits (B3) or Crust (B4) sits (B5) n Visible on Aerial Invegetated Concave ations: r Present? Yes   | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iron Thin Muck (7) Gauge or B8) Other (Exp. No X No X  | apply) ined Leavana (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct on Reduct on Surface Well Data blain in Re  Depth (in | yes (B9) 3) 4 (B14) 4 (C1) 4 (C7) 6 (D9) 6 (D9) 7 (C7) 7 (C7) 8 (D9) 8 (Ches): 9 (Ches):                | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Seconds (C3)                          | condary Indicator Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Street Geomorphic Po                     | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)  | 0, 2015 wo require     |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely Field Observ Surface Wate Water Table F Saturation Press   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial In Vegetated Concave ations: r Present? Present? Yesesent? Yesesent?  | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Exp.              | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct c Surface Well Data blain in Re                     | yes (B9) 3) 4 (B14) 4 (C1) 4 (C7) 6 (D9) 6 (D9) 7 (C7) 7 (C7) 8 (D9) 8 (Ches): 9 (Ches):                | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Seconds (C3)                          | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)  | wo requir              |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely W Field Observ Surface Wate Water Table F Saturation Pre Saturation Pre Sincludes capi  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial In Vegetated Concave ations: r Present? Yesesent? Yesesent? Yesesent?   | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or Sea Other (Exp No X No X No X | apply) ined Leavanna (B13 attic Plants Sulfide Con Reduct on Reduct Surface Well Data colain in Reduct Depth (in                   | yes (B9) 3) 4 (B14) 4 (B14) 5 (B14) 6 (C1) 6 (C7) 6 (D9) 7 (D9) 7 (Ches): 7 (ches): 7 (ches): 7 (ches): | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Second Cooks (C3)  S (C6)  Wetland Hy | condary Indicator Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stree Geomorphic Po FAC-Neutral Te       | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)  | wo requir              |
| Depth (incomplete includes capital data formarks:  This data formarks:  This data formarks:  This data formarks:  This data formarks:  Inundationary Indicationary Indicat | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial In Vegetated Concave ations: r Present? Present? Yesesent? Yesesent?  | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or Sea Other (Exp No X No X No X | apply) ined Leavanna (B13 attic Plants Sulfide Con Reduct on Reduct Surface Well Data colain in Reduct Depth (in                   | yes (B9) 3) 4 (B14) 4 (B14) 5 (B14) 6 (C1) 6 (C7) 6 (D9) 7 (D9) 7 (Ches): 7 (ches): 7 (ches): 7 (ches): | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Second Cooks (C3)  S (C6)  Wetland Hy | condary Indicator Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stree Geomorphic Po FAC-Neutral Te       | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)  | 0, 2015 wo requir      |
| Depth (incomplete Control of Cont | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial In Vegetated Concave ations: r Present? Yesesent? Yesesent? Yesesent?   | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or Sea Other (Exp No X No X No X | apply) ined Leavanna (B13 attic Plants Sulfide Con Reduct on Reduct Surface Well Data colain in Reduct Depth (in                   | yes (B9) 3) 4 (B14) 4 (B14) 5 (B14) 6 (C1) 6 (C7) 6 (D9) 7 (D9) 7 (Ches): 7 (ches): 7 (ches): 7 (ches): | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Second Cooks (C3)  S (C6)  Wetland Hy | condary Indicator Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stree Geomorphic Po FAC-Neutral Te       | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)  | wo require             |

| Project/Site: Innovation East   | City/County: Jersey T         | ΓWP/Licking                                  | Sampling Date: 8-11-21                       |
|---|-------------------------------|--|--|
| Applicant/Owner: MDJ Holdings   |                               | State: OH                                    | Sampling Point: UPC-2                        |
| Investigator(s): BDL  | Section, Township, Rar        | nge: T2N R15W                                |  |
| Landform (hillside, terrace, etc.): field                             | Local relief (c               | concave, convex, none):                      | convex                                       |
| Slope (%): 3 Lat: 40.093242   | Long: <u>-82.716858</u>       |  | Datum: NAD83 UTM Zone 17 N                   |
| Soil Map Unit Name: Bennington silt loam                              |                               | NWI classif                                  | fication: N/A                                |
| Are climatic / hydrologic conditions on the site typical for this tin | me of year? Yes X             | No (If no, exp                               | olain in Remarks.)                           |
| Are Vegetation, Soil, or Hydrologysignifican                          | ntly disturbed? Are "Normal C | <br>Circumstances" present?                  | Yes X No                                     |
| Are Vegetation , Soil , or Hydrology naturally                        |                               | plain any answers in Re                      | marks.)                                      |
| SUMMARY OF FINDINGS – Attach site map sho                             | wing sampling point lo        | cations, transects,                          | , important features, etc.                   |
| Hydrophytic Vegetation Present? Yes No X                              | Is the Sampled Ar             | rea  |  |
| Hydric Soil Present? Yes X No   | within a Wetland?             |  | No X   |
| Wetland Hydrology Present? Yes No X                                   |                               |  |  |
| Remarks:  |                               |  |  |
|   |                               |  |  |
| VECETATION Lies asigntific names of plants                            |                               |  |  |
| <b>VEGETATION</b> – Use scientific names of plants.  Absolu           | ute Dominant Indicator        |  |  |
| Tree Stratum         (Plot size:)         % Cov                       |                               | Dominance Test wor                           | rksheet:                                     |
| 1. <u>N/A</u>   |                               | Number of Dominant                           |  |
| 2   |                               | Are OBL, FACW, or F                          | AC: 0 (A)                                    |
| 3   |                               | Total Number of Domi                         | •  |
| 4 5.  |                               | Across All Strata:                           | 1(B)   |
| o   | =Total Cover                  | Percent of Dominant S<br>Are OBL, FACW, or F | •  |
| Sapling/Shrub Stratum (Plot size: )                                   | 10010010                      | 7110 002,                                    |  |
| 1. <u>N/A</u>   |                               | Prevalence Index wo                          | orksheet:                                    |
| 2.  |                               | Total % Cover of                             | f: Multiply by:                              |
| 3   |                               | OBL species 0                                |  |
| 4   |                               | FACW species 0 FAC species 0                 |  |
| j   | =Total Cover                  | FAC species 0                                |  |
| Herb Stratum (Plot size:)   |                               |  | $x = \frac{100}{0}$                          |
| 1. Festuca arundinacea 100  | Yes FACU                      | Column Totals: 10                            |  |
| 2.  |                               | Prevalence Index                             | = B/A = 4.00                                 |
| 3   |                               |  | u .  |
| 4 <u></u>   |                               | Hydrophytic Vegetat                          |  |
|   |                               | 2 - Dominance Te                             | Hydrophytic Vegetation                       |
| 7.  |                               | 3 - Prevalence Inc                           |  |
| 8.  |                               | 4 - Morphological                            | Adaptations <sup>1</sup> (Provide supporting |
| 9.  |                               |  | ks or on a separate sheet)                   |
| 10  |                               | Problematic Hydro                            | ophytic Vegetation <sup>1</sup> (Explain)    |
| 100   | ) =Total Cover                |  | oil and wetland hydrology must               |
| Woody Vine Stratum (Plot size:)                                       |                               | be present, unless dis                       | sturbed or problematic.                      |
| 1. <u>N/A</u><br>2.   |                               | Hydrophytic                                  |  |
|   | =Total Cover                  | Vegetation<br>Present? Yes                   | No X   |
| Remarks: (Include photo numbers here or on a separate shee            |                               | -  | <del></del> _                                |
| Nellians. (Illulude piloto flumbors floro of off a sopulate site.     | st.)                          |  |  |

SOIL Sampling Point: UPC-2

| 0-6  | Depth  | Matrix   |                          | Redo   | x Feature  |   |                                       |  |  |  |                     |
|--|--|--|--------------------------|--|--|---|---------------------------------------|--|--|--|---------------------|
| 6-12 10YR 3/2 85 10YR 5/4 15 C M Loarny/Clayey  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  Thidicators for Problematic Mydric Soils Indicators (A16)  Histic Epipedon (A2) Sandy Redox (S5) Inon-Manganese Masses (F12)  Black Histic (A3) Stripped Matrix (S6) Red Parent Material (F27)  Stratified Layers (A5) Loarny Mucky Mineral (F1) Other (Explain in Remarks)  2 cm Muck (A10) Loarny Gleyed Matrix (F3)  Thick Dark Surface (A11) Depleted Matrix (F3)  Thick Dark Surface (A12) X Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Matrix (F3)  Thick Dark Surface (A12) X Redox Depressions (F8)  Thick Dark Surface (A12) X Redox Depressions (F8)  Restrictive Layer (if observed):  Type:  Deplit (inches):  Type:  Deplit (inches):  Primary Indicators (minimum of one is required: check all that apply)  Wettand Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Wettand Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1) Water-Stained Leaves (B9)  Surface Water (A1) Water-Stained Leaves (B9)  Surface Water (A1) Water-Stained Leaves (B9)  Surface Water (A1) Surface (A14) Dy-Season Water Table (A2)  Aquatic Fauna (B13) Dy-Season Water Table (A2)  Saturation (A3) True Aquatic Plants (B14) Dy-Season Water Table (A2)  Sediment Deposits (B3) Presence of Reduced fron (C4) Statuted or Strassed Plants (D1)  Sediment Deposits (B3) Presence of Reduced fron (C4) Statuted or Strassed Plants (D1)  Agal Mator Crust (B4) Recent fron Recent fron Reduced Iron (C4) Statuted or Strassed Plants (D1)  Sparsely Vegetat | (inches)   | Color (moist)  | %                        | Color (moist)  | %  | Type <sup>1</sup>   | Loc <sup>2</sup>                      | Texture  |  | Remarks  |                     |
| "Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.  "Location: PL=Pore Lining, M=Matrix.  Hydric Soil Indicators:  Histosol (A1) Sandy Gieyed Matrix (S4) Coast Prairie Redox (A16)  Histic Epipedon (A2) Sandy Redox (S5) Iron-Manganese Masses (F12)  Black Histic (A3) Stripped Matrix (S6) Rod Parent Material (F21)  Hydrogen Sulfide (A4) Dark Surface (S7) Very Shallow Dark Surface (F2)  Stratified Layers (A5) Loamy Mucky Mineral (F1) Other (Explain in Remarks)  2 cm Muck (A10) Loamy Gleyed Matrix (F3)  Depleted Metrix (F3)  Thick Dark Surface (A12) X Redox Dark Surface (F6)  Sandy Mucky Mineral (S1) Depleted Matrix (F3)  Sem Mucky Peat or Peat (S3) Redox Depressions (F8) vuries of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type:  Depth (inches):  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, 20 Errata, (http://www.nrcs.usda.gov/internet/FSE_DOCUMENTS/mrcs142p2_051293.docx)  HYDROLOGY  Wetland Hydrology Indicators:  Pimary Indicators (minimum of one is required: check all that apply)  Surface Water (A1) Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)  Hydrogen Sulfide Codor (C1) Sulface Soil Cracks (B6)  Drainage Patterns (B10)  Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (B7)  Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)  Field Observations:  Ves No X Depth (inches):  Wetland Hydrology Present? Yes No X Depth (inches):  | 0-6  | 10YR 3/2   | 90                       | 10YR 5/4   | 10   | С   | M                                     | Loamy/Clayey   | <u> </u>   |  |                     |
| Hydric Soil Indicators:  Histosol (A1)   | 6-12   | 10YR 3/2   | 85                       | 10YR 5/4   | 15   | С   | M                                     | Loamy/Clayey   | <u>/</u>   |  |                     |
| Hydric Soil Indicators: Histosol (Ar1)   |  |  |                          |  |  |   |                                       |  |  |  |                     |
| Hydric Soil Indicators: Histocol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Histocol (A1) Sandy Gleyed Matrix (S6) Coast Prairie Redox (A16) Histocol (A1) Sandy Redox (S5) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Red Parent Material (F21) Hydrogen Sulfide (A4) Dark Surface (S7) Very Shallow Dark Surface (F22) Stratified Layers (A5) Loamy Mucky Mineral (F1) Other (Explain in Remarks)  2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present. 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if observed): Type: Deplth (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, 20 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) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Saturation (A3) Presence of Reduced Iron (C4) Sulfide Cotor (C3) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Filed Observations: Surface Water Present? Yes No X Depth (inches): Water Table (Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe)  |  |  |                          |  |  |   |                                       |  |  |  |                     |
| Hydric Soil Indicators: Histocol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Histocol (A1) Sandy Gleyed Matrix (S6) Coast Prairie Redox (A16) Histocol (A1) Sandy Redox (S5) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Red Parent Material (F21) Hydrogen Sulfide (A4) Dark Surface (S7) Very Shallow Dark Surface (F22) Stratified Layers (A5) Loamy Mucky Mineral (F1) Other (Explain in Remarks)  2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present. 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if observed): Type: Deplth (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, 20 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) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Saturation (A3) Presence of Reduced Iron (C4) Sulfide Cotor (C3) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Filed Observations: Surface Water Present? Yes No X Depth (inches): Water Table (Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe)  |  |  |                          |  |  |   |                                       |  |  |  |                     |
| Hydric Soll Indicators:  Histosol (A1)   |  |  |                          |  |  |   |                                       |  | <del>_</del>   |  |                     |
| Hydric Soil Indicators: Histocol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Histocol (A1) Sandy Gleyed Matrix (S6) Coast Prairie Redox (A16) Histocol (A1) Sandy Redox (S5) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Red Parent Material (F21) Hydrogen Sulfide (A4) Dark Surface (S7) Very Shallow Dark Surface (F22) Stratified Layers (A5) Loamy Mucky Mineral (F1) Other (Explain in Remarks)  2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present. 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if observed): Type: Deplth (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, 20 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) Water-Stained Leaves (B9) High Water Table (A2) Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Saturation (A3) Presence of Reduced Iron (C4) Sulfide Cotor (C3) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Filed Observations: Surface Water Present? Yes No X Depth (inches): Water Table (Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No (includes capillary fringe)  |  |  |                          |  |  |   |                                       |  |  |  |                     |
| Hydric Soll Indicators:  Histosol (A1)   | 1  |  |                          |  |  |   |                                       |  |  |  |                     |
| Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Histo Epipedon (A2) Sandy Redox (S5) Iron-Manganese Masses (F12) High German Mandanese Masses (F12) Hydrogen Sulfide (A4) Dark Surface (S7) Very Shallow Dark Surface (F21) Hydrogen Sulfide (A4) Dark Surface (S7) Very Shallow Dark Surface (F22) Stratified Layers (A5) Loamy Mucky Mineral (F1) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A12) X Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Wetland hydrology must be present, unless disturbed or problematic.  5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) unless disturbed or problematic.  Form Mucky Peat or Peat (S3) Redox Depressions (F8) Unless disturbed or problematic.  Fastrictive 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, 20 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/hrcs142p2_051293.docx)  HYDROLOGY  Watland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Drainage Patterns (B10) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation (Nishle on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)  Filed Observations: Surface Water Present? Yes No X Depth (inches): Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes Depth (inches):  |  |  | etion, RM=               | =Reduced Matrix, I   | MS=Masl  | ked Sand  | d Grains.                             |  |  |  |                     |
| Histic Epipedon (A2) Sandy Redox (S5) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Red Parent Material (F21) Hydrogen Sulfide (A4) Dark Surface (S7) Very Shallow Dark Surface (F22) Stratified Layers (A5) Loamy Mucky Mineral (F1) Other (Explain in Remarks)  2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (If observed): Type: Depth (inches):  Hydric Soil Present? Yes N. No.  Remarks:  Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Device Pater (S2) Surface Valver (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Fauna (B13) Drainage Patterns (B10) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (B7) Spessor Valver (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Find Observations:  Surface Water (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Find Observations:  Surface Water Present? Yes No X Depth (inches): Water Able (Present? Yes No X Depth (inches): Water Table (Present? Yes No X Depth (inches): Water Able Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Able Present? Yes No X Depth (inches): Water Able Present? Yes No X Depth (inches): Water Able Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches):  | •  |  |                          | 0  |  | (O.4)   |                                       |  |  | -  | Soils":             |
| Black Histic (A3) Stripped Matrix (S6) Red Parent Material (F21) Hydrogen Sulfide (A44) Dark Surface (S7) Very Shallow Dark Surface (F22) Stratified Layers (A5) Loamy Mucky Mineral (F1) Other (Explain in Remarks) 2 cm Muck (A70) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Redox Dark Surface (F6) Indicators of hydrophytic vegetation and sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic.  5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) Unless disturbed or problematic.  Restrictive Layer (if observed): Type: Depth (inches):  Type: Depth (inches):  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, 20 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)  IYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (B1) Iron Deposits (B3) Presence of Reduced Iron (C4) Stunder of Stressed Plants (D1) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Sparsely Vegetated Concave Surface (B8) A Depth (inches): Sparsely Vegetated Concave Surface (B8) X Depth (inches): Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches):   |  | ` '  |                          |  |  | 1X (S4)   |                                       |  |  |  |                     |
| Hydrogen Sulfide (A4)  Stratified Layers (A5)  Loamy Mucky Mineral (F1)  Depleted Delow Dark Surface (F22)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F6)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F6)  Sandy Mucky Peat or Peat (S3)  Redox Depressions (F8)  Redox Depressions (F8)  Depth (inches):  Depth (inches):  Type:  Depth (inches):  This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 20 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)  Hydric Soil Present?  Secondary Indicators (minimum of two results)  Surface Soil Cracks (B6)  High Water Table (A2)  Aquatic Fauna (B13)  Drainage Patterns (B10)  Saturation (A3)  True Aquatic Flants (B14)  Water Marks (B1)  Sediment Deposits (B2)  Oxidized Rhizospheres on Living Roots (C3)  Saturation Visible on Aerial Imagery (B7)  Algal Mator Crust (B4)  Iron Deposits (B3)  Presence of Reduced Iron (C4)  Sturted or Stressed Plants (D1)  Algal Mator Crust (B4)  Recent Iron Reduction in Tilled Soils (C6)  Geomorphic Position (D2)  Iron Deposits (B3)  Presence of Reduced Iron (C4)  Surface Water (B4)  FAC-Neutral Test (D5)  FAC-Neutral Test (D5)  FAC-Neutral Test (D5)  Sparsely Vegetated Concave Surface (B8)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  X  Depth (inches):  Wetland Hydrology Present?  Yes  No  Ketland Hydrology Present?  Yes  No  Mater Marks  No  Metland Hydrology Present?  Yes   |  |  |                          |  |  | • • •   |                                       |  | =  |  |                     |
| Stratified Layers (A5) Loamy Mucky Mineral (F1) Other (Explain in Remarks)  2 cm Muck (A10) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) 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, 20 Errata. (http://www.nrcs.usda.gov/internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two results of the company of the  |  |  |                          |  |  | ))  |                                       |  |  | , ,  | 1)                  |
| 2 cm Muck (A10)  |  |  |                          |  | , ,  | ral (E1)  |                                       |  | -  | · ·  | .)                  |
| Depleted Below Dark Surface (A11)  |  |  |                          |  | •  | , ,   |                                       | —  | zuiei (⊏xpiain ir  | i reiliaiks)   |                     |
| Thick Dark Surface (A12) X Redox Dark Surface (F6) 3 Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) 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, 20 Errata. (http://www.nrcs.usda.gov/internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of two results) Surface Water (A1) Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation (Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)  Field Observations: Surface Water Present? Yes No X Depth (inches): Sultration (Psesnt? Yes No X Depth (inches): Saturation Fresent? Yes No X Depth (inches):  |  |  | (Δ11)                    |  | -  |   |                                       |  |  |  |                     |
| Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, 5 om Mucky Peat or Peat (S3) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if observed):  |  |  | (411)                    |  | -  | •   |                                       | <sup>3</sup> India   | ators of hydron  | hytic vegetation   | and                 |
| Restrictive Layer (if observed): Type: Depth (inches):  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, 20 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) Saturation (A3) Saturation (A3) Saturation (A3) True Aquatic Fauna (B13) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)  Field Observations: Surface Water Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes Satur |  | ` ,  |                          |  |  | ` '   | ١                                     |  | -  | -  |                     |
| Restrictive Layer (if observed):   |  |  | )                        |  |  | , ,   | ,                                     |  | •  |  | O11t,               |
| Type: Depth (inches): Hydric Soil Present?  Yes X Note   |  |  | ,                        |  |  |   |                                       |  |  | <u> </u>   |                     |
| 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, 20 Errata: (http://www.nrcs.usda.gov/internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)  HYDROLOGY  Wetland Hydrology Indicators:    Fyrimary Indicators (minimum of one is required: check all that apply)  |  | ayor (ii oboorrou).  |                          |  |  |   |                                       |  |  |  |                     |
| 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, 20 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) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (B7) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5)  X Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)  Field Observations: Surface Water Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches):   |  |  |                          |  |  |   |                                       |  |  |  |                     |
| This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 20 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)    Application  |  | ches):   |                          |  |  |   |                                       | Hydric Soil Pre  | sent?  | Yes X  | No                  |
| 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)  Presence of Reduced Iron (C4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water (B8)  No X Depth (inches):  Saturation Hydrology Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Mater Table Present? Yes No X Depth (inches):  Saturation Present? Yes No X Depth (inches):  Wetland Hydrology Present? Yes No X Depth (inches):  Wetland Hydrology Present? Yes No X Depth (inches):   | Depth (in<br>Remarks:<br>This data for   | m is revised from Mic  |                          |  |  |   |                                       | NRCS Field Indic   |  |  |                     |
| Primary Indicators (minimum of one is required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Aquatic Fauna (B13)  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)  Water Table (Part)  Algal Mater Present?  No  Mater Water Water Present?  Water Water Present?  Yes  No  X  Depth (inches):  Secondary Indicators (minimum of two reconstructions)  Surface Soil Cracks (B6)  Drainage Patterns (B10)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C1)  Geomorphic Position (D2)  FAC-Neutral Test (D5)  FAC-Neutral Test (D5)  Wetland Hydrology Present? Yes No   | Depth (in<br>Remarks:<br>This data for   | m is revised from Mic  |                          |  |  |   |                                       | NRCS Field Indic   |  |  |                     |
| Surface Water (A1)  Water-Stained Leaves (B9)  Surface Soil Cracks (B6) High Water Table (A2)  Aquatic Fauna (B13)  Drainage Patterns (B10)  Saturation (A3)  True Aquatic Plants (B14)  Dry-Season Water Table (C2)  Water Marks (B1)  Hydrogen Sulfide Odor (C1)  Crayfish Burrows (C8)  Sediment Deposits (B2)  Oxidized Rhizospheres on Living Roots (C3)  Saturation Visible on Aerial Imagery (Drift Deposits (B3)  Presence of Reduced Iron (C4)  Stunted or Stressed Plants (D1)  Algal Mat or Crust (B4)  Recent Iron Reduction in Tilled Soils (C6)  Geomorphic Position (D2)  Iron Deposits (B5)  Thin Muck Surface (C7)  FAC-Neutral Test (D5)  X Inundation Visible on Aerial Imagery (B7)  Gauge or Well Data (D9)  Sparsely Vegetated Concave Surface (B8)  Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes  No X Depth (inches):  Wetland Hydrology Present? Yes  No X Depth (inches):  Wetland Hydrology Present? Yes  No X Depth (inches):  Saturation Present? Yes  No X Depth (inches):  Wetland Hydrology Present? Yes  No X Depth (inches):  Saturation Present? Yes  No X Depth (inches):  Wetland Hydrology Present? Yes  No X Depth (inches):  Saturation Present? Yes  No X Depth (inches):  Wetland Hydrology Present? Yes  No X Depth (includes capillary fringe)  | Depth (in<br>Remarks:<br>This data fori<br>Errata. (http:/   | m is revised from Mic<br>/www.nrcs.usda.gov  |                          |  |  |   |                                       | NRCS Field Indic   |  |  |                     |
| High Water Table (A2)  Saturation (A3)  True Aquatic Fauna (B13)  Drainage Patterns (B10)  True Aquatic Plants (B14)  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)  Field Observations:  Surface Water Present?  Yes  No  X  Depth (inches):  Saturation (C1)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (B10)  Spaturation Visible on Aerial Imagery (B10)  Other (Explain in Remarks)  Wetland Hydrology Present? Yes  No  No  X  Depth (inches):  Saturation Present?  Yes  No  X  Depth (inches):  Wetland Hydrology Present? Yes  No  No  No  No  No  No  No  No  No  N  | Depth (in Remarks: This data for Errata. (http://  | m is revised from Mic<br>/www.nrcs.usda.gov  |                          |  |  |   |                                       | NRCS Field Indic   |  |  |                     |
| 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)  Field Observations:  Surface Water Present?  Water Marks (B1)  True Aquatic Plants (B14)  Hydrogen Sulfide Odor (C1)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (B7)  Recent Iron Reduction in C4)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)  FAC-Neutral Test (D5)  Thin Muck Surface (C7)  Sparsely Vegetated Concave Surface (B8)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  X  Depth (inches):  Water Table Present?  Yes  No  X  Depth (inches):  Wetland Hydrology Present?  Yes  No  No  No  No  No  No  No  No  No  N  | Depth (in Remarks: This data for Errata. (http://www.defand.com/de | m is revised from Mic<br>/www.nrcs.usda.gov  | /Internet/F              | SE_DOCUMENTS   | s/nrcs142  |   |                                       | NRCS Field Indic   | ators of Hydric s  | Soils, Version 7.  | 0, 2015             |
| Water Marks (B1)   | Depth (in Permarks: This data for Errata. (http://www.defand.com/d | m is revised from Mic/www.nrcs.usda.gov  GY  drology Indicators: ators (minimum of o   | /Internet/F              | SE_DOCUMENTS   | s/nrcs142  | p2_0512   | 293.docx                              | NRCS Field Indic ) Seco  | ators of Hydric s  | Soils, Version 7.  | 0, 2015             |
| 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)  Sparsely Vegetated Concave Surface (B8)  Surface Water Present?  Yes  No  X  Depth (inches):  Saturation Visible on Aerial Imagery (B7)  Spaturation Present?  Yes  No  X  Depth (inches):  Saturation Present?  Yes  No  No  No  No  Saturation Present?  Yes  No  No  Saturation Present?  Yes  No  No  Saturation Present?  Yes  No  Saturation Present | Depth (in Permarks: This data for Errata. (http://h | m is revised from Mic/www.nrcs.usda.gov  GY  Irology Indicators: ators (minimum of orward (A1) er Table (A2)   | /Internet/F              | red; check all that a water-Sta Aquatic Fa   | apply)<br>ined Lea   | ves (B9)  | 293.docx                              | NRCS Field Indic )  Seco   | ators of Hydric s<br>ndary Indicators<br>Surface Soil Cra<br>Orainage Patteri  | Soils, Version 7.  S (minimum of tocks (B6) ns (B10)   | 0, 2015             |
| Drift Deposits (B3)  Algal Mat or Crust (B4)  Recent Iron Reduction in Tilled Soils (C6)  Iron Deposits (B5)  Thin Muck Surface (C7)  Squage or Well Data (D9)  Sparsely Vegetated Concave Surface (B8)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  X  Depth (inches):  Saturation Present?  Yes  No  X  Depth (inches):  Wetland Hydrology Present? Yes  No  No  No  No  No  No  No  No  No  N   | Depth (in Depth (in Depth (in Remarks: This data for Errata. (http://www.communication)  HYDROLO  Wetland Hyder  Surface (in Depth (in D | m is revised from Mic/www.nrcs.usda.gov  GY  Irology Indicators: ators (minimum of orwater (A1) ter Table (A2) n (A3)  | /Internet/F              | red; check all that a water-Sta Aquatic Fa True Aqua   | apply)<br>ined Lea<br>auna (B1:  | ves (B9)<br>3)<br>s (B14)   | 293.docx                              | NRCS Field Indic )  Seco   | ndary Indicators Surface Soil Cra Orainage Patteri   | s (minimum of tocks (B6) ns (B10) ter Table (C2)   | 0, 2015             |
| Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5)  X Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)  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): Saturation Present? Yes No X Depth (inches):  (includes capillary fringe)  | Depth (in Permarks: This data for Errata. (http://www.communication)  HYDROLO  Wetland Hyder  Surface V  High Water Mater Mater Mater Mater (in permark)   | GY  Irology Indicators: ators (minimum of or Nater (A1) ter Table (A2) n (A3) arks (B1)  | /Internet/F              | red; check all that a water-Sta Aquatic Fa True Aqua Hydrogen  | apply) ined Lea auna (B1: tic Plants Sulfide C   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1   | )                                     | NRCS Field Indic )  Seco   | ndary Indicators<br>Surface Soil Cra<br>Dry-Season Wa<br>Crayfish Burrow   | s (minimum of tocks (B6) ns (B10) ter Table (C2) s (C8)  | 0, 2015             |
| Iron Deposits (B5)  Thin Muck Surface (C7)  Sauge or Well Data (D9)  Sparsely Vegetated Concave Surface (B8)  Other (Explain in Remarks)  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):  Wetland Hydrology Present? Yes No Cincludes capillary fringe)   | Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyo Primary Indio Surface \ High Wat Saturatio Water Ma Sedimen  | m is revised from Mic //www.nrcs.usda.gov  GY  Irology Indicators: ators (minimum of o  Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2)   | /Internet/F              | red; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply)<br>ined Lea<br>auna (B1:<br>titic Plants<br>Sulfide C<br>Rhizosph   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on l  | )<br>Living Ro                        | NRCS Field Indic )  Seco S [   | ndary Indicators<br>Surface Soil Cra<br>Orainage Patteri<br>Ory-Season Wa<br>Crayfish Burrow<br>Saturation Visibl                                    | s (minimum of two cks (B6) ns (B10) ter Table (C2) s (C8) e on Aerial Image                                  | 0, 2015  vo require |
| X Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)  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): Wetland Hydrology Present? Yes No (includes capillary fringe)   | Depth (in Permarks: This data for Errata. (http://www.permarks.)  HYDROLO  Wetland Hyde  Surface (High Water Mater | GY  drology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)  | /Internet/F              | red; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply)<br>ined Lea<br>auna (B1:<br>stic Plants<br>Sulfide C<br>Shizosph<br>of Reduc                                | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on led Iron (   | )<br>Living Rc                        | NRCS Field Indic )  Seco  Significant Control of the control of th | ndary Indicators Surface Soil Cra Orainage Patter Ory-Season Wa Crayfish Burrow Saturation Visibl  | s (minimum of to<br>cks (B6)<br>ns (B10)<br>ter Table (C2)<br>s (C8)<br>e on Aerial Imag<br>sed Plants (D1)  | 0, 2015  vo require |
| Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)  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)  Other (Explain in Remarks)  Wetland Hydrology Present? Yes No  | Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyd Primary Indic Surface \( \) High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma   | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: ators (minimum of o  Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)  | /Internet/F              | red; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Faresence Recent Iro  | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on letton (tion in Ti   | )<br>Living Rc                        | Seco Seco Seco Seco Seco Seco Seco Seco  | ndary Indicators Surface Soil Cra Orainage Patteri Ory-Season Wai Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos                 | s (minimum of tocks (B6) ns (B10) ter Table (C2) s (C8) e on Aerial Images (D1) sition (D2)                  | 0, 2015  vo require |
| 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):  Wetland Hydrology Present? Yes No (includes capillary fringe)   | Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyde  Surface (  High Water Mater  | GY  Irology Indicators: ators (minimum of or Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)  | /Internet/F              | red; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro  | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc   | ep2_0512<br>wves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on led Iron (<br>tion in Ti<br>(C7)      | )<br>Living Rc                        | Seco Seco Seco Seco Seco Seco Seco Seco  | ndary Indicators Surface Soil Cra Orainage Patteri Ory-Season Wai Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos                 | s (minimum of tocks (B6) ns (B10) ter Table (C2) s (C8) e on Aerial Images (D1) sition (D2)                  | 0, 2015  vo require |
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| Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Concludes capillary fringe)   | Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyd Primary Indic Surface ( High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo X Inundatic Sparsely  | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: ators (minimum of o  Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) en Visible on Aerial Ir Vegetated Concave  | ne is requi              | red; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck                                    | apply) ined Lea auna (B1: sulfide C Rhizosph of Reduc n Reduc Surface Well Data                                    | ves (B9) 3) s (B14) Odor (C1 eres on led Iron (C7) a (D9)   | )<br>Living Ro<br>(C4)<br>Illed Soils | Seco Seco Seco Seco Seco Seco Seco Seco  | ndary Indicators Surface Soil Cra Orainage Patteri Ory-Season Wai Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos                 | s (minimum of tocks (B6) ns (B10) ter Table (C2) s (C8) e on Aerial Images (D1) sition (D2)                  | 0, 2015  vo require |
| Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Includes capillary fringe)  | Depth (in Remarks: This data for Errata. (http://www.communication.com/wetland Hyden Market M | m is revised from Mic/www.nrcs.usda.gov  GY  Irology Indicators: ators (minimum of or Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) t or Crust (B4) posits (B5) on Visible on Aerial Ir Vegetated Concave vations:  | nagery (B <sup>7</sup>   | red; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck (7) Gauge or Other (Exp.           | apply) ined Lea auna (B1: dic Plants Sulfide C Rhizosph of Reduc on Reduc Surface Well Data                        | eves (B9) 3) s (B14) Ddor (C1 eres on leed Iron (tion in Ti (C7) a (D9) emarks)                     | )<br>Living Ro<br>(C4)<br>Illed Soils | Seco Seco Seco Seco Seco Seco Seco Seco  | ndary Indicators Surface Soil Cra Orainage Patteri Ory-Season Wai Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos                 | s (minimum of tocks (B6) ns (B10) ter Table (C2) s (C8) e on Aerial Images (D1) sition (D2)                  | 0, 2015  vo require |
| (includes capillary fringe)  | Depth (in Remarks: This data for Errata. (http://www.primary.lndic   | m is revised from Mic/www.nrcs.usda.gov  GY  Irology Indicators: ators (minimum of orwater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) posits (B3) t or Crust (B4) posits (B5) in Visible on Aerial Ir Vegetated Concave  vations:  | nagery (B7<br>Surface (B | red; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck (7) Gauge or Other (Exp. No X      | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc in Reduc in Reduc in Surface Well Data blain in R | eves (B9) 3) s (B14) Ddor (C1 eres on led Iron ( tion in Ti (C7) a (D9) emarks)                     | )<br>Living Ro<br>(C4)<br>Illed Soils | Seco Seco Seco Seco Seco Seco Seco Seco  | ndary Indicators Surface Soil Cra Orainage Patteri Ory-Season Wai Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos                 | s (minimum of tocks (B6) ns (B10) ter Table (C2) s (C8) e on Aerial Images (D1) sition (D2)                  | 0, 2015  vo require |
|  | Depth (in Remarks: This data for Errata. (http://www.primary.indicents)  Primary Indicents Surface Vater Massediments Drift Depents Algal Massediments Iron Depents X Inundations Sparsely  Field Observations Water Table   | m is revised from Mic/www.nrcs.usda.gov  GY  Irology Indicators: ators (minimum of orwater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) in Visible on Aerial Ir Vegetated Concave vations: er Present? Ye Present? Ye                              | nagery (B7 Surface (B    | red; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck (7) Gauge or Other (Exp. No X No X | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc in Reduc in Reduc is Surface Well Data Depth (in  | ves (B9) 3) s (B14) Odor (C1 eres on led Iron (C7) a (D9) emarks) nches): _ nches): _               | )<br>Living Ro<br>(C4)<br>Illed Soils | Second   S   | ndary Indicators Surface Soil Cra Orainage Patteri Ory-Season Wat Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos                 | s (minimum of tocks (B6) ns (B10) per Table (C2) s (C8) e on Aerial Images (C2) seed Plants (D1) sition (D2) | o, 2015  vo require |
|  | Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyd Primary Indic Surface \( \) High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo X Inundatic Sparsely  Field Observ Surface Wate Water Table Saturation Pr   | m is revised from Mic //www.nrcs.usda.gov  GY  Irology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Ir Vegetated Concave //ations: er Present? Ye Present? Ye esent? Ye                 | nagery (B7 Surface (B    | red; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck (7) Gauge or Other (Exp. No X No X | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc in Reduc in Reduc is Surface Well Data Depth (in  | ves (B9) 3) s (B14) Odor (C1 eres on led Iron (C7) a (D9) emarks) nches): _ nches): _               | )<br>Living Ro<br>(C4)<br>Illed Soils | Second   S   | ndary Indicators Surface Soil Cra Orainage Patteri Ory-Season Wat Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos                 | s (minimum of tocks (B6) ns (B10) per Table (C2) s (C8) e on Aerial Images (C2) seed Plants (D1) sition (D2) | o, 2015  vo require |
|  | Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyd Primary Indic Surface \(\) High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dept X Inundatic Sparsely Field Observ Surface Wate Water Table Saturation Pr (includes cap   | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Ir Vegetated Concave //ations: er Present? Ye Present? Ye esent? Ye eillary fringe) | nagery (B7 Surface (E    | red; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Facent Iro Thin Muck To Gauge or State No X No X No X               | apply) ined Lea auna (B1: titic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R  Depth (in | ves (B9) 3) s (B14) Odor (C1 eres on lited Iron (tion in Ti (C7) a (D9) emarks) nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Seco Soots (C3) S (C6) S (C6) S (C6) S (C7) S (C8) S (C8) S (C8) S (C8) S (C9)  | ndary Indicators Surface Soil Cra Orainage Pattern Ory-Season War Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos FAC-Neutral Tes | s (minimum of tocks (B6) ns (B10) per Table (C2) s (C8) e on Aerial Images (C2) seed Plants (D1) sition (D2) | o, 2015  vo require |
| Remarks:   | Depth (in Remarks: This data for Errata. (http://www.primary.indic   | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Ir Vegetated Concave //ations: er Present? Ye Present? Ye esent? Ye eillary fringe) | nagery (B7 Surface (E    | red; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Facent Iro Thin Muck To Gauge or State No X No X No X               | apply) ined Lea auna (B1: titic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R  Depth (in | ves (B9) 3) s (B14) Odor (C1 eres on lited Iron (tion in Ti (C7) a (D9) emarks) nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Seco Soots (C3) S (C6) S (C6) S (C6) S (C7) S (C8) S (C8) S (C8) S (C8) S (C9)  | ndary Indicators Surface Soil Cra Orainage Pattern Ory-Season War Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos FAC-Neutral Tes | s (minimum of tocks (B6) ns (B10) per Table (C2) s (C8) e on Aerial Images (C2) seed Plants (D1) sition (D2) | 0, 2015  vo require |
|  | Depth (in Remarks: This data for Errata. (http://  HYDROLO  Wetland Hyd Primary Indic Surface \(\) High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dept X Inundatic Sparsely Field Observ Surface Wate Water Table Saturation Pr (includes cap   | m is revised from Mic //www.nrcs.usda.gov  GY  drology Indicators: ators (minimum of o Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Ir Vegetated Concave //ations: er Present? Ye Present? Ye esent? Ye eillary fringe) | nagery (B7 Surface (E    | red; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Facent Iro Thin Muck To Gauge or State No X No X No X               | apply) ined Lea auna (B1: titic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R  Depth (in | ves (B9) 3) s (B14) Odor (C1 eres on lited Iron (tion in Ti (C7) a (D9) emarks) nches): _ nches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Seco Soots (C3) S (C6) S (C6) S (C6) S (C7) S (C8) S (C8) S (C8) S (C8) S (C9)  | ndary Indicators Surface Soil Cra Orainage Pattern Ory-Season War Crayfish Burrow Saturation Visible Stunted or Stres Geomorphic Pos FAC-Neutral Tes | s (minimum of tocks (B6) ns (B10) per Table (C2) s (C8) e on Aerial Images (C2) seed Plants (D1) sition (D2) | o, 2015  vo require |

| Project/Site: Innovation East   | City/County: Jersey T    | 「WP/Licking                                  | Sampling Date: 8-11-21                                       |
|---|--------------------------|--|--|
| Applicant/Owner: MDJ Holdings   |                          | State: OH                                    | Sampling Point: UPC-3  |
| Investigator(s): BDL  | Section, Township, Rar   | nge: T2N R15W                                |  |
| Landform (hillside, terrace, etc.): field                                 | Local relief (c          | oncave, convex, none):                       | convex   |
| Slope (%):3 Lat: _40.092771   | Long: -82.716300         |  | Datum: NAD83 UTM Zone 17 N                                   |
| Soil Map Unit Name: Bennington silt loam                                  |                          | NWI classif                                  | fication: N/A  |
| Are climatic / hydrologic conditions on the site typical for this time of | f year? Yes X            | No (If no, exp                               | olain in Remarks.)   |
| Are Vegetation, Soil, or Hydrologysignificantly of                        | disturbed? Are "Normal C | Circumstances" present?                      | Yes X_ No  |
| Are Vegetation, Soil, or Hydrologynaturally prob                          |                          | plain any answers in Re                      | marks.)  |
| SUMMARY OF FINDINGS – Attach site map showin                              | g sampling point lo      | cations, transects,                          | , important features, etc.                                   |
| Hydrophytic Vegetation Present? Yes No X                                  | Is the Sampled Ar        | rea  |  |
| Hydric Soil Present? Yes X No   | within a Wetland?        |  | No X   |
| Wetland Hydrology Present? Yes No X                                       |                          |  |  |
| Remarks:  |                          |  |  |
|   |                          |  |  |
| VECETATION Lies exignific names of plants                                 |                          |  |  |
| <b>VEGETATION</b> – Use scientific names of plants.  Absolute             | Dominant Indicator       |  |  |
| Tree Stratum         (Plot size:)         % Cover                         | Species? Status          | Dominance Test wor                           | rksheet:   |
| 1. <u>N/A</u>   |                          | Number of Dominant                           |  |
| 2.  |                          | Are OBL, FACW, or F                          | AC: 0 (A)  |
| 3   |                          | Total Number of Domi                         | •  |
| 4   |                          | Across All Strata:                           | 1(B)   |
|   | Total Cover              | Percent of Dominant S<br>Are OBL, FACW, or F | •  |
| Sapling/Shrub Stratum (Plot size: )                                       | -10ta 0010.              | Filo ODE, 171011, 5                          | AO. <u>0.0.5</u> (* 5 - 7                                    |
| 1. <u>N/A</u>   |                          | Prevalence Index wo                          | orksheet:  |
| 2.  |                          | Total % Cover of                             | Multiply by:   |
| 3.  |                          | OBL species 0                                |  |
| 4   |                          | FACW species 0                               |  |
| 5   | Total Cover              | FAC species 0 FACU species 10                |  |
| Herb Stratum (Plot size: )  | - I Ulai Covei           | · · · · · · · · · · · · · · · · · · ·        | $x = \frac{100}{100} \times 5 = \frac{100}{100}$             |
| 1. Festuca arundinacea 100  | Yes FACU                 | Column Totals: 10                            |  |
| 2.  |                          | Prevalence Index =                           |  |
| 3.  |                          |  |  |
| 4   |                          | Hydrophytic Vegetat                          |  |
| 5   |                          |  | Hydrophytic Vegetation                                       |
| 6   |                          | 2 - Dominance Te                             |  |
| 7   |                          | 3 - Prevalence Inc                           | dex is ≤3.0⁺<br>Adaptations¹ (Provide supporting             |
| 8.<br>9.  |                          |  | Adaptations (Provide supporting<br>s or on a separate sheet) |
| 10.   |                          |  | ophytic Vegetation <sup>1</sup> (Explain)                    |
|   | Total Cover              |  | oil and wetland hydrology must                               |
| Woody Vine Stratum (Plot size:)   |                          |  | sturbed or problematic.                                      |
| 1. <u>N/A</u>   |                          | Hydrophytic                                  |  |
| 2   |                          | Vegetation                                   |  |
|   | =Total Cover             | Present? Yes                                 | No <u>X</u>  |
| Remarks: (Include photo numbers here or on a separate sheet.)             |                          |  |  |
|   |                          |  |  |

SOIL Sampling Point: UPC-3

| Depth  | Matrix   |                        |   | x Feature  |   | 2                                     |   |   |   |                        |
|--|--|------------------------|---|--|---|---------------------------------------|---|---|---|------------------------|
| inches)  | Color (moist)  | %                      | Color (moist)   | %  | Type <sup>1</sup>   | Loc <sup>2</sup>                      | Texture   |   | Remarks   |                        |
| 0-6  | 10YR 3/2   | 90                     | 10YR 5/4  | 10   | С   | M                                     | Loamy/Clay  | ey  |   |                        |
| 6-12   | 10YR 3/2   | 85                     | 10YR 5/4  | 15   | С   | M                                     | Loamy/Clay  | еу  |   |                        |
|  |  |                        |   |  |   |                                       |   |   |   |                        |
|  |  |                        |   |  |   |                                       |   |   |   |                        |
|  |  |                        |   |  |   |                                       |   |   |   |                        |
|  |  |                        |   |  |   |                                       |   |   |   |                        |
|  |  |                        |   |  |   |                                       |   |   |   |                        |
| Tuno: C=Co   | noontration D=Donl   | etien DM               | -Daduard Matrix I   |  |   | d Crains                              | 21.0  | cation: PL=Pore   | Lining M-Matr   | .,                     |
| lydric Soil Ir   | ncentration, D=Depl  | elion, Kivi            | -Reduced Mairix, I  | VIO-IVIASK   | eu San  | u Grains                              |   | licators for Prob   |   |                        |
| Histosol (   |  |                        | Sandy Gle   | wed Matr   | iv (S4)   |                                       | IIIG  | Coast Prairie R   | =   | Julis .                |
|  | pedon (A2)   |                        | Sandy Re  | -  | ix (O+)   |                                       |   | Iron-Manganese  |   |                        |
| Black Hist   |  |                        | Stripped M  |  | )   |                                       |   | Red Parent Mat  |   |                        |
|  | Sulfide (A4)   |                        | Dark Surfa  | •  | ,   |                                       |   | -   | ark Surface (F22  | 2)                     |
|  | Layers (A5)  |                        | Loamy Mu  | ` '  | ral (F1)  |                                       |   | Other (Explain i  |   | -,                     |
| 2 cm Muc   |  |                        | Loamy Gle   | •  | , ,   |                                       |   | (   | ,   |                        |
|  | Below Dark Surface   | (A11)                  | Depleted I  | •  | , ,   |                                       |   |   |   |                        |
|  | k Surface (A12)  | ,                      | X Redox Da  |  |   |                                       | <sup>3</sup> Inc  | dicators of hydro   | ohytic vegetation   | and                    |
| Sandy Mu   | ıcky Mineral (S1)  |                        | Depleted [  | Dark Surf  | ace (F7   | )                                     |   | wetland hydrolo   | gy must be pres   | ent,                   |
| 5 cm Muc   | ky Peat or Peat (S3  | )                      | Redox De  | pressions  | (F8)  |                                       |   | unless disturbed  | d or problematic  |                        |
| Restrictive L  | ayer (if observed):  |                        |   |  |   |                                       |   |   |   |                        |
| -  |  |                        |   |  |   |                                       |   |   |   |                        |
| Type:  |  |                        |   |  |   |                                       |   |   |   |                        |
| Depth (ind<br>Remarks:<br>This data form   | n is revised from Mic  |                        |   |  |   |                                       |   |   | Yes X Soils, Version 7  | No<br>.0, 2015         |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://   | n is revised from Mic<br>www.nrcs.usda.gov   |                        |   |  |   |                                       | NRCS Field Ind  |   |   |                        |
| Depth (inc<br>Remarks:<br>This data forn<br>Errata. (http://   | n is revised from Mic<br>www.nrcs.usda.gov   |                        |   |  |   |                                       | NRCS Field Ind  |   |   |                        |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://   | n is revised from Mic<br>www.nrcs.usda.gov   | /Internet/F            | SE_DOCUMENTS  | 6/nrcs142  |   |                                       | NRCS Field Ind<br>)                                     | icators of Hydric   | Soils, Version 7  | .0, 2015               |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://<br>YDROLOG<br>Wetland Hyd   | is revised from Midwww.nrcs.usda.gov   | /Internet/F            | rSE_DOCUMENTS   | S/nrcs142  | p2_051:   | 293.docx                              | NRCS Field Ind<br>)                                     | icators of Hydric   | Soils, Version 7  | .0, 2015               |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://<br>YDROLOG<br>Wetland Hyd<br>Primary Indica<br>Surface W  | GY rology Indicators: ators (minimum of or   | /Internet/F            | ired; check all that  | apply)<br>ined Leav  | p2_051:   | 293.docx                              | NRCS Field Ind<br>)                                     | icators of Hydric  condary Indicator  Surface Soil Cra  | Soils, Version 7  | .0, 2015               |
| Depth (ind Remarks: This data forn Errata. (http:// YDROLOG Wetland Hyd Primary Indicat Surface W High Wate  | GY rology Indicators: ators (minimum of or Vater (A1) er Table (A2)  | /Internet/F            | ired; check all that a Water-Sta Aquatic Fa   | apply)<br>ined Leavaura (B13   | p2_051;<br>ves (B9)   | 293.docx                              | NRCS Field Ind<br>)                                     | icators of Hydric<br>condary Indicator<br>Surface Soil Cra<br>Drainage Patter   | Soils, Version 7  | .0, 2015               |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Wetland Hyd  Primary Indica  Surface W  High Wate  Saturation  | ar is revised from Michael Mic | /Internet/F            | ired; check all that a water-Sta Aquatic Fa True Aqua   | apply)<br>ined Leav<br>auna (B13   | /es (B9)  | 293.docx                              | NRCS Field Ind<br>)                                     | condary Indicator<br>Surface Soil Cra<br>Drainage Patter  | Soils, Version 7  rs (minimum of tracks (B6) rns (B10) ater Table (C2)  | .0, 2015               |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma  | an is revised from Mic<br>www.nrcs.usda.gov<br>GY<br>rology Indicators:<br>ators (minimum of on<br>vater (A1)<br>er Table (A2)<br>in (A3)<br>rks (B1)  | /Internet/F            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen  | apply) ined Leav auna (B13 atic Plants Sulfide C   | ves (B9)  | 293.docx                              | NRCS Field Ind ) Sec                                    | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow  | Soils, Version 7  rs (minimum of tracks (B6) rns (B10) ater Table (C2) vs (C8)  | .0, 2015<br>wo require |
| Depth (ind<br>Remarks:<br>This data forn<br>Errata. (http://<br>YDROLOG<br>Wetland Hyd<br>Primary Indica<br>Surface W<br>High Wate<br>Saturation<br>Water Ma<br>Sediment   | rology Indicators: ators (minimum of or<br>Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2)  | /Internet/F            | ired; check all that a water-Sta Aquatic Fa True Aqua   | apply) ined Leav auna (B13 attic Plants Sulfide C Rhizosphe  | ves (B9)<br>3)<br>6 (B14)<br>dor (C1  | 293.docx                              | NRCS Field Ind ) Sec                                    | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib                                      | Soils, Version 7  TS (minimum of tracks (B6) This (B10) Her Table (C2) VS (C8) File on Aerial Ima   | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Wetland Hyd  Primary Indica  Surface W  High Wate  Saturatior  Water Ma  Sediment  Drift Depo  | rology Indicators: ators (minimum of or<br>Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2)  | /Internet/F            | ired; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply) ined Leavauna (B13 atic Plants Sulfide C Rhizosphe of Reduc   | ves (B9) 3) 6 (B14) 6 dor (C1 6 eres on 6 dor lon   | 293.docx ) Living Ra                  | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib                                      | Soils, Version 7  TS (minimum of tracks (B6) TRS (B10) Atter Table (C2) AS (C8) Ale on Aerial Imalessed Plants (D1)   | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturatior Water Ma Sediment Drift Depo  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)  | /Internet/F            | ired; check all that a water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply) ined Leavaura (B13 atic Plants Sulfide C Rhizosphe of Reduct  | ves (B9) s) s (B14) dor (C1 eres on ed Iron ion in T  | 293.docx ) Living Ra                  | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stres                  | Soils, Version 7  Tes (minimum of tracks (B6) This (B10) Atter Table (C2) As (C8) Allel on Aerial Imales (D1) As its (D1) As its (D1) As its (D1) As its (D1) | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)  | /Internet/F            | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro   | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct   | ves (B9) 3) 6 (B14) dor (C1 eres on ed Iron ion in T (C7)   | 293.docx ) Living Ra                  | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  Tes (minimum of tracks (B6) This (B10) Atter Table (C2) As (C8) Allel on Aerial Imales (D1) As its (D1) As its (D1) As its (D1) As its (D1) | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Vetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation  | ris revised from Michael Market (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) visits (B3) or Crust (B4) sits (B5)   | ne is requ             | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or                              | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct x Surface Well Data                                 | yes (B9) 3) 4 (B14) 4 dor (C1 4 eres on 6 ed Iron 6 ion in T 6 (C7) 6 (D9)                              | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  Tes (minimum of tracks (B6) This (B10) Atter Table (C2) As (C8) Allel on Aerial Imales (D1) As its (D1) As its (D1) As its (D1) As its (D1) | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  YDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial Invegetated Concave   | ne is requ             | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or                              | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct x Surface Well Data                                 | yes (B9) 3) 4 (B14) 4 dor (C1 4 eres on 6 ed Iron 6 ion in T 6 (C7) 6 (D9)                              | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  Tes (minimum of tracks (B6) This (B10) Atter Table (C2) As (C8) Allel on Aerial Imales (D1) As its (D1) As its (D1) As its (D1) As its (D1) | 0, 2015 wo requir      |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely W  Field Observ   | ris revised from Mic<br>www.nrcs.usda.gov<br>rology Indicators:<br>ators (minimum of or<br>Vater (A1)<br>er Table (A2)<br>n (A3)<br>rks (B1)<br>Deposits (B2)<br>osits (B3)<br>or Crust (B4)<br>sits (B5)<br>n Visible on Aerial Invegetated Concave<br>ations:  | nagery (B              | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or                              | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct x Surface Well Data                                 | ves (B9) B) G(B14) Gor (C1 Gres on Gorin T G(C7) G(D9) Gemarks)   | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Sec                                   | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  Tes (minimum of tracks (B6) This (B10) Atter Table (C2) As (C8) Allel on Aerial Imales (D1) As its (D1) As its (D1) As its (D1) As its (D1) | 0, 2015 wo requir      |
| Depth (incomplete in the complete in the compl | ris revised from Michael Water (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) visits (B3) or Crust (B4) sits (B5) n Visible on Aerial Invegetated Concave ations: r Present? Yes   | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iron Thin Muck (7) Gauge or B8) Other (Exp. No X No X  | apply) ined Leavana (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct on Reduct on Surface Well Data blain in Re  Depth (in | yes (B9) 3) 4 (B14) 4 (C1) 4 (C7) 6 (D9) 6 (D9) 7 (C7) 7 (C7) 8 (D9) 8 (Ches): 9 (Ches):                | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Seconds (C3)                          | condary Indicator Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Street Geomorphic Po                     | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)                         | 0, 2015 wo require     |
| Depth (ind Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely Field Observ Surface Wate Water Table F Saturation Press   | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial In Vegetated Concave ations: r Present? Present? Yesesent? Yesesent?  | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Exp.              | apply) ined Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct c Surface Well Data blain in Re                     | yes (B9) 3) 4 (B14) 4 (C1) 4 (C7) 6 (D9) 6 (D9) 7 (C7) 7 (C7) 8 (D9) 8 (Ches): 9 (Ches):                | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Seconds (C3)                          | condary Indicator<br>Surface Soil Cra<br>Drainage Patter<br>Dry-Season Wa<br>Crayfish Burrow<br>Saturation Visib<br>Stunted or Stree<br>Geomorphic Po | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)                         | wo requir              |
| Depth (inc Remarks: This data forn Errata. (http://  IYDROLOG  Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo X Inundation Sparsely W Field Observ Surface Wate Water Table F Saturation Pre Saturation Pre Sincludes capi  | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial In Vegetated Concave ations: r Present? Yesesent? Yesesent? Yesesent?   | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or Sea Other (Exp No X No X No X | apply) ined Leavanna (B13 attic Plants Sulfide Con Reduct on Reduct Surface Well Data colain in Reduct Depth (in                   | yes (B9) 3) 4 (B14) 4 (B14) 5 (B14) 6 (C1) 6 (C7) 6 (D9) 7 (D9) 7 (Ches): 7 (ches): 7 (ches): 7 (ches): | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Second Cooks (C3)  S (C6)  Wetland Hy | condary Indicator Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stree Geomorphic Po FAC-Neutral Te       | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)                         | wo requir              |
| Depth (incomplete includes capital data formarks:  This data formarks:  This data formarks:  This data formarks:  This data formarks:  Inundationary Indicationary Indicat | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial In Vegetated Concave ations: r Present? Present? Yesesent? Yesesent?  | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or Sea Other (Exp No X No X No X | apply) ined Leavanna (B13 attic Plants Sulfide Con Reduct on Reduct Surface Well Data colain in Reduct Depth (in                   | yes (B9) 3) 4 (B14) 4 (B14) 5 (B14) 6 (C1) 6 (C7) 6 (D9) 7 (D9) 7 (Ches): 7 (ches): 7 (ches): 7 (ches): | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Second Cooks (C3)  S (C6)  Wetland Hy | condary Indicator Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stree Geomorphic Po FAC-Neutral Te       | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)                         | 0, 2015 wo requir      |
| Depth (incomplete Control of Cont | rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) n Visible on Aerial In Vegetated Concave ations: r Present? Yesesent? Yesesent? Yesesent?   | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or Sea Other (Exp No X No X No X | apply) ined Leavanna (B13 attic Plants Sulfide Con Reduct on Reduct Surface Well Data colain in Reduct Depth (in                   | yes (B9) 3) 4 (B14) 4 (B14) 5 (B14) 6 (C1) 6 (C7) 6 (D9) 7 (D9) 7 (Ches): 7 (ches): 7 (ches): 7 (ches): | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field Ind )  Second Cooks (C3)  S (C6)  Wetland Hy | condary Indicator Surface Soil Cra Drainage Patter Dry-Season Wa Crayfish Burrow Saturation Visib Stunted or Stree Geomorphic Po FAC-Neutral Te       | Soils, Version 7  TS (minimum of the acks (B6) This (B10) After Table (C2) As (C8) Ale on Aerial Imalesed Plants (D1) As (D2) As (D5)                         | wo require             |

| Project/Site: Innovation East  |                   | City/Coun                               | ty: Jersey T    | WP/Licking                                   | Sampling Date:                    | 8-11-21       |
|--|-------------------|---|-----------------|--|-----------------------------------|---------------|
| Applicant/Owner: MBJ Holdings  |                   |   |                 | State: OH                                    | Sampling Point:                   | WD-1          |
| Investigator(s): BDL   |                   | <br>Section, To                         | ownship, Ran    | ge: T2N R15W                                 |                                   |               |
| Landform (hillside, terrace, etc.): field                              |                   | L                                       | ocal relief (co | oncave, convex, none):                       | concave                           |               |
| Slope (%): 3 Lat: 40.093369  |                   | Long: <u>-8</u>                         | 2.721694        |  | Datum: NAD83 UTM                  | Zone 17 N     |
| Soil Map Unit Name: bennington silt loam                               |                   |   |                 | NWI classifi                                 | ication: N/A                      |               |
| Are climatic / hydrologic conditions on the site typical fo            | or this time of y | ear? Y                                  | /es_X_          | No (If no, exp                               | olain in Remarks.)                |               |
| Are Vegetation, Soil, or Hydrologys                                    | significantly dis | turbed? Ar                              | re "Normal Ci   | rcumstances" present?                        | Yes X No                          |               |
| Are Vegetation , Soil , or Hydrology n                                 |                   |   | needed, exp     | lain any answers in Rer                      | marks.)                           |               |
| SUMMARY OF FINDINGS – Attach site ma                                   | ap showing        | sampling                                | g point loc     | ations, transects,                           | important featu                   | ures, etc.    |
| Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No |                   |   | Sampled Are     | ea<br>Yes X                                  | No                                |               |
| Wetland Hydrology Present? Yes X No                                    |                   | *************************************** | u Wollana.      | 100 <u>X</u>                                 |                                   |               |
| Remarks:  VEGETATION – Use scientific names of plai                    | nts.              |   |                 |  |                                   |               |
|  | Absolute [        |   | Indicator       | Barriaga Tagtara                             |                                   |               |
| <u>Tree Stratum</u> (Plot size:)  1. <i>N/A</i>                        | % Cover           | Species?                                | Status          | Dominance Test wor                           |                                   |               |
| 2.   |                   |   |                 | Number of Dominant S<br>Are OBL, FACW, or FA | •                                 | 2 (A)         |
| 3.   |                   |   |                 | Total Number of Domi                         |                                   | `` '          |
| 4.   |                   |   |                 | Across All Strata:                           | 2                                 | (B)           |
| 5  | <u>-</u>          | <del></del> .                           |                 | Percent of Dominant S                        | •                                 |               |
| Cardinar/Charib Stratum (Diot size:                                    | =1                | otal Cover                              |                 | Are OBL, FACW, or F                          | AC: 100.                          | .0% (A/B)     |
| Sapling/Shrub Stratum (Plot size:)  1. N/A                             |                   |   | F               | Prevalence Index wo                          | rksheet:                          |               |
| 2  |                   |   |                 | Total % Cover of:                            |                                   | oy:           |
| 3.   |                   |   |                 | OBL species 62                               |                                   |               |
| 4.   |                   |   |                 | FACW species 40                              | 0 x 2 = 80                        | 0             |
| 5.   |                   |   |                 | FAC species 0                                |                                   |               |
|  | =T                | otal Cover                              |                 | FACU species 0                               |                                   |               |
| Herb Stratum (Plot size:)  | 22                | V.                                      | - A C) A (      | UPL species 0                                |                                   |               |
| 1. Polygonum SP  | 30                | Yes                                     | FACW            | Column Totals: 10  Prevalence Index =        | `` /                              | <u>12</u> (B) |
| Echinochloa crus-galli     Eleocharis palustris                        | <u>10</u> 60      | No Yos                                  | OBL             | Prevalence index -                           | = B/A = <u>1.39</u>               |               |
| Eleocriaris palustris     Alisma gramineum                             | 2                 | Yes No                                  | OBL             | Hydrophytic Vegetat                          | ion Indicators:                   |               |
|  |                   | INU                                     | OBL             |  | Hydrophytic Vegetat               | tion          |
| 6  |                   |   |                 | X 2 - Dominance Te                           |                                   | шоп           |
| 7.   |                   |   |                 | X 3 - Prevalence Inc                         |                                   |               |
| 8.   |                   |   |                 |  | Adaptations <sup>1</sup> (Provid  | le supporting |
| 9.   |                   |   |                 | data in Remark                               | s or on a separate sl             | heet)         |
| 10.  |                   |   |                 | Problematic Hydro                            | ophytic Vegetation <sup>1</sup> ( | Explain)      |
|  | 102 =T            | otal Cover                              |                 | <sup>1</sup> Indicators of hydric so         |                                   |               |
| Woody Vine Stratum (Plot size:)  |                   |   |                 | be present, unless dis                       | turbed or problemation            | C.            |
| 1. <u>N/A</u>  |                   |   |                 | Hydrophytic                                  |                                   |               |
| 2  |                   | otal Cover                              |                 | Vegetation Present? Yes                      | Y No                              |               |
|  |                   | otal Covel                              |                 | Present? Yes_                                | No                                |               |
| Remarks: (Include photo numbers here or on a separa                    | ale sneet.)       |   |                 |  |                                   |               |

SOIL Sampling Point: WD-1

| Depth                  | Cription: (Describe Matrix | ю ше аер     |                       | <b>ument ti</b><br>x Featur            |                   | itor or C        | onfirm the absence o     | or mulcators.)                           |            |
|------------------------|----------------------------|--------------|-----------------------|--|-------------------|------------------|--------------------------|--|------------|
| (inches)               | Color (moist)              | %            | Color (moist)         | % ************************************ | Type <sup>1</sup> | Loc <sup>2</sup> | Texture                  | Remarks                                  |            |
| 0-6                    | 10YR 4/1                   | 10           | 10YR 5/4              | 90                                     | C                 | M                | Loamy/Clayey             | Distinct redox concents                  | rations    |
| 6-12                   | 10YR 4/1                   | 20           | 10YR 5/4              | 80                                     |                   | M                | Loamy/Clayey             | Distinct redox concentr                  |            |
| 0-12                   | 1011(4/1                   |              | 10110 3/4             |  |                   | IVI              | Loamy/Clayey             | Distillet redox concenti                 | alions     |
|                        |                            |              |                       |  |                   |                  |                          |  |            |
|                        | -                          |              |                       |  |                   |                  |                          |  |            |
|                        | <u> </u>                   |              |                       |  |                   |                  |                          |  |            |
|                        |                            |              |                       |  |                   |                  |                          |  |            |
|                        |                            |              |                       |  |                   |                  |                          |  |            |
| <sup>1</sup> Type: C=C | Concentration, D=Dep       | letion, RM=  | Reduced Matrix, I     | MS=Mas                                 | ked San           | d Grains         | . <sup>2</sup> Location: | PL=Pore Lining, M=Matrix.                |            |
| Hydric Soil            | Indicators:                |              |                       |  |                   |                  | Indicators               | s for Problematic Hydric S               | oils³:     |
| Histoso                | I (A1)                     |              | Sandy Gle             |  |                   |                  |                          | t Prairie Redox (A16)                    |            |
| Histic E               | pipedon (A2)               |              | Sandy Re              |  |                   |                  |                          | Manganese Masses (F12)                   |            |
|                        | listic (A3)                |              | Stripped N            |  | 3)                |                  |                          | Parent Material (F21)                    |            |
|                        | en Sulfide (A4)            |              | Dark Surfa            | ` '                                    |                   |                  |                          | Shallow Dark Surface (F22)               |            |
|                        | d Layers (A5)              |              | Loamy Mu              |  |                   |                  | Other                    | (Explain in Remarks)                     |            |
|                        | uck (A10)                  |              | Loamy Gl              | •                                      | . ,               |                  |                          |  |            |
|                        | d Below Dark Surface       | e (A11)      | X Depleted I          |  | •                 |                  | 3                        |  |            |
|                        | ark Surface (A12)          |              | Redox Da              |  | ` '               |                  |                          | s of hydrophytic vegetation a            |            |
|                        | Mucky Mineral (S1)         |              | Depleted I            |  |                   | )                |                          | nd hydrology must be preser              | nt,        |
|                        | ucky Peat or Peat (S3      | •            | Redox De              | pression                               | s (F8)            |                  | unies                    | s disturbed or problematic.              |            |
|                        | Layer (if observed):       |              |                       |  |                   |                  |                          |  |            |
| Type:                  |                            |              |                       |  |                   |                  | Uhadala Oali Dasaasat    | 0 V V                                    | NI.        |
| Depth (i               | incnes):                   |              |                       |  |                   |                  | Hydric Soil Present      | ? Yes X                                  | No         |
|                        |                            |              |                       |  |                   |                  |                          |  |            |
| HYDROL                 | OGY                        |              |                       |  |                   |                  |                          |  |            |
| -                      | drology Indicators:        |              |                       |  |                   |                  |                          |  |            |
|                        | icators (minimum of c      | ne is requir |                       |  | <b></b>           |                  |                          | y Indicators (minimum of two             | o required |
|                        | Water (A1)                 |              | Water-Sta             |  | , ,               |                  |                          | ce Soil Cracks (B6)                      |            |
|                        | ater Table (A2)            |              | Aquatic Fa            | -                                      | -                 |                  |                          | age Patterns (B10)                       |            |
| X Saturati             | лаrks (В1)                 |              | Hydrogen              |  | ` '               | `                |                          | season Water Table (C2) ish Burrows (C8) |            |
|                        | nt Deposits (B2)           |              | Oxidized F            |  | `                 | ,                | <del></del> ′            | ation Visible on Aerial Image            | ery (C9)   |
|                        | posits (B3)                |              | Presence              |  |                   | _                |                          | ed or Stressed Plants (D1)               | ory (00)   |
|                        | at or Crust (B4)           |              | Recent Iro            |  |                   | ,                |                          | norphic Position (D2)                    |            |
|                        | posits (B5)                |              | Thin Muck             |  |                   |                  | ` '                      | Neutral Test (D5)                        |            |
|                        | ion Visible on Aerial I    | magery (B7   |                       |  |                   |                  |                          | ,  |            |
| Sparsel                | y Vegetated Concave        | Surface (E   | · —                   |  |                   |                  |                          |  |            |
| Field Obse             | rvations:                  |              |                       |  |                   |                  |                          |  |            |
| Surface Wa             | iter Present? Ye           | s X          | No                    | Depth (i                               | nches):           | 2                |                          |  |            |
| Water Table            | e Present? Ye              | s X          | No                    | Depth (i                               | nches):           | 2                |                          |  |            |
| Saturation F           | Present? Ye                | s X          | No                    | Depth (i                               | nches):           |                  | Wetland Hydrolog         | y Present? Yes X                         | No         |
| (includes ca           | apillary fringe)           |              |                       |  |                   |                  |                          |  |            |
| Describe Re            | ecorded Data (stream       | gauge, mo    | onitoring well, aeria | al photos                              | , previou         | s inspec         | tions), if available:    |  |            |
|                        |                            |              |                       |  |                   |                  |                          |  |            |
| Remarks:               |                            |              |                       |  |                   |                  |                          |  |            |
|                        |                            |              |                       |  |                   |                  |                          |  |            |
|                        |                            |              |                       |  |                   |                  |                          |  |            |

| Project/Site: Innovation East  | City/County: Jersey 1      | TWP/Licking                                  | Sampling Date: 8-11-21                                      |
|--|----------------------------|--|---|
| Applicant/Owner: MBJ Holdings  |                            | State: OH                                    | Sampling Point: UPD-1                                       |
| Investigator(s): BDL   | Section, Township, Rai     | inge: T2N R15W                               |   |
| Landform (hillside, terrace, etc.): Terrace                            | Local relief (c            | concave, convex, none):                      | convex  |
| Slope (%): 3 Lat: 40.092275  | Long: <u>-82.716958</u>    |  | Datum: NAD83 UTM Zone 17 N                                  |
| Soil Map Unit Name: Bennington silt loam                               |                            | NWI classif                                  | fication: N/A   |
| Are climatic / hydrologic conditions on the site typical for this time | of year? Yes X             | No (If no, exp                               | olain in Remarks.)  |
| Are Vegetation, Soil, or Hydrology significantly                       | y disturbed? Are "Normal C | Circumstances" present?                      | Yes X No  |
| Are Vegetation, Soil, or Hydrologynaturally pr                         |                            | xplain any answers in Re                     | marks.)   |
| SUMMARY OF FINDINGS – Attach site map show                             | ing sampling point lo      | cations, transects                           | , important features, etc.                                  |
| Hydrophytic Vegetation Present? Yes No X                               | Is the Sampled Ar          | rea  |   |
| Hydric Soil Present? Yes X No  | within a Wetland?          |  | No X  |
| Wetland Hydrology Present? Yes No X                                    |                            |  |   |
| Remarks:   |                            |  |   |
|  |                            |  |   |
| VECETATION . Has estantific names of plants                            |                            |  |   |
| <b>VEGETATION</b> – Use scientific names of plants.  Absolute          | Dominant Indicator         | Г  |   |
| Tree Stratum         (Plot size:)         % Cover                      |                            | Dominance Test wor                           | rksheet:  |
| 1. <u>N/A</u>  |                            | Number of Dominant                           |   |
| 2.   |                            | Are OBL, FACW, or F                          | AC: 0 (A)   |
| 3  |                            | Total Number of Domi                         | •   |
| 4  |                            | Across All Strata:                           | 1(B)  |
| 5  | =Total Cover               | Percent of Dominant S<br>Are OBL, FACW, or F | •   |
| Sapling/Shrub Stratum (Plot size: )                                    | - 10141 00701              | Alo OBE, 17.011, 5                           | AO. <u>0.070</u> (3.22)                                     |
| 1. <u>N/A</u>  |                            | Prevalence Index wo                          | orksheet:   |
| 2.   |                            | Total % Cover of                             | f: Multiply by:   |
| 3.   |                            | OBL species 0                                |   |
| 4  |                            | FACW species 0                               |   |
| 5  | =Total Cover               | FAC species 0 FACU species 10                |   |
| <br>  <u>Herb Stratum</u>  | - Total Covel              |  | $x = \frac{1}{200}$ $x = \frac{1}{200}$ $x = \frac{1}{200}$ |
| 1. Festuca arundinacea 100   | Yes FACU                   | Column Totals: 10                            |   |
| 2.   |                            | Prevalence Index :                           |   |
| 3.   |                            |  |   |
| 4  |                            | Hydrophytic Vegetat                          |   |
| 5  |                            |  | Hydrophytic Vegetation                                      |
| 6  |                            | 2 - Dominance Te 3 - Prevalence Ind          |   |
| 7  |                            |  | gex is ≤3.0<br>Adaptations¹ (Provide supporting             |
|  |                            |  | ks or on a separate sheet)                                  |
| 10.  |                            | Problematic Hydr                             | ophytic Vegetation <sup>1</sup> (Explain)                   |
| 100  | =Total Cover               | <sup>1</sup> Indicators of hydric s          | oil and wetland hydrology must                              |
| Woody Vine Stratum (Plot size:)  | _                          |  | sturbed or problematic.                                     |
| 1. <u>N/A</u>  |                            | Hydrophytic                                  |   |
| 2  | - <u> </u>                 | Vegetation                                   |   |
|  | =Total Cover               | Present? Yes                                 | No <u>X</u>   |
| Remarks: (Include photo numbers here or on a separate sheet.)          | ı                          |  |   |
|  |                            |  |   |

SOIL Sampling Point: UPD-1

| Depth   | Matrix  |                                       | Redo   | x Feature  | 25   |                                       |                                |  |  |            |
|---|---|---------------------------------------|--|--|--|---------------------------------------|--------------------------------|--|--|------------|
| (inches)  | Color (moist)   | %                                     | Color (moist)  | %  | Type <sup>1</sup>  | Loc <sup>2</sup>                      | Texture                        | _  | Remarks  |            |
| 0-6   | 10YR 3/2  | 90                                    | 10YR 5/4   | 10   | С  | M                                     | Loamy/Clayey                   |  |  |            |
| 6-12  | 10YR 3/2  | 85                                    | 10YR 5/4   | 15   | С  | M                                     | Loamy/Clayey                   |  |  |            |
|   |   | · · · · · · · · · · · · · · · · · · · | _  |  |  |                                       |                                |  |  |            |
|   |   |                                       |  |  |  |                                       |                                |  |  |            |
|   |   |                                       |  |  |  |                                       |                                |  |  |            |
|   |   |                                       |  |  |  |                                       |                                |  |  |            |
|   |   |                                       |  |  |  |                                       |                                |  |  |            |
| 1- 00   |   |                                       |  |  |  | <del></del>                           | 2,                             |  |  |            |
|   | oncentration, D=Dep   | letion, RM                            | =Reduced Matrix, I   | viS=Masi   | ked Sand   | d Grains.                             |                                | on: PL=Pore Lir  |  |            |
| Hydric Soil   |   |                                       | Sandy Cla  | wad Mati   | iv (C1)  |                                       |                                | tors for Problem   | -  | solis :    |
| Histosol  | ipedon (A2)   |                                       | Sandy Gle Sandy Red  |  | IX (34)  |                                       |                                | oast Prairie Redo<br>on-Manganese M  |  |            |
| Black Hi  |   |                                       | Stripped M   |  | :)   |                                       |                                | ed Parent Materia  |  |            |
|   | n Sulfide (A4)  |                                       | Dark Surfa   |  | ")   |                                       |                                | ery Shallow Dark   | ,  | ١          |
|   | I Layers (A5)   |                                       | Loamy Mu   | ` '  | ral (E1)   |                                       |                                | her (Explain in R  |  | ,          |
| 2 cm Mu   |   |                                       | Loamy Gle  | •  | , ,  |                                       |                                | nei (Explain in N  | terriarks)   |            |
|   | נג (אוט)<br>I Below Dark Surface  | (A11)                                 | Depleted N   |  |  |                                       |                                |  |  |            |
|   | rk Surface (A12)  | , (, (, 1, 1, )                       | X Redox Da   |  | •  |                                       | <sup>3</sup> Indica            | tors of hydrophy   | tic vegetation   | and        |
|   | lucky Mineral (S1)  |                                       | Depleted [   |  | ` '  | )                                     |                                | etland hydrology   | _  |            |
|   | cky Peat or Peat (S3  | )                                     | Redox De   |  |  | ,                                     |                                | less disturbed or  | •  | ,          |
| Restrictive   | Layer (if observed):  | ,                                     |  | •  |  |                                       |                                |  | •  |            |
| Type:   | ,   |                                       |  |  |  |                                       |                                |  |  |            |
|   |   |                                       |  |  |  |                                       |                                |  |  |            |
| Depth (ir   | nches):   |                                       |  |  |  |                                       | Hydric Soil Pres               | ent?   | Yes X  | No         |
| Remarks:<br>This data for   | m is revised from Mio//www.nrcs.usda.gov  |                                       |  |  |  |                                       | NRCS Field Indicat             |  |  |            |
| Remarks:<br>This data for   | m is revised from Mic   |                                       |  |  |  |                                       | NRCS Field Indicat             |  |  |            |
| Remarks:<br>This data for<br>Errata. (http:   | m is revised from Mio<br>//www.nrcs.usda.gov  |                                       |  |  |  |                                       | NRCS Field Indicat             |  |  |            |
| Remarks:<br>This data for<br>Errata. (http:   | m is revised from Mio<br>//www.nrcs.usda.gov  |                                       |  |  |  |                                       | NRCS Field Indicat             |  |  |            |
| Remarks: This data for Errata. (http:   | m is revised from Mie<br>//www.nrcs.usda.gov  | /Internet/F                           | SE_DOCUMENTS   | i/nrcs142  |  |                                       | NRCS Field Indicat             |  | lls, Version 7.  | ), 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India  | m is revised from Mid<br>//www.nrcs.usda.gov  | /Internet/F                           | SE_DOCUMENTS   | i/nrcs142  | p2_0512  | 293.docx                              | NRCS Field Indicat ) Secon     | ors of Hydric Soi  | ils, Version 7.0   | ), 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface  | m is revised from Mid<br>//www.nrcs.usda.gov<br>PGY<br>drology Indicators:<br>cators (minimum of o  | /Internet/F                           | rSE_DOCUMENTS  | apply)   | ves (B9)   | 293.docx                              | NRCS Field Indicat )  Secon    | ors of Hydric Soi  | minimum of tw  | ), 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio  | m is revised from Mic//www.nrcs.usda.gov  OGY  drology Indicators: cators (minimum of o  Water (A1) ter Table (A2) on (A3)  | /Internet/F                           | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua   | apply)<br>ined Lea<br>auna (B1:  | ves (B9)<br>3)<br>s (B14)  | 293.docx                              | NRCS Field Indicat )  Secon Dr | dary Indicators (in Grack ainage Patterns y-Season Water   | minimum of two (B10) Table (C2)  | ), 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M  | m is revised from Mid<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:<br>cators (minimum of o<br>Water (A1)<br>ter Table (A2)<br>on (A3)<br>arks (B1)  | /Internet/F                           | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua  Hydrogen   | apply)<br>ined Lea<br>auna (B1:<br>tic Plants<br>Sulfide C   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1  | )                                     | NRCS Field Indicat<br>)        | dary Indicators (in a Soil Crack ainage Patterns y-Season Water ayfish Burrows (in a Soil Crack ainage Patterns (in a Soil Crack and In a Soil Crac | minimum of tw<br>s (B6)<br>(B10)<br>Table (C2)                                       | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer  | m is revised from Mid/www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)   | /Internet/F                           | ired; check all that a  Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply)<br>ined Lea<br>auna (B1:<br>titc Plants<br>Sulfide C  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on l   | )<br>Living Ro                        | Secon                          | dary Indicators (in a Soil Crack ainage Patterns y-Season Water ayfish Burrows (in aturation Visible of the soil Crack aituration Visible of the soil Crack ait | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imag                            | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep  | m is revised from Mid/www.nrcs.usda.gov  OGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) to Deposits (B2) posits (B3)   | /Internet/F                           | ired; check all that a  Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply)<br>ined Lea<br>auna (B1:<br>tic Plants<br>Sulfide C<br>Rhizosph<br>of Reduc                               | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on led Iron (  | )<br>Living Rc                        | Secon                          | dary Indicators (in a specific social crack aimage Patterns y-Season Water ayfish Burrows (in a sturation Visible counted or Stresse   | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1)              | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma   | m is revised from Mid/www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4)   | /Internet/F                           | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro   | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on leed Iron (tion in Ti   | )<br>Living Rc                        | Secon                          | dary Indicators (in a second part of the second par | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep  | m is revised from Mic//www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) t or Crust (B4) osits (B5)   | /Internet/F                           | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  Presence  Recent Iro  Thin Muck                                  | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface                                 | eyes (B9) 3) s (B14) Odor (C1 eres on led Iron (tion in Ti (C7)                                    | )<br>Living Rc                        | Secon                          | dary Indicators (in a specific social crack aimage Patterns y-Season Water ayfish Burrows (in a sturation Visible counted or Stresse   | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep  | m is revised from Mid/www.nrcs.usda.gov  OGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial In  | ne is requi                           | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck   | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data                       | ves (B9) 3) s (B14) Odor (C1 eres on led Iron (C7) a (D9)  | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second part of the second par | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely   | m is revised from Mid/www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) ot Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In  | ne is requi                           | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck   | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data                       | ves (B9) 3) s (B14) Odor (C1 eres on led Iron (C7) a (D9)  | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second part of the second par | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely   | m is revised from Mic//www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations:  | ne is requi                           | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Exp              | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc on Reduc Surface Well Data blain in R           | eves (B9) 3) s (B14) Ddor (C1 eres on leed Iron (tion in Ti (C7) a (D9) emarks)                    | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second part of the second par | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely  Field Obser Surface Water  | m is revised from Mic//www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Ye   | magery (B<br>Surface (l               | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  Presence  Recent Iro  Thin Muck  7)  Gauge or 1  B8)  Other (Exp | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R            | eves (B9) 3) s (B14) Ddor (C1 eres on led Iron ( tion in Ti (C7) a (D9) emarks)                    | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second part of the second par | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely  Field Obser Surface Wat Water Table                                    | m is revised from Mic//www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave  vations: er Present? Ye Present?                                       | magery (B<br>Surface (l               | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or 188) Other (Exp             | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R  Depth (in | ves (B9) 3) s (B14) Odor (C1 eres on led Iron (C7) a (D9) emarks) nches): _ nches): _              | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second property of the control of the contro | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | o, 2015    |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely  Field Obser Surface Wat Water Table Saturation P                       | m is revised from Mic//www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye                          | magery (B<br>Surface (l               | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or 188) Other (Exp             | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R            | ves (B9) 3) s (B14) Odor (C1 eres on led Iron (C7) a (D9) emarks) nches): _ nches): _              | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second property of the control of the contro | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2)      | /o require |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely  Field Obser Surface Wat Water Table Saturation P (includes cap         | m is revised from Mid/www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) ot Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye oillary fringe) | magery (B' Surface (I                 | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R Depth (in  | ves (B9) 3) s (B14) Odor (C1 eres on lited Iron (tion in Ti (C7) a (D9) emarks) chees): _ ches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second property of the control of the contro | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | /o require |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely  Field Obser Surface Wat Water Table Saturation P (includes cap         | m is revised from Mic//www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye                          | magery (B' Surface (I                 | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R Depth (in  | ves (B9) 3) s (B14) Odor (C1 eres on lited Iron (tion in Ti (C7) a (D9) emarks) chees): _ ches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second property of the control of the contro | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | /o require |
| Remarks: This data for Errata. (http:  HYDROLC  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely  Field Obser Surface Water Table Saturation P (includes cap Describe Re | m is revised from Mid/www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) ot Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye oillary fringe) | magery (B' Surface (I                 | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R Depth (in  | ves (B9) 3) s (B14) Odor (C1 eres on lited Iron (tion in Ti (C7) a (D9) emarks) chees): _ ches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second property of the control of the contro | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | 0, 2015    |
| Remarks: This data for Errata. (http:  HYDROLC  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely  Field Obser Surface Water Table Saturation P (includes cap Describe Re | m is revised from Mid/www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) ot Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye oillary fringe) | magery (B' Surface (I                 | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R Depth (in  | ves (B9) 3) s (B14) Odor (C1 eres on lited Iron (tion in Ti (C7) a (D9) emarks) chees): _ ches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in a second property of the control of the contro | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | /o require |
| Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely  Field Obser Surface Wat Water Table Saturation P (includes cap         | m is revised from Mid/www.nrcs.usda.gov  PGY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) arks (B1) ot Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Ye Present? Ye resent? Ye oillary fringe) | magery (B' Surface (I                 | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X | apply) ined Lea auna (B1: tic Plants Sulfide C Rhizosph of Reduc n Reduc Surface Well Data blain in R Depth (in  | ves (B9) 3) s (B14) Odor (C1 eres on lited Iron (tion in Ti (C7) a (D9) emarks) chees): _ ches): _ | )<br>Living Ro<br>(C4)<br>Illed Soils | Secon                          | dary Indicators (in inface Soil Crack ainage Patterns y-Season Water ayfish Burrows (inturation Visible counted or Stresse ecomorphic Position C-Neutral Test (  | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) (D5) | 70 require |

| Project/Site: Inovation East  |                     | City/Cou             | nty: Jersey         | TWP / Licking   | Sampling Date:                                  | 8/11/2021   |
|---|---------------------|----------------------|---------------------|---|---|-------------|
| Applicant/Owner: MBJ Holdings   |                     |                      |                     | State: OH   | Sampling Point:                                 | WE-1        |
| Investigator(s): Bryan Lombard  |                     | Section, T           | rownship, Ra        | inge: T2N R15W  |   |             |
| Landform (hillside, terrace, etc.): Plain                                     |                     | !                    | Local relief (c     | concave, convex, none):                                       | Concave   |             |
| Slope (%): 4 Lat: 40.092918°  |                     | Long: -              | 82.721772°          |   | Datum: NAD83 UT                                 | M Zone 17 N |
| Soil Map Unit Name: Bennington silt loam, 2 to 6 perc                         | ent slopes          |                      |                     | NWI classi  | fication: N/A                                   |             |
| Are climatic / hydrologic conditions on the site typical f                    | or this time o      | f year?              | Yes X               | No (If no, exp  | olain in Remarks.)                              |             |
| Are Vegetation, Soil, or Hydrology  | significantly of    | disturbed? F         | Are "Normal (       | Circumstances" present?                                       | Yes X No  | o           |
| Are Vegetation, Soil, or Hydrology  |                     |                      |                     | plain any answers in Re                                       | <u> </u>  |             |
| SUMMARY OF FINDINGS – Attach site m   |                     |                      | g point lo          | cations, transects  | , important fea                                 | tures, etc. |
| Hydrophytic Vegetation Present? Yes X N                                       | o                   | Is the               | Sampled A           | rea   |   |             |
|   | 0                   | withir               | n a Wetland?        | ? Yes X   | No  |             |
| Wetland Hydrology Present? Yes X N  | o                   |                      |                     |   |   |             |
| Remarks:<br>On edge of an active agricultural field                           |                     |                      |                     |   |   |             |
|   |                     |                      |                     |   |   |             |
| <b>VEGETATION</b> – Use scientific names of pla                               | Absolute            | Daminant             | Indicator           | г   |   | 1           |
| <u>Tree Stratum</u> (Plot size:   | Absolute<br>% Cover | Dominant<br>Species? | Indicator<br>Status | Dominance Test wo   | rksheet:  |             |
| 1. Quercus palustris  | 10                  | Yes                  | FACW                | Number of Dominant  |   |             |
| 2.  |                     |                      |                     | Are OBL, FACW, or F   | •   | 2 (A)       |
| 3   |                     |                      |                     | Total Number of Dom   | inant Species                                   |             |
| 4   |                     |                      |                     | Across All Strata:  |   | 2 (B)       |
| 5   | 40                  | Tatal Cover          |                     | Percent of Dominant   | •   | 0 00/ /A/D) |
| Sapling/Shrub Stratum (Plot size:   |                     | =Total Cover         |                     | Are OBL, FACW, or F   | AC: 10  | 0.0% (A/B)  |
| 1. Acer saccharinum   | 2                   | No                   | FACW                | Prevalence Index wo   | orksheet:                                       |             |
| 2   |                     |                      | 1 Fior.             | Total % Cover of  |   | hv:         |
| 3.  |                     |                      |                     |   |   | 50          |
| 4.  |                     |                      |                     | · —   |   | 28          |
| 5.  |                     |                      |                     | FAC species (   | ) x 3 =   | 0           |
|   | 2                   | =Total Cover         |                     | FACU species (  | ) x 4 =   | 0           |
| Herb Stratum (Plot size:)   |                     |                      |                     | UPL species (   | ) x 5 =   | 0           |
| 1. Echinochloa muricata   | 40                  | Yes                  | OBL                 | Column Totals: 6  | 4 (A)   | 78 (B)      |
| 2. Ludwigia palustris   | 10                  | No                   | OBL                 | Prevalence Index  | = B/A = <u>1.22</u>                             | <u>!</u>    |
| 3. Vernonia fasciculata   | 2                   | No                   | FACW                |   |   |             |
| 4   |                     |                      |                     | Hydrophytic Vegeta  |   |             |
| 5   |                     |                      |                     | <del></del>   | Hydrophytic Veget                               | ation       |
| 6.  |                     |                      |                     | X 2 - Dominance Te  |   |             |
| 7   |                     |                      |                     | X 3 - Prevalence In   | dex is ≤3.0 ˈ<br>Adaptations <sup>1</sup> (Prov | !-!nnarting |
| 8.  | <u> </u>            |                      |                     | · — · · · ·   | Adaptations (Prov<br>s or on a separate         |             |
| 9.<br>10.   |                     |                      |                     |   | ophytic Vegetation <sup>1</sup>                 | •           |
| 10  | 52                  | =Total Cover         |                     | <del></del>   |   | ` ' '       |
| Woody Vine Stratum (Plot size:  | 1                   | -10tal 00vc.         |                     | <sup>1</sup> Indicators of hydric s<br>be present, unless dis |   |             |
| 1. N/A  | ,                   |                      |                     | •   | turbou or prozesses                             | шо.         |
| 2.  |                     |                      |                     | Hydrophytic<br>Vegetation                                     |   |             |
|   |                     | =Total Cover         |                     | _   | X No  |             |
| Remarks: (Include photo numbers here or on a sepa                             | rate sheet )        |                      |                     |   |   | _           |
| Tromano. (morado prioto maribero nos o en | 1410 011001.,       |                      |                     |   |   |             |
|   |                     |                      |                     |   |   |             |

SOIL Sampling Point: WE-1

| Project/Site: Inovation East  | City/County: Jersey /    | Licking                                      | Sampling Date: <u>8/11/2021</u>  |
|---|--------------------------|--|--|
| Applicant/Owner: MBJ Holdings   |                          | State: OH                                    | Sampling Point: UPE-1  |
| Investigator(s): Bryan Lombard  | Section, Township, Rar   | nge: T2N R15W                                |  |
| Landform (hillside, terrace, etc.): Plain                                 | Local relief (c          | concave, convex, none):                      | Concave  |
| Slope (%):3 Lat: _40.092918°  | Long: <u>-82.721772°</u> |  | Datum: NAD83 UTM Zone 17 N   |
| Soil Map Unit Name: Bennington silt loam, 2 to 6 percent slopes           |                          | NWI classi                                   | fication: N/A  |
| Are climatic / hydrologic conditions on the site typical for this time of | of year? Yes X           | No (If no, exp                               | plain in Remarks.)   |
| Are Vegetation, Soil, or Hydrologysignificantly                           | disturbed? Are "Normal C | circumstances" present?                      | ? Yes X No   |
| Are Vegetation, Soil, or Hydrologynaturally pro                           |                          | plain any answers in Re                      |  |
| SUMMARY OF FINDINGS – Attach site map showi                               | ng sampling point lo     | cations, transects                           | , important features, etc.   |
| Hydrophytic Vegetation Present? Yes No X                                  | Is the Sampled Ar        | ·ea  |  |
| Hydric Soil Present? Yes X No   | within a Wetland?        |  | No <u>X</u>  |
| Wetland Hydrology Present? Yes No X                                       |                          |  |  |
| Remarks:  |                          |  |  |
| On edge of an active agricultural field                                   |                          |  |  |
| VECETATION Line exientific names of plants                                |                          |  |  |
| <b>VEGETATION</b> – Use scientific names of plants.  Absolute             | Dominant Indicator       |  |  |
| Tree Stratum         (Plot size:)         % Cover)                        |                          | Dominance Test wo                            | rksheet:   |
| 1. <u>N/a</u>   |                          | Number of Dominant                           |  |
| 2   |                          | Are OBL, FACW, or F                          | AC: 0 (A)  |
| 3   |                          | Total Number of Dom                          | •  |
| 4   | ·                        | Across All Strata:                           | (B)  |
| 5   | Total Cover              | Percent of Dominant :<br>Are OBL, FACW, or F | •  |
| Sapling/Shrub Stratum (Plot size: )                                       | - Total Gover            | AIG ODE, I AOV, C. I                         | AC. 0.070 (142)  |
| 1. N/A  |                          | Prevalence Index wo                          | orksheet:  |
| 2.  |                          | Total % Cover of                             | f: Multiply by:  |
| 3.  |                          |  | 0 x 1 = 0  |
| 4   | ·                        |  | 0 x 2 = 0  |
| 5   | <del></del>              |  | 0 x 3 = 0  |
| Harb Stratum (Diot size:  | =Total Cover             |  | $\begin{array}{ccc} 0 & x & 4 & = & 0 \\ 00 & x & 5 & = & 500 \end{array}$   |
| Herb Stratum (Plot size:)  1. Glycine max 100                             | Yes UPL                  |  | $\begin{array}{cccccccccccccccccccccccccccccccccccc$                         |
| 2.  |                          | Prevalence Index                             |  |
| 3.  | · ———                    | 1  |  |
| 4.  |                          | Hydrophytic Vegeta                           | tion Indicators:   |
| 5.  |                          | 1 - Rapid Test for                           | r Hydrophytic Vegetation   |
| 6.  |                          | 2 - Dominance Te                             |  |
| 7   |                          | 3 - Prevalence Inc                           |  |
| 8   |                          |  | I Adaptations <sup>1</sup> (Provide supporting<br>ks or on a separate sheet) |
| 9.  |                          |  | rophytic Vegetation <sup>1</sup> (Explain)                                   |
| 10.   | =Total Cover             |  | . , , , , , , , , , , , , , , , , , , ,                                      |
| Woody Vine Stratum (Plot size: )  | - Total Cover            |  | soil and wetland hydrology must sturbed or problematic.                      |
| 1. N/A  |                          | •  | starbed or problematic.  |
| 2   |                          | Hydrophytic<br>Vegetation                    |  |
|   | =Total Cover             |  | No X   |
| Remarks: (Include photo numbers here or on a separate sheet.)             | <u>'</u>                 |  | <del></del>  |
| , ,   |                          |  |  |

SOIL Sampling Point: UPE-1

|  | Matrix   |   | Redo   | x Featur   | es   |                                       |   |   |
|--|--|---|--|--|--|---------------------------------------|---|---|
| (inches)   | Color (moist)  | %                                       | Color (moist)  | %  | Type <sup>1</sup>  | Loc <sup>2</sup>                      | Texture   | Remarks   |
| 0-12   | 10YR 3/2   | 80                                      | 10YR 3/4   | 20   | С  | M                                     | Loamy/Clayey  | Distinct redox concentrations   |
|  |  |   |  |  |  |                                       |   |   |
|  |  |   | _  |  | ·  |                                       |   |   |
|  |  |   |  |  |  |                                       |   |   |
|  |  |   |  |  |  |                                       | ·   |   |
|  |  |   |  |  |  |                                       |   |   |
|  |  |   |  |  |  |                                       |   |   |
|  |  |   |  |  |  |                                       |   |   |
|  | oncentration, D=Deple  | etion, RM                               | =Reduced Matrix, N   | /IS=Mas  | ked San  | d Grains.                             |   | : PL=Pore Lining, M=Matrix.   |
| lydric Soil  |  |   | 0 01   |  | -i (O.1)   |                                       |   | rs for Problematic Hydric Soils <sup>3</sup> :  |
| Histosol   | ,  |   | Sandy Gle  | -  | rix (S4)   |                                       |   | et Prairie Redox (A16)  |
|  | pipedon (A2)   |   | Sandy Red  |  | • •  |                                       |   | Manganese Masses (F12)  |
| Black His  | ` '  |   | Stripped M   |  | 5)   |                                       |   | Parent Material (F21)   |
|  | n Sulfide (A4)   |   | Dark Surfa   | , ,  |  |                                       |   | Shallow Dark Surface (F22)  |
|  | Layers (A5)  |   | Loamy Mu   | -  |  |                                       | Othe  | r (Explain in Remarks)  |
| 2 cm Mu  | , ,  | (8.4.4)                                 | Loamy Gle  | -  |  |                                       |   |   |
|  | Below Dark Surface   | (A11)                                   | Depleted N   | -  |  |                                       | 3   |   |
|  | ark Surface (A12)  |   | X Redox Dai  |  | ` '  |                                       |   | rs of hydrophytic vegetation and  |
|  | lucky Mineral (S1)   |   | Depleted [   |  |  | )                                     |   | and hydrology must be present,  |
|  | cky Peat or Peat (S3)  |   | Redox De   | oression   | s (F8)   |                                       | unles   | ss disturbed or problematic.  |
|  | Layer (if observed):   |   |  |  |  |                                       |   |   |
| Type:  | N/A  |   |  |  |  |                                       |   |   |
| Depth (in  | nches):  |   |  |  |  |                                       | Hydric Soil Presen  | t? Yes <u>X</u> No  |
|  | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,   | Internet/F                              | SE_DOCUMENTS   |  |  |                                       | NRCS Field Indicators )   |   |
| WDD01-0  |  | Internet/F                              | SE_DOCUMENTS   |  |  |                                       |   |   |
|  | OGY  | Internet/F                              | SE_DOCUMENTS   |  |  |                                       |   |   |
| Wetland Hyd  | OGY<br>drology Indicators:   |   |  | /nrcs142   |  |                                       |   |   |
| Wetland Hyd<br>Primary Indic   | OGY<br>drology Indicators:<br>cators (minimum of on  |   | red; check all that a  | /nrcs142   | 2p2_0512   | 293.docx                              | )<br><u>Seconda</u>   | ry Indicators (minimum of two require   |
| Vetland Hyd<br>Primary Indic<br>Surface  | drology Indicators:<br>cators (minimum of on<br>Water (A1)   |   | red; check all that a  | /nrcs142<br>apply)<br>ined Lea   | ves (B9)   | 293.docx                              | Seconda   | ry Indicators (minimum of two require   |
| <b>Vetland Hyd</b> Primary Indic Surface V   | drology Indicators:<br>cators (minimum of on<br>Water (A1)<br>ter Table (A2)   |   | red; check all that a<br>Water-Stai<br>Aquatic Fa  | apply)<br>ined Lea   | ves (B9)   | 293.docx                              | Seconda<br>Surfa<br>Drair   | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)  |
| Primary Indic<br>Surface V<br>High Wa  | drology Indicators:<br>cators (minimum of on<br>Water (A1)<br>tter Table (A2)<br>on (A3)   |   | red; check all that a<br>Water-Stai<br>Aquatic Fa<br>True Aqua   | apply)<br>ined Lea<br>auna (B1   | 2p2_0512<br>ves (B9)<br>3)<br>s (B14)  | 293.docx                              | Seconda Surfa Drair   | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)   |
| Vetland Hydrimary Indic<br>Surface V<br>High Wa<br>Saturatio<br>Water Ma   | drology Indicators:<br>cators (minimum of on<br>Water (A1)<br>tter Table (A2)<br>on (A3)<br>arks (B1)  |   | red; check all that a Water-Stai Aquatic Fa True Aqua Hydrogen   | apply) ined Lea una (B1 tic Plant Sulfide (  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1  | 293.docx                              | Seconda Surfa Drair Dry-5   | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)  |
| Primary Indic<br>Surface V<br>High Wa<br>Saturatio<br>Water Mag  | drology Indicators:<br>cators (minimum of on<br>Water (A1)<br>tter Table (A2)<br>on (A3)<br>arks (B1)<br>at Deposits (B2)  |   | red; check all that a  Water-Stai  Aquatic Fa  True Aqua  Hydrogen  Oxidized F   | apply) ined Lea iuna (B1 tic Plant Sulfide ( Rhizosph  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on   | 293.docx                              | Seconda<br>  Surfa<br>  Drair<br>  Dry-3<br>  Cray<br>  ots (C3) Satu           | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)   |
| Primary Indic Surface V High Wa Saturatic Water Mater Mater Drift Dep  | drology Indicators:<br>cators (minimum of on<br>Water (A1)<br>tter Table (A2)<br>on (A3)<br>arks (B1)<br>at Deposits (B2)<br>posits (B3)   |   | red; check all that a<br>Water-Stai<br>Aquatic Fa<br>True Aqua<br>Hydrogen<br>Oxidized F<br>Presence   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduce  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on ced Iron (ced Iron (ced)  | )<br>Living Ro<br>(C4)                | Seconda<br>  Surfa<br>  Drair<br>  Dry-s<br>  Cray<br>  ots (C3) Satu<br>  Stun | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)  |
| Primary Indice Surface Note High Was Saturation Water Market Mark | drology Indicators:<br>cators (minimum of on<br>Water (A1)<br>ter Table (A2)<br>on (A3)<br>arks (B1)<br>at Deposits (B2)<br>oosits (B3)<br>at or Crust (B4)  |   | red; check all that a Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron of the cet on in Titon in Tit | )<br>Living Ro<br>(C4)                | Seconda   | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)<br>morphic Position (D2)                       |
| Primary Indice Surface Note High Water Mater Mater Mater Drift Dep Algal Ma  | drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)  | ne is requi                             | red; check all that a Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro   | apply) ined Lea iuna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface                                       | ves (B9) 3) s (B14) Odor (C1 eres on the ced Iron (C7)   | )<br>Living Ro<br>(C4)                | Seconda   | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)  |
| Vetland Hydrimary Indice Surface V High Wa Saturation Water Mi Sedimen Drift Dep Algal Ma Iron Dep   | drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Im  | ne is requi                             | red; check all that a  Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or N                         | apply) ined Lea nuna (B1 tic Plant Sulfide ( Rhizosph of Reduce n Reduce Surface Well Dat                            | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9)  | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda   | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)<br>morphic Position (D2)                       |
| Primary Indic Surface N High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundatio  | drology Indicators: cators (minimum of one Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Im a Vegetated Concave   | ne is requi                             | red; check all that a  Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or N                         | apply) ined Lea nuna (B1 tic Plant Sulfide ( Rhizosph of Reduce n Reduce Surface Well Dat                            | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9)  | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda   | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)<br>morphic Position (D2)                       |
| Primary Indice Surface Note High Water Management Sediment Drift Dep Algal Management Inundation Sparsely Field Observing Surface Note Inundation Sparsely   | drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Im vegetated Concave sevations:   | ne is requi<br>nagery (B7<br>Surface (B | red; check all that a  Water-Stai  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  Presence of Recent Iro  Thin Muck  Gauge or V  38)  Other (Exp | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat                              | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron of tion in Ti (C7) a (D9) demarks)   | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda   | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)<br>morphic Position (D2)                       |
| Primary Indices Surface Verimary Indices Surfa | drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Im vegetated Concave of vations: er Present?  | ne is requi<br>nagery (B7<br>Surface (B | red; check all that a  Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or N 38) Other (Exp          | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R                   | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9) temarks)   | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda   | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)<br>morphic Position (D2)                       |
| Primary Indices Surface Vermany Indices Surface Vermany Indices Saturation Water Management Sediment Drift Dep Algal Management Iron Dep Inundation Sparsely Field Observious Water Table  | drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Im vegetated Concave of vettors: er Present? Yes Present?   | nagery (B7<br>Surface (B                | red; check all that a  Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or N 38) Other (Exp          | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduce n Reduce Surface Well Dat blain in R                 | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9) temarks) nches): _ nches): _   | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Dry-5 Cray ots (C3) Satu Stun (C6) FAC                            | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)<br>morphic Position (D2)<br>Neutral Test (D5)  |
| Primary Indic Surface V High Wa Saturatio Water M: Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Observ Surface Water Water Table Saturation Primary Indices  | drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) on Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) on Visible on Aerial Improved the Concave of Crust (B4) vegetated Concave of Cru | nagery (B7<br>Surface (B                | red; check all that a  Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or N 38) Other (Exp          | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R                   | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9) temarks) nches): _ nches): _   | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda   | ry Indicators (minimum of two required ace Soil Cracks (B6) anage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)                       |
| Primary Indices Surface Verimary Includes caparis Includes  | drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial Im vegetated Concave of vettors: er Present? Yes Present?   | nagery (Bī                              | red; check all that a  Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or N Other (Exp              | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron (C7) a (D9) elemarks) nches): _ nches): _  | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drair Dry-S Cray ots (C3) Satu Stun (C6) FAC:                     | ry Indicators (minimum of two required ace Soil Cracks (B6) anage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)                       |
| Primary Indices Surface Verimary Indices Surface Verificate Surface Ver | drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Im vegetated Concave vations: er Present? Yes Present? Yes oillary fringe)  | nagery (Bī                              | red; check all that a  Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or N Other (Exp              | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron (C7) a (D9) demarks) nches): _ nches): _   | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drair Dry-S Cray ots (C3) Satu Stun (C6) FAC:                     | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)<br>morphic Position (D2)<br>Neutral Test (D5)  |
| Primary Indices Surface Verimary Indices Surface Verificate Surface Ver | drology Indicators: cators (minimum of on Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial Im vegetated Concave vations: er Present? Yes Present? Yes oillary fringe)  | nagery (Bī                              | red; check all that a  Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or N Other (Exp              | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (i Depth (i | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron (C7) a (D9) demarks) nches): _ nches): _   | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drair Dry-S Cray ots (C3) Satu Stun (C6) FAC:                     | ry Indicators (minimum of two require<br>ace Soil Cracks (B6)<br>nage Patterns (B10)<br>Season Water Table (C2)<br>fish Burrows (C8)<br>ration Visible on Aerial Imagery (C9)<br>ted or Stressed Plants (D1)<br>morphic Position (D2)<br>-Neutral Test (D5) |

| Project/Site: Inovation East   |                 | City/Cou      | nty: Jersey /   | / Licking                                    | Sampling Date:                  | 8/11/2021    |
|--|-----------------|---------------|-----------------|--|---------------------------------|--------------|
| Applicant/Owner: MBJ Holdings  | <u> </u>        |               |                 | State: OH                                    | Sampling Point:                 | WF-1         |
| Investigator(s): Bryan Lombard   |                 | Section, T    | rownship, Ra    | ange: T2N R15W                               |                                 |              |
| Landform (hillside, terrace, etc.): Terrace  |                 | !             | Local relief (c | concave, convex, none):                      | concave                         |              |
| Slope (%): 4 Lat: 40.094460°   |                 | Long: -       | 82.721657°      |  | Datum: NAD83 UT                 | M Zone 17 N  |
| Soil Map Unit Name: pewamo   |                 |               |                 | NWI classif                                  | fication: N/A                   |              |
| Are climatic / hydrologic conditions on the site typical for                               | or this time o  | f year?       | Yes X           | No (If no, exp                               | olain in Remarks.)              |              |
| Are Vegetation, Soil, or Hydrology   | significantly o | disturbed? F  | Are "Normal (   | <br>Circumstances" present?                  | Yes X No                        | o _          |
| Are Vegetation, Soil, or Hydrology   |                 |               |                 | κplain any answers in Re                     | <u> </u>                        |              |
| SUMMARY OF FINDINGS – Attach site ma   |                 |               | ıg point lo     | cations, transects                           | , important feat                | tures, etc.  |
| Hydrophytic Vegetation Present? Yes X  | o c             | Is the        | Sampled A       | rea  |                                 |              |
|  | o <u> </u>      | withir        | n a Wetland?    | ? Yes X                                      | No                              |              |
| Wetland Hydrology Present? Yes X No  | o               |               |                 |  |                                 |              |
| Remarks: On edge of an active agricultural field  VEGETATION – Use scientific names of pla |                 |               |                 |  |                                 |              |
| ·  | Absolute        | Dominant      | Indicator       |  |                                 |              |
| Tree Stratum (Plot size:)  | % Cover         | Species?      | Status          | Dominance Test wo                            | rksheet:                        |              |
| 1. Quercus palustris   | 10              | Yes           | FACW            | Number of Dominant                           | •                               | - (4)        |
| 2. Acer saccharinum  | 5               | Yes           | FACW            | Are OBL, FACW, or F                          |                                 | 5 (A)        |
| 3.<br>4.   |                 |               |                 | Total Number of Dom<br>Across All Strata:    | inant Species                   | 6 (B)        |
| 5.   |                 |               |                 |  | Crasics That                    | (5)          |
|  | 15              | =Total Cover  |                 | Percent of Dominant S<br>Are OBL, FACW, or F | •                               | 3.3% (A/B)   |
| Sapling/Shrub Stratum (Plot size:  | )               |               |                 |  |                                 |              |
| 1. Sambucus nigra  | 30              | Yes           | FACW            | Prevalence Index wo                          | orksheet:                       |              |
| 2.   |                 |               |                 | Total % Cover of                             | f: Multiply                     | by:          |
| 3  |                 |               |                 | · —  |                                 | 30           |
| 4.   |                 |               |                 | FACW species 8                               |                                 | 170          |
| 5  |                 | ~             |                 |  | <del></del>                     | 30           |
| (Distriction)  | 30              | =Total Cover  |                 |  |                                 | 0            |
| Herb Stratum (Plot size:)  | 30              | Vos           | OBL             | UPL species Column Totals: 12                |                                 | 0 (B)        |
| Leersia oryzoides     Symphyotrichum lateriflorum  | <u>30</u><br>25 | Yes<br>Yes    | FACW            | Prevalence Index                             |                                 | 230 (B)      |
| 3. Impatiens SP  | 20              | Yes           | IACVV           | FIEVAIGHUG HIUGA                             | - D/A - 1.07                    | <del>'</del> |
| 4. Echinochloa crus-galli  | 15              | No            | FACW            | Hydrophytic Vegetat                          | tion Indicators:                |              |
| 5. Vernonia gigantea   | 10              | No            | FAC             |  | · Hydrophytic Veget             | ation        |
| 6.   |                 |               |                 | X 2 - Dominance Te                           | , , ,                           |              |
| 7.   |                 |               |                 | X 3 - Prevalence Inc                         | dex is ≤3.0 <sup>1</sup>        |              |
| 8.   |                 |               |                 |  | Adaptations <sup>1</sup> (Prov  |              |
| 9.   |                 |               |                 |  | s or on a separate              | •            |
| 10   |                 |               |                 | Problematic Hydr                             | ophytic Vegetation <sup>1</sup> | (Explain)    |
|  | 100             | =Total Cover  |                 | <sup>1</sup> Indicators of hydric s          |                                 |              |
| Woody Vine Stratum (Plot size:   | )               |               |                 | be present, unless dis                       | turbed or problema              | tic.         |
| 1. <u>N/A</u>  |                 |               |                 | Hydrophytic                                  |                                 |              |
| 2  |                 | =Total Cover  |                 | Vegetation Present? Yes                      | V No                            |              |
|  |                 | - Total Cover |                 | Present? res                                 | No                              | _            |
| Remarks: (Include photo numbers here or on a separate                                      | rate sheet.)    |               |                 |  |                                 |              |
|  |                 |               |                 |  |                                 |              |

US Army Corps of Engineers

SOIL Sampling Point: WF-1

| Depth  | Matrix   |                     | Redo   | x Featur   |   |                                       |  |  |  |                      |
|--|--|---------------------|--|--|---|---------------------------------------|--|--|--|----------------------|
| inches)  | Color (moist)  | %                   | Color (moist)  | %  | Type <sup>1</sup>   | Loc <sup>2</sup>                      | Texture  |  | Remarks  |                      |
| 0-4  | 10YR 4/2   | 90                  | 10YR 5/8   | 10   | С   | PL                                    | Loamy/Clayey   | Prominer   | nt redox conce   | entrations           |
| 4-7  | 10YR 4/2   | 90                  | 10YR 4/6   | 10   |   |                                       |  |  |  |                      |
| 7-14   | 10YR 3/1   | 85                  | 10YR 3/6   | 15   |   |                                       |  |  |  |                      |
|  |  |                     |  |  |   |                                       |  |  |  |                      |
|  |  |                     |  |  |   |                                       |  |  |  |                      |
|  | -  |                     | -  |  |   |                                       |  |  |  |                      |
|  |  |                     |  | ·  |   |                                       |  |  |  |                      |
|  | -  |                     |  |  |   |                                       |  |  |  |                      |
|  |  | oletion, RM         | /I=Reduced Matrix,   | MS=Mas   | ked San   | d Grains.                             |  | : PL=Pore Lir  |  |                      |
| ydric Soil I   |  |                     |  |  |   |                                       |  | rs for Probler   | -  | Soils <sup>3</sup> : |
| Histosol (   | ,  |                     | Sandy Gle  |  | rix (S4)  |                                       |  | st Prairie Redo  |  |                      |
|  | ipedon (A2)  |                     | Sandy Re   |  |   |                                       |  | Manganese M  |  |                      |
| Black His  |  |                     | Stripped N   | •  | 5)  |                                       |  | Parent Materia   |  |                      |
|  | Sulfide (A4)   |                     | Dark Surfa   | ` ,  |   |                                       |  | Shallow Dark   |  | ()                   |
|  | Layers (A5)  |                     | Loamy Mu   | -  |   |                                       | Othe   | r (Explain in R  | kemarks)   |                      |
| _2 cm Mud  | ` '  | o (A14)             | Loamy Gl   | -  |   |                                       |  |  |  |                      |
|  | Below Dark Surfacture  Reference (A12)   | e (ATT)             | Depleted  <br>X Redox Da   |  | •   |                                       | 31mdia-4-  | rs of hydrophy   | tio vogatatia =  | and                  |
| _  | ucky Mineral (S1)  |                     | Redox Da   |  | , ,   | `                                     |  | and hydrology  | _  |                      |
|  | cky Peat or Peat (S  | 3)                  | Redox De   |  | •   | )                                     |  | ss disturbed o   | •  | ent,                 |
|  |  |                     | Nedox De   | pression   | 3 (1 0)   |                                       | une  | ss disturbed of  | problematic.   |                      |
| _  | .ayer (if observed)  | :                   |  |  |   |                                       |  |  |  |                      |
|  | NI/A   |                     |  |  |   |                                       |  |  |  |                      |
| Type:  | chos):   |                     |  |  |   |                                       | Hydric Soil Broson   | +2   | Voc. Y   | No                   |
| Depth (in<br>emarks:<br>his data forr  | ches):  m is revised from M  |                     | gional Supplement FSE_DOCUMENTS  |  |   |                                       | Hydric Soil Presen  NRCS Field Indicator )                           |  | Yes X  | <b>No</b>            |
| Depth (in<br>demarks:<br>his data forr<br>rrata. (http:/   | ches):  m is revised from M //www.nrcs.usda.gc   |                     |  |  |   |                                       | NRCS Field Indicator   |  |  | _                    |
| Depth (in<br>Remarks:<br>This data forr<br>Frrata. (http:/   | ches):  m is revised from M //www.nrcs.usda.gc   |                     |  |  |   |                                       | NRCS Field Indicator   |  |  | _                    |
| Depth (in lemarks: his data forr rrata. (http:/  | ches):  m is revised from M //www.nrcs.usda.gc   | v/Internet/         |  |  |   |                                       | NRCS Field Indicator   |  |  | _                    |
| Depth (in lemarks: his data forr rrata. (http://yprolo   | ches):  m is revised from M //www.nrcs.usda.gc  GY  drology Indicators ators (minimum of   | v/Internet/         |  | 6/nrcs142  |   |                                       | NRCS Field Indicator )  Seconda                                      | s of Hydric So   | ils, Version 7.  | 0, 2015              |
| Depth (in emarks: his data forr rrata. (http:// YDROLO/etland Hydrimary Indic  | m is revised from M/www.nrcs.usda.go  GY  Irology Indicators ators (minimum of Water (A1)  | v/Internet/         | FSE_DOCUMENTS  uired; check all that  X Water-Sta  | apply) ined Lea  | ves (B9)  | 293.docx                              | NRCS Field Indicator )  Seconda Surfa                                | s of Hydric So  ry Indicators (  ace Soil Crack  | minimum of tv  | 0, 2015              |
| Depth (in emarks: his data forr rrata. (http://YDROLO/letland Hydrimary Indic K Surface Water High Water (in the first surface Water (in the f | m is revised from M<br>//www.nrcs.usda.go<br>GY<br>drology Indicators<br>ators (minimum of<br>Water (A1)<br>eer Table (A2)   | v/Internet/         | uired; check all that  X Water-Sta Aquatic Fa  | apply)<br>ined Lea   | ves (B9)  | 293.docx                              | NRCS Field Indicator )  Seconda Surfa                                | s of Hydric So  ry Indicators ( ace Soil Crack nage Patterns   | minimum of tv  | 0, 2015              |
| Depth (in emarks: his data forr rrata. (http:// YDROLO Yetland Hydrimary Indic X Surface W X High Wat Saturatio  | m is revised from M<br>//www.nrcs.usda.go<br>GY<br>drology Indicators<br>ators (minimum of<br>Vater (A1)<br>er Table (A2)<br>n (A3)  | v/Internet/         | uired; check all that  X Water-Sta Aquatic Fa  | apply) ined Lea auna (B1 atic Plant:   | ves (B9)<br>3)<br>s (B14)   | 293.docx                              | NRCS Field Indicator )  Seconda Surfa Draii Dry-                     | ry Indicators (indicators (indicators (indicators) and indicators (indicators) and ind | minimum of tv<br>s (B6)<br>(B10)   | 0, 2015              |
| Depth (in lemarks: his data forr rrata. (http://  YDROLO  Yetland Hydrimary Indic X Surface V X High Wat Saturatio X Water Ma  | m is revised from M<br>/www.nrcs.usda.go<br>GY<br>drology Indicators<br>ators (minimum of<br>Nater (A1)<br>ter Table (A2)<br>n (A3)<br>arks (B1)   | v/Internet/         | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  | apply) ined Lea auna (B1 atic Plants   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1   | 293.docx                              | NRCS Field Indicator )  Seconda Surfa Draii Dry- Cray                | ry Indicators (<br>ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (   | minimum of two (B10) (B10) (Table (C2) (C8)  | 0, 2015              |
| Depth (in lemarks: his data forr rrata. (http://www.communications)  YDROLO  Yetland Hycrimary Indic  X Surface V  X High Wat  Saturatio  X Water Mat  X Sediment  | GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) nr (A3) arks (B1) t Deposits (B2)   | v/Internet/         | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized I  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on  | 293.docx                              | NRCS Field Indicator )  Seconda Surfa Drain Dry- Cray pots (C3) Satu | ry Indicators (indicators (indicators (indicators)) ace Soil Cracket (indicators) age Patterns Season Water fish Burrows (indicators)  | minimum of tv<br>s (B6)<br>(B10)<br>Table (C2)<br>C8)<br>on Aerial Imag            | 0, 2015              |
| Depth (in emarks: his data forr rrata. (http://www.commons.com | m is revised from M/www.nrcs.usda.go  GY  drology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3)   | v/Internet/         | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  X Oxidized I  Presence  | apply) uined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduce   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on  | )<br>Living Rc                        | NRCS Field Indicator )  Seconda Surfa Drain Dry- Cray sots (C3) Satu | ry Indicators (<br>ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of  | minimum of two s (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1)            | 0, 2015              |
| Depth (in lemarks: his data forr rrata. (http://www.commons.com/wetland Hydromary Indic X Surface W X High Water Ma X Sediment X Drift Dept X Algal Materials.   | m is revised from M/www.nrcs.usda.go  GY  Irology Indicators ators (minimum of Vater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)   | v/Internet/         | uired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized I Presence Recent Iro  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on ed Iron ettion in Ti   | )<br>Living Rc                        | Seconda Surfa Drain Dry- Cray pots (C3) Stun S (C6) Geo              | ry Indicators (ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi  | minimum of two sets (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) | 0, 2015              |
| Depth (in lemarks: his data forr rrata. (http://www.communications)  YDROLO  YDROLO  Yetland Hyderimary Indice  X Surface Water Max  X Sediment  X Drift Depote Algal Mater Iron Depote  | m is revised from M //www.nrcs.usda.go  GY  Irology Indicators ators (minimum of Vater (A1) er Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)   | v/Internet/         | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  X Oxidized I  Presence  Recent Iro  Thin Muck                                 | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc   | ep2_051:<br>vves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>eed Iron<br>tion in Ti<br>(C7)             | )<br>Living Rc                        | Seconda Surfa Drain Dry- Cray pots (C3) Stun S (C6) Geo              | ry Indicators (<br>ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of  | minimum of two sets (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) | 0, 2015              |
| Depth (in emarks: his data forr rrata. (http://www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.communication.com/www.c | GY  GY  Grology Indicators ators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) in Visible on Aerial  | v/Internet/         | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  X Oxidized I  Presence  Recent Ird  Thin Muck  37)  Gauge or                  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc on Reduc c Surface Well Data  | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron of tion in Ti (C7) a (D9)                                     | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drain Dry- Cray pots (C3) Stun S (C6) Geo              | ry Indicators (ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi  | minimum of two sets (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) | 0, 2015              |
| Depth (in Remarks: This data form the interest of the interest | m is revised from M/www.nrcs.usda.go  GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) n Visible on Aerial Vegetated Concav   | v/Internet/         | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  X Oxidized I  Presence  Recent Ird  Thin Muck  37)  Gauge or                  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc on Reduc c Surface Well Data  | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron of tion in Ti (C7) a (D9)                                     | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drain Dry- Cray pots (C3) Stun S (C6) Geo              | ry Indicators (ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi  | minimum of two sets (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) | 0, 2015              |
| Depth (in Remarks: This data form iterata. (http://www.crata. (http:// | m is revised from M/www.nrcs.usda.go  GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations:   | v/Internet/         | uired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  X Oxidized I  Presence  Recent Iro  Thin Muck  87)  Gauge or  (B8)  Other (Ex | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc on Reduc c Surface Well Data plain in R   | vves (B9) 3) s (B14) Odor (C1 eres on eed Iron (C7) a (D9) demarks)   | )<br>Living Ro<br>(C4)<br>illed Soils | Seconda Surfa Drain Dry- Cray pots (C3) Stun S (C6) Geo              | ry Indicators (ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi  | minimum of two sets (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) | 0, 2015              |
| Depth (in Remarks: This data form Errata. (http://www.communications.com/wetland Hydrox Saturations.com/wetland Mark Sediment X Sediment X Drift Deput X Algal Mark Iron Deput X Inundations Sparsely Surface Water Water Mark Surface Water Mark | m is revised from M //www.nrcs.usda.go  GY  frology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav //ations:  | v/Internet/         | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  X Oxidized I  Presence  Recent Iro  Thin Muck  37) Gauge or  (B8) Other (Ex    | apply) ined Lea auna (B1 atic Plant: Sulfide ( Rhizosph of Reduc on Reduc                            | ves (B9) 3) s (B14) Ddor (C1 eres on ted Iron (C7) a (D9) emarks)   | )<br>Living Rc<br>(C4)<br>illed Soils | Seconda Surfa Drain Dry- Cray pots (C3) Stun S (C6) Geo              | ry Indicators (ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi  | minimum of two sets (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) | 0, 2015              |
| Depth (in Remarks: This data form Errata. (http://www.communications.com/wetland Hydrox Surface Water Max Sediment X Drift Depot X Algal Mat X Iron Depot X Inundation Sparsely Surface Water Table Water Table  | m is revised from M //www.nrcs.usda.go  GY  Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav //ations: er Present? Y Present? Y   | Imagery (Ee Surface | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  X Oxidized I  Presence  Recent Ird  Thin Muck  37) Gauge or  (B8) Other (Ex    | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc on Reduc | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron of tion in Ti (C7) a (D9) emarks) nches): _ nches): _         | ) Living Ro (C4) illed Soils          | Seconda Surfa Draii Cray Sots (C3) Stun S(C6) X FAC                  | ry Indicators (<br>ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi<br>-Neutral Test (   | minimum of two (B10) (B10) (Table (C2) (C8) (D1) (D1) (D2) (D5)                    | o, 2015              |
| Primary Indices X Sediment X Sediment X Iron Depot Iron D | GY  Irology Indicators ators (minimum of Water (A1) to Deposits (B2) osits (B3) to r Crust (B4) osits (B5) on Visible on Aerial Vegetated Concavorations:  er Present?  Yesent?  Yesent?  Yesent?  | v/Internet/         | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  X Oxidized I  Presence  Recent Iro  Thin Muck  37) Gauge or  (B8) Other (Ex    | apply) ined Lea auna (B1 atic Plant: Sulfide ( Rhizosph of Reduc on Reduc                            | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron of tion in Ti (C7) a (D9) emarks) nches): _ nches): _         | )<br>Living Rc<br>(C4)<br>illed Soils | Seconda Surfa Drain Dry- Cray pots (C3) Stun S (C6) Geo              | ry Indicators (<br>ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi<br>-Neutral Test (   | minimum of two sets (B6) (B10) Table (C2) C8) on Aerial Imaged Plants (D1) on (D2) | 0, 2015              |
| Depth (in Remarks: This data form the control of th | ches):  m is revised from M //www.nrcs.usda.go  GY  drology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) tor Crust (B4) tor Crust (B4) tor Crust (B4) tor Crust (B5) in Visible on Aerial Vegetated Concav //ations: er Present? Present? Y eresent? Y | Imagery (Ee Surface | ired; check all that  X Water-Sta  Aquatic Fa  True Aqua  Hydrogen  X Oxidized I  Presence  Recent Ird  Thin Muck  37) Gauge or  (B8) Other (Ex    | apply) ined Lea auna (B1 atic Plants Sulfide (C Rhizosph of Reduce Surface Well Data plain in R  Depth (iii Depth (iii                                     | ves (B9) 3) s (B14) Ddor (C1 eres on the tion in Till (C7) a (D9) hemarks) heches): _ heches): _ heches): _ | ) Living Ro (C4) illed Soils          | Seconda Surfa Drain Dry- Cray Stun S (C6) X FAC                      | ry Indicators (<br>ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi<br>-Neutral Test (   | minimum of two (B10) (B10) (Table (C2) (C8) (D1) (D1) (D2) (D5)                    | o, 2015              |
| Depth (in Remarks: This data form the control of th | ches):  m is revised from M //www.nrcs.usda.go  GY  drology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) tor Crust (B4) tor Crust (B4) tor Crust (B4) tor Crust (B5) in Visible on Aerial Vegetated Concav //ations: er Present? Present? Y eresent? Y | Imagery (Ee Surface | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized I Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Ex             | apply) ined Lea auna (B1 atic Plants Sulfide (C Rhizosph of Reduce Surface Well Data plain in R  Depth (iii Depth (iii                                     | ves (B9) 3) s (B14) Ddor (C1 eres on the tion in Till (C7) a (D9) hemarks) heches): _ heches): _ heches): _ | ) Living Ro (C4) illed Soils          | Seconda Surfa Drain Dry- Cray Stun S (C6) X FAC                      | ry Indicators (<br>ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi<br>-Neutral Test (   | minimum of two (B10) (B10) (Table (C2) (C8) (D1) (D1) (D2) (D5)                    | o, 2015              |
| Depth (in Remarks: This data form trrata. (http://www.crrata. (http://www.crrata. (http://www.crrata. (http://www.crrata. (http://www.crrata. (http://www.crrata. (http://www.crrata. (http:/www.crrata. (http://www.crrata. (http | ches):  m is revised from M //www.nrcs.usda.go  GY  drology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) tor Crust (B4) tor Crust (B4) tor Crust (B4) tor Crust (B5) in Visible on Aerial Vegetated Concav //ations: er Present? Present? Y eresent? Y | Imagery (Ee Surface | ired; check all that  X Water-Sta Aquatic Fa True Aqua Hydrogen X Oxidized I Presence Recent Iro Thin Muck 37) Gauge or (B8) Other (Ex             | apply) ined Lea auna (B1 atic Plants Sulfide (C Rhizosph of Reduce Surface Well Data plain in R  Depth (iii Depth (iii                                     | ves (B9) 3) s (B14) Ddor (C1 eres on the tion in Till (C7) a (D9) hemarks) heches): _ heches): _ heches): _ | ) Living Ro (C4) illed Soils          | Seconda Surfa Drain Dry- Cray Stun S (C6) X FAC                      | ry Indicators (<br>ace Soil Crack<br>nage Patterns<br>Season Water<br>fish Burrows (<br>ration Visible of<br>ted or Stresse<br>morphic Positi<br>-Neutral Test (   | minimum of two (B10) (B10) (Table (C2) (C8) (D1) (D1) (D2) (D5)                    | o, 2015              |

| Project/Site: Innovation East                                |                  | City/Cour   | nty: Jersey T    | WP/Licking                          | Sampling Date:                   | 8-11-21     |
|--|------------------|-------------|------------------|-------------------------------------|----------------------------------|-------------|
| Applicant/Owner: MBJ Holdings                                |                  |             |                  | State: OH                           | Sampling Point:                  | WF-2        |
| Investigator(s): BDL   |                  | Section, T  | ownship, Rar     | nge: T2N R15W                       |                                  |             |
| Landform (hillside, terrace, etc.): terrace                  |                  | l           | Local relief (co | oncave, convex, none):              | concave                          |             |
| Slope (%): 8 Lat: 40.094711                                  |                  | Long: -{    | 82.722601°       |                                     | Datum: NAD83 UT                  | M Zone 17 N |
| Soil Map Unit Name: pewamo                                   |                  |             |                  | NWI classif                         | fication: N/A                    |             |
| Are climatic / hydrologic conditions on the site typical for | or this time of  | year?       | Yes X            | No (If no, exp                      | plain in Remarks.)               |             |
| Are Vegetation, Soil, or Hydrology                           | significantly di | sturbed? A  | re "Normal C     | ircumstances" present?              | Yes X No                         | ٥ _         |
| Are Vegetation , Soil , or Hydrology                         |                  |             | If needed, exp   | plain any answers in Re             | emarks.)                         |             |
| SUMMARY OF FINDINGS – Attach site ma                         |                  |             |                  | -                                   | •                                | tures, etc. |
| Hydrophytic Vegetation Present? Yes X No                     | lo               | Is the      | Sampled Are      | ea                                  |                                  |             |
|  | lo               | within      | n a Wetland?     | Yes X                               | No                               |             |
| Wetland Hydrology Present? Yes X No                          | o                |             |                  |                                     |                                  |             |
| Remarks:   |                  |             |                  |                                     |                                  |             |
|  |                  |             |                  |                                     |                                  |             |
| YESTATION  | 4                |             |                  |                                     |                                  |             |
| <b>VEGETATION</b> – Use scientific names of pla              |                  | Dominant    | Indicator        |                                     |                                  |             |
| <u>Tree Stratum</u> (Plot size: )                            |                  | Species?    | Status           | Dominance Test wo                   | rksheet:                         |             |
| 1. N/A   |                  |             |                  | Number of Dominant                  | Species That                     |             |
| 2.   |                  |             |                  | Are OBL, FACW, or F                 |                                  | 3 (A)       |
| 3  |                  |             |                  | Total Number of Dom                 | inant Species                    |             |
| 4  |                  |             |                  | Across All Strata:                  |                                  | 4 (B)       |
| 5  |                  | T-t-l Cavor |                  | Percent of Dominant                 | •                                | - 00/ /Λ/D\ |
| Sapling/Shrub Stratum (Plot size:                            |                  | Total Cover |                  | Are OBL, FACW, or F                 | AC: 13                           | 5.0% (A/B)  |
| 1. N/A   | )                |             |                  | Prevalence Index wo                 | <br>orksheet:                    |             |
| 2.   |                  |             |                  | Total % Cover of                    |                                  | / by:       |
| 3.   |                  |             |                  |                                     |                                  | 20          |
| 4.   |                  |             |                  | FACW species 6                      | 60 x 2 =                         | 120         |
| 5.   |                  |             |                  |                                     | ) x 3 =                          | 0           |
|  | =                | Total Cover |                  |                                     | x 4 =                            | 0           |
| Herb Stratum (Plot size:)                                    |                  |             |                  |                                     |                                  | 0 (7)       |
| 1. Echinochloa crus-galli                                    | 30               | Yes         | FACW             | Column Totals: 8                    | ``/                              | 140 (B)     |
| Carex lurida     Persicaria maculosa                         | 20 20            | Yes         | OBL<br>FACW      | Prevalence Index                    | = B/A = <u>1.75</u>              | <u> </u>    |
| 4. Typha SP  | 20               | Yes<br>Yes  | FACVV            | Hydrophytic Vegetat                 | tion Indicators:                 |             |
| 5. Symphyotrichum lateriflorum                               | 10               | No          | FACW             |                                     | r Hydrophytic Veget              | ation       |
| 6  |                  |             |                  | X 2 - Dominance Te                  |                                  |             |
| 7.   |                  |             |                  | X 3 - Prevalence Inc                |                                  |             |
| 8.   |                  |             |                  |                                     | I Adaptations <sup>1</sup> (Prov | •           |
| 9.   |                  |             |                  |                                     | ks or on a separate              | •           |
| 10   |                  |             |                  | Problematic Hydr                    | rophytic Vegetation <sup>1</sup> | (Explain)   |
| <u>,_,,</u>  |                  | Total Cover |                  | <sup>1</sup> Indicators of hydric s |                                  |             |
| Woody Vine Stratum (Plot size:                               | )                |             | -                | be present, unless dis              | sturbed or problema              | ıtic.       |
| 1. <u>N/A</u>  |                  |             |                  | Hydrophytic                         |                                  |             |
| 2  |                  | Total Cover |                  | Vegetation<br>Present? Yes          | X No                             |             |
|  |                  | TOtal Cover |                  | Pleseilt: 165                       |                                  |             |
| Remarks: (Include photo numbers here or on a separ           | rate sneel.)     |             |                  |                                     |                                  |             |

SOIL Sampling Point: WF-2

| Profile Desc<br>Depth  | Matrix  |                        | Redo  | x Featur   | es  |  |                    |   |  |            |
|--|---|------------------------|---|--|---|--|--------------------|---|--|------------|
| (inches)   | Color (moist)   | %                      | Color (moist)   | %  | Type <sup>1</sup>   | Loc <sup>2</sup>                       | Texture            |   | Remarks  |            |
| 0-6  | 10YR 2/2  | 90                     | 10YR 3/3  | 10   |   | ·                                      |                    |   |  |            |
| 6-12   | 10YR 2/1  | 90                     | 5YR 4/6   | 10   |   | · <u></u>                              |                    |   |  |            |
|  |   |                        |   |  |   |  |                    |   |  |            |
|  |   |                        |   |  |   |  |                    | _   |  |            |
|  |   |                        |   |  |   |  |                    |   |  |            |
|  |   |                        |   |  |   |  |                    |   |  |            |
|  |   |                        |   |  |   |  |                    | _   |  |            |
|  |   |                        |   |  |   |  |                    | _   |  |            |
|  | oncentration, D=Dep   | etion, RM              | =Reduced Matrix, N  | √S=Mas   | ked San   | d Grains.                              |                    | on: PL=Pore Lini  |  |            |
| Hydric Soil  |   |                        | 0 1 0   |  | . (0.1)   |  |                    | tors for Problem  | -  | Soils":    |
| Histosol   | ,   |                        | Sandy Gle   | -  | rix (S4)  |  |                    | past Prairie Redox  |  |            |
|  | oipedon (A2)  |                        | Sandy Red   |  |   |  |                    | n-Manganese Ma  |  |            |
| Black Hi   | ` ,   |                        | Stripped M  | -  | ))  |  |                    | ed Parent Material  |  |            |
|  | n Sulfide (A4)  |                        | Dark Surfa  | ` '  | ! ( <b>-</b> 4)   |  |                    | ery Shallow Dark S  |  |            |
|  | d Layers (A5)   |                        | Loamy Mu  |  |   |  | <u> </u>           | her (Explain in Re  | emarks)  |            |
|  | ick (A10)   | (444)                  | Loamy Gle   |  |   |  |                    |   |  |            |
|  | d Below Dark Surface  | (A11)                  | Depleted N  |  |   |  | . ـ : ام صا 3      | tors of hydrophyti  | io vogototic=  | and        |
|  | ark Surface (A12)   |                        | X Redox Da  |  | ` '   | `                                      |                    |   | •  |            |
|  | lucky Mineral (S1)<br>icky Peat or Peat (S3   | `                      | Depleted [ Redox De   |  |   | )                                      |                    | etland hydrology n<br>less disturbed or   | •  | erit,      |
|  |   | )                      | Nedox De  | pression   | 3 (1 0)   |  | ui i               | less disturbed of   | problematic.   |            |
| Restrictive  | Layer (if observed):  |                        |   |  |   |  |                    |   |  |            |
| Tunai  |   |                        |   |  |   |  |                    |   |  |            |
| Type:  | achoe).   |                        |   |  |   |  | Hydric Sail Bross  | ont?  | Voc Y  | No         |
| Depth (in Remarks: This data for   | m is revised from Mic   |                        |   |  |   |  |                    |   | Yes X s, Version 7.0   | <b>No</b>  |
| Depth (in Remarks: This data for Errata. (http:  | m is revised from Mio<br>//www.nrcs.usda.gov  |                        |   |  |   |  | IRCS Field Indicat |   |  |            |
| Depth (in Remarks: This data for   | m is revised from Mio<br>//www.nrcs.usda.gov  |                        |   |  |   |  | IRCS Field Indicat |   |  |            |
| Depth (ii Remarks: This data for Errata. (http:  | m is revised from Mid<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:  | /Internet/F            | -SE_DOCUMENTS   | i/nrcs142  |   |  | IRCS Field Indicat |   |  |            |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary Indi   | m is revised from Mid<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:<br>cators (minimum of o  | /Internet/F            | SE_DOCUMENTS  | apply)   | 2p2_0512  | 293.docx)                              | NRCS Field Indicat | ors of Hydric Soil  | s, Version 7.0   | ), 2015    |
| Depth (ii Remarks: This data for Errata. (http:  | orm is revised from Mic<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:<br>cators (minimum of o  | /Internet/F            | ired; check all that a  | apply)<br>ined Lea   | ves (B9)  | 293.docx)                              | NRCS Field Indicat | ors of Hydric Soil<br>dary Indicators (m  | s, Version 7.0   | ), 2015    |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary Indi Surface High Wa   | orm is revised from Mic.//www.nrcs.usda.gov  OGY  drology Indicators: cators (minimum of o  Water (A1) tter Table (A2)  | /Internet/F            | ired; check all that a  | apply)<br>ined Lea   | ves (B9)  | 293.docx)                              | NRCS Field Indicat | ors of Hydric Soil<br>dary Indicators (m<br>Irface Soil Cracks<br>ainage Patterns (   | ninimum of two (B6)  | ), 2015    |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio   | OGY drology Indicators: cators (minimum of o Water (A1) tter Table (A2) on (A3)   | /Internet/F            | ired; check all that a Water-Sta Aquatic Fa True Aqua   | apply)<br>ined Lea<br>auna (B1<br>tic Plant  | 2p2_0512<br>ves (B9)<br>3)<br>s (B14)   | 293.docx)                              | Secon Dr           | ors of Hydric Soil:  dary Indicators (marface Soil Cracks ainage Patterns (incompared)  | ninimum of two (B6) B10) Table (C2)  | ), 2015    |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLC Wetland Hy Primary Indi Surface High Wa Saturatic Water M   | OGY drology Indicators: cators (minimum of o Water (A1) iter Table (A2) on (A3) farks (B1)  | /Internet/F            | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  | apply)<br>ined Lea<br>auna (B1<br>tic Plant<br>Sulfide (   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1   | 293.docx)                              | Secon Dr           | dary Indicators (marface Soil Patterns (marface Patterns (marface) y-Season Water ayfish Burrows (C   | ninimum of two (B6) B10) Table (C2)  | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary Indi Surface High Wa Saturation Water M Sedimer   | orm is revised from Mid<br>//www.nrcs.usda.gov<br>DGY<br>drology Indicators:<br>cators (minimum of orwater (A1)<br>ater Table (A2)<br>on (A3)<br>larks (B1)<br>at Deposits (B2)   | /Internet/F            | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  | apply)<br>ined Lea<br>auna (B1<br>tic Plant<br>Sulfide (<br>Rhizosph   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on  | 293.docx)                              | Secon              | dary Indicators (murface Soil Patterns (murface Soil Cracks ainage Patterns (murface Soil Cracks ainage Patterns (murfish Burrows (Cuturation Visible outputs)  | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag                          | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep  | drology Indicators: cators (minimum of o Water (A1) ther Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)  | /Internet/F            | ired; check all that a  Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on ced Iron c                                       | 293.docx)                              | Secon              | dary Indicators (marge Patterns (consideration Visible or content of the content | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag                          | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma   | drology Indicators: cators (minimum of o Water (A1) ther Table (A2) on (A3) tarks (B1) the Deposits (B2) toosits (B3) at or Crust (B4)  | /Internet/F            | ired; check all that a  Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro  | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc   | ves (B9) 3) s (B14) Odor (C1 eres on bed Iron of tion in Tit                                      | 293.docx)                              | Secon              | dary Indicators (margare Soil Cracks ainage Patterns (consequence Soil Cracks ainage Patterns (consequence Soil Cracks at the second stressed the second soil of the | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2)     | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep   | drology Indicators: cators (minimum of of of water (A1) ther Table (A2) on (A3) tarks (B1) the Deposits (B2) to or Crust (B4) to or Crust (B4) to osits (B5)  | /Internet/F            | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  X Presence  Recent Iro  Thin Muck                                       | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface   | ves (B9) 3) s (B14) Odor (C1 eres on the ced Iron (C7)  | 293.docx)                              | Secon              | dary Indicators (marge Patterns (consideration Visible or content of the content | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2)     | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep X Inundati  | orm is revised from Mid //www.nrcs.usda.gov  OGY  drology Indicators: cators (minimum of o Water (A1) ther Table (A2) on (A3) tarks (B1) the Deposits (B2) toosits (B3) at or Crust (B4) toosits (B5) on Visible on Aerial In   | ne is requ             | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or V                                 | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat                                | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9)   | 293.docx) ) Living Ro (C4) illed Soils | Secon              | dary Indicators (margare Soil Cracks ainage Patterns (consequence Soil Cracks ainage Patterns (consequence Soil Cracks at the second stressed the second soil of the | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2)     | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep X Inundati Sparsely  | drology Indicators: cators (minimum of o Water (A1) ther Table (A2) on (A3) arks (B1) arks (B1) on Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial In   | ne is requ             | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or V                                 | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat                                | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9)   | 293.docx) ) Living Ro (C4) illed Soils | Secon              | dary Indicators (margare Soil Cracks ainage Patterns (consequence Soil Cracks ainage Patterns (consequence Soil Cracks at the second stressed the second soil of the | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2)     | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep X Inundati Sparsely   | drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) tarks (B1) th Deposits (B2) toosits (B3) at or Crust (B4) toosits (B5) on Visible on Aerial In Vegetated Concave   | nagery (B              | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Exp                    | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat                                | ves (B9) 3) s (B14) Odor (C1 eres on ced Iron of tion in Ti (C7) a (D9) demarks)                  | 293.docx) ) Living Ro (C4) illed Soils | Secon              | dary Indicators (margare Soil Cracks ainage Patterns (consequence Soil Cracks ainage Patterns (consequence Soil Cracks at the second stressed the second soil of the | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2)     | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLC Wetland Hy Primary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep X Inundati Sparsely Field Obser Surface Water   | drology Indicators: cators (minimum of or Water (A1) ther Table (A2) on (A3) tarks (B1) th Deposits (B2) to or Crust (B4) to or Crust (B4) to or Visible on Aerial In Vegetated Concave vations: er Present?  | nagery (B<br>Surface ( | ired; check all that a  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  X Presence  Recent Iro  Thin Muck  7) Gauge or 1  B8) Other (Exp       | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R                     | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9) temarks)                                | 293.docx) ) Living Ro (C4) illed Soils | Secon              | dary Indicators (margare Soil Cracks ainage Patterns (consequence Soil Cracks ainage Patterns (consequence Soil Cracks ayfish Burrows (Constituted or Stressed at the sounted or Stressed at the soil of the soil | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2)     | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLC Wetland Hy Primary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep X Inundatia Sparsely Field Obser Surface Water Table  | drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) tarks (B1) to Deposits (B2) to or Crust (B4) to or Crust (B4) to or Visible on Aerial In Vegetated Concave vations: er Present? Ye Present? Ye   | nagery (B Surface (    | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa X Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Exp                   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R  Depth (ii          | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9) temarks) nches):nches):nches): _        | 293.docx) ) Living Ro (C4) illed Soils | Secon              | dary Indicators (marface Soil Cracks ainage Patterns (constitution Visible or Stressed ecomorphic Position C-Neutral Test (E  | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2) D5) | o required |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep X Inundatia Sparsely  Field Obser Surface Water Table Saturation P                            | drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) tarks (B1) to Deposits (B2) to or Crust (B4) to or Crust (B4) to or Visible on Aerial In Vegetated Concave vations: er Present? Ye Present? Ye   | nagery (B Surface (    | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa X Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Exp                   | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R                     | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron (C7) a (D9) temarks) nches):nches):nches): _        | 293.docx)                              | Secon              | dary Indicators (marface Soil Cracks ainage Patterns (constitution Visible or Stressed ecomorphic Position C-Neutral Test (E  | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2)     | o require  |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep X Inundatio Sparsely  Field Obser Surface Wat Water Table Saturation P (includes ca            | orm is revised from Mid //www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) arks (B1) arks (B1) arks (B3) at or Crust (B4) at or Crust (B4) at or Crust (B4) at or Vegetated Concave vations: er Present? Present? Ye resent? Ye  | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X No X | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (ii Depth (ii | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron (C7) a (D9) elemarks) nches): _ nches): _ nches): _ | 293.docx) ) Living Ro (C4) illed Soils | Secon              | dary Indicators (marface Soil Cracks ainage Patterns (constitution Visible or Stressed comorphic Position C-Neutral Test (E   | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2) D5) | o required |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep X Inundati Sparsely  Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re | orm is revised from Mid //www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (B1) Inter Table (B2) Inter | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X No X | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (ii Depth (ii | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron (C7) a (D9) elemarks) nches): _ nches): _ nches): _ | 293.docx) ) Living Ro (C4) illed Soils | Secon              | dary Indicators (marface Soil Cracks ainage Patterns (constitution Visible or Stressed comorphic Position C-Neutral Test (E   | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2) D5) | o required |
| Depth (ii Remarks: This data for Errata. (http:  HYDROLO  Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep X Inundatio Sparsely  Field Obser Surface Wat Water Table Saturation P (includes ca            | orm is revised from Mid //www.nrcs.usda.gov  DGY  drology Indicators: cators (minimum of o Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (B1) Inter Table (B2) Inter | nagery (B<br>Surface ( | ired; check all that a Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F X Presence Recent Iro Thin Muck 7) Gauge or 10 Other (Exp No X No X No X No X | apply) ined Lea auna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R Depth (ii Depth (ii | ves (B9) 3) s (B14) Ddor (C1 eres on ced Iron (C7) a (D9) elemarks) nches): _ nches): _ nches): _ | 293.docx) ) Living Ro (C4) illed Soils | Secon              | dary Indicators (marface Soil Cracks ainage Patterns (constitution Visible or Stressed comorphic Position C-Neutral Test (E   | ninimum of two (B6) B10) Table (C2) C8) n Aerial Imag I Plants (D1) n (D2) D5) | o required |

| Project/Site: Inovation East                                      | City/County: Jersey /                               | Licking                  | Sampling Date: 8/11/2021                     |
|---|---|--------------------------|--|
| Applicant/Owner: MBJ Holdings                                     |   | State: OH                | Sampling Point: UPF-1                        |
| Investigator(s): Bryan Lombard                                    | Section, Township, Ran                              | nge: T2N R15W            |  |
| Landform (hillside, terrace, etc.): Plain                         | Local relief (co                                    | oncave, convex, none): c | convex                                       |
| Slope (%): 4 Lat: 40.092918°                                      | Long: <u>-82.721772°</u>                            |                          | Datum: NAD83 UTM Zone 17 N                   |
| Soil Map Unit Name: Bennington silt loam, 2 to 6 percent sl       | opes  | NWI classific            | cation: N/A                                  |
| Are climatic / hydrologic conditions on the site typical for this | s time of year? Yes X                               | No (If no, expl          | lain in Remarks.)                            |
| Are Vegetation, Soil, or Hydrologysignif                          | ficantly disturbed? Are "Normal C                   | ircumstances" present?   | Yes X No                                     |
| Are Vegetation , Soil , or Hydrology natur                        |   | olain any answers in Rem | narks.)                                      |
| SUMMARY OF FINDINGS – Attach site map s                           | howing sampling point lo                            | cations, transects,      | important features, etc.                     |
| Hydrophytic Vegetation Present? Yes No X                          | Is the Sampled Are                                  | ea                       |  |
| Hydric Soil Present? Yes X No                                     | within a Wetland?                                   |                          | No X   |
| Wetland Hydrology Present? Yes No X                               | <u> </u>  |                          |  |
| Remarks:  |   |                          |  |
| On edge of an active agricultural field                           |   |                          |  |
|   |   |                          |  |
| <b>VEGETATION</b> – Use scientific names of plants.               |   |                          |  |
|   | osolute Dominant Indicator<br>Cover Species? Status | Dominance Test work      | ksheet:                                      |
| 1. N/A  |   | Number of Dominant S     |  |
| 2.  |   | Are OBL, FACW, or FA     | •  |
| 3.  |   | Total Number of Domir    | nant Species                                 |
| 4   |   | Across All Strata:       | (B)  |
| 5   |   | Percent of Dominant S    | •  |
| C P = //Classic Charles   /Distriction                            | =Total Cover  | Are OBL, FACW, or FA     | AC: <u>0.0%</u> (A/B)                        |
| Sapling/Shrub Stratum (Plot size:)  1. N/A                        | }   | Prevalence Index wor     | rkahaat:                                     |
| 2.  | <del></del>   | Total % Cover of:        |  |
| 3.  |   | OBL species 0            |  |
| 4.  |   | FACW species 0           |  |
| 5.  |   | FAC species 0            | x 3 = 0                                      |
|   | =Total Cover  | FACU species 100         | 0 x 4 = 400                                  |
| Herb Stratum (Plot size:)   |   | UPL species 0            |  |
| 1. Trifolium repens   | 60 Yes FACU   | Column Totals: 100       |  |
| 2. Festuca arundinacea  | 40 Yes FACU   | Prevalence Index =       | B/A = 4.00                                   |
| 3   | — — —   | Hydrophytic Vegetation   | on Indicators:                               |
| 5   | <del></del>   |                          | Hydrophytic Vegetation                       |
|   |   | 2 - Dominance Tes        |  |
| 7.  |   | 3 - Prevalence Inde      |  |
| 8.  |   | 4 - Morphological A      | Adaptations <sup>1</sup> (Provide supporting |
| 9.  |   | data in Remarks          | s or on a separate sheet)                    |
| 10  |   | Problematic Hydro        | phytic Vegetation <sup>1</sup> (Explain)     |
|   | 100 =Total Cover                                    |                          | il and wetland hydrology must                |
| Woody Vine Stratum (Plot size:)                                   | -   | be present, unless dist  | urbed or problematic.                        |
| 1. <u>N/A</u>   | <u> </u>  | Hydrophytic              |  |
| 2   | =Total Cover  | Vegetation               | No. V  |
|   |   | Present? Yes_            | No_X   |
| Remarks: (Include photo numbers here or on a separate s           | sheet.)   |                          |  |
|   |   |                          |  |

SOIL Sampling Point: UPF-1

| Depth  | Matrix   |                             | Redo  | x Featur   | es  |                                       |   |  |  |               |
|--|--|-----------------------------|---|--|---|---------------------------------------|---|--|--|---------------|
| inches)  | Color (moist)  | %                           | Color (moist)   | %  | Type <sup>1</sup>   | Loc <sup>2</sup>                      | Texture   | <u> </u>   | Remarks  |               |
| 0-6  | 10YR 4/3   | 100                         |   |  |   |                                       |   |  |  |               |
| 6-8  | 10YR 4/2   |                             | 10YR 5/6  | 10   |   |                                       |   |  |  |               |
| 8-12   | 10YR 4/2   | 90                          | 10YR 4/6  | 10   |   |                                       |   |  |  |               |
| 12-16  | 10YR 4/1   | 85                          | 10YR 3/6  | 15   |   |                                       |   |  |  |               |
|  |  |                             |   | ·  |   |                                       |   |  |  |               |
|  | -  |                             |   |  |   |                                       |   |  |  |               |
|  |  |                             |   |  |   |                                       |   |  |  |               |
|  | oncentration, D=Dep  | lation DM                   | -Daduard Matrix   | MC-Mas   | Lod Con   | d Craina                              | 21  | .ocation: PL=Pore  | Lining M=Mat   | d.            |
|  | Indicators:  | ietion, ixivi               | -Neduced Matrix, I  | IVIO-IVIASI  | Neu Saii  | u Grairis.                            |   | dicators for Prob  |  |               |
| Histosol   |  |                             | Sandy Gle   | eved Mat   | rix (S4)  |                                       | •••   | Coast Prairie R  | -  | Jons .        |
|  | ipedon (A2)  |                             | Sandy Re  |  | ix (04)   |                                       | _   |  | e Masses (F12)   |               |
| Black His  |  |                             | Stripped N  |  | 3)  |                                       | _   | Red Parent Ma  |  |               |
|  | n Sulfide (A4)   |                             | Dark Surfa  |  | ′,  |                                       | _   |  | ark Surface (F2  | 2)            |
|  | Layers (A5)  |                             | Loamy Mu  | ` '  | eral (F1)   |                                       | _   | Other (Explain   | ,  | _,            |
| 2 cm Mu  | • , ,  |                             | Loamy Gl  | •  | , ,   |                                       | _   |  | tomanoj  |               |
|  | Below Dark Surface   | e (A11)                     | X Depleted  | -  |   |                                       |   |  |  |               |
|  | rk Surface (A12)   | /                           | Redox Da  |  | •   |                                       | <sup>3</sup> lı                                 | ndicators of hydro   | ohvtic vegetation  | n and         |
|  | ucky Mineral (S1)  |                             | Depleted I  |  | ` '   | )                                     |   | wetland hydrolo  |  |               |
|  | cky Peat or Peat (S3   | 3)                          | Redox De  |  | ,   | ,                                     |   | unless disturbe  |  |               |
|  | _ayer (if observed):   |                             |   | •  | . ,   |                                       |   |  | · ·  |               |
| Type:  | N/A  |                             |   |  |   |                                       |   |  |  |               |
|  |  |                             |   |  |   |                                       |   |  | Vaa V  | No            |
| his data for   | m is revised from Mi   |                             |   |  |   |                                       |   |  | Yes X Soils, Version 7   | <u> </u>      |
| emarks:<br>his data fori<br>rrata. (http:/   | m is revised from Mi   |                             |   |  |   |                                       | NRCS Field In                                   |  |  |               |
| demarks:<br>his data foru<br>frrata. (http:/   | m is revised from Mi   |                             |   |  |   |                                       | NRCS Field In                                   |  |  | <u> </u>      |
| emarks: his data fore rrata. (http://  | m is revised from Mie//www.nrcs.usda.gov   | //Internet/F                | SE_DOCUMENTS  | 6/nrcs142  |   |                                       | NRCS Field In                                   | dicators of Hydric   | Soils, Version 7   |               |
| temarks: his data fore firrata. (http:// YDROLO Vetland Hyd Vrimary Indice   | m is revised from Min//www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of o   | //Internet/F                | rSE_DOCUMENTS   | apply)   | 2p2_051.  | 293.docx                              | NRCS Field In                                   | idicators of Hydric  | Soils, Version 7   | <br>7.0, 2015 |
| YDROLO Vetland Hydrimary Indic   | m is revised from Min//www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of o   | //Internet/F                | ired; check all that Water-Sta  | apply)   | ves (B9)  | 293.docx                              | NRCS Field In                                   | econdary Indicato Surface Soil Cr  | Soils, Version 7   | <br>7.0, 2015 |
| YDROLO Vetland Hyd Surface \ High War  | m is revised from Mic//www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of o   | //Internet/F                | ired; check all that Water-Sta Aquatic Fa   | apply)<br>ined Lea   | ves (B9)  | 293.docx                              | NRCS Field In                                   | econdary Indicato Surface Soil Cr Drainage Patte   | Soils, Version 7   | <br>7.0, 2015 |
| YDROLO Vetland Hyd Surface V High Wat Saturatio  | m is revised from Mic//www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of o   | //Internet/F                | ired; check all that Water-Sta Aquatic Fa   | apply) ined Lea auna (B1 atic Plant  | ves (B9)<br>3)<br>s (B14)   | 293.docx                              | NRCS Field In                                   | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa   | rs (minimum of tacks (B6) rns (B10) ater Table (C2)  | <br>7.0, 2015 |
| YDROLO Vetland Hydrimary Indic Surface \( \) High Wat Saturatio Water Mi   | GY drology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1)  | //Internet/F                | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen  | apply) ined Lea auna (B1 atic Plants   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1   | )                                     | NRCS Field In                                   | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa   | rs (minimum of tacks (B6) rns (B10) ater Table (C2) vs (C8)  | vo require    |
| YDROLO Yetland Hydrimary Indic Surface \( \) High War Saturatio Water Ma Sedimen   | GY drology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2)  | //Internet/F                | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F   | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph  | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on  | 293.docx                              | NRCS Field In                                   | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visit  | rs (minimum of tacks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Ima                                      | wo requir     |
| YDROLO  Yetland Hyo  Yirmary Indic  Surface \ High Wa'  Saturatio  Water Ma  Sedimen  Drift Dep  | m is revised from Mic//www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of ow Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3)   | //Internet/F                | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa  | apply) uined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduce   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>ced Iron                                    | )<br>Living Ra<br>(C4)                | NRCS Field In )  S  oots (C3)                   | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visit  | rs (minimum of tacks (B6) rns (B10) ater Table (C2) vs (C8) ble on Aerial Ima                                      | wo requir     |
| YDROLO  Yetland Hydrimary Indic Surface V High Wat Saturatio Water Mater | m is revised from Mic//www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)  | //Internet/F                | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc   | ves (B9)<br>3)<br>s (B14)<br>Odor (C1<br>eres on<br>sed Iron<br>tion in T                       | )<br>Living Ra<br>(C4)                | NRCS Field In )  S  oots (C3)                   | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visit Stunted or Stre                              | rs (minimum of the acks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Images assed Plants (D1 sition (D2)   | wo requir     |
| YDROLO Vetland Hydrimary Indic Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep   | m is revised from Michael Mich | ne is requ                  | ired; check all that Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc   | ep2_051.  vves (B9) 3) s (B14) Odor (C1 eres on eed Iron tion in T (C7)                         | )<br>Living Ra<br>(C4)                | NRCS Field In )  S  oots (C3)                   | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visit  | rs (minimum of the acks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Images assed Plants (D1 sition (D2)   | wo requir     |
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| Primary Indicate Mater M | m is revised from Mic//www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of own   | ne is requ                  | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  7)  Gauge or                  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc on Reduc c Surface Well Data  | ves (B9) 3) s (B14) Odor (C1 eres on ted Iron tion in T (C7) a (D9)                             | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field In )  S  oots (C3)                   | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visit Stunted or Stre                              | rs (minimum of the acks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Images assed Plants (D1 sition (D2)   | wo requir     |
| Primary Indices Sedimen Drift Dep Algal Ma Iron Depo Inundatic Sparsely Sedimary Indices Sedimen Drift Dep Algal Ma Iron Depo Inundatic Sparsely   | m is revised from Mic//www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial II Vegetated Concave   | ne is requestable magery (B | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  7)  Gauge or  B8)  Other (Ex  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc on Reduc c Surface Well Data plain in R   | ves (B9) 3) s (B14) Odor (C1 eres on tion in T (C7) a (D9)                                      | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field In )  S  oots (C3)                   | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visit Stunted or Stre                              | rs (minimum of the acks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Images assed Plants (D1 sition (D2)   | wo requir     |
| YDROLO  YDROLO  YDROLO  YDROLO  Yetland Hyd  Surface N  High War  Saturatio  Water Ma  Sedimen  Drift Dep  Algal Ma  Iron Depo  Inundation   | m is revised from Michael Mich | magery (B                   | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  7)  Gauge or                  | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc on Reduc c Surface Well Data  | ves (B9) 3) s (B14) Ddor (C1 eres on ted Iron tion in T (C7) a (D9) emarks)                     | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field In )  S  oots (C3)                   | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visit Stunted or Stre                              | rs (minimum of the acks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Images assed Plants (D1 sition (D2)   | wo require    |
| YDROLO  Yetland Hyd  Primary Indic  Surface V  High War  Saturatio  Water Mar  Sedimen  Drift Dep  Algal Ma  Iron Depi Inundatio  Sparsely  Field Observ  Surface Water  | m is revised from Michael Mich | magery (B                   | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Irc  Thin Muck  7)  Gauge or  B8)  Other (Exp | apply) ined Lea auna (B1 atic Plant: Sulfide ( Rhizosph of Reduc on Reduc on Reduc on Reduc on Reduc on Reduc on Reduc                                     | ves (B9) 3) s (B14) Odor (C1 eres on tion in T (C7) a (D9) emarks) nches):                      | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field In )  S oots (C3)  G (C6)            | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visit Stunted or Stre                              | rs (minimum of tacks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Imassed Plants (D1 psition (D2) est (D5) | wo require    |
| YDROLO  YDROLO  YDROLO  YDROLO  YURA  YDROLO  YURA  YDROLO  YURA  YOROLO  YORO | m is revised from Michael Mich | magery (B                   | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized Fa  Presence  Recent Iro  Thin Muck  7)  Gauge or  B8)  Other (Exp | apply) ined Lea auna (B1 atic Plants Sulfide ( Rhizosph of Reduc on Reduc | ves (B9) 3) s (B14) Odor (C1 eres on tion in T (C7) a (D9) emarks) nches):                      | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field In )  S oots (C3)  G (C6)            | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visib Stunted or Stre Geomorphic Po                | rs (minimum of tacks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Imassed Plants (D1 psition (D2) est (D5) | wo requir     |
| Primary Indicates Saturation Princludes capting and a control of the control of t | m is revised from Mic//www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of ow Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Present? Ye resent? Ye  | magery (B                   | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  Presence  Recent Iro  Thin Muck  7)  Gauge or  B8)  Other (Ext  | apply) ined Lea auna (B1 atic Plants Sulfide (C Rhizosph of Reduce Surface Well Data plain in R  Depth (iii Depth (iii                                     | ves (B9) 3) s (B14) Ddor (C1 eres on ted Iron tion in T (C7) a (D9) cemarks cenches): cenches): | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field In )  S  Oots (C3)  C(C6)  Wetland H | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visib Stunted or Stre Geomorphic Po FAC-Neutral Te | rs (minimum of tacks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Imassed Plants (D1 psition (D2) est (D5) | wo requir     |
| YDROLO  Yetland Hyo  Yimary Indic  Surface N  High Wa'  Saturatio  Water Ma  Sedimen  Drift Dep  Algal Ma  Iron Dep  Inundatic  Sparsely  ield Observiturface Water Table saturation Princludes cap  | m is revised from Mic/www.nrcs.usda.gov  GY  drology Indicators: cators (minimum of owater (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave  vations: er Present? Yee Present? Yee resent? Yee resent? Yee resent? Yee resent? Yee  | magery (B                   | ired; check all that  Water-Sta  Aquatic Fa  True Aqua  Hydrogen  Oxidized F  Presence  Recent Iro  Thin Muck  7)  Gauge or  B8)  Other (Ext  | apply) ined Lea auna (B1 atic Plants Sulfide (C Rhizosph of Reduce Surface Well Data plain in R  Depth (iii Depth (iii                                     | ves (B9) 3) s (B14) Ddor (C1 eres on ted Iron tion in T (C7) a (D9) cemarks ches): ches):       | )<br>Living Ro<br>(C4)<br>illed Soils | NRCS Field In )  S  Oots (C3)  C(C6)  Wetland H | econdary Indicato Surface Soil Cr Drainage Patte Dry-Season Wa Crayfish Burrov Saturation Visib Stunted or Stre Geomorphic Po FAC-Neutral Te | rs (minimum of tacks (B6) rns (B10) ater Table (C2) vs (C8) ole on Aerial Imassed Plants (D1 psition (D2) est (D5) | wo require    |



### **APPENDIX C:**

**ORAM Dataforms** 

|             | Ohio Rapid Assessment Method<br>10 Page Form for Wetland Cate   |  |
|-------------|---|--|
| Version 5.0 | Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet | Ohio EPA, Division of Surface Water<br>Final: February 1, 2001 |

#### **Instructions**

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx

## **Background Information**

| Name:<br>Bryan Lombard  |                         |
|---|-------------------------|
| Date: 08/11/2021  |                         |
| Affiliation: EMH&T  |                         |
| Address:  |                         |
| 5500 New Albany Road  Phone Number:   |                         |
| 614-775-4517  |                         |
| e-mail address:<br>BLombard@emht.com  |                         |
| Name of Wetland: Innovation East Wetland A  |                         |
| Vegetation Communit(ies): emergent  |                         |
| HGM Class(es):  |                         |
| depressional  |                         |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. |                         |
| Exhibit 6   |                         |
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|   |                         |
| Lat/Long or UTM Coordinate  | 40.090554°, -82.718435° |
| USGS Quad Name  | Jersey                  |
| County  | Licking                 |
| Township  | Jersey                  |
| Section and Subsection  | T2N R15W                |
| Hydrologic Unit Code  | 050400060402            |
| Site Visit  | 8.11.21                 |
| National Wetland Inventory Map  | N/A                     |
| Ohio Wetland Inventory Map  | N/A                     |
| Soil Survey   | BeB                     |
| Delineation report/map  | Exhibit 6               |

| Name of Wetland: Wetland A  |      |
|---|------|
| Wetland Size (acres, hectares):   | 0.37 |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. | 1    |
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| Comments, Narrative Discussion, Justification of Category Changes:                          |      |
| Comments, Narrative Discussion, Justinication of Category Changes.                          |      |
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|   |      |
| Final score : 12 Category:  | 1    |

#### **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.  | Y     |                |
| Step 2 | Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and humaninduced 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. | Y     |                |
| 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.  | Y     |                |
| 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.   |       | Y              |
| Step 5 | In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.  |       | Y              |
| 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.  |       | Υ              |

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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        |  | YES                              | NO                |
| 1        | Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has   | 159                              | NO                |
|          | been designated by the U.S. Fish and Wildlife Service as "critical   | Wetland should be                | Go to Question 2  |
|          | habitat" for any threatened or endangered plant or animal species?   | evaluated for possible           |                   |
|          | Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has  | Category 3 status                |                   |
|          | had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).  | 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   | YES                              | NO                |
|          | threatened or endangered plant or animal species?  | Wetland is a Category 3 wetland. | Go to Question 3  |
|          |  | Go to Question 3                 |                   |
| 3        | Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?  | YES                              | NO                |
|          | The state of the s | Wetland is a Category 3 wetland  | Go to Question 4  |
|          |  | Go to Question 4                 |                   |
| 4        | Significant Breeding or Concentration Area. Does the wetland   | YES                              | NO                |
|          | contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?   | Wetland is a Category 3 wetland  | Go to Question 5  |
|          |  | On the Owner than 5              |                   |
| 5        | Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre)  | Go to Question 5 YES             | NO                |
| •        | in size and hydrologically isolated and either 1) comprised of   | 120                              | 110               |
|          | vegetation that is dominated (greater than eighty per cent areal cover)  | Wetland is a Category            | Go to Question 6  |
|          | by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or  | 1 wetland                        |                   |
|          | 2) an acidic pond created or excavated on mined lands that has little or no vegetation?  | Go to Question 6                 |                   |
| 6        | Bogs. Is the wetland a peat-accumulating wetland that 1) has no  | YES                              | NO                |
| •        | significant inflows or outflows, 2) supports acidophilic mosses,   | 120                              | 110               |
|          | particularly <i>Sphagnum</i> 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%?   | Wetland is a Category 3 wetland  | Go to Question 7  |
|          | Cover of invasive species (see Table 1) is \$2570:   | Go to Question 7                 |                   |
| <u>7</u> | Fens. Is the wetland a carbon accumulating (peat, muck) wetland that   | YES                              | NO                |
|          | is saturated during most of the year, primarily by a discharge of free   | Wotland is a Catagori            | Co to Ougation 0- |
|          | 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  | Wetland is a Category 3 wetland  | Go to Question 8a |
|          | invasive species listed in Table 1 is <25%?  | o wottand                        |                   |
|          | ·  | Go to Question 8a                |                   |
| 8a       | "Old Growth Forest." Is the wetland a forested wetland and is the  | YES                              | NO                |
|          | forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a   | Wetland is a Category            | Go to Question 8b |
|          | projected maximum attainable age for a species); little or no evidence   | 3 wetland.                       | OO TO QUESTION OD |
|          | of human-caused understory disturbance during the past 80 to 100   | Go to Question 8b                |                   |
|          | 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?  | Go to Question on                |                   |

| 8b | Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of             | YES                    | NO                |
|----|--|------------------------|-------------------|
|    | deciduous trees with large diameters at breast height (dbh), generally   | Wetland should be      | Go to Question 9a |
|    | diameters greater than 45cm (17.7in) dbh?  | evaluated for possible |                   |
|    |  | Category 3 status.     |                   |
|    |  | Go to Question 9a      |                   |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at  | YES                    | NO                |
|    | 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? | Go to Question 9b      | Go to Question 10 |
| 9b | Does the wetland's hydrology result from measures designed to  | YFS                    | NO                |
|    | prevent erosion and the loss of aquatic plants, i.e. the wetland is  |                        |                   |
|    | partially hydrologically restricted from Lake Erie due to lakeward or  | Wetland should be      | Go to Question 9c |
|    | landward dikes or other hydrological controls?   | evaluated for possible |                   |
|    |  | Category 3 status      |                   |
|    |  | Go to Question 10      |                   |
| 9с | Are Lake Erie water levels the wetland's primary hydrological influence,   | YES                    | NO                |
|    | i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an      | Go to Question 9d      | Go to Question 10 |
|    | "estuarine" wetland with lake and river influenced hydrology. These  | Oo to Question su      | Oo to Question to |
|    | include sandbar deposition wetlands, estuarine wetlands, river mouth   |                        |                   |
|    | wetlands, or those dominated by submersed aquatic vegetation.  | \/F0                   |                   |
| 9d | Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant      | YES                    | NO                |
|    | native species can also be present?  | Wetland is a Category  | Go to Question 9e |
|    |  | 3 wetland              |                   |
|    |  | On the Owner than 40   |                   |
| 9e | Does the wetland have a predominance of non-native or disturbance  | Go to Question 10 YES  | NO                |
| 36 | tolerant native plant species within its vegetation communities?   | 120                    | 140               |
|    |  | Wetland should be      | Go to Question 10 |
|    |  | evaluated for possible |                   |
|    |  | Category 3 status      |                   |
|    |  | Go to Question 10      |                   |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in  | YES                    | NO                |
|    | Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy          | Wetland is a Category  | Go to Question 11 |
|    | substrate with interspersed organic matter, a water table often within   | 3 wetland.             | 20.10 00000011 11 |
|    | 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          | Go to Question 11      |                   |
|    | Natural Areas and Preserves can provide assistance in confirming this  |                        |                   |
|    | type of wetland and its quality.   |                        |                   |
| 11 | Relict Wet Prairies. Is the wetland a relict wet prairie community   | YES                    | NO                |
|    | dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union        | Wetland should be      | Complete          |
|    | Counties), Sandusky Plains (Wyandot, Crawford, and Marion  | evaluated for possible | Quantitative      |
|    | Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),  | Category 3 status      | Rating            |
|    | and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,  |                        | _                 |
|    | Montgomery, Van Wert etc.).  | 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:Inr     | novation | East Wetland A  | Rater(s):Bryan Lombard  |   | Date: 08/11/2021  |
|---|--------------|----------|---|---|---|---|
|   | 2            | 2        | Metric 1. Wetland A   | rea (size).   |   |   |
|   | max 6 pts.   | subtotal | Select one size class and assign scores (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20  10 to <25 acres (4 to <10.1  3 to <10 acres (1.2 to <4ha)  0.3 to <3 acres (0.12 to <1.2  0.1 to <0.3 acres (0.04 to <0.1 acres (0.04 to <0.1 acres (0.04ha) (0 pts) | 0.2ha) (5 pts)<br>na) (4 pts)<br>(3 pts)<br>2ha) (2pts)   |   |   |
|   | 1            | 3        | Metric 2. Upland bu   | ffers and surroundi   | ng land use.  |   |
| , | max 14 pts.  | subtotal | MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth or LOW. Old field (>10 years) MODERATELY HIGH. Res  | n (164ft) or more around wetland per<br>25m to <50m (82 to <164ft) around w<br>10m to <25m (32ft to <82ft) around<br>verage <10m (<32ft) around wetland | imeter (7) vetland perimeter (4) l wetland perimeter (1) l perimeter (0) erage. fe area, etc. (7) vrest. (5) rvation tillage, new fallo               | w field. (3)  |
|   | 5            | 8        | Metric 3. Hydrology   |   |   |   |
| ! | max 30 pts.  | subtotal |   | ce water (3) le or stream) (5) 3d. Elly one and assign score.  (2) c regime. Score one or double check Check all disturbances observed                  | Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat Seasonally saturat and average. | in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) ed/saturated (3) ated (2) ated in upper 30cm (12in) (1) |
| 1 |              |          | Recovered (7) Recovering (3) Recent or no recovery (1)  | ditch  ✓ tile  dike  weir  stormwater input   | point source (none filling/grading road bed/RR track dredging other   | ,   |
|   | 3            | 11       | Metric 4. Habitat Alt<br>   |   | oment.  |   |
|   | max 20 pts.  | subtotal | 4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) ✓ Recent or no recovery (1)  4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) ✓ Poor (1)   | one and assign score.   |   |   |
|   |              |          | 4c. Habitat alteration. Score one or d None or none apparent (9)  | ouble check and average.  Check all disturbances observed   |   |   |
|   |              | 11       | •   | mowing grazing clearcutting selective cutting woody debris removal toxic pollutants   | shrub/sapling rem herbaceous/aquat sedimentation dredging farming nutrient enrichme   | tic bed removal   |
|   | last revised | ı reprua | ry ∠uu i jjm  |   |   |   |

| Citorina    | a a vation | n East Wetland A  | Pator(c): Prior  | ombord   | Date: 08/11/2021                      |
|-------------|------------|---|--|--|---------------------------------------|
| Site.iii    | iovatioi   | i East Welland A  | Rater(s): Bryan  | Lombard  | Date: 00/11/2021                      |
| su          | 11         | 1   |  |  |                                       |
| 0           | 11         | Metric 5. Special W   | letlands.  |  |                                       |
| max 10 pts. | subtotal   | Check all that apply and score as inc Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (1) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Relict Wet Prairies (10) Known occurrence state/fo | 5) wetland-unrestricted hydrowetland-restricted hydro Oak Openings) (10) ederal threatened or endabird/water fowl habitat or | angered species (10) usage (10)                                    |                                       |
| 1           | 12         | Metric 6. Plant con   | nmunities, int   | erspersion, microto  | ppography.                            |
| max 20 pts. | subtotal   | 6a. Wetland Vegetation Communitie   | es. Vegetation   | Community Cover Scale  |                                       |
|             |            | Score all present using 0 to 3 scale.   | 0  | Absent or comprises <0.1ha (0.24                                   | , <u> </u>                            |
|             |            | O Aquatic bed   | 1  | Present and either comprises sm                                    |                                       |
|             |            | 1 Emergent  |  | vegetation and is of moderate of                                   | · · · · · · · · · · · · · · · · · · · |
|             |            | 0 Shrub   | 2  | significant part but is of low qua                                 | -                                     |
|             |            | <ul><li>Forest</li><li>Mudflats</li></ul>   | 2  | Present and either comprises sign vegetation and is of moderate of |                                       |
|             |            | 0 Open water  |  | part and is of high quality  | quality of comprises a small          |
|             |            | Other   | 3  | Present and comprises significan                                   | t part or more of wetland's           |
|             |            | 6b. horizontal (plan view) Interspers   | <del>_</del>   | vegetation and is of high quality                                  |                                       |
|             |            | Select only one.  |  | rogotation and to or might quality                                 |                                       |
|             |            | High (5)  | Narrative D  | escription of Vegetation Quality                                   |                                       |
|             |            | Moderately high(4)  | low  | Low spp diversity and/or predomi                                   | nance of nonnative or                 |
|             |            | Moderate (3)  |  | disturbance tolerant native spec                                   |                                       |
|             |            | Moderately low (2)  | mod  | Native spp are dominant compon                                     | ent of the vegetation,                |
|             |            | ✓ Low (1)   |  | although nonnative and/or distu                                    | rbance tolerant native spp            |
|             |            | None (0)  |  | can also be present, and specie                                    | es diversity moderate to              |
|             |            | 6c. Coverage of invasive plants. Re   |  | moderately high, but generally                                     | w/o presence of rare                  |
|             |            | to Table 1 ORAM long form for list.   |  | threatened or endangered spp                                       |                                       |
|             |            | or deduct points for coverage   | high   | A predominance of native species                                   |                                       |
|             |            | Extensive >75% cover (-5  | '  | and/or disturbance tolerant nati absent, and high spp diversity a  |                                       |
|             |            | Moderate 25-75% cover (-1)  | 3)   | the presence of rare, threatene                                    |                                       |
|             |            | Nearly absent <5% cover   | (0)  | the presence of fare, threatener                                   | a, or cridarigered app                |
|             |            | Absent (1)  |  | d Open Water Class Quality   |                                       |
|             |            | 6d. Microtopography.  | 0  | Absent <0.1ha (0.247 acres)  |                                       |
|             |            | Score all present using 0 to 3 scale.   | 1  | Low 0.1 to <1ha (0.247 to 2.47 ac                                  | cres)                                 |
|             |            | Vegetated hummucks/tuss   | sucks 2  | Moderate 1 to <4ha (2.47 to 9.88                                   | 3 acres)                              |
|             |            | Coarse woody debris >15   | cm (6in) 3   | High 4ha (9.88 acres) or more                                      |                                       |
|             |            | Standing dead >25cm (10   |  |  |                                       |
|             |            | 0 Amphibian breeding pools  |  | raphy Cover Scale  |                                       |
|             |            |   | 0  | Absent   |                                       |
|             |            |   | 1  | Present very small amounts or if of marginal quality               | more common                           |
|             |            |   | 2  | Present in moderate amounts, bu                                    | t not of highest                      |
|             |            |   | 2  | quality or in small amounts of h                                   |                                       |
|             |            |   | 3  | Present in moderate or greater ar                                  |                                       |
| _           |            | 4   | -  | and of highest quality   |                                       |
| 12          | Cat        | egory 1   |  | . ,  |                                       |

End of Quantitative Rating. Complete Categorization Worksheets.

## **ORAM Summary Worksheet**

|                        |  | circle<br>answer or<br>insert<br>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<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9b. Lake Erie Wetlands -<br>Restricted                        | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands –<br>Unrestricted with native plants   | YES NO                                 | If yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>Unrestricted with invasive plants | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 10. Oak Openings  | YES NO                                 | If yes, Category 3   |
|                        | Question 11. Relict Wet Prairies                                       | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
| Quantitative<br>Rating | Metric 1. Size   | 2                                      | 2  |
| J                      | Metric 2. Buffers and surrounding land use                             | 1                                      | 3  |
|                        | Metric 3. Hydrology  | 5                                      | 8  |
|                        | Metric 4. Habitat  | 3                                      | 11   |
|                        | Metric 5. Special Wetland Communities                                  | 0                                      | 0  |
|                        | Metric 6. Plant communities, interspersion, microtopography            | 1                                      | 1  |
|                        | TOTAL SCORE  | 12                                     | Category based on score breakpoints Category 1             |

**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 overcategorized by the ORAM  |
| Did you answer "Yes" to any<br>of the following questions:<br>Narrative Rating Nos. 1, 8b,<br>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 <i>greater</i> than the Category 2 scoring threshold <i>(including</i> 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<br>fall within the scoring range<br>of a Category 1, 2, or 3<br>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<br>fall with the "gray zone" for<br>Category 1 or 2 or Category<br>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 | Wetland is<br>assigned to<br>category as<br>determined<br>by the<br>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, loca 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.** 

|             | Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization   |  |  |
|-------------|---|--|--|
| Version 5.0 | Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet | Ohio EPA, Division of Surface Water<br>Final: February 1, 2001 |  |

#### **Instructions**

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

| Name:<br>Innovation East  |                      |
|---|----------------------|
| Date: 8-13-21   |                      |
| Affiliation:  |                      |
| EMH&T   |                      |
| Address: 5500 New Albany Road   |                      |
| Phone Number:   |                      |
| 614-775-4517<br>e-mail address:   |                      |
| blombard@emht.com   |                      |
| Name of Wetland: Wetland B  |                      |
| Vegetation Communit(ies): emergent/forested   |                      |
| HGM Class(es):  |                      |
| depressional/pond fringe  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. |                      |
| exhibit 6   |                      |
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|   |                      |
| Lat/Long or UTM Coordinate  | 40.092615/-82.717754 |
| USGS Quad Name  | Jersey               |
| County  | Licking              |
| Township  | Jersey               |
| Section and Subsection  | T2N R15W             |
| Hydrologic Unit Code  | 050600011503         |
| Site Visit  | 8-11-21              |
| National Wetland Inventory Map  | N/A                  |
| Ohio Wetland Inventory Map  | N/A                  |
| Soil Survey   | Pe                   |
| Delineation report/map  | exhibit 6            |

| Name of Wetland: Wetland B   |             |
|--|-------------|
| Wetland Size (acres, hectares):  | 0.43        |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zone | s, etc.     |
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| Comments, Narrative Discussion, Justification of Category Changes:                   |             |
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|  |             |
| Final score : o /  | Category    |
| Final score : 24   | Category: 1 |

### **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.   | ×     |                |
| 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. | х     |                |
| 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.   | х     |                |
| 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.   |       | х              |
| 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.   |       | х              |

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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.

|    | Γ  | T =   | T .                     |
|----|--|---|-------------------------|
| #  | 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 | 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                           | 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                              | 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                            | 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<br>Go to Question 6  |
| 6  | <b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> 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<br>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                           | 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<br>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             | YES                             | NO                |
|-----|--|---------------------------------|-------------------|
|     | deciduous trees with large diameters at breast height (dbh), generally   | Wetland should be               | Go to Question 9a |
|     | diameters greater than 45cm (17.7in) dbh?  | evaluated for possible          |                   |
|     |  | Category 3 status.              |                   |
|     |  | Go to Question 9a               |                   |
| 9a  | Lake Erie coastal and tributary wetlands. Is the wetland located at  | YES                             | NO                |
|     | 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? | Go to Question 9b               | Go to Question 10 |
| 9b  | Does the wetland's hydrology result from measures designed to  | YES                             | NO                |
| 0.0 | prevent erosion and the loss of aquatic plants, i.e. the wetland is  | 120                             | 110               |
|     | partially hydrologically restricted from Lake Erie due to lakeward or  | Wetland should be               | Go to Question 9c |
|     | landward dikes or other hydrological controls?   | evaluated for possible          |                   |
|     |  | Category 3 status               |                   |
|     |  | Go to Question 10               |                   |
| 9с  | Are Lake Erie water levels the wetland's primary hydrological influence,   | YES                             | NO                |
|     | i.e. the wetland is hydrologically unrestricted (no lakeward or upland   | On the Ownerthern Orl           | 0 - 4 - 0 40      |
|     | border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These         | Go to Question 9d               | Go to Question 10 |
|     | include sandbar deposition wetlands, estuarine wetlands, river mouth   |                                 |                   |
|     | wetlands, or those dominated by submersed aquatic vegetation.  |                                 |                   |
| 9d  | Does the wetland have a predominance of native species within its  | YES                             | NO                |
|     | vegetation communities, although non-native or disturbance tolerant  | Matter dia a Oatanan            | 0 - 4 - 0 4 0 -   |
|     | native species can also be present?  | Wetland is a Category 3 wetland | Go to Question 9e |
|     |  | 5 Wetland                       |                   |
|     |  | Go to Question 10               |                   |
| 9е  | Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?         | YES                             | NO                |
|     | tolerant native plant species within its vegetation communities:   | Wetland should be               | Go to Question 10 |
|     |  | evaluated for possible          |                   |
|     |  | Category 3 status               |                   |
|     |  | Go to Question 10               |                   |
| 10  | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in  | YES                             | NO                |
|     | Lucas, Fulton, Henry, or Wood Counties and can the wetland be  |                                 |                   |
|     | characterized by the following description: the wetland has a sandy  | Wetland is a Category           | Go to Question 11 |
|     | substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the    | 3 wetland.                      |                   |
|     | gramineous vegetation listed in Table 1 (woody species may also be   | Go to Question 11               |                   |
|     | present). The Ohio Department of Natural Resources Division of   | Oo to Question in               |                   |
|     | Natural Areas and Preserves can provide assistance in confirming this  |                                 |                   |
|     | type of wetland and its quality.   | 1                               |                   |
| 11  | Relict Wet Prairies. Is the wetland a relict wet prairie community   | YES                             | NO                |
|     | dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union        | Wetland should be               | Complete          |
|     | Counties), Sandusky Plains (Wyandot, Crawford, and Marion  | evaluated for possible          | Quantitative      |
|     | Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),  | Category 3 status               | Rating            |
|     | and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,  |                                 |                   |
|     | Montgomery, Van Wert etc.).  | 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    |
| 0                     | 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                 |                          | 3                         |
|                       | Solidago ohioensis             | 33                              |                          |                           |
|                       | Tofieldia glutinosa            |                                 |                          |                           |
|                       | Triglochin maritimum           |                                 |                          |                           |
|                       | Triglochin palustre            |                                 |                          |                           |

End of Narrative Rating. Begin Quantitative Rating on next page.

| Site: Innovation E   | ast Wetland B Rater(s): BL   | <b>Date:</b> 8-11-21   |
|----------------------|--|--|
| 2 2                  | Metric 1. Wetland Area (size).   |  |
| 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)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04ha) (0 pts)  |  |
| 1 3                  | Metric 2. Upland buffers and surrounding land  | use.   |
| max 14 pts. subtotal | 2a. Calculate average buffer width. Select only one and assign score. Do not double chember 250 MIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perime NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (0) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) buffers ity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)  | eter (4)<br>neter (1)<br>7)  |
| 11 14                | Metric 3. Hydrology.   |  |
| max 30 pts. subtotal | Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3d. Duration inundates (3)  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) <ul> <li>&lt;0.4m (&lt;15.7in) (1)</li> <li>Seasona</li> <li>Modifications to natural hydrologic regime. Score one or double check and average.</li> <li>None or none apparent (12)</li> <li>Check all disturbances observed</li> </ul>   | r floodplain (1) a stream/lake and other human use (1) vetland/upland (e.g. forest), complex (1) parian or upland corridor (1) ation/saturation. Score one or dbl check permanently inundated/saturated (4) y inundated/saturated (3) ally inundated (2) ally saturated in upper 30cm (12in) (1) |
|                      | Recovering (3)  Recent or no recovery (1)  weir stormwater input  filling/gra road bed dredging other  | I/RR track   |
| 7 21                 | Metric 4. Habitat Alteration and Development.  |  |
| max 20 pts. subtotal | 4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  |  |
|                      | 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Check all disturbances observed  |  |
| 21 subtotal this pa  | Recovered (6) Recovering (3) Recent or no recovery (1) Recovered (6) Recovered (6) Recovered (6) Recovered (6) Recovered (6) Recovering (3) Recent or no recovery (1) Recent o |  |

| Site: Innovation East Wetland B   | Rater(s): BL  | <b>Date:</b> 8-11-21   |
|---|---|--|
| Oite: Illinovation East Welland B   | itater(3). De   | Date: 0-11-21  |
| 21 subtotal first page  Metric 5. Special   | Wetlands  |  |
| 0  21      Weth   3. Special  | Wettando.   |  |
| max 10 pts. subtotal Check all that apply and score as Bog (10) Fen (10) Old growth forest (10) Mature forested wetlar Lake Erie coastal/tribu Lake Plain Sand Prairi Relict Wet Prairies (10) Known occurrence states Significant migratory so Category 1 Wetland. Significant migratory so Category 1 Wetland. Significant migratory so Category 1 Wetland. | nd (5)<br>tary wetland-unrestricted hydrol<br>tary wetland-restricted hydrol<br>es (Oak Openings) (10)<br>)<br>te/federal threatened or enda<br>ongbird/water fowl habitat or<br>See Question 1 Qualitative R | logy (5) ungered species (10) usage (10) ating (-10)   |
| 3 24 Metric 6. Plant co   | ommunities, int   | erspersion, microtopography.   |
| max 20 pts. subtotal 6a. Wetland Vegetation Commu   |   | Community Cover Scale  |
| Score all present using 0 to 3 sca  |   | Absent or comprises <0.1ha (0.2471 acres) contiguous area  |
| O Aquatic bed   | 1   | Present and either comprises small part of wetland's   |
| 1 Emergent  |   | vegetation and is of moderate quality, or comprises a  |
| 0 Shrub<br>1 Forest   | 2   | significant part but is of low quality  Present and either comprises significant part of wetland's |
| 0 Mudflats  | 2   | vegetation and is of moderate quality or comprises a small   |
| 0 Open water  |   | part and is of high quality  |
| Other   | 3   | Present and comprises significant part, or more, of wetland's                                      |
| 6b. horizontal (plan view) Intersp  | persion.  | vegetation and is of high quality  |
| Sele <u>ct on</u> ly one.   |   |  |
| High (5)  |   | escription of Vegetation Quality   |
| Moderately high(4)  | low   | Low spp diversity and/or predominance of nonnative or  |
| Moderate (3)  Moderately low (2)  | mod   | disturbance tolerant native species  Native spp are dominant component of the vegetation,          |
| Low (1)   | mou   | although nonnative and/or disturbance tolerant native spp  |
| None (0)  |   | can also be present, and species diversity moderate to   |
| 6c. Coverage of invasive plants.  | Refer   | moderately high, but generally w/o presence of rare  |
| to Table 1 ORAM long form for li  | st. Add   | threatened or endangered spp   |
| or deduct points for coverage   | high  | A predominance of native species, with nonnative spp   |
| Extensive >75% cover  | , ,   | and/or disturbance tolerant native spp absent or virtually   |
| Moderate 25-75% cove  |   | absent, and high spp diversity and often, but not always,  |
| Sparse 5-25% cover (-   |   | the presence of rare, threatened, or endangered spp  |
| Nearly absent <5% co  | ` '   | Open Water Class Quality   |
| 6d. Microtopography.  | 0   | Absent <0.1ha (0.247 acres)  |
| Score all present using 0 to 3 sca  |   | Low 0.1 to <1ha (0.247 to 2.47 acres)  |
| Vegetated hummucks/   |   | Moderate 1 to <4ha (2.47 to 9.88 acres)  |
| O Coarse woody debris   |   | High 4ha (9.88 acres) or more  |
| 0 Standing dead >25cm   | (10in) dbh  |  |
| 0 Amphibian breeding po   | ools <u>Microtopog</u>  | raphy 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                                      |
| 24 Category 1   |   |  |

End of Quantitative Rating. Complete Categorization Worksheets.

## **ORAM Summary Worksheet**

|                        |  | circle<br>answer or<br>insert<br>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<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9b. Lake Erie Wetlands -<br>Restricted                        | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands –<br>Unrestricted with native plants   | YES NO                                 | If yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>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<br>Rating | Metric 1. Size   | 2                                      | 2  |
| J                      | Metric 2. Buffers and surrounding land use                             | 1                                      | 3  |
|                        | Metric 3. Hydrology  | 11                                     | 14   |
|                        | Metric 4. Habitat  | 7                                      | 21   |
|                        | Metric 5. Special Wetland Communities                                  | 0                                      | 21   |
|                        | Metric 6. Plant communities, interspersion, microtopography            | 3                                      | 24   |
|                        | TOTAL SCORE  | 24                                     | Category based on score breakpoints Category 1             |

**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 <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> 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 overcategorized by the ORAM  |
| Did you answer "Yes" to any<br>of the following questions:<br>Narrative Rating Nos. 1, 8b,<br>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 <i>greater</i> 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<br>fall within the scoring range<br>of a Category 1, 2, or 3<br>wetland?   | 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 | 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.** 

|             | Ohio Rapid Assessment Method<br>10 Page Form for Wetland Cate   |  |
|-------------|---|--|
| Version 5.0 | Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet | Ohio EPA, Division of Surface Water<br>Final: February 1, 2001 |

#### **Instructions**

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

| Name:<br>Bryan Lombard  |                       |
|---|-----------------------|
| Date: 08/11/2021  |                       |
| Affiliation: EMH&T  |                       |
| Address:<br>5500 New Albany Road  |                       |
| Phone Number: 614-775-4517  |                       |
| e-mail address:<br>BLombard@emht.com  |                       |
| Name of Wetland: Innovation East Wetland C  |                       |
| Vegetation Communit(ies): Emergent  |                       |
| HGM Class(es): Depressional   |                       |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, et Exhibit 6 | c.                    |
|   |                       |
|   |                       |
| Lat/Long or UTM Coordinate  | 40.092119, -82.720100 |
| USGS Quad Name  | Jersey                |
| County  | Licking               |
| Township  | Jersey                |
| Section and Subsection  | T2N R15W              |
| Hydrologic Unit Code  | 050600011503          |
| Site Visit  | 8.11.21               |
| National Wetland Inventory Map  | N/A                   |
| Ohio Wetland Inventory Map  | N/A                   |
| Soil Survey   | Pe                    |
| Delineation report/map  | Exhibit 6             |

| Wetland C  |            |      |
|--|------------|------|
| Wetland Size (acres, hectares):  |            | 0.07 |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zone | es, etc.   |      |
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| Comments, Narrative Discussion, Justification of Category Changes:                   |            |      |
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| Final score: 12  | Category:  |      |
| 1 11101 00010 1 12   | Julogoi y. |      |

### **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.   |       |                |
| 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. |       |                |
| 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.   |       |                |
| Step 4 | 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.   |       | х              |
| Step 5 | Step 5 In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.  |       | х              |
| 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.   |       | х              |

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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.

|    | Γ  | T =   | T .                     |
|----|--|---|-------------------------|
| #  | 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 | 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                           | 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                              | 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                            | 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<br>Go to Question 6  |
| 6  | <b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> 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<br>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                           | 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<br>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           | YES                             | NO                |
|----|--|---------------------------------|-------------------|
|    | deciduous trees with large diameters at breast height (dbh), generally   | Wetland should be               | Go to Question 9a |
|    | diameters greater than 45cm (17.7in) dbh?  | evaluated for possible          |                   |
|    |  | Category 3 status.              |                   |
|    |  | Go to Question 9a               |                   |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at  | YES                             | NO                |
|    | an elevation less than 575 feet on the USGS map, adjacent to this  |                                 |                   |
| 9b | elevation, or along a tributary to Lake Erie that is accessible to fish?   | Go to Question 9b YES           | Go to Question 10 |
| ab | Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is        | TES                             | NO                |
|    | partially hydrologically restricted from Lake Erie due to lakeward or  | Wetland should be               | Go to Question 9c |
|    | landward dikes or other hydrological controls?   | evaluated for possible          |                   |
|    |  | Category 3 status               |                   |
|    |  | Go to Question 10               |                   |
| 9с | Are Lake Erie water levels the wetland's primary hydrological influence,   | YES                             | NO                |
|    | i.e. the wetland is hydrologically unrestricted (no lakeward or upland   |                                 |                   |
|    | border alterations), or the wetland can be characterized as an   | Go to Question 9d               | Go to Question 10 |
|    | "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.  |                                 |                   |
| 9d | Does the wetland have a predominance of native species within its  | YES                             | NO                |
|    | vegetation communities, although non-native or disturbance tolerant  |                                 |                   |
|    | native species can also be present?  | Wetland is a Category 3 wetland | Go to Question 9e |
|    |  | 3 Welland                       |                   |
| ī  |  | Go to Question 10               |                   |
| 9е | Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?       | YES                             | NO                |
|    | tolerant native plant species within its vegetation communities:   | Wetland should be               | Go to Question 10 |
|    |  | evaluated for possible          |                   |
|    |  | Category 3 status               |                   |
|    |  | Go to Question 10               |                   |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in  | YES                             | NO                |
|    | Lucas, Fulton, Henry, or Wood Counties and can the wetland be  |                                 | 110               |
|    | characterized by the following description: the wetland has a sandy  | Wetland is a Category           | Go to Question 11 |
|    | substrate with interspersed organic matter, a water table often within   | 3 wetland.                      |                   |
|    | several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be      | Go to Question 11               |                   |
|    | present). The Ohio Department of Natural Resources Division of   | Go to Question 11               |                   |
|    | Natural Areas and Preserves can provide assistance in confirming this  |                                 |                   |
|    | type of wetland and its quality.   |                                 |                   |
| 11 | Relict Wet Prairies. Is the wetland a relict wet prairie community   | YES                             | NO                |
|    | dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union      | Wetland should be               | Complete          |
|    | Counties), Sandusky Plains (Wyandot, Crawford, and Marion  | evaluated for possible          | Quantitative      |
|    | Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),  | Category 3 status               | Rating            |
|    | and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,  |                                 |                   |
|    | Montgomery, Van Wert etc.).  | 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    |
| 0                     | 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                 |                          | 3                         |
|                       | Solidago ohioensis             | 33                              |                          |                           |
|                       | Tofieldia glutinosa            |                                 |                          |                           |
|                       | Triglochin maritimum           |                                 |                          |                           |
|                       | Triglochin palustre            |                                 |                          |                           |

End of Narrative Rating. Begin Quantitative Rating on next page.

| Site: Innovation East Wetland C |                             |  | Rater(s):Bryan Lombard  |  | <b>Date:</b> 08/11/2021   |
|---------------------------------|-----------------------------|--|---|--|---|
| 0                               | 0                           | Metric 1. Wetland A  | rea (size).   |  |   |
| max 6 pts.                      | subtotal                    | Select one size class and assign scolors (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts)  | )<br>20.2ha) (5 pts)<br>ha) (4 pts)<br>ı) (3 pts)<br>.2ha) (2pts)<br>:0.12ha) (1 pt)  |  |   |
| 1                               | 1                           | Metric 2. Upland bu  |   | ing land use.  |   |
| max 14 pts.                     | subtotal                    | MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Res  | m (164ft) or more around wetland p<br>25m to <50m (82 to <164ft) around<br>e 10m to <25m (32ft to <82ft) around<br>average <10m (<32ft) around wetlan | erimeter (7) I wetland perimeter (4) Ind wetland perimeter (1) Ind perimeter (0) Ind perimeter (0) Ind perimeter (7) Ind perimeter (7) Ind perimeter (5) Ind perimeter (5) Ind perimeter (7) Ind | ow field. (3)   |
| 5                               | 6                           | Metric 3. Hydrology  | <b>/.</b>   |  |   |
| max 30 pts.                     | subtotal                    | 3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)    3e. Modifications to natural hydrolog   None or none apparent (12   Recovered (7)   Recovering (3)   Recent or no recovery (1) | ke or stream) (5) 3d. nly one and assign score.  (2)  Check all disturbances observed ditch tile dike weir stormwater input                           | Part of wetland/u Part of riparian or Duration inundation/sate Semi- to permane Regularly inunda Seasonally inunda Seasonally satura sek and average.  point source (non filling/grading road bed/RR trace dredging other  | nin (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3) ated (2) ated in upper 30cm (12in) (1) |
| 3                               | 9                           | Metric 4. Habitat Al   | teration and Develo   | opment.  |   |
| max 20 pts.                     | subtotal                    | 4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select onless Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or   | y one and assign score.   |  |   |
|                                 | 9                           | None or none apparent (9) Recovered (6) Recovering (3)  Recent or no recovery (1)  |   | shrub/sapling ren herbaceous/aqua sedimentation dredging raming nutrient enrichme  | ttic bed removal  |
| sub<br>last revised 1           | itotal this pa<br>1 Februai |  |   |  |   |

| Site: Innovation East Wetland C |                      | Rater(s): Bryan Lombard  |  | <b>Date:</b> 08/11/2021   |                        |
|---------------------------------|----------------------|--|--|---|------------------------|
| SL                              | 9<br>btotal first pa | ge   |  |   |                        |
| 0                               | 9                    | Metric 5. Special W  | Vetlands.  |   |                        |
| max 10 pts.                     | subtotal             | Check all that apply and score as inc Bog (10) Fen (10) Old growth forest (10) Mature forested wetland ( Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Relict Wet Prairies (10) Known occurrence state/focusing Significant migratory song Category 1 Wetland. See | 5) v wetland-unrestricted hydro v wetland-restricted hydro (Oak Openings) (10) ederal threatened or enda bird/water fowl habitat or Question 1 Qualitative R | angered species (10) usage (10) ating (-10)   |                        |
| 3                               | 12                   | Metric 6. Plant con  | nmunities, int   | erspersion, microto   | pography.              |
| max 20 pts.                     | subtotal             | 】<br>6a.  Wetland Vegetation Communition   | es. Vegetation   | Community Cover Scale   |                        |
|                                 |                      | Score all present using 0 to 3 scale.  |  | Absent or comprises <0.1ha (0.24  |                        |
|                                 |                      | 0 Aquatic bed 1 Emergent 0 Shrub   | 1  | Present and either comprises sma<br>vegetation and is of moderate q<br>significant part but is of low qua | uality, or comprises a |
|                                 |                      | 0 Forest   | 2  | Present and either comprises sign   |                        |
|                                 |                      | 0 Mudflats   | _  | vegetation and is of moderate q   |                        |
|                                 |                      | 0 Open water   |  | part and is of high quality   |                        |
|                                 |                      | 0 Other 6b. horizontal (plan view) Interspers  | 3  | Present and comprises significant vegetation and is of high quality                                       |                        |
|                                 |                      | Select only one.   |  | vegetation and is of high quality   |                        |
|                                 |                      | High (5)   | Narrative D  | escription of Vegetation Quality  |                        |
|                                 |                      | Moderately high(4)   | low  | Low spp diversity and/or predomi  |                        |
|                                 |                      | Moderate (3) Moderately low (2)  | mod  | disturbance tolerant native special Native spp are dominant components                                    |                        |
|                                 |                      | Low (1)  | mou  | although nonnative and/or distu   | _                      |
|                                 |                      | None (0)   |  | can also be present, and specie   |                        |
|                                 |                      | 6c. Coverage of invasive plants. Re  |  | moderately high, but generally v  | v/o presence of rare   |
|                                 |                      | to Table 1 ORAM long form for list.  |  | threatened or endangered spp  | 20                     |
|                                 |                      | or deduct points for coverage  Extensive >75% cover (-5  | high<br>\  | A predominance of native species and/or disturbance tolerant nativ  |                        |
|                                 |                      | Moderate 25-75% cover (-   |  | absent, and high spp diversity a  |                        |
|                                 |                      | Sparse 5-25% cover (-1)  |  | the presence of rare, threatened  |                        |
|                                 |                      | Nearly absent <5% cover  | · ·  |   |                        |
|                                 |                      | Absent (1) 6d. Microtopography.  | Mudflat and  | Open Water Class Quality Absent <0.1ha (0.247 acres)  |                        |
|                                 |                      | Score all present using 0 to 3 scale.  |  | Low 0.1 to <1ha (0.247 to 2.47 ac   | cres)                  |
|                                 |                      | Vegetated hummucks/tus   |  | Moderate 1 to <4ha (2.47 to 9.88  |                        |
|                                 |                      | O Coarse woody debris >15  |  | High 4ha (9.88 acres) or more   |                        |
|                                 |                      | O Standing dead >25cm (10  | •  | nanku Carra Caala   |                        |
|                                 |                      | Amphibian breeding pools   | s <u>Microtopog</u><br>0   | raphy Cover Scale Absent  |                        |
|                                 |                      |  | 1  | Present very small amounts or if r  | more common            |
|                                 |                      |  | •  | of marginal quality   |                        |
|                                 |                      |  | 2  | Present in moderate amounts, bu quality or in small amounts of hi   |                        |
|                                 | ī                    |  | 3  | Present in moderate or greater ar   | nounts                 |
| 10                              | Cat                  | egory 1  |  | and of highest quality  |                        |
| 12                              |                      | · ·  |  |   |                        |

End of Quantitative Rating. Complete Categorization Worksheets.

## **ORAM Summary Worksheet**

|                        |  | circle<br>answer or<br>insert<br>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<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9b. Lake Erie Wetlands -<br>Restricted                        | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands – Unrestricted with native plants      | YES NO                                 | If yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>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<br>Category 3; may also be<br>1 or 2. |
| Quantitative<br>Rating | Metric 1. Size   | 0                                      | 0  |
| _                      | Metric 2. Buffers and surrounding land use                             | 1                                      | 1  |
|                        | Metric 3. Hydrology  | 5                                      | 6  |
|                        | Metric 4. Habitat  | 3                                      | 9  |
|                        | Metric 5. Special Wetland Communities                                  | 0                                      | 9  |
|                        | Metric 6. Plant communities, interspersion, microtopography            | 3                                      | 12   |
|                        | TOTAL SCORE  | 12                                     | Category based on score breakpoints Category 1             |

**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 overcategorized by the ORAM   |
| Did you answer "Yes" to any<br>of the following questions:<br>Narrative Rating Nos. 1, 8b,<br>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 <i>greater</i> 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<br>fall within the scoring range<br>of a Category 1, 2, or 3<br>wetland?   | 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 | 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.** 

|             | Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization   |  |  |  |  |
|-------------|---|--|--|--|--|
| Version 5.0 | Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet | Ohio EPA, Division of Surface Water<br>Final: February 1, 2001 |  |  |  |

#### **Instructions**

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

| Name:<br>Innovation East   |                      |
|--|----------------------|
| Date: 8-13-21  |                      |
| Affiliation: EMH&T   |                      |
| Address:   |                      |
| 5500 New Albany Road Columbus OH 43054  Phone Number:  |                      |
| 614-775-4517   |                      |
| e-mail address:<br>blombard@emht.com   |                      |
| Name of Wetland: Wetland D   |                      |
| Vegetation Communit(ies): emergent   |                      |
| HGM Class(es):   |                      |
| depressional  Location of Wetland: include map, address, north arrow, landmarks, distances, ro | ande etc             |
| Exhibit 6  | aus, etc.            |
| Exhibit 6  |                      |
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|  |                      |
| Lat/Long or UTM Coordinate   | 40.093369/-82.721694 |
| USGS Quad Name   | Jersey               |
| County   | Licking              |
| Township   | Jersey               |
| Section and Subsection   | T2N R15W             |
| Hydrologic Unit Code   | 050600011503         |
| Site Visit   | 8-11-21              |
| National Wetland Inventory Map   | N/A                  |
| Ohio Wetland Inventory Map   | N/A                  |
| Soil Survey  | ВеВ                  |
| Delineation report/map   | Exhibit 6            |

| Name of Wetland: Wetland D  |          |      |
|---|----------|------|
| Wetland Size (acres, hectares):   | -        | 0.05 |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zones, et | c.       | 1    |
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| Comments, Narrative Discussion, Justification of Category Changes:                        |          |      |
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| Final score: 15   | tegory:  | 4    |
| 1 mai 30016 . 15  | tegui y. | I    |

### **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.   | ×     |                |
| 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. | х     |                |
| 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.   | х     |                |
| 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.   |       | х              |
| 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.   |       | х              |

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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.

|    | Γ  | T =   | T .                     |
|----|--|---|-------------------------|
| #  | 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 | 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                           | 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                              | 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                            | 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<br>Go to Question 6  |
| 6  | <b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> 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<br>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                           | 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<br>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             | YES                                   | NO                |
|----|--|---------------------------------------|-------------------|
|    | deciduous trees with large diameters at breast height (dbh), generally   | Wetland should be                     | Go to Question 9a |
|    | diameters greater than 45cm (17.7in) dbh?  | evaluated for possible                |                   |
|    |  | Category 3 status.                    |                   |
|    |  | Go to Question 9a                     |                   |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at  | YES                                   | NO                |
|    | 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? | Go to Question 9b                     | Go to Question 10 |
| 9b | Does the wetland's hydrology result from measures designed to  | YES                                   | NO                |
| •  | prevent erosion and the loss of aquatic plants, i.e. the wetland is  | 120                                   | 110               |
|    | partially hydrologically restricted from Lake Erie due to lakeward or  | Wetland should be                     | Go to Question 9c |
|    | landward dikes or other hydrological controls?   | evaluated for possible                |                   |
|    |  | Category 3 status                     |                   |
|    |  | Go to Question 10                     |                   |
| 9с | Are Lake Erie water levels the wetland's primary hydrological influence,   | YES                                   | NO                |
|    | i.e. the wetland is hydrologically unrestricted (no lakeward or upland   | Go to Question 9d                     | Go to Question 10 |
|    | border alterations), or the wetland can be characterized as an<br>"estuarine" wetland with lake and river influenced hydrology. These      | Go to Question 90                     | Go to Question 10 |
|    | include sandbar deposition wetlands, estuarine wetlands, river mouth   |                                       |                   |
|    | wetlands, or those dominated by submersed aquatic vegetation.  |                                       |                   |
| 9d | Does the wetland have a predominance of native species within its  | YES                                   | NO                |
|    | vegetation communities, although non-native or disturbance tolerant native species can also be present?                                    | Matland is a Catagoni                 | Go to Question 9e |
|    | Tradive species carraiso be present?   | Wetland is a Category 3 wetland       | Go to Question se |
|    |  | o motiona                             |                   |
|    |  | Go to Question 10                     |                   |
| 9е | Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?         | YES                                   | NO                |
|    | tolorant nauvo piant oposios within he vogotation communitios.   | Wetland should be                     | Go to Question 10 |
|    |  | evaluated for possible                |                   |
|    |  | Category 3 status                     |                   |
|    |  | Go to Question 10                     |                   |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in  | YES                                   | NO                |
|    | 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 | Wetland is a Category 3 wetland.      | Go to Question 11 |
|    | several inches of the surface, and often with a dominance of the   | J Welland.                            |                   |
|    | gramineous vegetation listed in Table 1 (woody species may also be   | Go to Question 11                     |                   |
|    | present). The Ohio Department of Natural Resources Division of   |                                       |                   |
|    | Natural Areas and Preserves can provide assistance in confirming this  |                                       |                   |
| 11 | type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community                                       | YES                                   | NO                |
| •• | dominated by some or all of the species in Table 1. Extensive prairies   |                                       | 110               |
|    | were formerly located in the Darby Plains (Madison and Union   | Wetland should be                     | Complete          |
|    | Counties), Sandusky Plains (Wyandot, Crawford, and Marion  | evaluated for possible                | Quantitative      |
|    | Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),  | Category 3 status                     | Rating            |
|    | and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).  | 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    |
| 0                     | 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                 |                          | 3                         |
|                       | Solidago ohioensis             | 33                              |                          |                           |
|                       | Tofieldia glutinosa            |                                 |                          |                           |
|                       | Triglochin maritimum           |                                 |                          |                           |
|                       | Triglochin palustre            |                                 |                          |                           |

End of Narrative Rating. Begin Quantitative Rating on next page.

| Site: Inr          | ovation E                        | ast Wetland D   | Rater(s): BDL   |   | Date: 8-11-21   |
|--------------------|----------------------------------|---|---|---|---|
| 0                  | 0                                | Metric 1. Wetland A   | rea (size).   |   |   |
| max 6 pts.         | subtotal                         | Select one size class and assign scor<br>>50 acres (>20.2ha) (6 pts)<br>25 to <50 acres (10.1 to <20<br>10 to <25 acres (4 to <10.11<br>3 to <10 acres (1.2 to <4ha)<br>0.3 to <3 acres (0.12 to <1.2<br>0.1 to <0.3 acres (0.04 to <   | 0.2ha) (5 pts)<br>na) (4 pts)<br>i (3 pts)<br>2ha) (2pts)   |   |   |
| 1                  | 1                                | Metric 2. Upland bu   | ffers and surround  | ing land use.   |   |
| max 14 pts.        | subtotal                         | MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a 2b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years) MODERATELY HIGH. Res   | n (164ft) or more around wetland pe<br>25m to <50m (82 to <164ft) around<br>10m to <25m (32ft to <82ft) aroun<br>1verage <10m (<32ft) around wetlan | erimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. llife area, etc. (7) forest. (5) ervation tillage, new fallo | ow field. (3)   |
| 5                  | 6                                | Metric 3. Hydrology   | •   |   |   |
| max 30 pts.        | subtotal                         | 3a. Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lak 3c. Maximum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) V <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic None or none apparent (12) Recovered (7) Recovering (3) V Recent or no recovery (1) | ce water (3) te or stream) (5) 3d. ly one and assign score. (2) cregime. Score one or double chec   | Part of wetland/u Part of riparian of Duration inundation/sat Semi- to permand Regularly inunda V Seasonally inunda Seasonally satura           | ain (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) ted/saturated (3) lated (2) ated in upper 30cm (12in) (1) |
| 5                  | 11                               | Metric 4. Habitat Alt   | teration and Develo   | pment.  |   |
| max 20 pts.        | subtotal                         | 4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  | one and assign score.   |   |   |
|                    | 11                               | 4c. Habitat alteration. Score one or d  None or none apparent (9)  Recovered (6)  Recovering (3)  Recent or no recovery (1)   | cuble check and average.  Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants       | shrub/sapling rer herbaceous/aqua sedimentation dredging raming nutrient enrichme   | atic bed removal  |
| sı<br>last revised | L<br>ibtotal this pa<br>1 Februa | •   | LOVIC POllutarits   | nathent enhounte  | ZII.  |
|                    | 55144                            | y = - ₹ · m···  |   |   |   |

| Site: Inn   | novation F            | ast Wetland D   | Rater(s): BDL  |  | <b>Date:</b> 8-11-21        |
|-------------|-----------------------|---|--|--|-----------------------------|
| Olto I III  | iovalion E            | act Welland B   | 114101 (0)1 552  |  | Dators II 21                |
| su          | 11<br>btotal first pa | 1   |  |  |                             |
| 0           | 11                    | Metric 5. Special W   | /etlands.  |  |                             |
| max 10 pts. | subtotal              | Check all that apply and score as inc Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (! Lake Erie coastal/tributary Lake Plain Sand Prairies ( Relict Wet Prairies (10) Known occurrence state/fe | 5)<br>wetland-unrestricted hyd<br>wetland-restricted hydrol<br>Oak Openings) (10)<br>ederal threatened or enda<br>bird/water fowl habitat or | ngered species (10) usage (10)                                       |                             |
| 4           | 15                    | Category 1 Wetland. See  Metric 6. Plant con  |  | • · · ·  | pography.                   |
| _           |                       |   |  |  |                             |
| max 20 pts. | subtotal              | 6a. Wetland Vegetation Communitie   |  | Community Cover Scale  |                             |
|             |                       | Score all present using 0 to 3 scale.  Aquatic bed  | <u>0</u> 1   | Absent or comprises <0.1ha (0.24) Present and either comprises small |                             |
|             |                       | 1 Emergent  | 1  | vegetation and is of moderate q                                      | •                           |
|             |                       | 0 Shrub   |  | significant part but is of low qua                                   |                             |
|             |                       | 0 Forest  | 2  | Present and either comprises sign                                    | nificant part of wetland's  |
|             |                       | 0 Mudflats  |  | vegetation and is of moderate q                                      | uality or comprises a small |
|             |                       | Othor   | 3  | part and is of high quality  | t nort or more of wetland's |
|             |                       | Other6b. horizontal (plan view) Interspers  | <del>_</del>   | Present and comprises significant vegetation and is of high quality  |                             |
|             |                       | Select only one.  |  | vogotation and to or riight quality                                  |                             |
|             |                       | High (5)  | Narrative De   | escription of Vegetation Quality                                     |                             |
|             |                       | Moderately high(4) Moderate (3)   | low  | Low spp diversity and/or predomine disturbance tolerant native spec  |                             |
|             |                       | Moderately low (2)  | mod  | Native spp are dominant compone                                      |                             |
|             |                       | Low (1)   |  | although nonnative and/or distu                                      |                             |
|             |                       | None (0)  | _  | can also be present, and specie                                      | •                           |
|             |                       | 6c. Coverage of invasive plants. Reto Table 1 ORAM long form for list.  |  | moderately high, but generally w                                     | v/o presence of rare        |
|             |                       | or deduct points for coverage   | high   | threatened or endangered spp  A predominance of native species       | s, with nonnative spp       |
|             |                       | Extensive >75% cover (-5  |  | and/or disturbance tolerant nativ                                    | ·                           |
|             |                       | Moderate 25-75% cover (-  | 3)   | absent, and high spp diversity a                                     |                             |
|             |                       | Sparse 5-25% cover (-1)   | (0)  | the presence of rare, threatened                                     | d, or endangered spp        |
|             |                       | Nearly absent <5% cover  Absent (1)   | ` '  | Open Water Class Quality   |                             |
|             |                       | 6d. Microtopography.  | 0  | Absent <0.1ha (0.247 acres)  |                             |
|             |                       | Score all present using 0 to 3 scale.   | 1  | Low 0.1 to <1ha (0.247 to 2.47 ac                                    | eres)                       |
|             |                       | Vegetated hummucks/tuss   |  | Moderate 1 to <4ha (2.47 to 9.88                                     | acres)                      |
|             |                       | Coarse woody debris >150  |  | High 4ha (9.88 acres) or more  |                             |
|             |                       | <ul><li>Standing dead &gt;25cm (10</li><li>Amphibian breeding pools</li></ul>   |  | raphy Cover Scale  |                             |
|             |                       |   | 0  | Absent   |                             |
|             |                       |   | 1  | Present very small amounts or if r of marginal quality               | more common                 |
|             |                       |   | 2  | Present in moderate amounts, bu quality or in small amounts of hi    |                             |
|             |                       |   | 3  | Present in moderate or greater ar                                    |                             |
| 4 E         | 0                     | ogon, 1   |  | and of highest quality   |                             |
| 15          | Uai                   | egory 1   |  |  |                             |

End of Quantitative Rating. Complete Categorization Worksheets.

## **ORAM Summary Worksheet**

|                        |  | ans<br>in | ircle<br>wer or<br>isert<br>core | 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<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9b. Lake Erie Wetlands -<br>Restricted                        | YES       | NO                               | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands –<br>Unrestricted with native plants   | YES       | NO                               | If yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>Unrestricted with invasive plants | YES       | NO                               | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 10. Oak Openings  | YES       | NO                               | If yes, Category 3   |
|                        | Question 11. Relict Wet Prairies                                       | YES       | NO                               | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
| Quantitative<br>Rating | Metric 1. Size   |           | 0                                | 1  |
|                        | Metric 2. Buffers and surrounding land use                             |           | 1                                | 1  |
|                        | Metric 3. Hydrology  |           | 5                                | 6  |
|                        | Metric 4. Habitat  |           | 5                                | 11   |
|                        | Metric 5. Special Wetland Communities                                  |           | 0                                | 11   |
|                        | Metric 6. Plant communities, interspersion, microtopography            |           | 4                                | 15   |
|                        | TOTAL SCORE  | 15        |                                  | Category based on score breakpoints Category 1             |

**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 overcategorized by the ORAM   |
| Did you answer "Yes" to any<br>of the following questions:<br>Narrative Rating Nos. 1, 8b,<br>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 <i>greater</i> than the Category 2 scoring threshold <i>(including</i> 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<br>fall within the scoring range<br>of a Category 1, 2, or 3<br>wetland?   | 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 | 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.** 

|             | Ohio Rapid Assessment Method for Wetlands<br>10 Page Form for Wetland Categorization  |  |  |  |  |
|-------------|---|--|--|--|--|
| Version 5.0 | Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet | Ohio EPA, Division of Surface Water<br>Final: February 1, 2001 |  |  |  |

#### **Instructions**

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

| Name:<br>Bryan Lombard  |                         |
|---|-------------------------|
| Date: 08/11/2021  |                         |
| Affiliation: EMH&T  |                         |
| Address:<br>5500 New Albany Road  |                         |
| Phone Number: 614-775-4517  |                         |
| e-mail address:   |                         |
| BLombard@emht.com  Name of Wetland: Innovation East Wetland E                             |                         |
| Vegetation Communit(ies):   |                         |
| Emergent  HGM Class(es):  |                         |
| Depressional  |                         |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. |                         |
| Exhibit 6   |                         |
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|   |                         |
|   |                         |
|   |                         |
| Lat/Long or UTM Coordinate  | 40.092918°, -82.721772° |
| USGS Quad Name  | Jersey                  |
| County  | Licking                 |
| Township  | Jersey                  |
| Section and Subsection  | T2N R15W                |
| Hydrologic Unit Code  | 050600011503            |
| Site Visit  | 8.11.21                 |
| National Wetland Inventory Map  | N/A                     |
| Ohio Wetland Inventory Map  | N/A                     |
| Soil Survey   | BeB                     |
| Delineation report/map  | Exhibit 6               |

| Name of Wetland: Wetland E   |           |      |
|--|-----------|------|
| Wetland Size (acres, hectares):  |           | 0.06 |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zone | es, etc.  |      |
| Exhibit 6  |           |      |
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| Comments, Narrative Discussion, Justification of Category Changes:                   |           |      |
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|  |           |      |
|  |           |      |
| Final score: 13  | Category: | 1    |

### **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.   | Y     |                |
| 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. | Y     |                |
| 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.   | Y     |                |
| 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.  |       | х              |
| Step 5 | In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.   |       | х              |
| 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.   |       | х              |

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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.

| 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).  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?  Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland? | YES  Wetland should be evaluated for possible Category 3 status  Go to Question 2  YES  Wetland is a Category 3 wetland.  Go to Question 3  YES  Wetland is a Category 3 wetland is a Category 3 wetland  | NO Go to Question 2  NO Go to Question 3  NO Go to Question 4   |
|---|---|---|
| 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).  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?  Documented High Quality Wetland. Is the wetland on record in   | evaluated for possible Category 3 status  Go to Question 2  YES  Wetland is a Category 3 wetland.  Go to Question 3  YES  Wetland is a Category 3 wetland is a Category 3 wetland   | NO<br>Go to Question 3  |
| 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).  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?  Documented High Quality Wetland. Is the wetland on record in  | Go to Question 2  YES  Wetland is a Category 3 wetland.  Go to Question 3  YES  Wetland is a Category 3 wetland   | Go to Question 3  |
| had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).  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?  Documented High Quality Wetland. Is the wetland on record in   | YES Wetland is a Category 3 wetland. Go to Question 3 YES Wetland is a Category 3 wetland   | Go to Question 3  |
| an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?  Documented High Quality Wetland. Is the wetland on record in  | Wetland is a Category 3 wetland.  Go to Question 3  YES  Wetland is a Category 3 wetland  | Go to Question 3  |
| threatened or endangered plant or animal species?  Documented High Quality Wetland. Is the wetland on record in   | 3 wetland.  Go to Question 3  YES  Wetland is a Category 3 wetland  | NO  |
|   | YES Wetland is a Category 3 wetland   |   |
|   | Wetland is a Category 3 wetland   |   |
| Natural Heritage Database as a nigh quality wetland?  | 3 wetland   | Go to Question 4  |
|   | 3 wetland   |   |
|   |   | ĺ   |
|   | Go to Question 4  |   |
| Significant Breeding or Concentration Area. Does the wetland  | YES   | NO  |
| contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?  | Wetland is a Category 3 wetland   | Go to Question 5  |
|   | Go to Question 5  |   |
| Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre)   | YES   | NO  |
|   | Wetland is a Category   | Go to Question 6  |
| by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or   | 1 wetland   | Co to Quodion o   |
|   | Co to Ougation 6  |   |
|   | YES   | NO  |
| significant inflows or outflows, 2) supports acidophilic mosses,  |   | 1000  |
| cover, 4) at least one species from Table 1 is present, and 5) the  | Wetland is a Category 3 wetland   | Go to Question 7  |
| cover of invasive operate (and value v) to 20%.   | Go to Question 7  |   |
| Fens. Is the wetland a carbon accumulating (peat, muck) wetland that  | YES   | NO  |
| I 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)  | Wetland is a Category   | Go to Question 8a   |
| and with one or more plant species listed in Table 1 and the cover of   | 3 wetland   |   |
| invasive species listed in Table 1 is <25%?   | Go to Question 8a   |   |
| "Old Growth Forest." Is the wetland a forested wetland and is the   | YES   | NO  |
| forest characterized by, but not limited to, the following characteristics:   | Watland is a Catagoria  | Co to Overtion Ob   |
|   | 3 wetland is a Category   | Go to Question 8b   |
| of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of  | Go to Question 8b   |   |
|   | contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?  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?  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%?  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%?  "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 | contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?  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?  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%?  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%?  "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 |

| 8b | Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of             | YES                                   | NO                |
|----|--|---------------------------------------|-------------------|
|    | deciduous trees with large diameters at breast height (dbh), generally   | Wetland should be                     | Go to Question 9a |
|    | diameters greater than 45cm (17.7in) dbh?  | evaluated for possible                |                   |
|    |  | Category 3 status.                    |                   |
|    |  | Go to Question 9a                     |                   |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at  | YES                                   | NO                |
|    | 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? | Go to Question 9b                     | Go to Question 10 |
| 9b | Does the wetland's hydrology result from measures designed to  | YES                                   | NO                |
| •  | prevent erosion and the loss of aquatic plants, i.e. the wetland is  | 120                                   | 110               |
|    | partially hydrologically restricted from Lake Erie due to lakeward or  | Wetland should be                     | Go to Question 9c |
|    | landward dikes or other hydrological controls?   | evaluated for possible                |                   |
|    |  | Category 3 status                     |                   |
|    |  | Go to Question 10                     |                   |
| 9с | Are Lake Erie water levels the wetland's primary hydrological influence,   | YES                                   | NO                |
|    | i.e. the wetland is hydrologically unrestricted (no lakeward or upland   | Go to Question 9d                     | Go to Question 10 |
|    | border alterations), or the wetland can be characterized as an<br>"estuarine" wetland with lake and river influenced hydrology. These      | Go to Question 90                     | Go to Question 10 |
|    | include sandbar deposition wetlands, estuarine wetlands, river mouth   |                                       |                   |
|    | wetlands, or those dominated by submersed aquatic vegetation.  |                                       |                   |
| 9d | Does the wetland have a predominance of native species within its  | YES                                   | NO                |
|    | vegetation communities, although non-native or disturbance tolerant native species can also be present?                                    | Watland is a Catagony                 | Go to Question 9e |
|    | Tradive species carraiso be present?   | Wetland is a Category 3 wetland       | Go to Question se |
|    |  | o motiona                             |                   |
|    |  | Go to Question 10                     |                   |
| 9е | Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?         | YES                                   | NO                |
|    | tolorant nauvo piant oposios within he vogotation communitios.   | Wetland should be                     | Go to Question 10 |
|    |  | evaluated for possible                |                   |
|    |  | Category 3 status                     |                   |
|    |  | Go to Question 10                     |                   |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in  | YES                                   | NO                |
|    | 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 | Wetland is a Category 3 wetland.      | Go to Question 11 |
|    | several inches of the surface, and often with a dominance of the   | J Welland.                            |                   |
|    | gramineous vegetation listed in Table 1 (woody species may also be   | Go to Question 11                     |                   |
|    | present). The Ohio Department of Natural Resources Division of   |                                       |                   |
|    | Natural Areas and Preserves can provide assistance in confirming this  |                                       |                   |
| 11 | type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community                                       | YES                                   | NO                |
| •• | dominated by some or all of the species in Table 1. Extensive prairies   |                                       | 110               |
|    | were formerly located in the Darby Plains (Madison and Union   | Wetland should be                     | Complete          |
|    | Counties), Sandusky Plains (Wyandot, Crawford, and Marion  | evaluated for possible                | Quantitative      |
|    | Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),  | Category 3 status                     | Rating            |
|    | and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).  | 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    |
| 0                     | 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                 |                          | 3                         |
|                       | Solidago ohioensis             | 33                              |                          |                           |
|                       | Tofieldia glutinosa            |                                 |                          |                           |
|                       | Triglochin maritimum           |                                 |                          |                           |
|                       | Triglochin palustre            |                                 |                          |                           |

End of Narrative Rating. Begin Quantitative Rating on next page.

|    | Site: Inn          | ovation E | ast Wetland E   | Rater(s):Bryan Lombard   |  | <b>Date:</b> 08/11/2021   |
|----|--------------------|-----------|---|--|--|---|
|    | 0                  | 0         | Metric 1. Wetland A   | rea (size).  |  |   |
|    | max 6 pts.         | subtotal  | Select one size class and assign scolors (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts)   | re.<br>)<br>(0.2ha) (5 pts)<br>ha) (4 pts)<br>(3 pts)<br>(2ha) (2pts)<br>(0.12ha) (1 pt)   |  |   |
|    | 1                  | 1         | Metric 2. Upland bu   |  | ing land use.  |   |
| į. | max 14 pts.        | subtotal  | MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Res   | m (164ft) or more around wetland pe<br>25m to <50m (82 to <164ft) around<br>e 10m to <25m (32ft to <82ft) aroun<br>average <10m (<32ft) around wetlar                        | erimeter (7) wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) verage. dlife area, etc. (7) forest. (5) ervation tillage, new fallo  | ow field. (3)   |
|    | 5                  | 6         | Metric 3. Hydrology   | <b>/.</b>  |  |   |
| 1  | max 30 pts.        | subtotal  | 3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)    3e. Modifications to natural hydrolog None or none apparent (12 Recovered (7) Recovering (3)  Recent or no recovery (1) | ce water (3) ke or stream) (5) 3d. nly one and assign score.  (2)  cregime. Score one or double check  Check all disturbances observed ditch tile dike weir stormwater input | Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat Seasonally satura ck and average.  point source (non filling/grading road bed/RR trac dredging other | nin (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3) ated (2) ated in upper 30cm (12in) (1) |
|    | 4                  | 10        | Metric 4. Habitat Al  | teration and Develo  | pment.   |   |
|    | max 20 pts.        | subtotal  | 4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or  | y one and assign score.  |  |   |
|    | su<br>last revised | 10        | None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  |  | shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme   | ttic bed removal  |
|    | MOL 10 VIOCU       | , i colua | y ==== 1 jjiii  |  |  |   |

| Site: Inr   | novation E | ast Wetland E   | Rater(s): Bryan   | Lombard   | <b>Date:</b> 08/11/2021      |
|-------------|------------|---|---|---|------------------------------|
| sı          | 10         | 1   |   |   |                              |
| 0           | 10         | Metric 5. Special V   | Vetlands.   |   |                              |
| max 10 pts. | subtotal   | Check all that apply and score as in Bog (10) Fen (10) Old growth forest (10) Mature forested wetland ( Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Relict Wet Prairies (10) Known occurrence state/fi Significant migratory song Category 1 Wetland. See | 5) v wetland-unrestricted hydr v wetland-restricted hydr (Oak Openings) (10) ederal threatened or end bird/water fowl habitat of Question 1 Qualitative | ology (5) dangered species (10) or usage (10) Rating (-10)        |                              |
| 3           | 13         | Metric 6. Plant con   | nmunities, in   | terspersion, microt   | opography.                   |
| max 20 pts. | subtotal   | 6a. Wetland Vegetation Communition  | es. Vegetation  | n Community Cover Scale   |                              |
|             |            | Score all present using 0 to 3 scale.   | 0   | Absent or comprises <0.1ha (0.2                                   | 471 acres) contiguous area   |
|             |            | Aquatic bed   | 1   | Present and either comprises sm                                   | nall part of wetland's       |
|             |            | 1 Emergent  |   | vegetation and is of moderate                                     | quality, or comprises a      |
|             |            | o Shrub   |   | significant part but is of low qua                                | •                            |
|             |            | 0 Forest  | 2   | Present and either comprises sig                                  |                              |
|             |            | 0 Mudflats  |   | vegetation and is of moderate                                     | quality or comprises a small |
|             |            | Open water  |   | part and is of high quality                                       |                              |
|             |            | 0 Other   | 3   | Present and comprises significar                                  |                              |
|             |            | 6b. horizontal (plan view) Interspers   | ion.  | vegetation and is of high qualit                                  | У                            |
|             |            | Select only one.  | N (1  |   |                              |
|             |            | High (5)  |   | Description of Vegetation Quality                                 |                              |
|             |            | Moderately high(4)  | low   | Low spp diversity and/or predom                                   |                              |
|             |            | Moderately low (3)  |   | disturbance tolerant native spe                                   |                              |
|             |            | Moderately low (2)  Low (1)   | mod   | Native spp are dominant compor<br>although nonnative and/or disti | -                            |
|             |            | None (0)  |   | can also be present, and speci                                    |                              |
|             |            | 6c. Coverage of invasive plants. Re   | efer  | moderately high, but generally                                    |                              |
|             |            | to Table 1 ORAM long form for list.   |   | threatened or endangered spp                                      | •                            |
|             |            | or deduct points for coverage   | high  | A predominance of native specie                                   |                              |
|             |            | Extensive >75% cover (-5  |   | and/or disturbance tolerant nat                                   |                              |
|             |            | Moderate 25-75% cover (   | -3)   | absent, and high spp diversity                                    |                              |
|             |            | Sparse 5-25% cover (-1)   | ,   | the presence of rare, threatene                                   |                              |
|             |            | Nearly absent <5% cover   | (0)   |   |                              |
|             |            | Absent (1)  | Mudflat ar  | d Open Water Class Quality  |                              |
|             |            | 6d. Microtopography.  | 0   | Absent <0.1ha (0.247 acres)                                       |                              |
|             |            | Score all present using 0 to 3 scale.   | 1   | Low 0.1 to <1ha (0.247 to 2.47 a                                  | cres)                        |
|             |            | Vegetated hummucks/tus  | sucks 2   | Moderate 1 to <4ha (2.47 to 9.8                                   | 8 acres)                     |
|             |            | Coarse woody debris >15   |   | High 4ha (9.88 acres) or more                                     |                              |
|             |            | Standing dead >25cm (10   |   |   |                              |
|             |            | Amphibian breeding pools  |   | graphy Cover Scale  |                              |
|             |            |   | 0   | Absent  |                              |
|             |            |   | 1   | Present very small amounts or if                                  | more common                  |
|             |            |   |   | of marginal quality   | ( ( . ( b. ) . b (           |
|             |            |   | 2   | Present in moderate amounts, be quality or in small amounts of h  |                              |
|             | -          |   | 3   | Present in moderate or greater a                                  | mounts                       |
| 4.0         | Cat        | egory 1   | -   | and of highest quality  |                              |
| 13          | Oal        | egory i   |   |   | _                            |

End of Quantitative Rating. Complete Categorization Worksheets.

### **ORAM Summary Worksheet**

|                        |  | circle<br>answer or<br>insert<br>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<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9b. Lake Erie Wetlands -<br>Restricted                        | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands –<br>Unrestricted with native plants   | YES <mark>NO</mark>                    | If yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>Unrestricted with invasive plants | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 10. Oak Openings  | YES NO                                 | If yes, Category 3   |
|                        | Question 11. Relict Wet Prairies                                       | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
| Quantitative<br>Rating | Metric 1. Size   | 0                                      | 0  |
| Ū                      | Metric 2. Buffers and surrounding land use                             | 1                                      | 1  |
|                        | Metric 3. Hydrology  | 5                                      | 6  |
|                        | Metric 4. Habitat  | 4                                      | 10   |
|                        | Metric 5. Special Wetland Communities                                  | 0                                      | 10   |
|                        | Metric 6. Plant communities, interspersion, microtopography            | 3                                      | 13   |
|                        | TOTAL SCORE  | 13                                     | Category based on score breakpoints Category 1             |

**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 overcategorized by the ORAM   |
| Did you answer "Yes" to any<br>of the following questions:<br>Narrative Rating Nos. 1, 8b,<br>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 <i>greater</i> than the Category 2 scoring threshold <i>(including</i> 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<br>fall within the scoring range<br>of a Category 1, 2, or 3<br>wetland?   | 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 | 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.** 

|             | Ohio Rapid Assessment Method for Wetlands<br>10 Page Form for Wetland Categorization  |  |  |  |
|-------------|---|--|--|--|
| Version 5.0 | Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet | Ohio EPA, Division of Surface Water<br>Final: February 1, 2001 |  |  |

#### **Instructions**

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

| Name:<br>Innovation East  |                      |
|---|----------------------|
| Date:   |                      |
| 8-11-21   |                      |
| Affiliation:<br>EMH&T   |                      |
| Address: 5500 New Albany Road   |                      |
| Phone Number: 614-775-4517  |                      |
| e-mail address:<br>BLombard@emht.com  |                      |
| Name of Wetland: Wetland F  |                      |
| Vegetation Communit(ies):   |                      |
| Emergent  HGM Class(es):  |                      |
| Depressional  |                      |
| Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. |                      |
| Exhibit   |                      |
|   |                      |
|   |                      |
|   |                      |
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|   |                      |
|   |                      |
|   |                      |
|   |                      |
|   |                      |
|   |                      |
|   |                      |
|   |                      |
| Lat/Long or UTM Coordinate  | 40.094460/-82.721657 |
| USGS Quad Name  | Jersey               |
| County  | Licking              |
| Township  | Jersey               |
| Section and Subsection  | T2N R15W             |
| Hydrologic Unit Code  | 050600011503         |
| Site Visit  | 8-11-21              |
| National Wetland Inventory Map  | N/A                  |
| Ohio Wetland Inventory Map  | N/A                  |
| Soil Survey   | Pe                   |
| Delineation report/map  | Ex 6                 |

| Name of Wetland: Wetland F  |           |      |
|---|-----------|------|
| Wetland Size (acres, hectares):   |           | 0.28 |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zones           | , etc.    |      |
| Sketch: Include north arrow, relationship with other surface waters, vegetation zones Exhibit 6 | , etc.    |      |
|   |           |      |
| Comments, Narrative Discussion, Justification of Category Changes:                              |           |      |
|   |           |      |
|   |           |      |
|   |           |      |
|   |           |      |
|   |           |      |
|   |           |      |
|   |           |      |
|   |           |      |
|   |           |      |
|   |           |      |
| Final score: 16.5   | Category: | 1    |

#### **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.   | Y     |                |
| 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. | Y     |                |
| 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.   | Y     |                |
| 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.  |       | х              |
| Step 5 | In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.   |       | х              |
| 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.   |       | х              |

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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   | YES  | NO                |
| •        | 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   | Wetland should be evaluated for possible Category 3 status | Go to Question 2  |
|          | 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).  | Go to Question 2   |                   |
| 2        | Threatened or Endangered Species. Is the wetland known to contain   | YES  | NO                |
|          | an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?  | Wetland is a Category 3 wetland.                           | Go to Question 3  |
|          |   | Go to Question 3   |                   |
| 3        | Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?   | YES  | NO                |
|          | Tractal Frontage Database as a riight quality worlding.   | Wetland is a Category 3 wetland                            | Go to Question 4  |
|          |   | Go to Question 4   |                   |
| 4        | Significant Breeding or Concentration Area. Does the wetland  | YES  | NO                |
|          | contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?  | Wetland is a Category 3 wetland                            | Go to Question 5  |
|          |   | 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  | YES  | NO                |
|          | vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea, Lythrum salicaria,</i> or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or   | Wetland is a Category<br>1 wetland                         | Go to Question 6  |
|          | no vegetation?  | Go to Question 6   |                   |
| 6        | <b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses,   | YES  | NO                |
|          | particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses, cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?   | Wetland is a Category 3 wetland                            | Go to Question 7  |
|          | , , ,   | Go to Question 7   |                   |
| <u>7</u> | <b>Fens.</b> 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 investive precise listed in Table 1 is \$250.00. | YES Wetland is a Category 3 wetland                        | Go to Question 8a |
|          | invasive species listed in Table 1 is <25%?   | Go to Question 8a  |                   |
| 8a       | "Old Growth Forest." Is the wetland a forested wetland and is the   | YES  | NO                |
|          | 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  | Wetland is a Category 3 wetland.                           | Go to Question 8b |
|          | 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?   | 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   | YES   | NO                     |
|----|--|---|------------------------|
|    | deciduous trees with large diameters at breast height (dbh), generally   | Wetland should be                           | Go to Question 9a      |
|    | diameters greater than 45cm (17.7in) dbh?  | evaluated for possible                      |                        |
|    |  | Category 3 status.                          |                        |
|    |  | Go to Question 9a                           |                        |
| 9a | Lake Erie coastal and tributary wetlands. Is the wetland located at  | YES   | NO                     |
|    | 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?   | Go to Question 9b                           | Go to Question 10      |
| 9b | Does the wetland's hydrology result from measures designed to  | YES   | NO                     |
|    | prevent erosion and the loss of aquatic plants, i.e. the wetland is  | 120   | 110                    |
|    | partially hydrologically restricted from Lake Erie due to lakeward or  | Wetland should be                           | Go to Question 9c      |
|    | landward dikes or other hydrological controls?   | evaluated for possible                      |                        |
|    |  | Category 3 status                           |                        |
|    |  | Go to Question 10                           |                        |
| 9с | Are Lake Erie water levels the wetland's primary hydrological influence,   | YES   | NO                     |
|    | i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an  | Go to Question 9d                           | Go to Question 10      |
|    | "estuarine" wetland with lake and river influenced hydrology. These  | Go to Question 90                           | Go to Question to      |
|    | include sandbar deposition wetlands, estuarine wetlands, river mouth   |   |                        |
|    | wetlands, or those dominated by submersed aquatic vegetation.  |   |                        |
| 9d | Does the wetland have a predominance of native species within its  | YES   | NO                     |
|    | vegetation communities, although non-native or disturbance tolerant native species can also be present?  | Wetland is a Category                       | Go to Question 9e      |
|    | native species can also be present:  | 3 wetland                                   | Oo to Question se      |
|    |  |   |                        |
|    | Described the second se | Go to Question 10                           | 100                    |
| 9e | Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?   | YES   | NO                     |
|    | The second secon | Wetland should be                           | Go to Question 10      |
|    |  | evaluated for possible                      |                        |
|    |  | Category 3 status                           |                        |
|    |  | Go to Question 10                           |                        |
| 10 | Lake Plain Sand Prairies (Oak Openings) Is the wetland located in  | YES   | NO                     |
|    | Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy  | Wetland is a Category                       | Go to Question 11      |
|    | substrate with interspersed organic matter, a water table often within   | 3 wetland.                                  | Go to Question 11      |
|    | several inches of the surface, and often with a dominance of the   |   |                        |
|    | gramineous vegetation listed in Table 1 (woody species may also be   | Go to Question 11                           |                        |
|    | 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.   |   |                        |
| 11 | Relict Wet Prairies. Is the wetland a relict wet prairie community   | YES   | NO                     |
|    | dominated by some or all of the species in Table 1. Extensive prairies   |   |                        |
|    | were formerly located in the Darby Plains (Madison and Union   | Wetland should be                           | Complete               |
|    | Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),  | evaluated for possible<br>Category 3 status | Quantitative<br>Rating |
|    | and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,  | Category 5 status                           | raing                  |
|    | Montgomery, Van Wert etc.).  | 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    |
| 0                     | 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             | 33                              |                          |                           |
|                       | Tofieldia glutinosa            |                                 |                          |                           |
|                       | Triglochin maritimum           |                                 |                          |                           |
|                       | Triglochin palustre            |                                 |                          |                           |

End of Narrative Rating. Begin Quantitative Rating on next page.

| Site: Wetland F     |   | Rater(s): BDL   |  | <b>Date:</b> 8-11-21  |
|---------------------|---|---|--|---|
| 1 1                 | Metric 1. Wetland A   | area (size).  |  |   |
| max 6 pts. subtota  | Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1  v 0.1 to <0.3 acres (0.04 to < 0.1 acres (0.04ha) (0 pts)  | )<br>20.2ha) (5 pts)<br>Iha) (4 pts)<br>a) (3 pts)<br>.2ha) (2pts)<br>:0.12ha) (1 pt)   |  |   |
| 1.5 2.5             | Metric 2. Upland bu   | ıffers and surroundi  | ng land use.   |   |
| max 14 pts. subtota | WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re  | Im (164ft) or more around wetland pe<br>225m to <50m (82 to <164ft) around<br>1e 10m to <25m (32ft to <82ft) aroun<br>1average <10m (<32ft) around wetlan | rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) orest. (5) ervation tillage, new fallo     | ow field. (3)   |
| 6 8.5               | Metric 3. Hydrology   | <b>/</b> -  |  |   |
| max 30 pts. subtota | High pH groundwater (5) Other groundwater (3)  Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la  3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in  V <0.4m (<15.7in) (1)  3e. Modifications to natural hydrolog None or none apparent (12 | ace water (3) lke or stream) (5) 3d. nly one and assign score. ) (2) ic regime. Score one or double chec  | Part of wetland/u Part of riparian or Duration inundation/sate Semi- to permand Regularly inundation Seasonally inundation Seasonally saturation | uin (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3) ated (2) ated in upper 30cm (12in) (1) |
|                     | Recovered (7) Recovering (3) Recent or no recovery (1)  | ditch tile dike weir stormwater input   | point source (non filling/grading road bed/RR trac dredging other  | ·   |
| 6 14.5              | Metric 4. Habitat Al  | teration and Develo   | pment.   |   |
| max 20 pts. subtota | None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  | y one and assign score.   |  |   |
|                     | 4c. Habitat alteration. Score one or  None or none apparent (9)  Recovered (6)  Recovering (3)  |   | shrub/sapling ren  |   |
| 14.                 | Recent or no recovery (1)   | clearcutting selective cutting woody debris removal toxic pollutants  | sedimentation dredging farming nutrient enrichme   |   |
| last revised 1 Febr | uary 2001 jjm   |   |  |   |

| Site: We    | etland F        | Rate   | er(s): BDL        |  | Date: 8-11-21                         |
|-------------|-----------------|--|-------------------|--|---------------------------------------|
| <u> </u>    |                 |  | J. (G):           |  |                                       |
|             | 4 A E           |  |                   |  |                                       |
|             | 14.5            |  |                   |  |                                       |
| su          | btotal first pa | ge   |                   |  |                                       |
| 0           | 14.5            | Metric 5. Special Wetla  | ınds.             |  |                                       |
| max 10 pts. | 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 wetlan   | •                 |  |                                       |
|             |                 | Lake Erie coastal/tributary wetlan   |                   | logy (5)   |                                       |
|             |                 | Lake Plain Sand Prairies (Oak Op<br>Relict Wet Prairies (10)                   | bernings) (10)    |  |                                       |
|             |                 | Known occurrence state/federal t   | hreatened or enda | angered species (10)   |                                       |
|             |                 | Significant migratory songbird/wa  |                   |  |                                       |
|             |                 | Category 1 Wetland. See Questi   |                   | <u> </u>   |                                       |
| 2           | 16.5            | Metric 6. Plant commu  | nities, int       | erspersion, microto  | opograpny.                            |
| max 20 pts. | subtotal        | Go Watland Vagatation Communities  | Vocatation        | Community Cover Scale  |                                       |
| max 20 pts. | Subtotal        | 6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.     | vegetation<br>0   | Community Cover Scale Absent or comprises < 0.1ha (0.24)               | 471 acres) contiguous area            |
|             |                 | Aquatic bed  | 1                 | Present and either comprises sm  | ,                                     |
|             |                 | 1 Emergent   |                   | vegetation and is of moderate of                                       |                                       |
|             |                 | Shrub Forest   | 2                 | significant part but is of low qua<br>Present and either comprises sig | •                                     |
|             |                 | 0 Mudflats   | _                 | vegetation and is of moderate of                                       |                                       |
|             |                 | Open water   |                   | part and is of high quality  |                                       |
|             |                 | Other  6b. horizontal (plan view) Interspersion.                               | 3                 | Present and comprises significan vegetation and is of high quality     |                                       |
|             |                 | Select only one.   | -                 | vegetation and is of high quality                                      | !                                     |
|             |                 | High (5)   | Narrative D       | escription of Vegetation Quality                                       |                                       |
|             |                 | Moderately high(4) Moderate (3)  | low               | Low spp diversity and/or predomi                                       |                                       |
|             |                 | ✓ Moderately low (2)   | mod               | disturbance tolerant native special Native spp are dominant compon     |                                       |
|             |                 | Low (1)  |                   | although nonnative and/or distu  | _                                     |
|             |                 | None (0)   |                   | can also be present, and specie  | •                                     |
|             |                 | 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add |                   | moderately high, but generally threatened or endangered spp            | · · · · · · · · · · · · · · · · · · · |
|             |                 | or deduct points for coverage  | high              | A predominance of native species                                       |                                       |
|             |                 | Extensive >75% cover (-5)  |                   | and/or disturbance tolerant nati                                       |                                       |
|             |                 | Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)                             |                   | absent, and high spp diversity a the presence of rare, threatene       | -                                     |
|             |                 | Nearly absent <5% cover (0)  | _                 | the presence of fare, threatene  | a, or cridarigered app                |
|             |                 | Absent (1)   | Mudflat and       | d Open Water Class Quality   |                                       |
|             |                 | 6d. Microtopography.   | 0                 | Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)      |                                       |
|             |                 | Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks             | 2                 | Moderate 1 to <4ha (2.47 to 9.88                                       |                                       |
|             |                 | Ocarse woody debris >15cm (6in   |                   | High 4ha (9.88 acres) or more  |                                       |
|             |                 | Standing dead >25cm (10in) dbh   |                   |  |                                       |
|             |                 | Amphibian breeding pools   | Microtopog<br>0   | raphy Cover Scale Absent   |                                       |
|             |                 |  | 1                 | Present very small amounts or if                                       | more common                           |
|             |                 |  |                   | of marginal quality  |                                       |
|             |                 |  | 2                 | Present in moderate amounts, bu quality or in small amounts of h       |                                       |
|             | ı               |  | 3                 | Present in moderate or greater a                                       | mounts                                |
| 16.5        | Cat             | egory 1  |                   | and of highest quality   |                                       |
| 10.5        | J               | -g-,, '  |                   |  |                                       |

End of Quantitative Rating. Complete Categorization Worksheets.

### **ORAM Summary Worksheet**

|                        |  | circle<br>answer or<br>insert<br>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<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9b. Lake Erie Wetlands -<br>Restricted                        | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>1 or 2. |
|                        | Question 9d. Lake Erie Wetlands –<br>Unrestricted with native plants   | YES NO                                 | If yes, Category 3   |
|                        | Question 9e. Lake Erie Wetlands -<br>Unrestricted with invasive plants | YES NO                                 | If yes, evaluate for<br>Category 3; may also be<br>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<br>Rating | Metric 1. Size   | 1                                      | 1  |
| •                      | Metric 2. Buffers and surrounding land use                             | 1.5                                    | 2.5  |
|                        | Metric 3. Hydrology  | 6                                      | 8.5  |
|                        | Metric 4. Habitat  | 6                                      | 14.5   |
|                        | Metric 5. Special Wetland Communities                                  | 0                                      | 14.5   |
|                        | Metric 6. Plant communities, interspersion, microtopography            | 2                                      | 16.5   |
|                        | TOTAL SCORE  | 16.5                                   | Category based on score breakpoints Category 1             |

**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 overcategorized by the ORAM   |  |
| Did you answer "Yes" to any<br>of the following questions:<br>Narrative Rating Nos. 1, 8b,<br>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 <i>greater</i> than the Category 2 scoring threshold <i>(including</i> 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<br>fall within the scoring range<br>of a Category 1, 2, or 3<br>wetland?   | 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 | 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. |  |

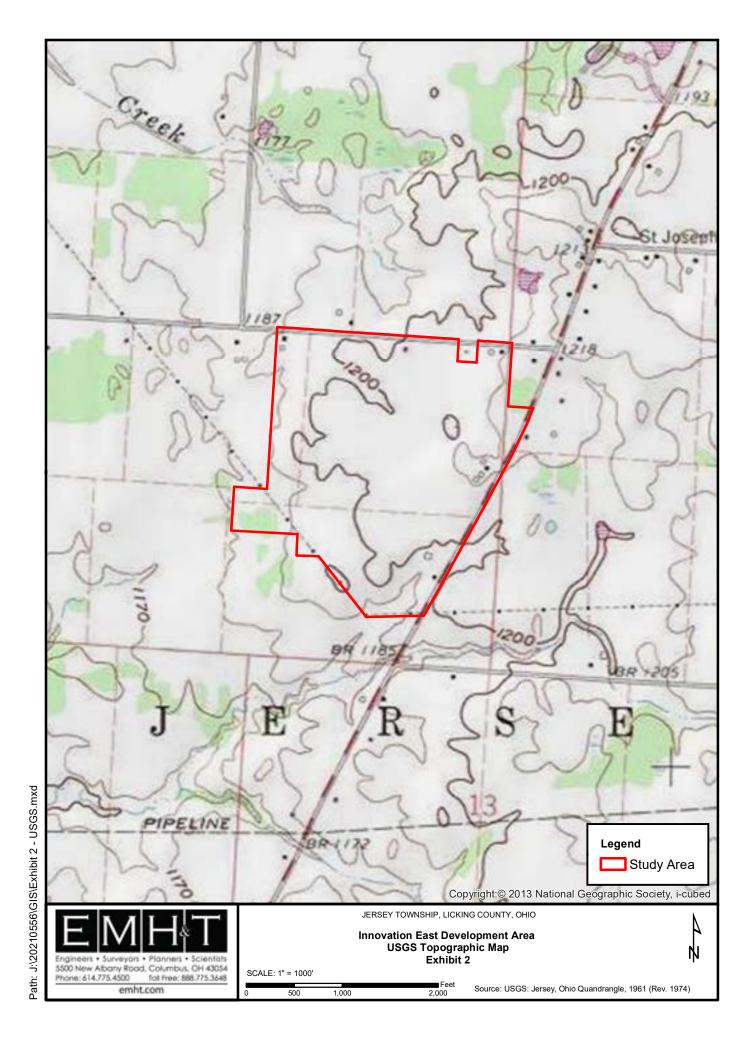
| Final Category                              |  |  |  |  |  |
|---|--|--|--|--|--|
| Choose one Category 1 Category 2 Category 3 |  |  |  |  |  |

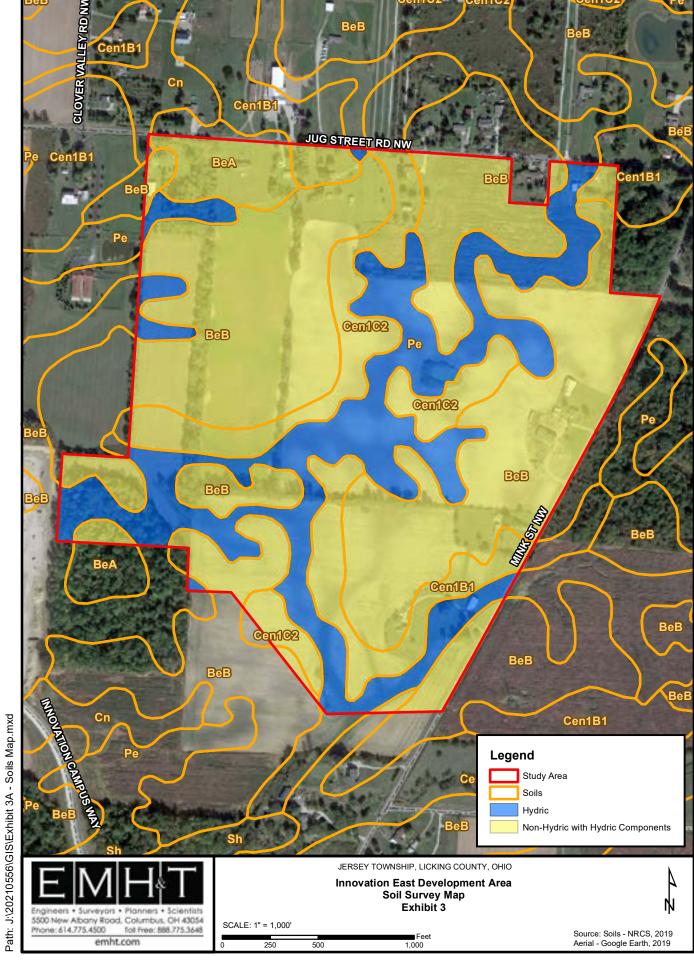
**End of Ohio Rapid Assessment Method for Wetlands.** 



### **EXHIBITS**

Path: J:\20210556\GIS\Exhibit 1 - Location Map.mxd





Path: J:\20210556\GIS\Exhibit 4 - FIRM Map.mxd

Path: J:\20210556\GIS\Exhibit 5 - NWI Map.mxd



### **PHOTOGRAPHS**





**Photograph No. 1:** View of Wetland A facing north (EMH&T, 8/11/21)



**Photograph No. 2:** View of Wetland A facing south (EMH&T, 8/11/21)





**Photograph No. 3:** View of Wetland A facing east (EMH&T, 8/11/21)



**Photograph No. 4:** View of Wetland A facing west (EMH&T, 8/11/21)





**Photograph No. 5:** View of Wetland B facing north (EMH&T, 8/11/21)



**Photograph No. 6:** View of Wetland B facing south (EMH&T, 8/11/21)





**Photograph No. 7:** View of Wetland B facing east (EMH&T, 8/11/21)



**Photograph No. 8:** View of Wetland B facing west (EMH&T, 8/11/21)





**Photograph No. 9:** View of Wetland C facing north (EMH&T, 8/11/21)



**Photograph No. 10:** View of Wetland C facing south (EMH&T, 8/11/21)





**Photograph No. 11:** View of Wetland C facing east (EMH&T, 8/11/21)



**Photograph No. 12:** View of Wetland C facing west (EMH&T, 8/11/21)





**Photograph No. 13:** View of Wetland D facing north (EMH&T, 8/11/21)



**Photograph No. 14:** View of Wetland D facing south (EMH&T, 8/11/21)





**Photograph No. 15:** View of Wetland D facing east (EMH&T, 8/11/21)



**Photograph No. 16:** View of Wetland D facing west (EMH&T, 8/11/21)





**Photograph No. 17:** View of Wetland E facing north (EMH&T, 8/11/21)



**Photograph No. 18:** View of Wetland E facing south (EMH&T, 8/11/21)





**Photograph No. 19:** View of Wetland E facing east (EMH&T, 8/11/21)



**Photograph No. 20:** View of Wetland E facing west (EMH&T, 8/11/21)





**Photograph No. 21:** View of Wetland F facing north (EMH&T, 8/11/21)



**Photograph No. 22:** View of Wetland F facing south (EMH&T, 8/11/21)





**Photograph No. 23:** View of Wetland F facing east (EMH&T, 8/11/21)



**Photograph No. 24:** View of Wetland F facing west (EMH&T, 8/11/21)





**Photograph No. 25:** View of Pond 1 facing west (EMH&T, 8/11/21)



**Photograph No. 26:** View of Pond 1 facing south (EMH&T, 8/11/21)





**Photograph No. 27:** View of Pond 1 facing northwest (EMH&T, 8/11/21)



**Photograph No. 28:** View of Pond 2 facing southwest (EMH&T, 8/11/21)





**Photograph No. 29:** View of Pond 2 facing west (EMH&T, 8/11/21)



**Photograph No. 30:** View of Pond 2 facing northwest (EMH&T, 8/11/21)

# **Water Resources AJD**

LRH-2021-907-SCR



## **DEPARTMENT OF THE ARMY**

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

February 4, 2022

Regulatory Division North Branch LRH-2021-907-SCR-Blacklick Creek

#### APPROVED JURISDICTIONAL DETERMINATION

Mr. Dick Roggenkamp MBJ Holdings 8000 Walton Parkway, Suite 120 New Albany, Ohio 43054

Dear Mr. Roggenkamp:

I refer to the *Delineation of Waters of the United States for the 145-acre Property known as Innovation East Development*, dated November 29, 2021, and submitted on your behalf by EMH&T. You have requested an approved jurisdictional determination (AJD) for the aquatic resources located on the 145-acre parcel. The property is located on the west side of Mink Street and the south side of Jug Street in Jersey Township, Licking County, Ohio (40.091436 latitude, -82.720029 longitude). Your AJD request has been assigned the following file number: LRH-2021-907-SCR-Blacklick Creek. Please reference this file 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 the discharge of dredged or fill material into waters of the United States, including wetlands. Section 10 of the Rivers and Harbors Act of 1899 requires a DA permit be obtained for any work in, on, over or under a traditional navigable water.

Our December 2, 2008 headquarters guidance entitled *Clean Water Act Jurisdiction* Following the U.S. Supreme Court's Decision in <u>Rapanos v. United States</u> & <u>Carabell v. United States</u> was followed in the final verification of Section 404 jurisdiction. Based on a review of the information provided, 1.26 acre of six (6) wetlands (Wetlands A-F) and 0.49 acre of two (2) ponds (Ponds 1-2) are present within the AJD area of interest as depicted on the enclosed map titled "Exhibit 6: Delineation Map" (Enclosure 1). These resources are also listed in the enclosed AJD Form (Enclosure 2).

Wetlands A-F and Ponds 1-2 are physically isolated and lack a direct hydrological connection to the tributary system. In addition to being hydrologically isolated, Wetlands A-F do not appear to support interstate or foreign commerce interests, nor do they contain any rare or endangered species. Wetlands A-F and Ponds 1-2 are not considered waters of the United States and are not subject to regulation under Section 404; however, you should contact the Ohio Environmental Protection Agency, Division of Surface Water, at (614) 664-2001 to determine 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 wetland determination was coordinated with the USEPA Region 5 and the Corps Headquarters, with coordination completed on February 1, 2022 and January 11, 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 AJD for the subject site. 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 (Enclosure 3). 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:

Appeal Review Officer
United States Army Corps of Engineers
Great Lakes and Ohio River Division
550 Main Street, Room 10-714
Cincinnati, Ohio 45202-3222
Phone: (513) 684-7261

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 your consultant, Mr. Bryan Lombard with EMH&T. If you have any questions concerning the above, please contact Ms. Katie Samples of the North Branch at 304-399-6933, by mail at the above address, or by email at <a href="mailto:katie.e.samples@usace.army.mil">katie.e.samples@usace.army.mil</a>.

Sincerely,

Cecil M. Cox

Regulatory Project Manager

North Branch

Enclosures cc (by email):

Mr. Bryan Lombard (EMH&T) Mr. Jeff Boyles (Ohio EPA)

# 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): | 4 January | y 2022 |
|----|--|-----------|--------|
|----|--|-----------|--------|

| Blac | DISTRICT OFFICE, FILE NAME, AND NUMBER: Huntington District, Innovation East Development, LRH-2021-907-SCR-cklick Creek  |
|------|--|
| C.   | PROJECT LOCATION AND BACKGROUND INFORMATION:   |
|      | State: Ohio County/parish/borough: Licking City: Jersey Township   |
|      | Center coordinates of site (lat/long in degree decimal format): Lat. 40.091436 ° N, Long82.720029 ° W  |
|      | Universal Transverse Mercator: 353371.05736, 4439323.441849  |
|      | Name of nearest water body: Unnamed Tributary 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 and 0504006  |
|      | 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):   |
| υ.   | Office (Desk) Determination. Date: 10 January 2022   |
|      | Field Determination. Date(s):  |
|      | Tiold Betermination: Bate(s).  |
| SEC  | CTION II: SUMMARY OF FINDINGS  |
|      | RHA SECTION 10 DETERMINATION OF JURISDICTION.  |
|      |  |
| The  | re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the   |
| revi | ew_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:   |
| _    | CANA CIRCITION AND REPORTED MANAGEMENT OF MUDICIPACITY ON  |
| В. ( | CWA SECTION 404 DETERMINATION OF JURISDICTION.   |
| The  | re 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  |
|      | Wetlands adjacent to TNWs Relatively permanent waters² (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  |
|      | 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:   |
|      | Wetlands: acres:   |
|      | c. Limits (boundaries) of jurisdiction based on:   |
|      | Elevation of established OHWM (if known):  |
|      | 2. Non-regulated waters/wetlands (check if applicable): <sup>3</sup>   |
|      | Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.  |
|      | Explain: Six (6) wetlands, comprising 1.26 acres, and two (2) ponds, comprising 0.49 acre, are located within the review   |
|      | area area (a) in the state of t |

Boxes checked below shall be supported by completing the appropriate sections in Section III below.
 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).
 Supporting documentation is presented in Section III.F.

Wetland A is a palustrine emergent wetland comprising 0.37 acre. Wetland A is characterized as being dominated by *Leersia oryzoides* and *Bidens aristosa*. The soil within the wetland boundary met the hydric soil indicator of redox dark surface. Hydrology indicators for Wetland A include water marks, iron deposits, inundation visible on aerial imagery, water-stained leaves, presence of reduced iron, surface soil cracks, drainage patterns, dry-season water table, and saturation visible on aerial imagery. The lateral limits of jurisdiction for Wetland A were established by the 1987 Corps' Delineation Manual and applicable Regional Supplement. The nearest stream (South Fork Licking River) is located off-site, approximately 1,500 feet to the south.

Wetland B is a palustrine forested wetland comprising 0.43 acre. Wetland B is characterized as being dominated by *Echinochloa crus-galli* and *Phalaris arundinacea*. The soil within the wetland boundary met the hydric soil indicator of redox dark surface. Hydrology indicators for Wetland B include algal mat or crust, inundation visible on aerial imagery, surface soil cracks, saturation visible on aerial imagery, geomorphic position, and FAC-Neutral test. The lateral limits of jurisdiction for Wetland B were established by the 1987 Corps' Delineation Manual and applicable Regional Supplement. The nearest stream (Blacklick Creek) is located off-site, approximately 1,800 feet to the north.

Wetland C is a palustrine emergent wetland comprising 0.07 acre. Wetland C is characterized as being dominated by *Echinochloa crus-galli* and *Polygonum sp*. The soil within the wetland boundary met the hydric soil indicator of redox dark surface. Hydrology indicators for Wetland C include agal mat or crust, inundation visible on aerial imagery, presence of reduced iron, surface soil cracks, geomorphic position, and FAC-Neutral test. The lateral limits of jurisdiction for Wetland C were established by the 1987 Corps' Delineation Manual and applicable Regional Supplement. The nearest stream (Blacklick Creek) is located off-site, approximately 1,750 feet to the north.

Wetland D is a palustrine emergent wetland comprising 0.05 acre. Wetland D is characterized as being dominated by *Echinochloa crus-galli* and *Polygonum sp*. The soil within the wetland boundary met the hydric soil indicator of depleted matrix. Hydrology indicators for Wetland D include surface water, high water table, saturation, inundation visible on aerial imagery, surface soil cracks, saturation visible on aerial imagery, and geomorphic position. The lateral limits of jurisdiction for Wetland D were established by the 1987 Corps' Delineation Manual and applicable Regional Supplement. The nearest stream (Blacklick Creek) is located off-site, approximately 1,850 feet to the north.

Wetland E is a palustrine emergent wetland comprising 0.06 acre. Wetland E is characterized as being dominated by *Quercus palustris*, and *Echinochloa muricata*. The soil within the wetland boundary met the hydric soil indicator of redox dark surface. Hydrology indicators for Wetland E include surface water, high water table, saturation, inundation visible on aerial imagery, surface soil cracks, saturation visible on aerial imagery, stunted or stressed plants, FAC-Neutral Test, and geomorphic position. The lateral limits of jurisdiction for Wetland E were established by the 1987 Corps' Delineation Manual and applicable Regional Supplement. The nearest stream (Blacklick Creek) is located off-site, approximately 1,750 feet to the north.

Wetland F is a palustrine emergent wetland comprising 0.28 acre. Wetland F is characterized as being dominated by *Quercus palustris*, *Acer saccharinum*, *Sambucus nigra*, *Leersia oryzoides*, *Symphyotrichum lateriflorum*, and *Impatiens sp*. The soil within the wetland boundary met the hydric soil indicator of redox dark surface. Hydrology indicators for Wetland F include surface water, high water table, water marks, sediment deposits, drift deposits, algal mat or crust, iron deposits, inundation visible on aerial imagery, water-stained leaves, oxidized rhizospheres on living roots, and FAC-Neutral test. The lateral limits of jurisdiction for Wetland F were established by the 1987 Corps' Delineation Manual and applicable Regional Supplement. The nearest stream (Blacklick Creek) is located off-site, approximately 1,350 feet to the north.

Pond 1 is a 0.30 acre open-water pond that appears to have been constructed prior to 1995. Pond 1 was not constructed as an impoundment and does not exhibit a surface water connection to a water of the United States.

Pond 2 is a 0.19 acre open-water pond that appears to have been constructed in uplands for ornamental purposes. Pond 2 does not exhibit a surface water connection to a water of the United States.

Wetlands A-F and Ponds 1-2 appear to be physically isolated and lack a direct hydrological connection to the tributary system. The closest surface water tributary system is located off-site, approximately 1,350-1,850 feet from Wetlands A-F. In addition to being hydrologically isolated from a surface water tributary system, Wetlands A-F do not appear to support interstate or foreign commerce interests, nor do they contain any rare or endangered species. Based on this information, Wetlands A-F and Ponds 1-2 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<sup>4</sup> 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)  | Wat<br>Drai<br>Ave | eral Area Conditions: ershed size: square miles nage area: square miles rage annual rainfall: rage annual snowfall:   |
|------|--------------------|---|
| (ii) | Phy (a)            | sical Characteristics:  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 Project waters are Project waters are Project waters are Project waters cross or serve as state boundaries. Explain:  Identify flow route to TNW <sup>5</sup> : Tributary stream order, if known: |
|      | (b)                | General Tributary Characteristics (check all that apply):  Tributary is: Natural Artificial (man-made). Explain: Manipulated (man-altered). Explain:  |
|      |                    | <b>Tributary</b> properties with respect to top of bank (estimate):   |

<sup>&</sup>lt;sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

<sup>&</sup>lt;sup>5</sup> 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.

|       |     | Average width: Average depth: 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: Pick List Estimate average number of flow events in review area/year: Pick List Describe flow regime: Other information on duration and volume:   |
|       |     | Surface flow is: Pick List. Characteristics:  |
|       |     | Subsurface flow: Pick List. Explain findings:  Dye (or other) test performed:   |
|       |     | Tributary has (check all that apply):  Bed and banks  OHWM <sup>6</sup> (check all indicators that apply):  clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation the presence of wrack line sediment sorting leaf litter disturbed or washed away sediment deposition water staining other (list):  Discontinuous OHWM. <sup>7</sup> 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:  |
| (iii) | Cha | emical Characteristics: racterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.) Explain:  |
| (iv)  |     | atify specific pollutants, if known:  logical Characteristics. Channel supports (check all that apply):  Riparian corridor. Characteristics (type, average width):  Wetland fringe. Characteristics:  Habitat for:  Federally Listed species. Explain findings:  Fish/spawn areas. Explain findings:  Other environmentally-sensitive species. Explain findings:  Aquatic/wildlife diversity. Explain findings: |

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

<sup>&</sup>lt;sup>6</sup>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.

<sup>7</sup>Ibid.

|    | (i)   |              | vsical Characteristics:         |   |   |                          |
|----|-------|--------------|---------------------------------|---|---|--------------------------|
|    |       | (a)          | General Wetland Charact         | eristics:   |   |                          |
|    |       |              | Properties:                     |   |   |                          |
|    |       |              |                                 | eres  |   |                          |
|    |       |              | Wetland type. Explai            |   |   |                          |
|    |       |              | Wetland quality. Exp            |   | 71-:                                    |                          |
|    |       |              | Project wettands cross or       | serve as state boundaries. I                              | explain:                                |                          |
|    |       | (b)          | General Flow Relationshi        | p with Non-TNW:   |   |                          |
|    |       |              | Flow is: Pick List. Expla       | in:   |   |                          |
|    |       |              | Surface flow is: Pick Lis       |   |   |                          |
|    |       |              | Characteristics:                | •   |   |                          |
|    |       |              |                                 |   |   |                          |
|    |       |              | Subsurface flow: Pick Li        |   |   |                          |
|    |       |              | Dye (or other) test             | performed:  |   |                          |
|    |       | (c)          | Wetland Adjacency Deter         | rmination with Non-TNW:                                   |   |                          |
|    |       | (-)          | ☐ Directly abutting             |   |   |                          |
|    |       |              | ☐ Not directly abutting         |   |   |                          |
|    |       |              | Discrete wetland                | hydrologic connection. Ex                                 | plain:                                  |                          |
|    |       |              | Ecological conne                |   |   |                          |
|    |       |              | Separated by berr               | n/barrier. Explain:                                       |   |                          |
|    |       | (d)          | Proximity (Relationship)        | to TNW  |   |                          |
|    |       | (-)          |                                 | List river miles from TNV                                 | V.                                      |                          |
|    |       |              |                                 | List aerial (straight) miles f                            |   |                          |
|    |       |              | Flow is from: <b>Pick List.</b> |   |   |                          |
|    |       |              | Estimate approximate loc        | ation of wetland as within                                | the <b>Pick List</b> floodplain.        |                          |
|    | (ii)  | Che          | emical Characteristics:         |   |   |                          |
|    | (11)  |              |                                 | e.g., water color is clear, br                            | own, oil film on surface; water qu      | ality: general watershed |
|    |       |              | characteristics; etc.). Exp     |   | - ···-, ··· - · · · · · · · · · · · · · | , , g                    |
|    |       | Idei         | ntify specific pollutants, if   |   |   |                          |
|    | (***) | . <b>D</b> . | 1 1 (01                         | V-411   | II di ad assala):                       |                          |
|    | (111) |              | logical Characteristics. V      | veuand supports (check a<br>eristics (type, average widtl |   |                          |
|    |       | H            | Vegetation type/percent c       |   | 1).                                     |                          |
|    |       |              | Habitat for:                    | очег. Ехрині.   |   |                          |
|    |       |              | Federally Listed speci          | es. Explain findings:                                     |   |                          |
|    |       |              | Fish/spawn areas. Exp           |   |   |                          |
|    |       |              |                                 | y-sensitive species. Explain                              | n findings:                             |                          |
|    |       |              | Aquatic/wildlife diver          | sity. Explain findings:                                   |   |                          |
| 3. | Chs   | ract         | eristics of all wetlands ad     | iscent to the tributary (if                               | any)                                    |                          |
| ٠. | Ciic  |              | wetland(s) being considere      |   |   |                          |
|    |       |              |                                 |   | ed in the cumulative analysis.          |                          |
|    |       |              |                                 |   |   |                          |
|    |       | For          | each wetland, specify the       | following:  |   |                          |
|    |       | 101          | tath wedains, specify the       | THE   |   |                          |
|    |       |              | Directly abuts? (Y/N)           | Size (in acres)   | Directly abuts? (Y/N)                   | Size (in acres)          |
|    |       |              | Summarize overall biolog        | gical, chemical and physica                               | I functions being performed:            |                          |
|    |       |              |                                 |   |   |                          |

## C. SIGNIFICANT NEXUS DETERMINATION

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

tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

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

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

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

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3.□ Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

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

|     | ,   |
|-----|---|
| 1.□ | TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:  TNWs: linear feet width (ft), Or, acres.  Wetlands adjacent to TNWs: acres.  |
| 2.  | <ul> <li>RPWs that flow directly or indirectly into TNWs.</li> <li>Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:</li> <li>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:</li> </ul> |
|     | 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 <sup>8</sup> 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:   |

<sup>&</sup>lt;sup>8</sup>See Footnote # 3.

|             | ■ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:   |
|-------------|--|
|             | Provide acreage estimates for jurisdictional wetlands in the review area: acres.   |
| <b>5.</b> □ | 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.          | 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).  |
| DEC<br>SUC  | LATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:   |
| Idei        | ntify water body and summarize rationale supporting determination:   |
|             | ride 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.  |
| Prov        | N-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):  Vide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR ors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional ment (check all that apply): Non-wetland waters (i.e., rivers, streams):   |
|             | 7.  ISO DEC SUC DEC SU |

To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 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.

|         | Lakes/ponds: 0.49 acres: See Section II.B.2 for detailed descriptions of non-jurisdictional features located within the 145-   |
|---------|--|
| acr     | e JD review area.  |
|         | Other non-wetland waters: List type of aquatic resource:   |
| acr     | Wetlands: 1.26 acres: See Section II.B.2 for detailed descriptions of non-jurisdictional features located within the 145-e JD review area.   |
|         | vide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such adding 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.  |
| SECTIO  | ON IV: DATA SOURCES.   |
| and kno | PORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked requested, appropriately reference sources below): Delineation of Waters of the United States for the 145-acre property to be the sum as Innovation East Development Area dated 29 November 2021 (JD, Nov 2021)  Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Exhibit 6- Delineation Map (JD, Nov 2021)  Data sheets prepared/submitted by or on behalf of the applicant/consultant.  Office concurs with data sheets/delineation report.  Office does not concur with data sheets/delineation report.  Data sheets prepared by the Corps:  Corps navigable waters' study:  U.S. Geological Survey Hydrologic Atlas:  USGS NHD data.  USGS 8 and 12 digit HUC maps.  U.S. Geological Survey map(s). Cite scale & quad name: Exhibit 2- USGS 7.5 Minute Topographic Map- Jersey, Ohio ad (JD, Nov 2021)  USDA Natural Resources Conservation Service Soil Survey: Exhibit 3- Soil Survey Map (JD, Nov 2021)  National wetlands inventory map(s). Cite name: Exhibit 5- National Wetland Inventory Map (JD, Nov 2021)  State/Local wetland inventory map(s):  FEMA/FIRM maps: Exhibit 4- Flood Insurance Rate Map (JD, Nov 2021).  100-year Floodplain Elevation is:  Photographs: Aerial (Name & Date): Exhibit 6-Delineation Map (JD, Nov 2021)  or Other (Name & Date): Site Photographs (1-30) dated 11 August 2021 (JD, Nov 2021) |
|         | Applicable/supporting case law: Applicable/supporting scientific literature: Other information (please specify): historicaerials.com- imagery from 1959, 1981, and 1995  |
|         |  |

# B. ADDITIONAL COMMENTS TO SUPPORT JD:

# This foregoing document was electronically filed with the Public Utilities

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in

Case No(s). 25-0090-EL-BLN

Summary: Application - Application 4 of 15 (Exhibit A - Ecological Resources Study) electronically filed by Christine M.T. Pirik on behalf of PowerConneX New Albany, LLC.