EXHIBIT 10A

Wetland and Waterbody Delineation Report

Pawnee Tap-Mayfield 138kV Transmission Line Reconductoring Project Geauga County, Ohio

Prepared for



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Jacobs

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Acronyms and Abbreviations

ATSI American Transmission Systems, Incorporated

CWA Clean Water Act

ESB Environmental Survey Boundary

FAC Facultative

FACU Facultative Upland
FACW Facultative Wetland

GNSS Global Navigation Satellite System

HHEI Headwater Habitat Evaluation Index

HUC Hydrologic Unit Code

Jacobs Ingineering Group Inc.

kV Kilovolt

NHD National Hydrography Dataset

NRCS Natural Resource Conservation Service

NWI National Wetland Inventory

OBL Obligate Wetland

OEPA Ohio Environmental Protection Agency

OHWM Ordinary High-Water Mark

ORAM Ohio Rapid Assessment Method

PEM Palustrine emergent

Project Leroy Center-Pawnee Tap 138 kV Transmission Line Reconductoring Project

PSS Palustrine scrub-shrub

QHEI Qualitative Habitat Evaluation Index

ROW Right-of-way

TNW Traditionally navigable water

UPL Upland

USACE United States Army Corps of Engineers
USDA United States Department of Agriculture

USEPA United States Environmental Protection Agency

USFWS United States Fish and Wildlife Service

USGS United States Geological Survey

1 Introduction

This wetland and waterbody delineation report (Report) summarizes the results of the wetland and waterbody delineation surveys conducted in Geauga County, Ohio by Jacobs Engineering Group Inc. (Jacobs), for American Transmission Systems, Incorporated (ATSI), a wholly-owned subsidiary of FirstEnergy Corporation. ATSI is proposing to reconductor the larger Leroy Center-Mayfield 138 kV Transmission Line Project, which is comprised of several segments. This Report covers the Pawnee Tap-Mayfield 138 kV Transmission Line Reconductoring Project (Project) which includes reconductoring approximately 7.3 miles of transmission line within the existing right-of-way (ROW). The Project area crosses the City of Chardon and the townships of Munson and Chester (Figure 1). Jacobs conducted environmental surveys in August through November 2021 and August and November 2022. The environmental survey boundary (ESB) included approximately 7.3 miles of approximately 200-foot wide ROW, access roads, and helicopter landing zones. This Report contains the following components:

- Figure 1 provides an overview map of the ESB overlain on ArcGIS Online USA topographic maps.
- Figure 2-1 to 2-18 shows U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soil map units, the location of National Wetland Inventory (NWI) polygons, national hydrography dataset (NHD) streams, and Federal Emergency Management Agency (FEMA) 100-year floodplain and floodway information. Table 2-1 summarizes recent precipitation data. Table 3-1 lists the soil map units identified within the ESB and Table 3-2 lists the NWI wetland types identified within the ESB.
- Figure 3-1 to 3-18 provides the location of all features mapped during the delineation by Jacobs biologists. This includes all wetlands, data points, and waterbodies. Tables 4-1 (wetlands), 4-2 (streams), and 4-3 (ponds) follow the text, providing detailed information for all delineated features within the ESB. Tables 4-4 (wetlands), 4-5 (QHEI streams), and 4-6 (HHEI streams) are within the text, providing a summary of information for delineated wetlands and streams within the ESB.
- U.S. Army Corps of Engineers (USACE) wetland determination field data forms are in Appendix A.
- Ohio Rapid Assessment Method for Wetlands (ORAM) two-page forms are in Appendix B.
- Qualitative Habitat Evaluation Index (QHEI) Stream Forms are in Appendix C.
- Headwater Habitat Evaluation Index (HHEI) Stream Forms are in Appendix D.
- Jacobs Open Water/Pond Data Forms are in Appendix E.

2 Background Information

This section describes the ESB and methodology used during the wetland and waterbody delineation field surveys.

2.1 Project Area

The Project is located in Geauga County, Ohio (Figure 1). The Project begins at Structure PW-1 in Chardon Township (41.59548, -81.22868), ends at Mayfield Substation (41.523268, -81.330273) in Chester Township and is approximately 7.3 miles in length. Review of the USGS 7.5-minute topographic maps indicates that the ESB is within the USGS 7.5-minute topographic quadrangles of Chardon and Mentor, Ohio. Topographic relief is generally flat, with some steeper areas associated with waterbodies. The Project area ranges from 965 to 1,300 feet above sea level (Figure 1).

Land use and natural communities observed within the ESB include maintained ROW, residential areas, agricultural fields, and industrial parcels.

2.2 Annual Precipitation

Precipiation history for Chardon, Ohio was reviewed prior to completing environmental surveys to determine if climatic conditions were normal at the time of the surveys. Rainfall recorded in Chardon was generally normal prior to and above average to average during the surveys conducted in summer of 2021 (Table 2-1; USDA, 2021). This was taken into consideration during the delineation survey.

TABLE 2-1: Recent Precipitation Data

Pawnee Tap - Mayfield 138 kV Transmission Line Reconductoring Project

			_	-			
Precipitation Data	May	Jun	Jul	Aug	Sep	Oct	Total
2021 Monthly Sum ^{1,3}	3.9	5.0	6.6	4.1	2.3	7.1	29.0
Normal Precipitation ^{2,3}	2.7-4.9	3.2-5.4	2.9-4.6	3.3-5.5	3.2-5.2	3.1-4.4	18.4-30.0
Monthly climatic condition	Average	Average	Above average	Average	Below average	Above average	Average

¹Monthly weather summary from weather station CHARDON, OH

2.3 Drainage Basins

The Project is within the Grand River drainage basin, corresponding to 8-digit Hydrologic Unit Code (HUC) 04110004. More specifically it is within the Big Creek (12-digit HUC 04110004-06-06), East Branch Chagrin River (12-digit HUC 04110003-04-01), and Beaver Creek Chagrin River (12-digit HUC 04110003-03-04) watersheds (USGS, 2020).

2.4 Traditional Navigable Waters

The U.S. Environmental Protection Agency (EPA) and USACE assert jurisdiction over "all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce including all waters which are subject to the ebb and flow of the tide" (USACE and EPA, 2008). These waters are considered traditionally navigable waters (TNW). No TNW directly cross the ESB.

²USDA WETS Station Climate Data 1971-2000 (USDA 2023)

³Displayed in inches

3 Wetland and Waterbody Delineation

3.1 Desktop Review

Prior to conducting the field investigations, Jacobs reviewed the following resources to identify the potential for wetlands within the ESB:

- Aerial photo-based maps (ArcGIS Online, World Imagery Map, 2018)
- Topographic maps (ArcGIS Online, USA Topo Maps, 2019)
- NRCS Web Soil Survey (USDA-NRCS, 2023)
- NWI shapefile (USFWS, 2024)
- National Hydrography Dataset (NHD) (USGS, 2025)

According to the NRCS soil survey of Geauga County (USDA-NRCS, 2023), the ESB consists of 27 soil map units (Figure 2-1 to 2-18). Of these, 8 soil map units are listed as hydric, making up 58% of the ESB (Table 3-1, follows text). Generally, hydric soils are those soils that indicate through their color and structure that they have experienced dominantly reducing (i.e. oxygen poor) conditions. Oxygen-poor conditions result from inundation and/or saturation by water.

NWI data were obtained from the USFWS for review of potential wetlands that may occur within the ESB. The NWI data (USFWS, 2023) identify the type of wetland or open water present at a location using the USFWS classification system (Cowardin et al., 1979). The NWI data indicated that there are 13 NWI features mapped within the ESB (Figure 2-1 to 2-19; USFWS, 2023). This included emergent, scrub-shrub/forested complexes, freshwater pond, and riverine NWI wetland types (Table 3-2, follows text). The presence of an NWI feature is not a definitive indicator that a wetland or waterbody is present. The information on NWI maps is obtained largely from aerial interpretation, may be outdated, and is only sporadically field-checked.

As shown on the FEMA floodplain panels (Figure 2-1 to 2-18), there are no mapped 100-year floodplains within the ESB (FEMA, 2019).

3.2 Field Survey Methodology

During July and August of 2021 and August and November of 2022, Jacobs biologists surveyed the ESB by walking the area and evaluating for wetlands and other waters of the U.S. The boundaries of each wetland and waterbody within the ESB were delineated and recorded using handheld global navigation satellite system (GNSS) receivers. For waterbodies identified within the Project area, the ordinary high-water mark (OHWM) was used as the jurisdictional boundary.

Wetland data were recorded on USACE Northcentral and Northeast Regional Supplement wetland determination data forms, stream data were recorded on Qualitative Habitat Evaluation Index (QHEI) forms and Headwater Habitat Evaluation Index (HHEI) forms, and pond data were recorded on Jacobs pond/open water forms. All other land use, habitat, and other supplemental data were collected in a digital geodatabase.

3.2.1 Wetland Delineation

Wetland boundaries were field-delineated according to methodology described in the Technical Report Y-87-1 *Corps of Engineers Wetlands Delineation Manual* and subsequent guidance documents (Environmental Laboratory, 1987) and according to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0) (USACE,

2012). Wetland delineation data were recorded on the USACE Regional Supplement wetland determination data forms. Representative wetland and upland data points were recorded during the wetland delineation to determine the presence/absence of wetlands and/or to document upland conditions within the Project area. Upland data points were determined not to be within wetlands because they did not have positive indicators of one or more of the three wetland criteria: hydrophytic vegetation, wetland hydrology, and hydric soils.

3.2.1.1 Soils

Jacobs biologists examined soils using a shovel to extract soil cores, which were examined for hydric soil characteristics. A *Munsell Soil Color Chart* (Kollmorgen Corporation, 1988) was used to identify the hue, value, and chroma of the matrix and concentrations/depletions of the soils. Generally, mottled soils with a matrix chroma of two or less, or unmottled soils with a matrix chroma of one or less are considered to exhibit hydric soil characteristics (Environmental Laboratory, 1987). In sandy soils, mottled soils with a matrix chroma of three or less, or unmottled soils with a matrix chroma of two or less are hydric soils.

3.2.1.2 Hydrology

The 1987 Manual requires that an area be inundated or saturated to the surface for an absolute minimum of five percent of the growing season. Areas saturated between five percent and 12.5 percent of the growing season may or may not be wetlands, while areas saturated over 12.5 percent of the growing season fulfill the hydrology requirements for wetlands. The Regional Supplement states that the growing season dates are determined through onsite observations of the following indicators of biological activity in a given year; (1) above-ground growth and development of vascular plants, and/or (2) soil temperature (12-in. depth is 41 degrees Fahrenheit or higher) as an indicator of soil microbial activity. Therefore, the beginning of the growing season in a given year is indicated by whichever condition occurs earlier, and the end of the growing season by whichever persists later.

The soils and ground surface were examined by Jacobs biologists for evidence of wetland hydrology in lieu of detailed hydrological data. This is an acceptable approach according to the 1987 Manual and the Regional Supplement. Evidence indicating wetland hydrology typically includes primary indicators such as surface water, saturation, water marks, drift deposits, water-stained leaves, sediment deposits, and oxidized rhizospheres on living roots; and secondary indicators such as drainage patterns, geomorphic position, microtopographic relief, and a positive Facultative (FAC)-neutral test (USACE, 2012).

3.2.1.3 Vegetation

Dominant vegetation was visually assessed for each stratum (tree, sapling/shrub, herb, and woody vine) and an indicator status (obligate wetland [OBL], facultative wetland [FACW], facultative [FAC], facultative upland [FACU], upland [UPL]) was assigned to each plant species based on the 2016 National Wetland Plant List. An area is determined to have hydrophytic vegetation when any of the following are true: all dominant species are OBL or FACW; more than 50 percent of the dominant species are OBL, FACW or FAC; or the average total cover of plants, when weighted based on indicator status, calculates to a prevalence index of less than or equal to three.

Wetland quality was evaluated using the Ohio Environmental Protection Agency (OEPA) Ohio Rapid Assessment Method (ORAM) for Wetlands Version 5.0 (Mack 2001). Categorization was conducted in accordance with the latest quantitative score calibration (OEPA, 2000). Wetlands are scored based on size, surrounding land use, hydrology, habitat alteration, special wetland communities, and plant communities. Each of these subject areas is further divided into subcategories under ORAM v5.0 resulting in a score that describes the wetland using a range from 0 (low quality and high disturbance) to 100 (high quality and low disturbance). Wetlands scored from 0 to 29.9 are grouped into "Category

1", 30 to 59.9 are "Category 2" and 60 to 100 are "Category 3". Transitional zones exist between Categories 1 and 2 from 30 to 34.9 and between Categories 2 and 3 from 60 to 64.9. However, according to the OEPA, if the wetland score falls into the transitional range, it must be given the higher Category unless scientific data can prove it should be in a lower category (Mack, 2001).

3.2.2 Stream Assessment

Jurisdictional streams were identified as those waters that possessed a continuously defined bed and bank, OHWM indicators, and lacked a dominance of upland vegetation in the channel. Per USACE guidance, the OHWM is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (USACE, 2005). Channels that parallel a roadway or railroad were identified as upland drainage features and were not considered to be jurisdictional unless they had an identifiable OHWM, were identified on the USGS topographic map, or represented a presumed relocation of a natural channel.

During the field survey, functional stream assessments were conducted using the methods described in *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index* (OEPA, 2006) and *Field Methods for Evaluating Primary Headwater Streams in Ohio* (OEPA, 2020). The QHEI is used to characterize larger streams (drainage areas greater than one square mile or maximum pool depth greater than 40 centimeters), while the HHEI is appropriate for first-order and second-order headwater streams (drainage areas less than one square mile and maximum pool depth less than 40 centimeters).

4 Field Survey Results

Jacobs biologists surveyed the Project in July to August 2021 and August and November 2022 by walking the ESB and evaluating for wetlands and other waters of the U.S. A total of 53 wetlands, ten streams, and six ponds were delineated within the ESB and are displayed on the Wetlands and Waterbodies Delineation Map (Figure 3-1 to 3-18). Detailed information for wetland and waterbody features within the ESB is provided in Tables 4-1 (wetlands), 4-2 (streams), and 4-3 (ponds).

4.1 Wetlands

A total of 53 wetlands and wetland complexes, ranging in size from 0.01 to 5.51 acres, were delineated within the ESB. The reported wetland acreage only corresponds to areas identified within the ESB, as many wetlands extended beyond the survey boundary. Forty-eight of the wetlands were identified as palustrine emergent (PEM) wetlands, three were identified as palustrine scrub-shrub (PSS) wetlands, one was identified as a palustrine unconsolidated bottom (PUB) wetland, and one was identified as a PEM/PSS wetland complex. Detailed information for each delineated wetland within the ESB is provided in Table 4-1 (follows text).

Completed USACE wetland and upland determination forms are provided in Appendix A; representative photographs were taken of each wetland during the field survey and are appended to each USACE wetland form.

4.1.1 Wetland ORAM Results

Of the 53 wetlands, 38 were classified as Category 1 wetlands and 15 were classified as Category 2 wetlands. No Category 3 wetlands were identified within the ESB. Table 4-4 provides summary information regarding wetlands identified within the ESB, and completed ORAM forms are included in Appendix B.

Thirty-eight Category 1 wetlands were identified within the ESB, including 36 PEM wetlands, one PSS wetland, and one PEM/PSS wetland. These wetlands were classified as Category 1 wetlands based on ORAM scores ranging from 6 to 29. Generally, the Category 1 wetlands scored low due to factors such as small size, intensity of surrounding land use, habitat alteration, poor habitat development, lack of horizontal interspersion, presence of invasive species, and lack of microtopography.

Fifteen Category 2 wetlands were identified within the ESB, including 12 PEM wetlands, one PUB wetland, and two PSS wetlands. These wetlands were classified as Category 2 wetlands based on ORAM scores ranging from 30 to 51. The Category 2 wetlands exhibited less habitat alteration, greater horizontal interspersion, less invasive species cover, and greater presence of microtopography.

No Category 3 wetlands were identified within the ESC.

TABLE 4-4: Wetland Summary Table

Pawnee Tap - Mayfield 138 kV Transmission Line Reconductoring Project

Wetland	(ORAM Category	Number of	Acreage	
Туре	Category 1	Category 2	Category 3	Wetlands	within ESB
PEM	36	12	0	48	22.22
PUB	0	1	0	1	0.01
PSS	1	2	0	3	0.20
PEM/PSS	1	0	0	1	0.36
Totals	38	15	0	53	22.79

4.2 Streams

Ten streams, totaling 2,249 linear feet, were identified within the ESB. Of the ten streams, two were identified as perennial streams, four were intermittent streams, and four were ephemeral streams. Two streams were assessed using the QHEI methodology (drainage area greater than one square mile) and eight streams were assessed using the HHEI methodology (drainage area less than one square mile). Detailed information for each delineated stream within the ESB is provided in Table 4-2 (follows text).

4.2.1 QHEI Results

Two streams, totaling 518 linear feet within the ESB, were evaluated using QHEI methodology. Both were classified as Good Warmwater streams. The completed QHEI forms and representative photographs are in Appendix C. Table 4-5 provides a summary of streams identified within the ESB that were assessed using the QHEI.

TABLE 4-5: QHEI Stream Summary Table

Pawnee Tap - Mayfield 138 kV Transmission Line Reconductoring Project

FI		Normale and a f	Length				
Flow Regime	Very Poor Warmwater	Poor Warmwater	Fair Warmwater	Good Warmwater	Excellent Warmwater	Number of Streams	(feet) within ESB
Ephemeral	0	0	0	0	0	0	0
Intermittent	0	0	0	0	0	0	0
Perennial	0	0	0	2	0	2	518
Total	0	0	0	2	0	2	518

4.2.2 HHEI Results

Eight headwater streams, totaling 1,731 linear feet within the ESB, were evaluated using the HHEI methodology. Six streams were categorized as Modified Class II streams, one was categorized as Class I and one was categorized as Modified Class I stream. Of the eight streams, four were ephemeral and four were intermittent streams. Completed HHEI forms and representative photographs are provided in Appendix D and Table 4-6 provides a summary of streams identified within the ESB that were assessed using the HHEI.

TABLE 4-6: HHEI Stream Summary Table

Pawnee Tap - Mayfield 138 kV Transmission Line Reconductoring Project

Flow			Number of	Length				
Regime ¹	Rheocrene	Modified Class I	Class I	Modified Class II	Class II	Class III	Streams	(feet) within ESB ²
Ephemeral	0	1	1	2	0	0	4	441
Intermittent	0	0	0	4	0	0	4	1,290
Perennial	0	0	0	0	0	0	0	0
Total	0	1	1	6	0	0	8	1,731

¹Flow regime estimated based on analysis of drainage area, gradient, and observations at the time of survey

4.3 Ponds/Open Water

Six ponds, totaling 2.31 acres, were identified within the ESB (Figure 3-1 to 3-18). Detailed information for each delineated pond within the ESB is provided in Table 4-3 (follows text). Representative photographs and more detailed information on pond conditions can be found in the Jacobs Pond/Open Water Data Forms in Appendix E.

²Numbers have been rounded for presentation purposes. Thus, the total may not reflect the exact sum of the addends.

5 Conclusion

This report presents the background research and field survey results conducted for the Pawnee Tap-Mayfield 138 kV Transmission Line Reconductoring Project located in Geauga County, Ohio.

During the field surveys, 53 wetlands, ten streams, and six ponds were identified within the ESB. The 53 wetlands totaled 22.79 acres and included 48 PEM wetlands, three PSS wetlands, one PUB wetland, and one PEM/PSS wetland complex. Of the 53 wetlands, 38 were classified as Category 1 wetlands and 15 were classified as Category 2 wetlands. No Category 3 wetlands were identified within the ESB. The ten streams identified totaled 2,249 linear feet and included two perennial streams, four intermittent streams, and four ephemeral streams. Two streams were assessed using the QHEI methodology (drainage area greater than one square mile) and eight streams were assessed using the HHEI methodology (drainage area less than one square mile). The six ponds identified totaled 2.31 acres within the ESB.

The jurisdiction of all assessed features will be determined by the USACE and state-established water quality standards based on hydrologic connectivity. Further coordination with the USACE and the state regulating agency is recommended prior to the submittal of any permit or construction activities impacting these features.

The results of the wetland and waterbodies field survey described in this Report conducted by Jacobs are limited to the what was identified within the ESB, and depicted in Figure 3-1 to 3-18. The information contained in this Report is for a study area that may be much larger than the actual Project limits-of-disturbance for construction; therefore, lengths and acreages listed in this Report may likely not constitute the actual impacts of the Project at the time of construction. If permits are determined to be necessary, actual impacted lengths and/or acreages will be submitted in subsequent permit applications.

The wetland and waterbodies field survey results presented within this Report apply to the site conditions at the time of our assessment. Changes within the environmental survey boundary that may occur with time due to natural processes or human impacts at the project site or on adjacent properties, could invalidate the findings of this Report, especially if Jacobs is unaware and has not had the opportunity to revisit the Project environmental survey boundary. Additionally, changes in applicable standards and regulations may also occur due to legislation or the expansion of research over time. Therefore, the findings of this Report may be invalidated, wholly or in part, by changes that are beyond the control of Jacobs.

6 References

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TABLE 3-1: Soil Map Units

Pawnee Tap - Mayfield 138 kV Transmission Line Reconductoring Project

Soil type	Soil type description	Hydric status	Acres (ac) within ESB
EhD	Ellsworth silt loam, 12 to 18 percent slopes	No	1.53
CnB	Chili loam, 2 to 6 percent slopes	No	14.11
EhD2	Ellsworth silt loam, 12 to 18 percent slopes, eroded	No	7.31
CoD2	Chili gravelly loam, 12 to 18 percent slopes, eroded	No	3.59
RmB	Rawson silt loam, 2 to 6 percent slopes	No	7.83
EhF	Ellsworth silt loam, 25 to 70 percent slopes	No	6.49
Or	Orrville silt loam, frequently flooded	Yes	0.22
Но	Holly silt loam, frequently flooded	Yes	3.01
HsB	Haskins loam, 2 to 6 percent slopes	No	2.80
CnC	Chili loam, 6 to 12 percent slopes	No	3.27
CyF	Chili-Oshtemo complex, 25 to 50 percent slopes	No	7.02
JtA	Jimtown silt loam, 0 to 3 percent slopes	Yes	3.85
LyC	Loudonville silt loam, 6 to 12 percent slopes	No	8.56
W	Water	No	1.22
MgB	Mahoning silt loam, 2 to 6 percent slopes	Yes	96.79
EhC	Ellsworth silt loam, 6 to 12 percent slopes	No	6.71
Da	Damascus silt loam	Yes	1.94
MgC	Mahoning silt loam, 6 to 12 percent slopes	No	9.67
MgA	Mahoning silt loam, 0 to 2 percent slopes	Yes	11.37
Tg	Tioga loam, frequently flooded	No	1.23
GfC	Glenford silt loam, 6 to 12 percent slopes	No	0.14
EhC2	Ellsworth silt loam, 6 to 12 percent slopes, eroded	No	3.55
Pg	Pits, gravel	No	1.00
Ud	Udorthents, loamy	No	0.04
LxF	Lordstown-Rock outcrop complex, 18 to 70 percent slopes	No	5.85
WbB	Wadsworth silt loam, 2 to 6 percent slopes	Yes	8.93
BgB	Bogart loam, 2 to 6 percent slopes	Yes	1.60

TABLE 3-2: Mapped National Wetland Inventory Features

Leroy Center-Pawnee Tap 138 kV Transmission Line Reconductoring Project

Wetland Type	Description	Count of Mapped Features	Acres (ac) within ESB
PEM1C	Palustrine emergent, persistent, seasonally flooded	3	0.56
PFO1/SS1C	Palustrine forested, broad-leaved deciduous, and scrub-shrub, broad-leaved deciduous, seasonally flooded	1	0.71
PSS1C	Palustrine scrub-shrub, broad-leaved deciduous, seasonally flooded	1	0.14
PUBG	Palustrine unconsolidated bottom, intermittently exposed	1	0.30
PUBGx	Palustrine unconsolidated bottom, intermittently exposed, excavated	3	1.99
R4SBC	Riverine intermittent streambed, seasonally flooded	3	0.58
R5UBH	Riverine unknown perennial, unconsolidated bottom, permanently flooded	1	0.30

TABLE 4-1: Delineated Wetland Table

Pawnee Tap - Mayfield 138 kV Transmission Line Reconductoring Project

Wetland ID		ation	Wetland	Area (ac)	ORAM Score,
	Latitude	Longitude	Type ¹	within ESB ²	Category
Wetland PM-01	41.594893	-81.229605	PEM	0.33	21, Category 1
Wetland PM-02	41.593958	-81.231486	PEM	0.06	19, Category 1
Wetland PM-03	41.593049	-81.231650	PEM	0.08	16, Category 1
Wetland PM-04	41.592128	-81.233592	PEM	0.09	13, Category 1
Wetland PM-05	41.591670	-81.233635	PEM	0.07	15, Category 1
Wetland PM-06	41.591116	-81.235301	PEM	0.26	9, Category 1
Wetland PM-07	41.589913	-81.236821	PEM	1.32	6, Category 1
Wetland PM-08	41.587636	-81.240072	PEM	3.89	18, Category 1
Wetland PM-09	41.585143	-81.243830	PEM	3.48	24, Category 1
Wetland PM-10	41.583131	-81.246626	PEM	0.41	19, Category 1
Wetland PM-11	41.579373	-81.251626	PSS	0.07	32.5, Category 2
Wetland PM-12	41.578195	-81.252415	PEM	0.14	20, Category 1
Wetland PM-13	41.575693	-81.254918	PEM	0.09	26, Category 1
Wetland PM-14	41.572055	-81.259543	PEM	5.51	26, Category 1
Wetland PM-15	41.568239	-81.263648	PSS	0.12	29, Category 1
Wetland PM-16	41.567314	-81.265016	PEM	0.54	15, Category 1
Wetland PM-17	41.566410	-81.266074	PEM	0.10	18, Category 1
Wetland PM-18	41.565676	-81.266970	PEM	0.29	16.5, Category 1
Wetland PM-19	41.559271	-81.274883	PEM	0.11	41.5, Category 2
Wetland PM-20	41.559013	-81.275410	PEM	0.16	44, Category 2
Wetland PM-21	41.558618	-81.275186	PSS	0.01	44, Category 2
Wetland PM-22	41.557435	-81.276920	PEM	0.08	27.5, Category 1
Wetland PM-23E	41.556620	-81.277906	PEM	0.27	26, Category 1
Wetland PM-23S	41.556496	-81.278083	PSS	0.08	26, Category 1
Wetland PM-24	41.555374	-81.279792	PEM	0.22	16, Category 1
Wetland PM-25	41.554617	-81.280279	PEM	0.18	32.5, Category 2
Wetland PM-26	41.554184	-81.280681	PEM	0.02	24, Category 1
Wetland PM-27	41.553799	-81.281369	PEM	0.08	19, Category 1
Wetland PM-28	41.551656	-81.283865	PEM	0.08	37, Category 2
Wetland PM-29	41.550750	-81.284824	PEM	0.38	51, Category 2

TABLE 4-1: Delineated Wetland Table

Pawnee Tap - Mayfield 138 kV Transmission Line Reconductoring Project

Wetland ID		ation	Wetland	Area (ac)	ORAM Score,
	Latitude	Longitude	Type ¹	within ESB ²	Category
Wetland PM-30	41.550475	-81.285814	PEM	0.06	27, Category 1
Wetland PM-31	41.548578	-81.287876	PEM	0.17	43.5, Category 2
Wetland PM-32	41.547625	-81.288659	PEM	0.10	25, Category 1
Wetland PM-33	41.546834	-81.289631	PEM	0.02	24, Category 1
Wetland PM-34	41.542865	-81.295721	PUB	0.01	43, Category 2
Wetland PM-35	41.542719	-81.296174	PEM	0.14	22.5, Category 1
Wetland PM-36	41.541066	-81.299349	PEM	0.02	24.5, Category 1
Wetland PM-37	41.540356	-81.301009	PEM	0.09	28, Category 1
Wetland PM-38	41.539219	-81.303334	PEM	0.18	34, Category 2
Wetland PM-39	41.538068	-81.306257	PEM	0.04	29, Category 1
Wetland PM-40	41.536078	-81.309755	PEM	0.08	10, Category 1
Wetland PM-41	41.535539	-81.310196	PEM	0.32	36, Category 2
Wetland PM-42	41.535482	-81.310997	PEM	0.04	22, Category 1
Wetland PM-43	41.534991	-81.311511	PEM	0.26	37.5, Category 2
Wetland PM-44	41.534269	-81.312617	PEM	0.13	28.5, Category 1
Wetland PM-45	41.533565	-81.313898	PEM	0.43	22, Category 1
Wetland PM-46	41.533002	-81.315427	PEM	0.16	16, Category 1
Wetland PM-47	41.530684	-81.318804	PEM	0.21	22, Category 1
Wetland PM-48	41.529998	-81.319957	PEM	0.11	37, Category 2
Wetland PM-49	41.529143	-81.321272	PEM	0.64	35, Category 2
Wetland PM-50	41.528397	-81.322351	PEM	0.77	28, Category 1
Wetland PM-51	41.527712	-81.323652	PEM	0.01	16, Category 1
Wetland PM-52	41.526865	-81.324951	PEM	0.23	26.5, Category 1
Wetland PM-53	41.526212	-81.326336	PEM	0.05	30, Category 2
Total Wetland Area (ac)				22.79	

¹Cowardin et al. 1979.

 $^{^2}$ Numbers have been rounded for presentation purposes. Thus, the total may not reflect the exact sum of the addends.

TABLE 4-2: Delineated Stream Table Pawnee Tap - Mayfield 138 kV Transmission Line Reconductoring Project

Stream ID	Location		Flow	Length (ft)	Average OHWM	Average TOB	HHEI/QHEI	Category/ Designation
Stredili ID	Latitude	Longitude	Regime ¹	within ESB ²	Width (ft)	Width (ft)	Score	Category/ Designation
Stream PM-01	41.55859	-81.27571	Perennial	235	35	45	66	Good Warmwater
Stream PM-02	41.55742	-81.27749	Intermittent	167	2	3	57	Modified Class II
Stream PM-03	41.55454	-81.28005	Intermittent	461	3	4	49	Modified Class II
Stream PM-04	41.55172	-81.28411	Ephemeral	203	1	1	31	Modified Class II
Stream PM-05	41.55096	-81.28483	Intermittent	327	3	3	56	Modified Class II
Stream PM-06	41.54775	-81.28920	Ephemeral	45	2	3	35	Modified Class II
Stream PM-07	41.54237	-81.29754	Perennial	283	20	30	59.5	Good Warmwater
Stream PM-08	41.54121	-81.29950	Ephemeral	48	2	2	24	Modified Class I
Stream PM-09	41.54055	-81.30125	Ephemeral	145	2	3	25	Class I
Stream PM-10	41.52668	-81.32495	Intermittent	335	3	5	38	Modified Class II
Total Stream L			am Length (ft)	2,249				

¹Flow regime estimated based on analysis of drainage area, gradient, and observations at the time of survey

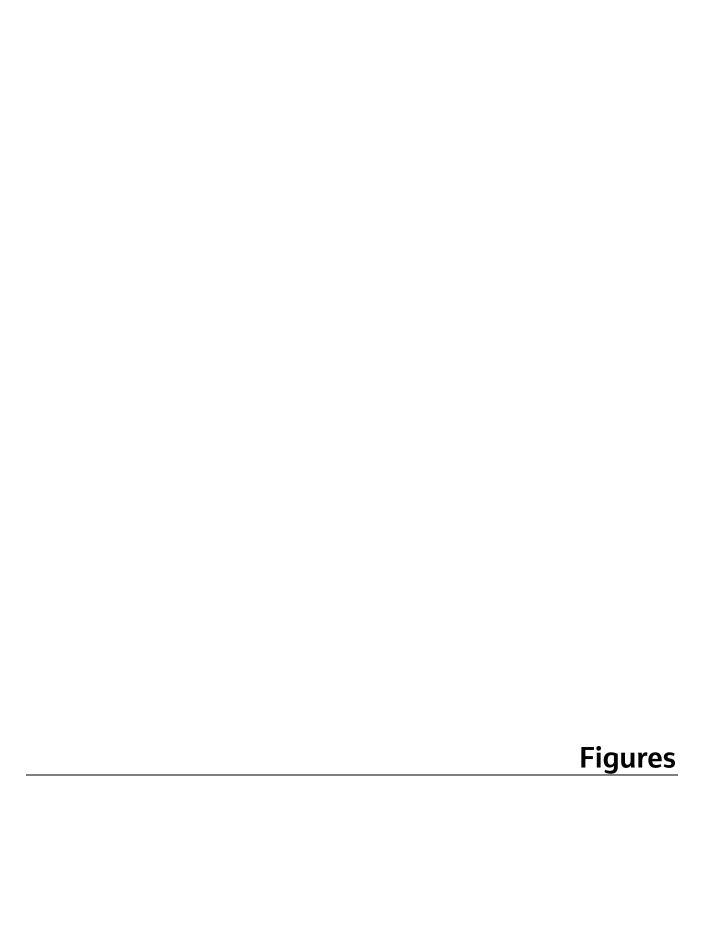
²Numbers have been rounded for presentation purposes. Thus, the total may not reflect the exact sum of the addends.

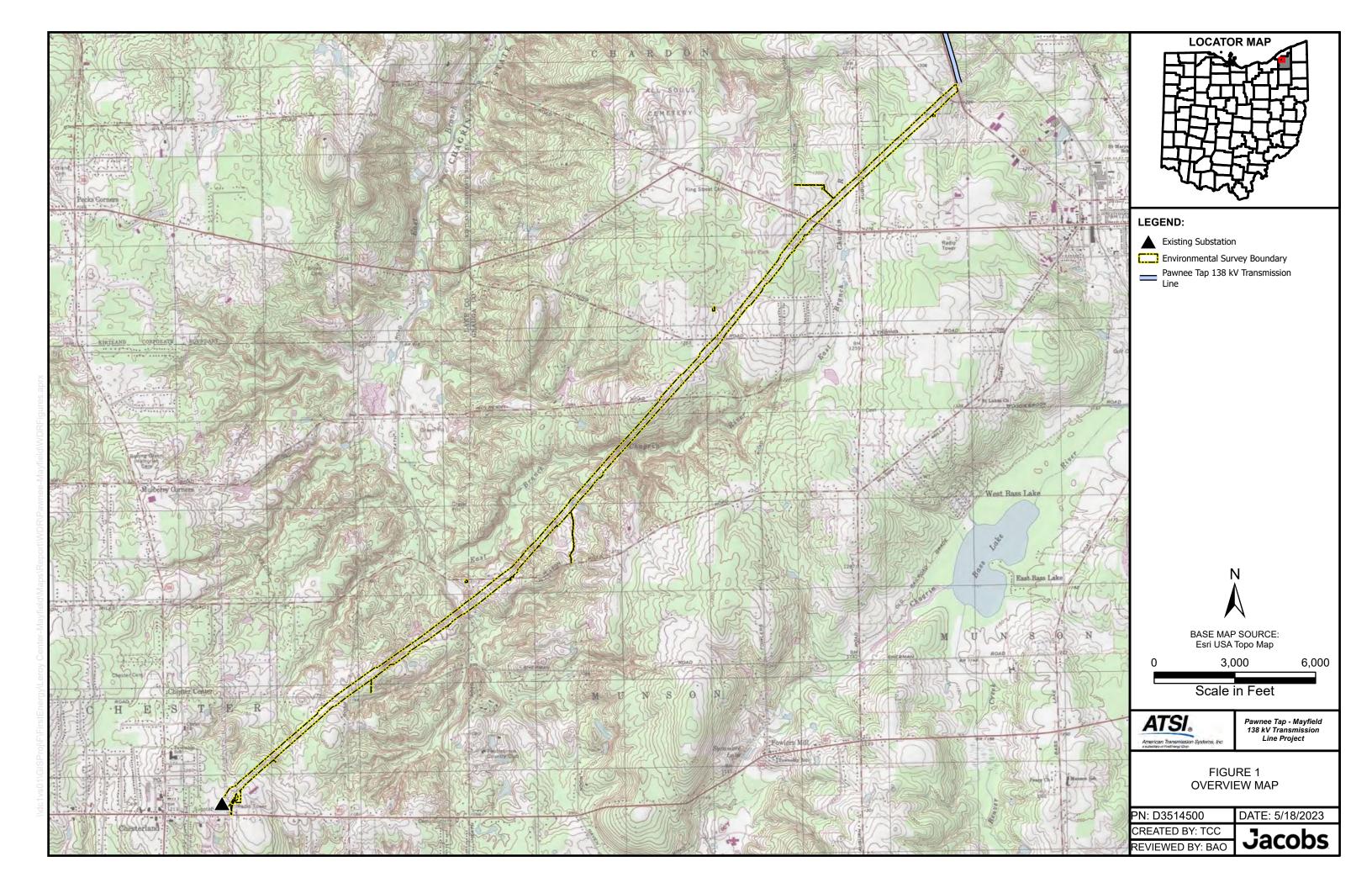
* Some streams were assessed duiring non-base flow conditions and may require an additional field visit to complete the assessment during normal conditions.

TABLE 4-3: Delineated Pond Table Pawnee Tap - Mayfield 138 kV Transmission Line Reconductoring Project

Pond ID	Loc	Area (ac)	
Poliu ib	Latitude	Longitude	within ESB ¹
Pond PM-01	41.5915	-81.23380	0.02
Pond PM-02	41.5865	-81.24157	0.07
Pond PM-03	41.5795	-81.25100	0.59
Pond PM-04	41.5627	-81.27039	0.29
Pond PM-05	41.5533	-81.28195	1.32
Pond PM-06	41.5267	-81.32457	0.02
	2.31		

¹Numbers have been rounded for presentation purposes. Thus, the total may not reflect the exact sum of the addends.

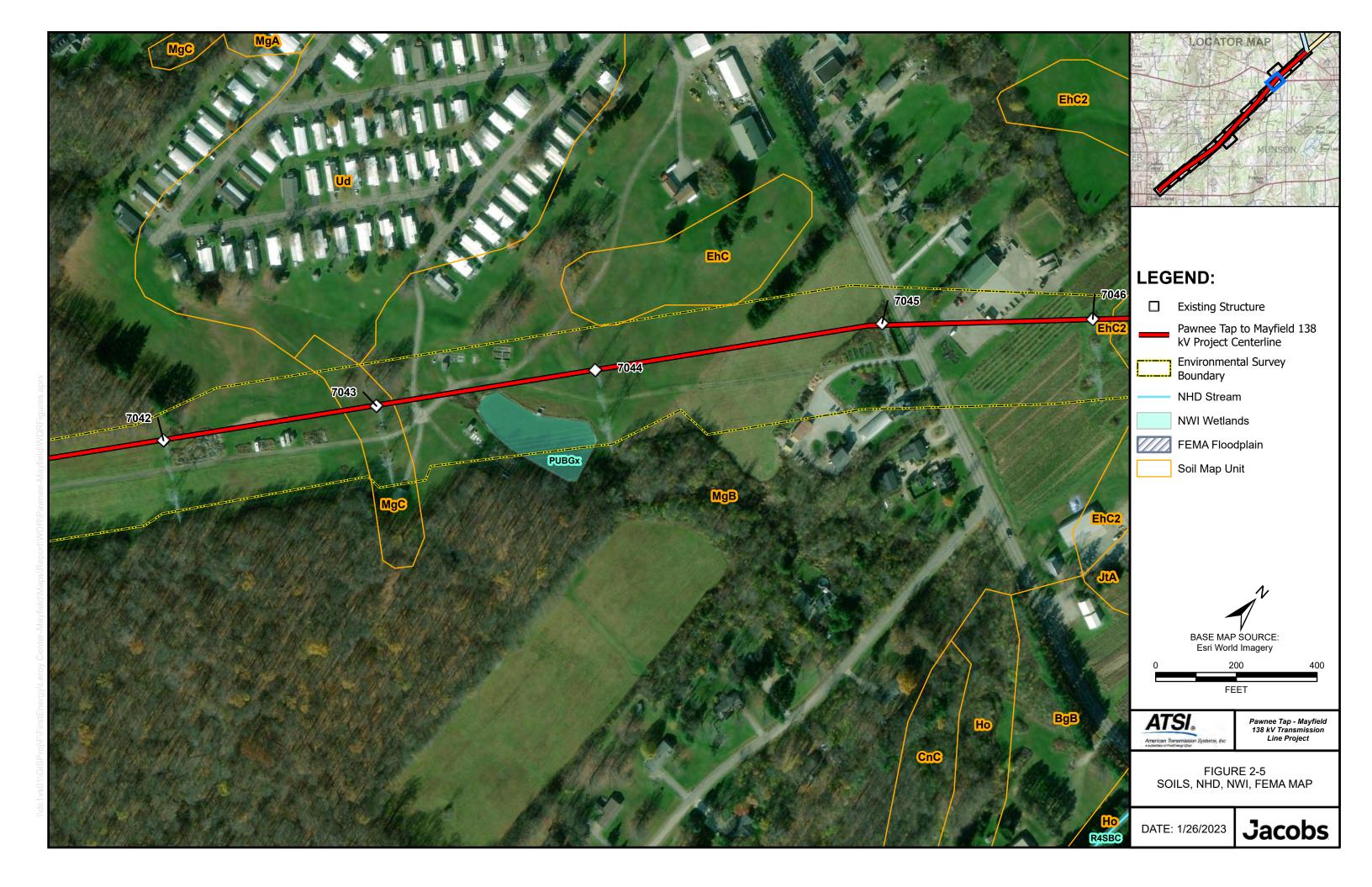


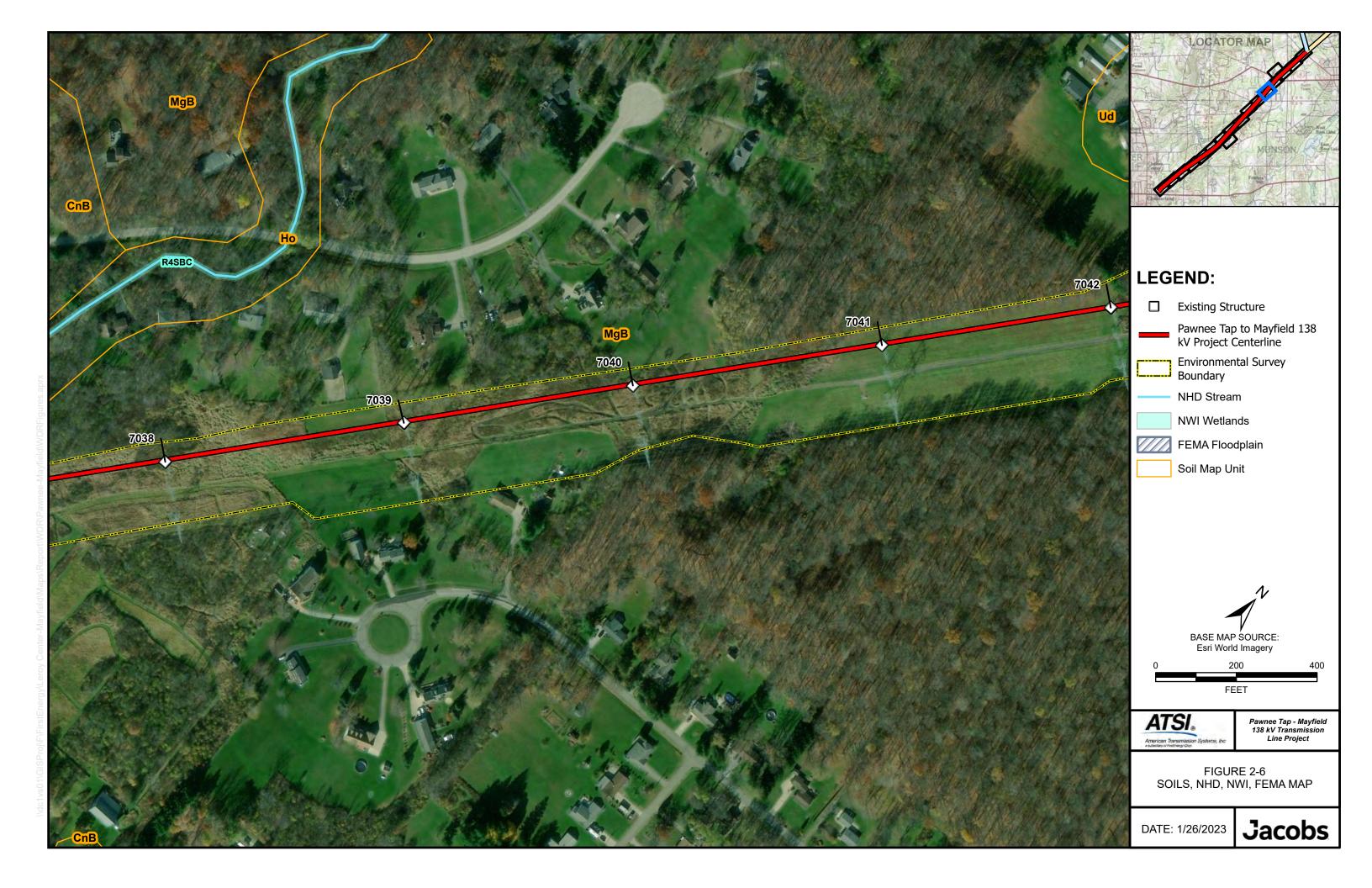


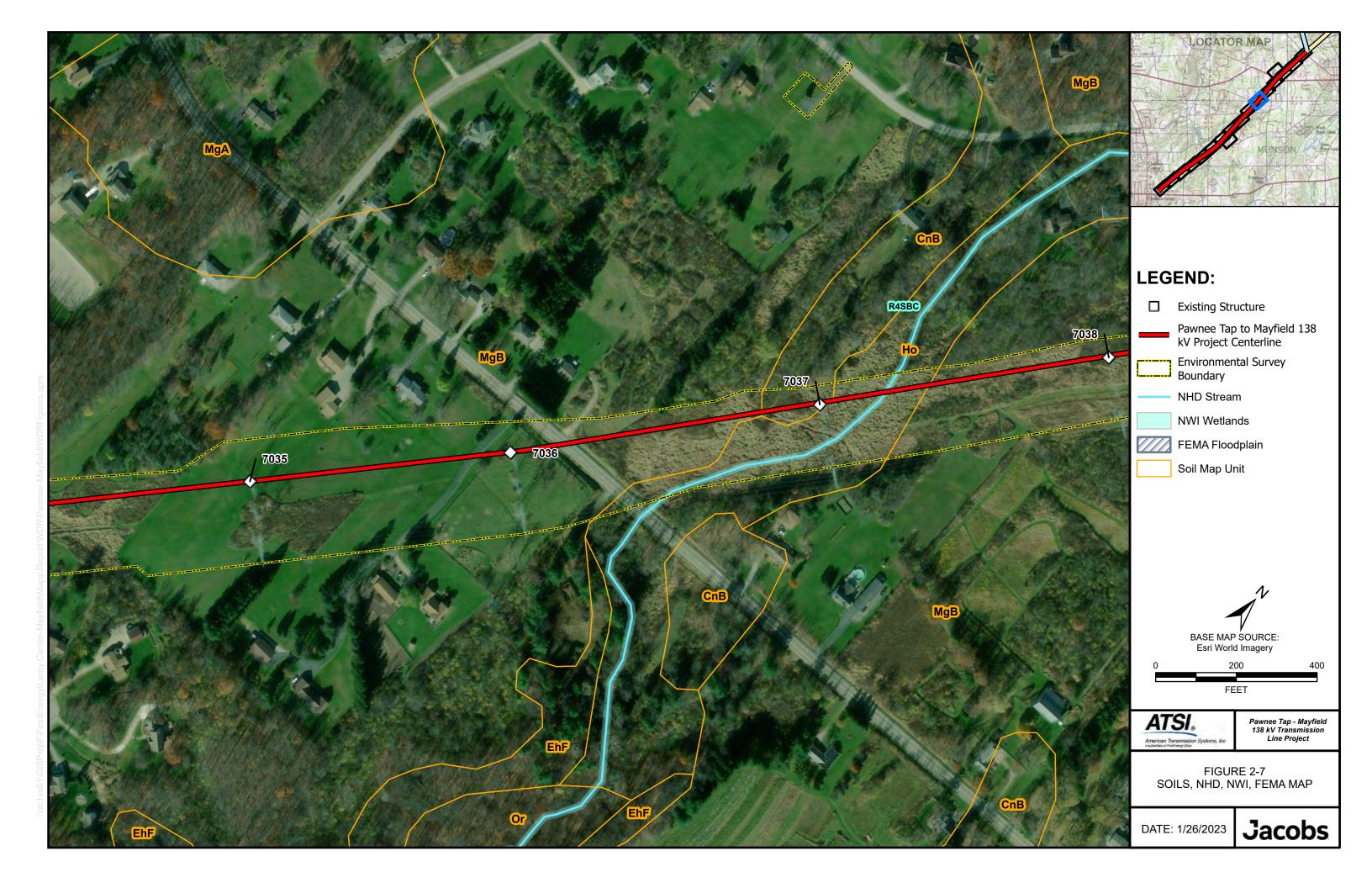




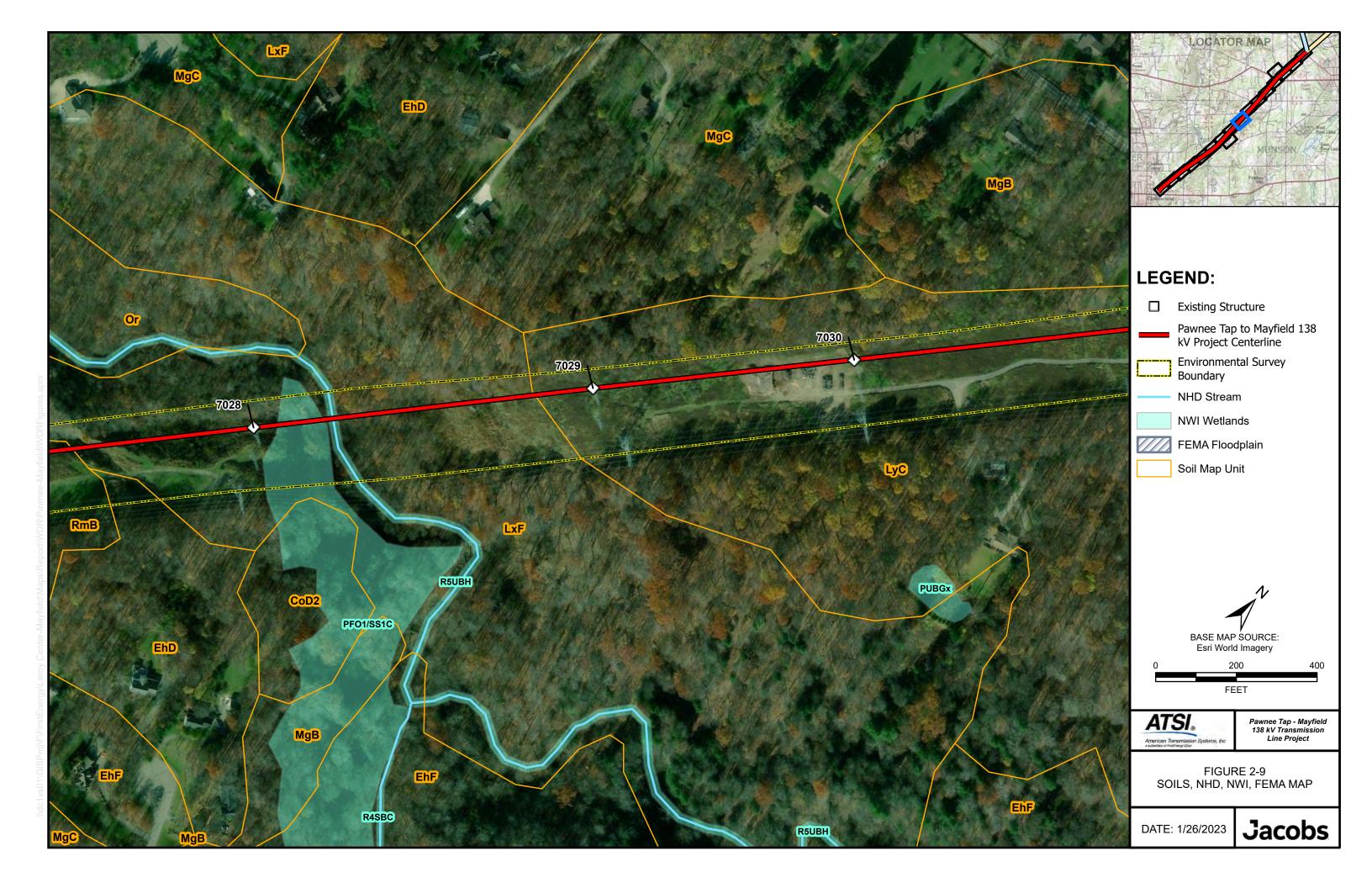






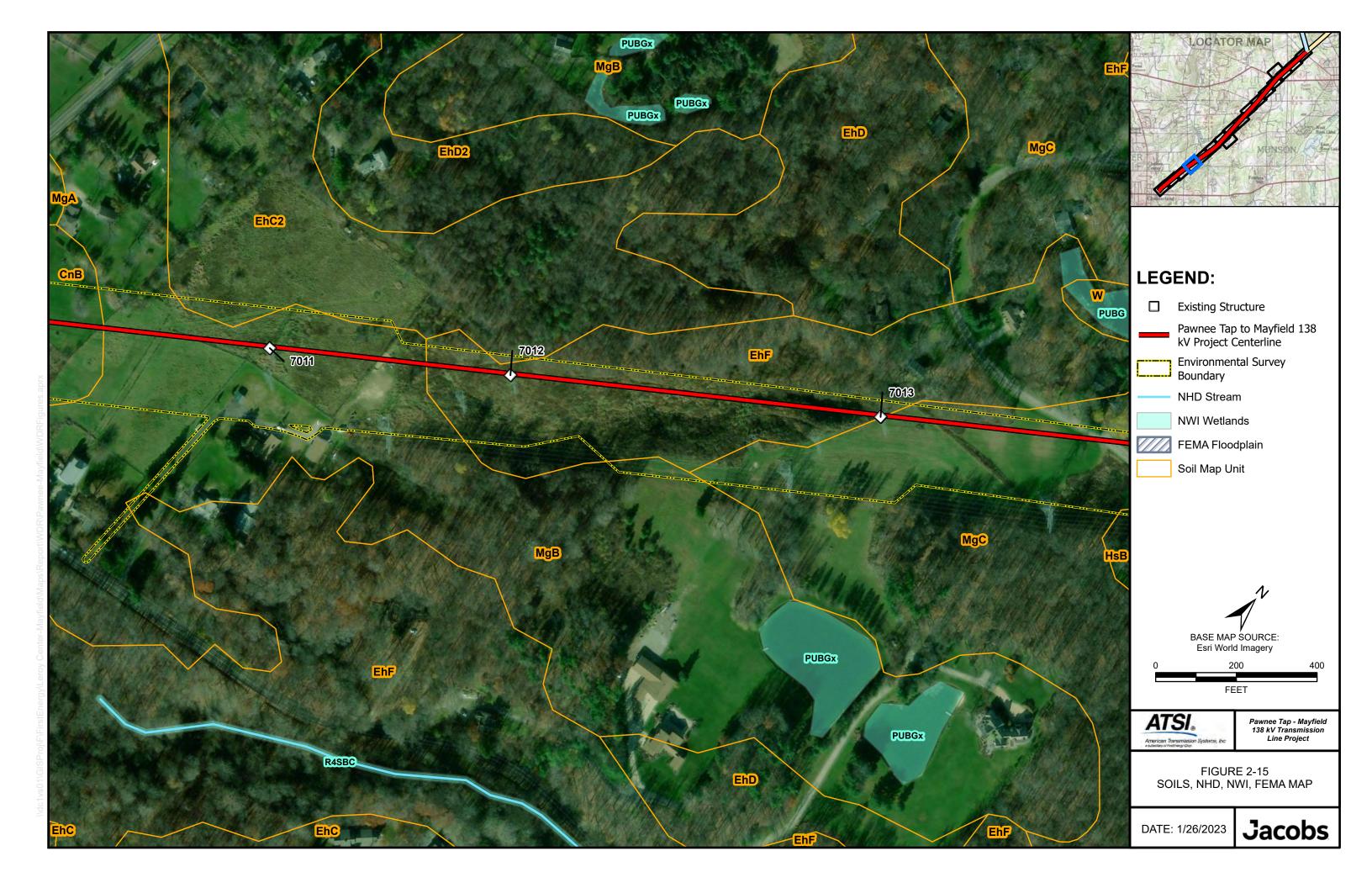


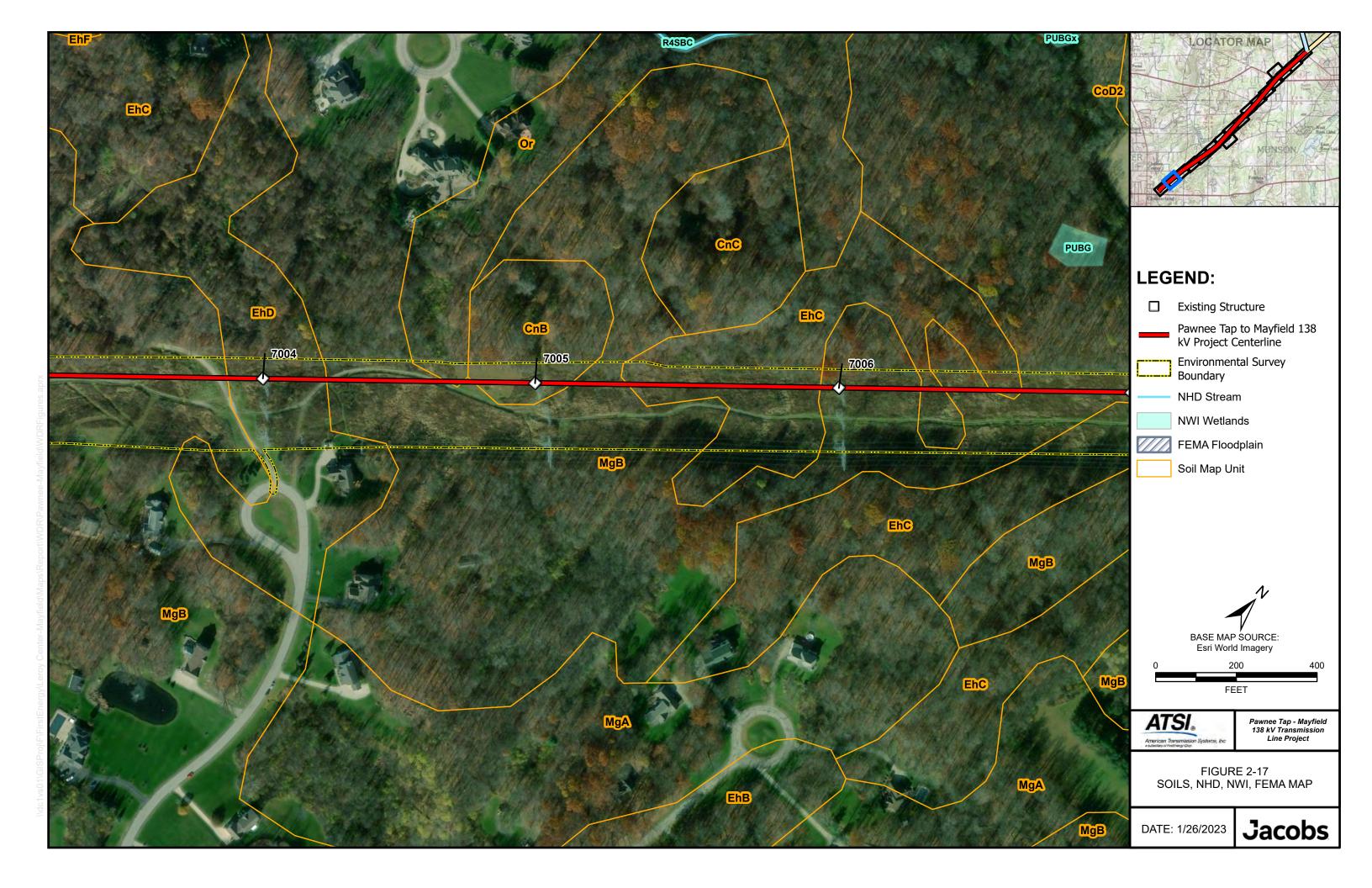




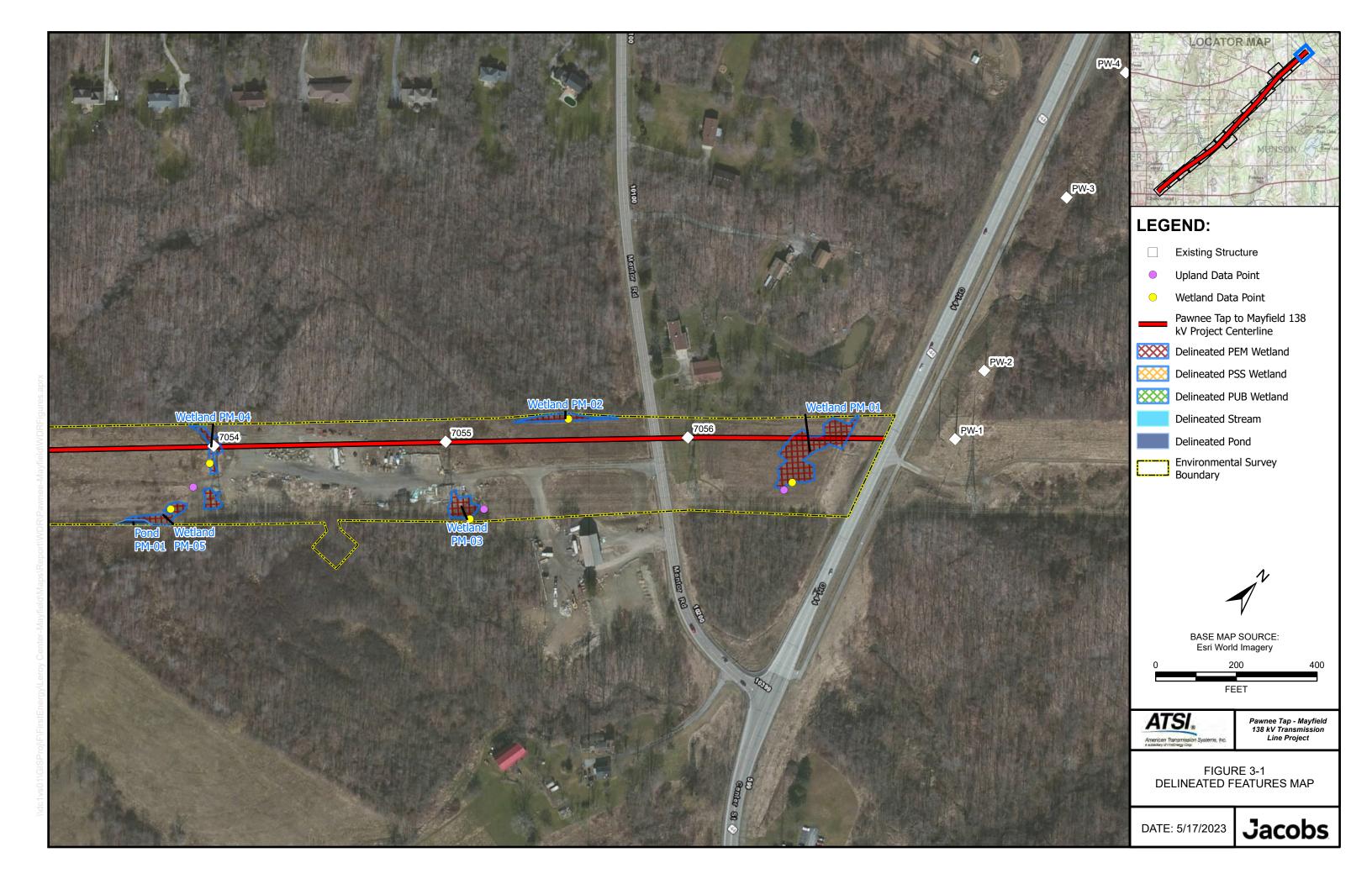
























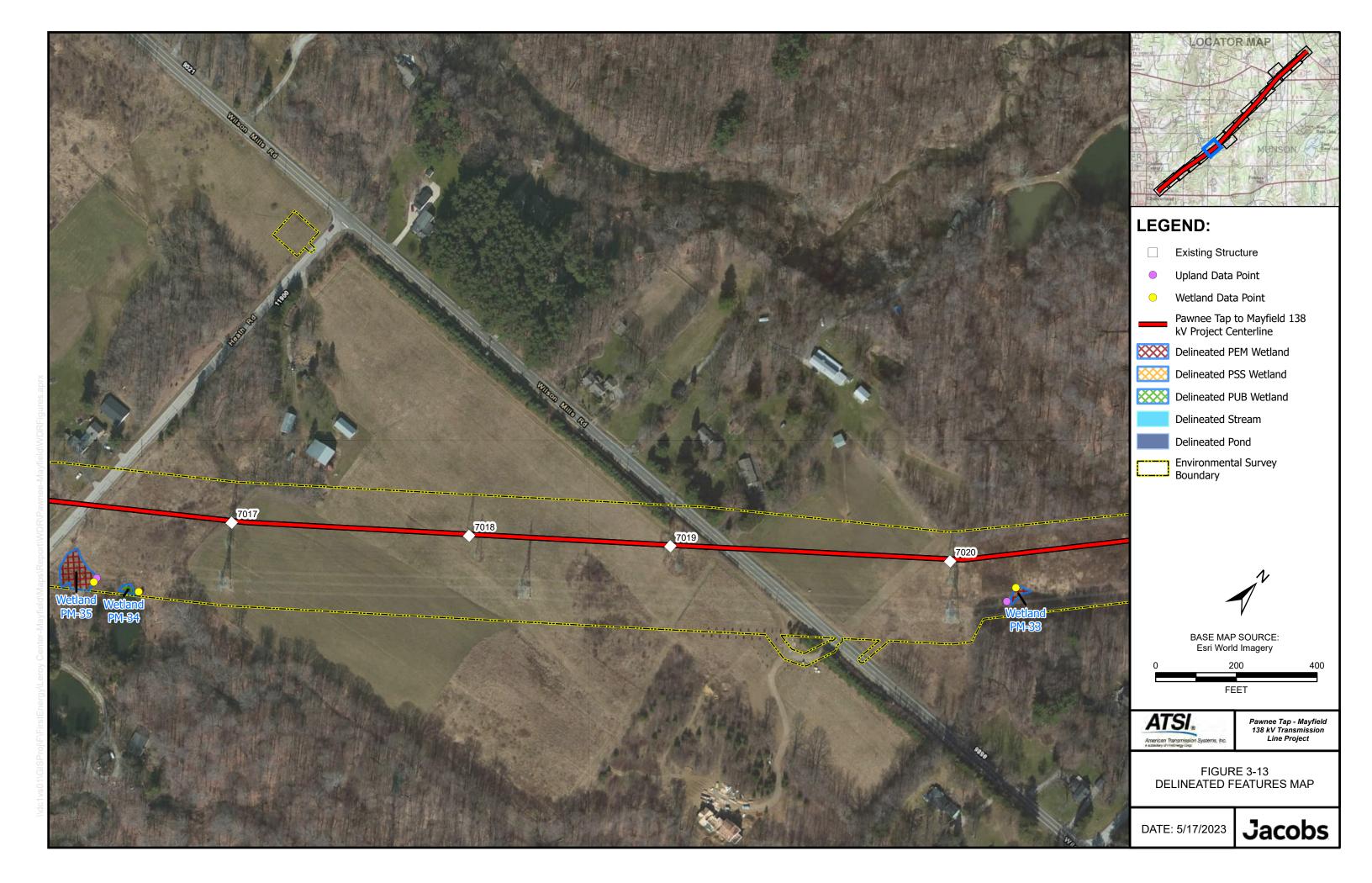






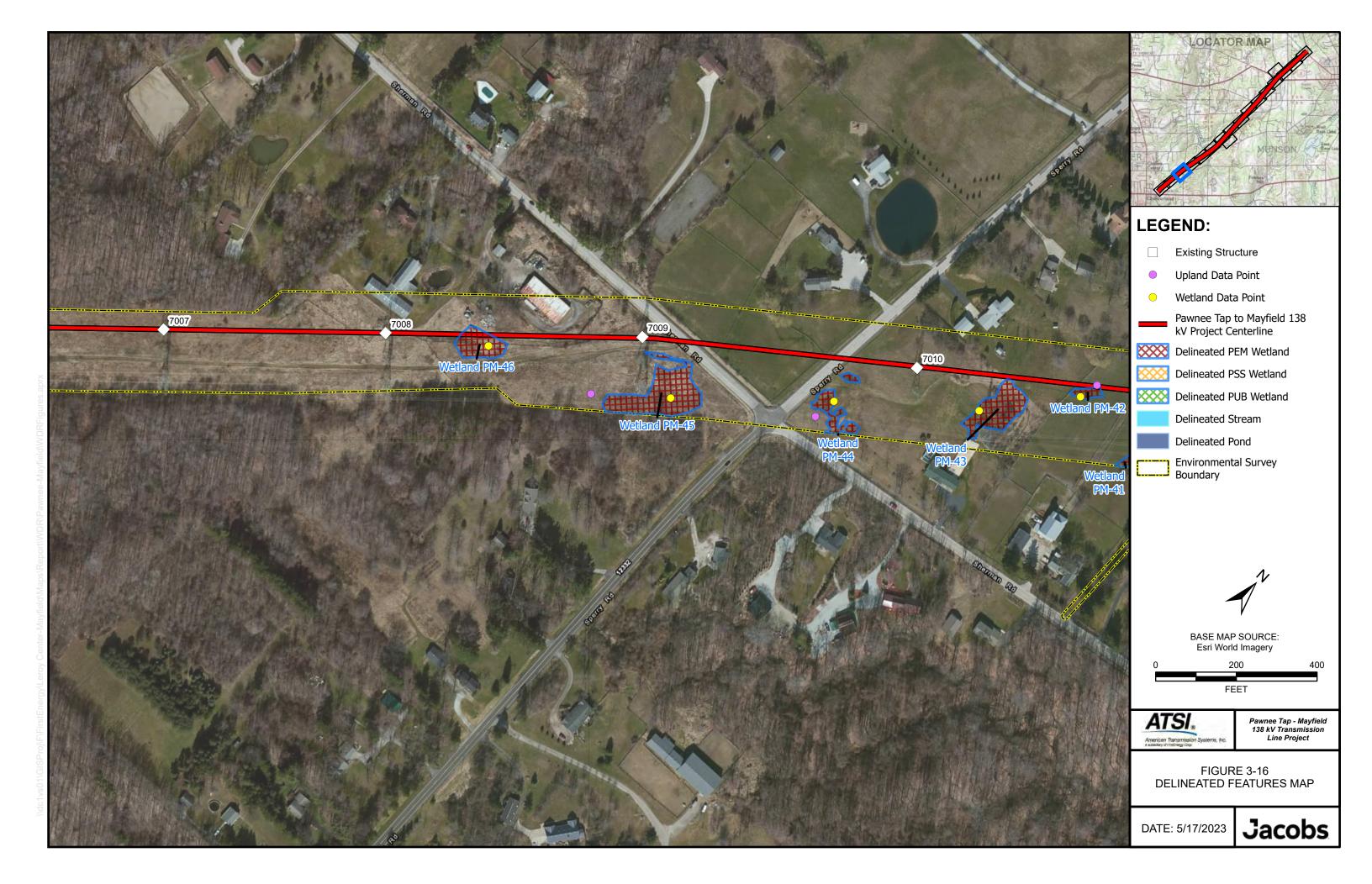






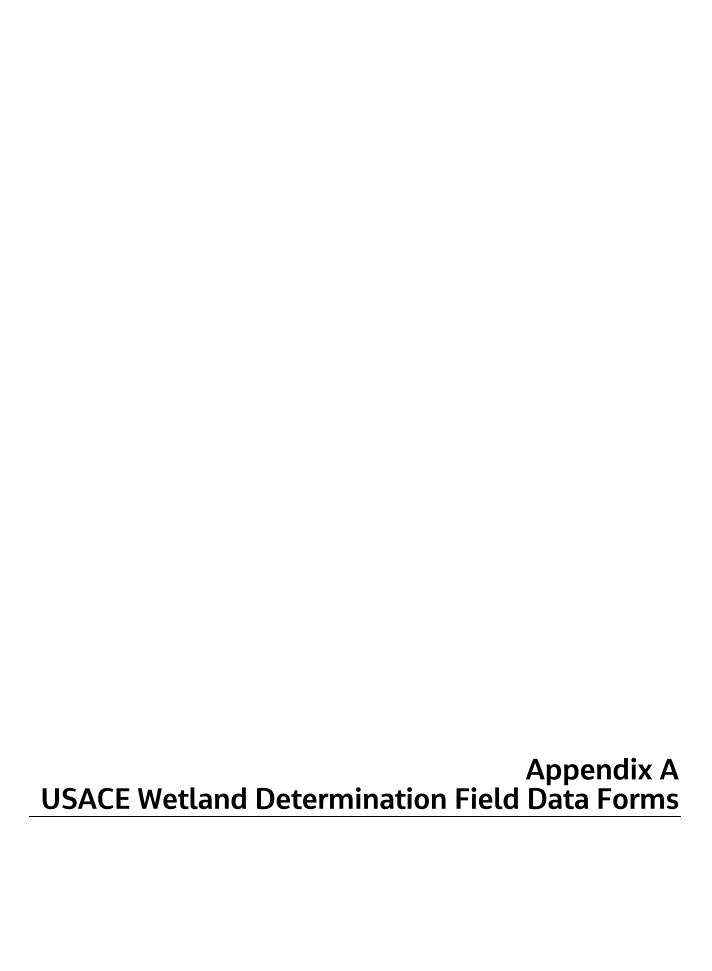












WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Pro	pjec City/County: Geauga County	Sampling Date: 08/09/2021
Applicant/Owner: FirstEnergy		OH Sampling Point: Wetland PM-01
Investigator(s): MJA		
Landform (hillslope, terrace, etc.): Terrace		cave Slope (%): ³
Subregion (LRR or MLRA): LRR R Lat: 41.59465		
Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slop	pes NW	I classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X No (If no, ex	plain in Remarks.)
Are Vegetation, SoilX, or Hydrology significa	antly disturbed? Are "Normal Circums	tances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally		ny answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling point locations, tra	nsects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: (Explain alternative procedures here or in a separate in the separate in t	within a Wetland? Ye If yes, optional Wetland Site ID:	
LIVEROLOGY		
HYDROLOGY	Sacard	and ladicators (minimum of two required)
Wetland Hydrology Indicators:		ary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap		face Soil Cracks (B6) inage Patterns (B10)
Surface Water (A1) Water-Stail High Water Table (A2) Aquatic Fa		ss Trim Lines (B16)
Saturation (A3) Marl Depos		-Season Water Table (C2)
		yfish Burrows (C8)
1		uration Visible on Aerial Imagery (C9)
		nted or Stressed Plants (D1)
		omorphic Position (D2)
Iron Deposits (B5) Thin Muck		illow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Exp	lain in Remarks) Mic	rotopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC	C-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No _X Depth (inc	hes):	
Water Table Present? Yes No _X Depth (inc	hes):	
Saturation Present? Yes No _X _ Depth (includes capillary fringe)	,	y Present? Yes X No No
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:	
Remarks:		

VEGETATION – Use scientific names of plants.

EGETATION – Use scientific names of plants	5.			Sampling Point: Wetland PM-0
<u>Tree Stratum</u> (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant Species Across All Strata: 3 (B)
1. 5.				Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)
5				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species
Sapling/Shrub Stratum (Plot size: 15)				FACW species5
				FAC species 30 x 3 = 90 100
				raco species x 4 =
l				UPL species 3 x 5 = 15 Column Totals: 128 (A) 280 (B)
i				Prevalence Index = $B/A = 2.19$
s				Hydrophytic Vegetation Indicators:
······································				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	er	$\frac{X}{X}$ 2 - Dominance Test is >50% $\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^1$
Herb Stratum (Plot size:5)				4 - Morphological Adaptations ¹ (Provide supporting
Juncus effusus	25	Yes	OBL	data in Remarks or on a separate sheet)
Carex vulpinoidea	20	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
s. Scirpus cyperinus	15	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
Euthamia graminifolia	30	Yes	FAC	be present, unless disturbed or problematic.
Eupatorium perfoliatum	5	No	FACW	Definitions of Vegetation Strata:
SLythrum salicaria	5	No	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diamete
Solidago canadensis	25	Yes	FACU	at breast height (DBH), regardless of height.
Daucus carota	3	No	UPL	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
0				Herb – All herbaceous (non-woody) plants, regardless of
1				size, and woody plants less than 3.28 ft tall.
2.				Woody vines – All woody vines greater than 3.28 ft in
Z		= Total Cov	er	height.
Voody Vine Stratum (Plot size:)				
•				Hydrophytic
2				Vegetation
3				Present? Yes X No
4		= Total Cov		

SOIL Sampling Point: Wetland PM-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix	0/		x Features	<u>S</u>	12	Taustuma	Damarka
(inches)	Color (moist)	<u>%</u> _	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 4/2	90	2.5YR 4/6	10	Concer	PL,M	Silty loam	
-								
-								
-								
								<u> </u>
-								
-								
			-					
-								
-					· <u> </u>			
1 _T C. C.			De duce ed Medico MA				21	DI Dave Lining M Matrix
Hydric Soil I	ncentration, D=Depl	etion, Rivi=i	Reduced Matrix, Mi	S=IVIasked	Sand Gra	ins.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	v Surface	(S8) (I RR	R		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	-	MLRA 149B		(00) (21111	,		Prairie Redox (A16) (LRR K, L, R)
Black His		_	Thin Dark Surfa	ice (S9) (L	.RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	Loamy Mucky N			L)		Surface (S7) (LRR K, L, M)
	Layers (A5)	_	Loamy Gleyed)			alue Below Surface (S8) (LRR K, L)
-	Below Dark Surface	(A11) _	X Depleted Matrix					ark Surface (S9) (LRR K, L)
	rk Surface (A12) lucky Mineral (S1)	-	Redox Dark Su Depleted Dark	. ,	7)			anganese Masses (F12) (LRR K, L, R) ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	_	Redox Depress		')			Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)	_		()				arent Material (F21)
	Matrix (S6)							shallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149B)	1				Other	(Explain in Remarks)
3								
	hydrophytic vegetati	on and wet	and hydrology mus	t be prese	ent, unless	disturbed	or problemation	D
	ayer (if observed):							
Type:	.l \						11-1-1-1-0-11	Processio Value V
	ches):						Hydric Soil	Present? Yes X No
Remarks:								





Soil W





N E



WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Leroy Center-Ma	yfield 138 kV Tran	smission Line	Projec City/0	County: Geau	iga County		Sampling Date: 08/09/2021	
Applicant/Owner: FirstEnergy				, <u></u>			Sampling Point: Upland PM-	
			Secti	ion. Township	. Range: N	_		
							Slone (%): 3	
Landform (hillslope, terrace, et	e.)	41 594	Local le 5772833333	3	-81	22955025	Slope (%)	
							Datum: WGS 19	
Soil Map Unit Name: MgB: Ma								
Are climatic / hydrologic condit	ions on the site typ	oical for this tin	ne of year? `	Yes X N	10	(If no, explain in Re	emarks.)	
Are Vegetation, Soil	X, or Hydrolog	y sign	ificantly distu	rbed?	Are "Norma	l Circumstances" p	resent? Yes X No	
Are Vegetation, Soil	, or Hydrolog	y natu	rally problem	natic? (If needed,	explain any answer	rs in Remarks.)	
SUMMARY OF FINDIN	GS – Attach s	ite map sh	owing sar	mpling poi	nt location	ons, transects,	, important features, etc	
Hydrophytic Vegetation Prese	ent? Yes	No _	Х	Is the Sam	pled Area			
Hydric Soil Present?		No _		within a We	etland?	Yes	No	
Wetland Hydrology Present?		No		If ves. option	nal Wetland	d Site ID: Upland P	M-01	
Remarks: (Explain alternative				, 00, 00		<u> </u>		
HYDROLOGY								
Wetland Hydrology Indicate	ors:					Secondary Indicat	tors (minimum of two required)	
Primary Indicators (minimum	of one is required:	check all that	apply)			Surface Soil (Cracks (B6)	
Surface Water (A1)		Water-S	Stained Leave	es (B9)		Drainage Pat	terns (B10)	
High Water Table (A2)		Aquatic	Fauna (B13))		Moss Trim Li	nes (B16)	
Saturation (A3)		Marl De	posits (B15)		Dry-Season Water Table (C2)			
Water Marks (B1)			en Sulfide Od		Crayfish Burrows (C8)			
Sediment Deposits (B2)				res on Living F	Roots (C3)	· · · · · · · · · · · · · · · · · · ·	sible on Aerial Imagery (C9)	
Drift Deposits (B3)			ce of Reduce		" (00)		ressed Plants (D1)	
Algal Mat or Crust (B4)		· · · · · · · · · · · · · · · · · · ·		on in Tilled So	ils (C6)	Geomorphic I		
Iron Deposits (B5) Inundation Visible on Ae	rial Imagary (B7)		ıck Surface (Explain in Re			Shallow Aquit	phic Relief (D4)	
Sparsely Vegetated Con-	• • • •			illaiks)		FAC-Neutral		
Field Observations:	Save Surface (Bo)					TAO Neutrai	1031 (00)	
Surface Water Present?	Yes No	X Denth	(inches):					
Water Table Present?	Yes No							
Saturation Present?	Yes No				Wetland I	Hydrology Presen	t? Yes No _ X	
(includes capillary fringe)						-		
Describe Recorded Data (stre	eam gauge, monito	oring well, aeri	al photos, pro	evious inspect	ions), if ava	ailable:		
Remarks:								

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:1(A)
2	·			Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.5 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
45		= Total Cov	er	OBL species 1 x 1 = 1 FACW species 50 x 2 = 100
Sapling/Shrub Stratum (Plot size: 15				PACW species X Z =
1				FAC species 6 x 3 = 18 FACU species 60 x 4 = 240
2				UPL species
3				Column Totals: 117 (A) 359 (B)
4				
5				Prevalence Index = B/A = 3.068376068;
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	ar.	2 - Dominance Test is >50%
Herb Stratum (Plot size:5		- Total Cov	5 1	3 - Prevalence Index is ≤3.0 ¹
1. Phragmites australis	50	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Solidago canadensis	60	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Prunella vulgaris			FAC	¹ Indicators of hydric soil and wetland hydrology must
	1		OBL	be present, unless disturbed or problematic.
5. Toxicodendron radicans			FAC	Definitions of Vegetation Strata:
				_
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7				Sapling/shrub – Woody plants less than 3 in. DBH
8				and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12		-		height.
	117	= Total Cov	er	
Woody Vine Stratum (Plot size: 30)				
1				
2				Hydrophytic Vegetation
3				Present? Yes No X
4.				
· ·		= Total Cov		
Remarks: (Include photo numbers here or on a separate	sheet.)	_ Total 00V		
(,			

Sampling Point: Upland PM-01

SOIL Sampling Point: Upland PM-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth Matrix (inches) Color (moist) %	Redo Color (moist)	x Features	Type ¹	Loc ²	Texture	Remarks		
						Remarks		
0 - 18 10YR 4/3 98	10YR 5/4	2	Concer	M	Silty loam			
-								
<u> </u>								
-								
					·			
-								
				-				
						-		
<u> </u>								
-								
¹ Type: C=Concentration, D=Depletion, R	— ————————————————————————————————————	———— S–Masked	Sand Gra	ins	² l ocation	: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators:	WI-INCUUCCU WALLIA, IVIC	J-IVIASKCA	Odrid Ord			for Problematic Hydric Soils ³ :		
Histosol (A1)	Polyvalue Belov	v Surface	(S8) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B)		
Histic Epipedon (A2)	MLRA 149B)		` , `	•		Prairie Redox (A16) (LRR K, L, R)		
Black Histic (A3)	Thin Dark Surfa	ice (S9) (L	RR R, ML	.RA 149B)) 5 cm N	Mucky Peat or Peat (S3) (LRR K, L, R)		
Hydrogen Sulfide (A4)	Loamy Mucky N			L)		Surface (S7) (LRR K, L, M)		
Stratified Layers (A5)	Loamy Gleyed)		-	alue Below Surface (S8) (LRR K, L)		
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Depleted Matrix Redox Dark Su					ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)		
Sandy Mucky Mineral (S1)	Depleted Dark S	, ,	7)			ont Floodplain Soils (F19) (MLRA 149B)		
Sandy Gleyed Matrix (S4)	Redox Depress		.,			Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Redox (S5)		` ,				arent Material (F21)		
Stripped Matrix (S6)						Shallow Dark Surface (TF12)		
Dark Surface (S7) (LRR R, MLRA 14	9B)				Other	(Explain in Remarks)		
31 - 42 - 4 (and and bridge laws are			al' a ta colo a cal		_		
³ Indicators of hydrophytic vegetation and Restrictive Layer (if observed):	wetiand nydrology mus	t be prese	nt, uniess	aisturbea	or problemation	J.		
, , ,								
Type:	_				Usalnia Cail	Present? Yes No _X		
Depth (inches):	_				nyuric 30ii	riesent: res No		
Remarks:								





Soil E

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Pro	ojec City/County: Geauga County	Sampling Date: 08/05/2021		
Applicant/Owner: FirstEnergy		Sampling Point: Wetland PM-02		
Investigator(s): MJA				
Landform (hillslope, terrace, etc.): Terrace		/e Slope (%): ³		
Subregion (LRR or MLRA): LRR R Lat: 41.59398				
Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slop	Des NWI cl	lassification: N/A		
Are climatic / hydrologic conditions on the site typical for this time $\boldsymbol{\alpha}$	of year? Yes X No (If no, expla	in in Remarks.)		
Are Vegetation, SoilX_, or Hydrology significa	antly disturbed? Are "Normal Circumstar	nces" present? Yes X No		
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any	answers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map show	ring sampling point locations, trans	sects, important features, etc.		
Hydrophytic Vegetation Present? YesX No Hydric Soil Present? YesX No Wetland Hydrology Present? YesX No	within a Wetland? Yes			
Wetland Hydrology Present? Yes X No Remarks: (Explain alternative procedures here or in a separate in	-	etianu Fivi-02		
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary	Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that ap		e Soil Cracks (B6)		
		ige Patterns (B10)		
High Water Table (A2) Aquatic Fa		Moss Trim Lines (B16)		
Saturation (A3) Marl Depos		Dry-Season Water Table (C2)		
Water Marks (B1) Hydrogen S	Sulfide Odor (C1) Crayfis	sh Burrows (C8)		
		tion Visible on Aerial Imagery (C9)		
		d or Stressed Plants (D1)		
		orphic Position (D2)		
Iron Deposits (B5) Thin Muck	• • •	w Aquitard (D3)		
		opographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8) Field Observations:	FAC-N	leutral Test (D5)		
Surface Water Present? Yes No _X Depth (inc	thes):			
Water Table Present? Yes No _X Depth (inc	•			
Saturation Present? Yes No _X _ Depth (inc		Present? Yes X No		
(includes capillary fringe)	,	766 X NO		
Describe Recorded Data (stream gauge, monitoring well, aerial p	photos, previous inspections), if available:			
Remarks:				

VEGETATION – Use scientific names of plants.

/EGETATION – Use scientific names of plants	S.			Sampling Point: Wetland PM-0
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1			· 	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
5				matrice est, thew, either
6				Prevalence Index worksheet:
7				
Continue/Charle Charles (Diet sine)		= Total Cov	er	OBL species
Sapling/Shrub Stratum (Plot size: 15)				FAC species 60 x 3 = 180
1				FACU species 25 x 4 = 100
2				UPL species 3 x 5 = 15
3			· ——	Column Totals: 148 (A) 415 (B)
4				Prevalence Index = B/A = 2.80
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
_		= Total Cov	er	X 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: 5 1. Cyperus esculentus	60	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Echinochloa crus-galli		Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Setaria faberi		-	FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Ambrosia artemisiifolia		No	FACU	be present, unless disturbed or problematic.
5. Persicaria maculosa	10	No	FAC	Definitions of Vegetation Strata:
6. Daucus carota	3	No	UPL	Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
7				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9			·	Herb – All herbaceous (non-woody) plants, regardless of
10			· 	size, and woody plants less than 3.28 ft tall.
11 12				Woody vines – All woody vines greater than 3.28 ft in height.
		= Total Cov	er	neight.
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic Vegetation
3				Present? Yes X No
	· 			
4		= Total Cov		

SOIL Sampling Point: Wetland PM-02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix		Redo	x Features	<u>S</u> _ 1	. 2	_				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks			
0 - 5	10YR 3/2	100					Silty loam				
5 - 18	10YR 3/2	90	2.5YR 4/6	10	Concer	PL,M	Silty loam				
-											
-											
-											
-											
-											
-											
								-			
	oncentration, D=Depl	etion, RM:	=Reduced Matrix, MS	S=Masked	Sand Gra	ins.		: PL=Pore Lining, M=Matrix.			
Hydric Soil I								for Problematic Hydric Soils ³ :			
Histosol			Polyvalue Belov		(S8) (LRR	? R,		Muck (A10) (LRR K, L, MLRA 149B)			
Black His	pipedon (A2)		MLRA 149B) Thin Dark Surfa	,	DD D MI	DA 140D		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)			
	n Sulfide (A4)		Loamy Mucky N					Surface (S7) (LRR K, L, M)			
	l Layers (A5)		Loamy Gleyed			-)		alue Below Surface (S8) (LRR K, L)			
	d Below Dark Surface	(A11)	Depleted Matrix		,			Thin Dark Surface (S9) (LRR K, L)			
	ark Surface (A12)	, ,	X Redox Dark Su				Iron-Manganese Masses (F12) (LRR K, L, R)				
Sandy M	lucky Mineral (S1)		Depleted Dark	Surface (F	7)		Piedm	Piedmont Floodplain Soils (F19) (MLRA 149B)			
	lleyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)			
-	edox (S5)							Red Parent Material (F21)			
	Matrix (S6)		•				Very Shallow Dark Surface (TF12)				
Dark Sur	rface (S7) (LRR R, M	ILRA 1491	3)				Other	(Explain in Remarks)			
³ Indicators of	hydrophytic vegetati	ion and we	etland hydrology mus	st he prese	ent unless	disturbed	or problematic	3			
	_ayer (if observed):	on and we	otiana nyarology mac	or bo prooc), di 11000	distarboa	Problematic	<i>.</i>			
Type:											
Depth (inc	ches).						Hydric Soil	Present? Yes X No No			
Remarks:							Tiyano con	1105cm: 105 140			
Remarks:											





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S SW



Project/Site: Leroy Center-Ma	yfield 138 kV Trans	smission Line Projec City	/County: Geauga County	у	Sampling Date: 08/05/2021	
Applicant/Owner: FirstEnergy			,		Sampling Point: Upland PM-02,03	
• •		Sec	tion, Township, Range	<u> </u>	_	
Landform (hillslope, terrace, et					Slone (%). 15	
					Datum: WGS 1984	
Soil Map Unit Name: MgB: Ma						
Are climatic / hydrologic condit	ions on the site typ	pical for this time of year?	Yes X No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil	, or Hydrology	y significantly dist	urbed? Are "Norm	al Circumstances" p	resent? Yes X No	
Are Vegetation, Soil	, or Hydrology	y naturally probler	matic? (If needed,	, explain any answer	rs in Remarks.)	
SUMMARY OF FINDING	GS – Attach si	ite map showing sa	mpling point locati	ions, transects	, important features, etc.	
Hydrophytic Vegetation Prese	ent? Ves	No X	Is the Sampled Area			
Hydric Soil Present?		No X	within a Wetland?	Yes	No	
Wetland Hydrology Present?		No X	If yes, optional Wetlar	nd Site ID. Upland P	M-02,03	
Remarks: (Explain alternative			ii yoo, optioriai vvetiai	id Oile iD.		
Upland data form for both W-I	wo 1 33302 1 33 un	N WOX 00002 1 00. Du	ta point situated on grade	y diopo iii maintaine	o powernine casement.	
HYDROLOGY						
Wetland Hydrology Indicato	ors:			Secondary Indicat	tors (minimum of two required)	
Primary Indicators (minimum	of one is required;	check all that apply)		Surface Soil (Cracks (B6)	
Surface Water (A1)		Water-Stained Leav	ves (B9)	Drainage Pat	terns (B10)	
High Water Table (A2)		Aquatic Fauna (B13	3)	Moss Trim Li		
Saturation (A3)		Marl Deposits (B15			Vater Table (C2)	
Water Marks (B1)		Hydrogen Sulfide C		Crayfish Burr		
Sediment Deposits (B2)			eres on Living Roots (C3)	· · · 	sible on Aerial Imagery (C9)	
Drift Deposits (B3)		Presence of Reduc			ressed Plants (D1)	
Algal Mat or Crust (B4)			tion in Tilled Soils (C6)			
Iron Deposits (B5) Inundation Visible on Aei	rial Imagary (P7)	Thin Muck Surface Other (Explain in Re		Shallow Aquit	phic Relief (D4)	
Sparsely Vegetated Con-		Other (Explain in IX	emarks)	FAC-Neutral		
Field Observations:	Save Gunace (Bo)			170-110000	1631 (150)	
Surface Water Present?	Yes No	X Depth (inches):				
Water Table Present?		X Depth (inches):				
Saturation Present?		X Depth (inches):	Wetland	Hydrology Presen	t? Yes NoX	
(includes capillary fringe)				-		
Describe Recorded Data (stre	eam gauge, monito	oring well, aerial photos, p	revious inspections), if av	/ailable:		
Remarks:						

A1 1 4			Sampling Point: Upland PM-02,0
Absolute % Cover	Dominant Species?		Dominance Test worksheet:
			Number of Dominant Species That Are OBL, FACW, or FAC: (A)
			(//
			Total Number of Dominant Species Across All Strata: 3 (B)
			Percent of Deminant Species
			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/E
			Prevalence Index worksheet:
	·		Total % Cover of: Multiply by: OBL species 10 x 1 = 10
	= Total Cov	er	OBL species 10 x 1 = 10 FACW species 10 x 2 = 20
			FAC species
			FACU species155 x 4 =620
			UPL species $0 \times 5 = 0$
			Column Totals: 195 (A) 710 (B)
			Prevalence Index = B/A = 3.641025641(
			Prevalence Index = B/A = 3.6410256410
	-		Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
	= Total Cov	er	2 - Dominance Test is >50%
			3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting
20	Yes	FACU	data in Remarks or on a separate sheet)
40	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
60	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
10	No	FACW	be present, unless disturbed or problematic.
15	No	FAC	Definitions of Vegetation Strata:
0.0	No	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
10	No	OBL	at breast height (DBH), regardless of height.
		FACU	Sapling/shrub – Woody plants less than 3 in. DBH
	·		and greater than or equal to 3.28 ft (1 m) tall.
		1710	Herb – All herbaceous (non-woody) plants, regardless of
			size, and woody plants less than 3.28 ft tall.
			Woody vines – All woody vines greater than 3.28 ft in
405			height.
195	= Total Cov	er	
			Hydrophytic
			Vegetation
			Present? Yes No ^
	20 40 60 10 15 20 10 15 5	= Total Cov = Total Cov 20	= Total Cover = Total Cover = Total Cover 20

SOIL Sampling Point: Upland PM-02,03

Profile Desc	ription: (Describe t	o the dep	th needed to docun	nent the indica	tor or confirm	the absence	of indicators.)
Depth	Matrix			x Features			
(inches)	Color (moist)	<u>%</u>	Color (moist)	% Typ	e ¹ Loc ²	<u>Texture</u>	Remarks
0 - 18	10YR 3/2	100				Silty clay loam	
_					<u> </u>		
-							
							-
-							
						-	
				·		-	
-							
¹ Type: C=Co	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked Sand	Grains.	² Location:	: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:					Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Below	v Surface (S8) (LRR R,	2 cm N	fuck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		MLRA 149B)				Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa				Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N		R K, L)		urface (S7) (LRR K, L, M)
	Layers (A5) Below Dark Surface	(Δ11)	Loamy Gleyed I Depleted Matrix				lue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)
	rk Surface (A12)	(A11)	Redox Dark Sui	. ,			anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark S				ont Floodplain Soils (F19) (MLRA 149E
	leyed Matrix (S4)		Redox Depress				Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)						arent Material (F21)
	Matrix (S6)						hallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149E	3)			Other (Explain in Remarks)
31	handra a hada a sa sa taɗ		the end by oderale and account		la a a d'atombo d		
	hydrophytic vegetati	on and we	tiand nydrology mus	t be present, un	iess disturbed	or problematic	i.
	ayer (ii observeu).						
Type:	shoo):					Hydria Sail	Present? Yes No _X
Depth (inc	mes):					Hydric Soil	Present? Yes NoX
Remarks:							





Soil 1

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City	//County: Geauga County Sampling Date: 08/05/2021	
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Wetland P	M-03
Investigator(s): MJA Sec	ction, Township, Range: N/A	
Landform (hillslope, terrace, etc.): Hillside Local r		
Subregion (LRR or MLRA): LRR R Lat: 41.593022866666		1984
Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes	NWI classification: N/A	
lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:	Yes X No (If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly dist	turbed? Are "Normal Circumstances" present? Yes X No	
Are Vegetation, Soil, or Hydrology naturally problem	matic? (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations, transects, important features, e	etc.
Hydrophytic Vegetation Present? YesX No Hydric Soil Present? YesX No Wetland Hydrology Present? YesX No	Is the Sampled Area within a Wetland? Yes X No If yes, optional Wetland Site ID: Wetland PM-03	
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two require	<u>d)</u>
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)	<u>u)</u>
Surface Water (A1) Water-Stained Lea		
High Water Table (A2) Aquatic Fauna (B1:		
Saturation (A3) Marl Deposits (B15		
Water Marks (B1) Hydrogen Sulfide C		
Sediment Deposits (B2) X Oxidized Rhizosph	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)	
Drift Deposits (B3) Presence of Reduc	ced Iron (C4) Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4) Recent Iron Reduc		
Iron Deposits (B5) Thin Muck Surface		
Inundation Visible on Aerial Imagery (B7) Other (Explain in R		
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)	
Field Observations:		
Surface Water Present? Yes No X Depth (inches):		
Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches):	Motland Hydrology Drocont2 Voc V No	
(includes capillary fringe)	Wetland Hydrology Present? Yes X No	_
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:	
Remarks:		
Tromano.		

/EGETATION – Use scientific names of plants				Sampling Point: Wetland PM-0
<u>Tree Stratum</u> (Plot size:) 1		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2 3				Total Number of Dominant Species Across All Strata: 1 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species 40 x 1 = 40 EACW species 80 x 2 = 160
Sapling/Shrub Stratum (Plot size: 15)				racivi species x z =
1				FAC species 10 x 3 = 30 FACU species 15 x 4 = 60
2				UPL species 0 x 5 = 0
3				Column Totals: 145 (A) 290 (B)
4 5				Prevalence Index = B/A = 2
6				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	er	$\frac{X}{2}$ 2 - Dominance Test is >50% $\frac{X}{3}$ 3 - Prevalence Index is $\leq 3.0^{1}$
Herb Stratum (Plot size: 5 1. Phalaris arundinacea	80	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Lythrum salicaria		No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carex vulpinoidea			OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Apocynum cannabinum		No	FAC	be present, unless disturbed or problematic.
5. Agrostis perennans	15	No	FACU	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8 9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
11				size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in height.
		= Total Cov	er er	neight.
Woody Vine Stratum (Plot size:)				
1				Undrankutia
•				Hydrophytic Vegetation
2				Present? Yes X No
2 3				

SOIL Sampling Point: Wetland PM-03

Profile Desc	ription: (Describe to	o the dep	th needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Features %	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 3/2	98	7.5YR 4/6	2	Concer	PL	Silty clay loam	
-								
-								
	oncentration, D=Deple	etion, RM=	-Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.
Hydric Soil I								for Problematic Hydric Soils ³ :
Histosol	• •		Polyvalue Belov		(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B)
Histic Ep	oipedon (A2)		MLRA 149B) Thin Dark Surfa		DD D MI	DA 1/0R		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N					surface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I			, –,		lue Below Surface (S8) (LRR K, L)
	l Below Dark Surface	(A11)	Depleted Matrix		,			ark Surface (S9) (LRR K, L)
Thick Da	rk Surface (A12)		X Redox Dark Sur	rface (F6)			Iron-Ma	anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark S	Surface (F	7)		Piedmo	ont Floodplain Soils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depress	ions (F8)			Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							arent Material (F21)
	Matrix (S6)							hallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149E	3)				Other ((Explain in Remarks)
	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problematio	2.
	ayer (if observed):							
Type: Depth (inc	shoo):						Hydric Soil	Present? Yes X No No
Remarks:	nes)						nyuric Soil	Present? Yes X No No
Remarks:								





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Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/0	County: Geauga County Sampling Date: 08/05/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Wetland PM-04
Investigator(s): MJA Secti	· · · · · · · · · · · · · · · · · · ·
Project/Site:	
Hydric Soil Procent?	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: Wetland PM-04
PEW wetland in maintained powerline easement. Milnor disturbance due to	recent maintenance work on 1-Line structure foundation.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
	Wetland Hydrology Present? Yes X No No
	evious inspections), if available:
Remarks:	

Tree Stratum (Plot size: 30)	Absolute	Dominant I Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Bound of Dominant Consiss
				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
5				
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove	r	OBL species 40 x 1 = 40 EACW species 80 x 2 = 160
Sapling/Shrub Stratum (Plot size: 15)				FACVV species
1				x 3 =
2				7 ACO species X 4 =
3				01 L species x 5 =
4				Column Totals:(A)(B)
5				Prevalence Index = B/A = 1.6666666666
6				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cove	r	X 2 - Dominance Test is >50%
Herb Stratum (Plot size:5)			•	X 3 - Prevalence Index is ≤3.0 ¹
1. Phalaris arundinacea	80	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2Typha latifolia	30	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Scirpus cyperinus			OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Symphyotrichum puniceum	_		OBL	be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
7				Sapling/shrub – Woody plants less than 3 in. DBH
8				and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	120	= Total Cove	r	
Woody Vine Stratum (Plot size:)				
1				
2.				Hydrophytic
3				Vegetation Present? Yes X No
4	-			
4		Total Cove		
Remarks: (Include photo numbers here or on a separate	sheet)	= Total Cove) i	
remarks. (include prioto numbers here or on a separate	Sileet.)			

Sampling Point: Wetland PM-04

SOIL Sampling Point: Wetland PM-04

Profile Desc	ription: (Describe t	o the depti				r confirm	n the absence	of indicators.)
Depth (in the set)	Matrix	0/		x Features	<u>S</u>	Loc ²	T	Damadu
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹		<u>Texture</u>	Remarks
0 - 18	10YR 3/2	90	5YR 5/8	10	Concer	PL	Silty clay loam	
-								
			-					
-								
-								
			-					
-								
-								
¹Type: C=Co	oncentration, D=Depl	etion PM-I	Peduced Matrix MS	S-Mackad	Sand Gra	ine	² l ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil I		etion, ixivi–i	reduced Matrix, Mi	J-IVIASKEU	Sand Gra			for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	w Surface	(S8) (I RR	R		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	=	MLRA 149B		(00) (Litit	,		Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		.RR R, ML	RA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	<u>=</u> _	Loamy Mucky N					Surface (S7) (LRR K, L, M)
	Layers (A5)	_	Loamy Gleyed					llue Below Surface (S8) (LRR K, L)
Depleted	Below Dark Surface	(A11) _	Depleted Matrix	(F3)			Thin D	ark Surface (S9) (LRR K, L)
	rk Surface (A12)	_	X Redox Dark Su	, ,				anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)	=	Depleted Dark		7)			ont Floodplain Soils (F19) (MLRA 149B)
-	leyed Matrix (S4)	=	Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)							arent Material (F21)
	Matrix (S6)	L D A 440D						Shallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149B)					Other	(Explain in Remarks)
³ Indicators of	hydrophytic vegetati	on and wet	land hydrology mus	t ha nrase	nt unlace	disturbed	or problematic	
	ayer (if observed):	on and wet	and flydrology fride	st be prese	int, unicoo	distarbed	Т	·-
Type:	ayer (ii observeu).							
	de e e V						Uhadaia Cail	Present? Yes X No No
	:hes):						nyaric Soii	Present? res // No
Remarks:								
l								





Soil E





S W



Project/Site: Leroy Center-Ma	yfield 138 kV Tran	smission Line	Projec City/0	County: Geau	ıga County		Sampling Date: 08/05/202	21
Applicant/Owner: FirstEnergy				,			Sampling Point: Upland F	
			Sect	ion. Township	. Range: N		_ ,	
							Slone (%): 3	
Landform (hillslope, terrace, et Subregion (LRR or MLRA): LF	3.). RR R	Lat. 41.591	95	iller (oorloave,	1 ana81.	23360	Detum: WG	S 1984
Soil Map Unit Name: MgA: Ma								
Are climatic / hydrologic condit	ions on the site typ	oical for this tir	ne of year? `	Yes X N	No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil	X, or Hydrolog	y sign	ificantly distu	rbed?	Are "Norma	l Circumstances" p	resent? Yes X No	
Are Vegetation, Soil	, or Hydrolog	ynatu	rally problem	natic? ((If needed,	explain any answei	s in Remarks.)	
SUMMARY OF FINDING	GS – Attach s	ite map sh	owing sar	mpling poi	nt locatio	ons, transects	, important features	, etc.
Hydrophytic Vegetation Prese	ent? Yes	No _	Х	Is the Sam	pled Area			
Hydric Soil Present?		No _		within a We	etland?	Yes	No	
Wetland Hydrology Present?		No _		If ves. optio	nal Wetland	d Site ID: Upland P	M-04,05	
Remarks: (Explain alternative				ii yoo, opiio	nai Wollani	<u> </u>		
easement.								
HYDROLOGY								
Wetland Hydrology Indicate	ors:					Secondary Indica	tors (minimum of two requi	ired)
Primary Indicators (minimum	of one is required;	check all that	apply)			Surface Soil	Cracks (B6)	
Surface Water (A1)		Water-S	Stained Leave	es (B9)		Drainage Pat	terns (B10)	
High Water Table (A2)		Aquatio	Fauna (B13))		Moss Trim Li	nes (B16)	
Saturation (A3)		Marl De	eposits (B15)			Dry-Season \	Vater Table (C2)	
Water Marks (B1)			en Sulfide Od			Crayfish Burr		
Sediment Deposits (B2)		· 	•	res on Living F	Roots (C3)	· ——	sible on Aerial Imagery (Cs	∌)
Drift Deposits (B3)			ce of Reduce				ressed Plants (D1)	
Algal Mat or Crust (B4)				on in Tilled So	oils (C6)	Geomorphic		
Iron Deposits (B5)			uck Surface (Shallow Aqui		
Inundation Visible on Aer Sparsely Vegetated Con-	• • • •	Other (i	Explain in Re	emarks)			phic Relief (D4)	
Field Observations:	zave Sunace (B6)					FAC-Neutral	Test (D5)	
Surface Water Present?	Voc. No.	Y Donth	(inches):					
	Yes No Yes No							
Water Table Present? Saturation Present?	Yes No				Watland	Hudrology Proces	t2 Voc. No.	~
(includes capillary fringe)	res No	Deptil	(IIICHES).		welland	Hydrology Presen	t? Yes No	<u>^</u>
Describe Recorded Data (stre	eam gauge, monito	oring well, aeri	ial photos, pro	evious inspect	tions), if ava	ailable:		
Remarks:								
Remarks.								

EGETATION – Use scientific names of plants				Sampling Point: Upland PM-04,0
Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
				(*,)
3				Total Number of Dominant Species Across All Strata: 2 (B)
i.				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0% (A/B)
5				Prevalence Index worksheet:
· <u> </u>				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species x 2 = 0
				FACUL species 15 x 3 = 45 620
			. <u></u>	X 4 =
l				UPL species 20 $x = 100$ (B) Column Totals: 190 (A) 765 (B)
l				(1)
j				Prevalence Index = B/A = 4.03
i				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size:5)				3 - Prevalence index is ≤3.0 4 - Morphological Adaptations¹ (Provide supporting
. Trifolium pratense	35	Yes	FACU	data in Remarks or on a separate sheet)
Lotus corniculatus	55	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
B. Daucus carota	20	No	UPL	¹ Indicators of hydric soil and wetland hydrology must
IPlantago lanceolata	25	No	FACU	be present, unless disturbed or problematic.
5. Phleum pratense	20	No	FACU	Definitions of Vegetation Strata:
S Echinochloa crus-galli	15	No	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. Agrostis perennans	15	No	FACU	at breast height (DBH), regardless of height.
3. Ambrosia artemisiifolia O.	5	No	FACU	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
0				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	190	= Total Cov	er	
Voody Vine Stratum (Plot size:)				
			·	Hydrophytic
2			·	Vegetation
			·	Present? Yes No ^
3				
3		= Total Cov	. ——	

SOIL Sampling Point: Upland PM-04,05

Profile Desc	ription: (Describe t	o the dep	th needed to docun	nent the indica	tor or confirm	the absence	of indicators.)	
Depth	Matrix			k Features	1 2			
(inches)	Color (moist)	%	Color (moist)	% Typ	e ¹ Loc ²	<u>Texture</u>	Remarks	
0 - 3	10YR 4/3	100				Silty loam	Gravelly	
-								
-								
					_			
					<u> </u>			
	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked Sand	Grains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :	
Hydric Soil I			Daharaha Dalam	· C. · · · · · · · · (CO) /	. DD D		•	
Histosol	(A1) pipedon (A2)		Polyvalue Belov MLRA 149B)		LKK K,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)	
Black His			Thin Dark Surfa		MI RA 149R)		frame Redox (A16) (LRR K, L, K) fucky Peat or Peat (S3) (LRR K, L, I	R)
	n Sulfide (A4)		Loamy Mucky M				urface (S7) (LRR K, L, M)	(X)
	l Layers (A5)		Loamy Gleyed I		ι κ, L)		lue Below Surface (S8) (LRR K, L)	
	d Below Dark Surface	(//11)	Depleted Matrix				ark Surface (S9) (LRR K, L)	
		(A11)		, ,				В/
	ark Surface (A12)		Redox Dark Sur				anganese Masses (F12) (LRR K, L,	
	lucky Mineral (S1)		Depleted Dark S				ont Floodplain Soils (F19) (MLRA 14	
	lleyed Matrix (S4)		Redox Depress	ons (F8)			Spodic (TA6) (MLRA 144A, 145, 14	9B)
Sandy R	edox (S5)						arent Material (F21)	
Stripped	Matrix (S6)					Very S	hallow Dark Surface (TF12)	
Dark Sur	rface (S7) (LRR R, M	LRA 149E	3)			Other (Explain in Remarks)	
	hydrophytic vegetati		tland hydrology mus	t be present, ur	less disturbed	or problematic	;.	
	ayer (if observed):	Χ						
Type: Gra								
Depth (inc	ches): 3					Hydric Soil	Present? Yes No X	
Remarks:								





il NE

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/	County: Geauga County Sampling Date: 08/05/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Wetland PM-05
Investigator(s): MJA Sec	tion, Township, Range: N/A
Landform (hillslope, terrace, etc.): Terrace Local re	
	34 Long: -81.23361966666667 Datum: WGS 1984
Soil Map Unit Name: MgA: Mahoning silt loam, 0 to 2 percent slopes	NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology significantly distu	urbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problem	
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report.)	Is the Sampled Area within a Wetland? Yes X No If yes, optional Wetland Site ID: Wetland PM-05
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leav	
High Water Table (A2)Saturation (A3)Marl Deposits (B15)	
Water Marks (B1) Hydrogen Sulfide O	
	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	
Algal Mat or Crust (B4) Recent Iron Reduct	
Iron Deposits (B5) Thin Muck Surface	(C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	emarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _X Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes No _X Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	revious inspections), if available:
Domonico	
Remarks:	

/EGETATION - Use scientific names of plants	S.			Sampling Point: Wetland PM-05
<u>Tree Stratum</u> (Plot size:) 1)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
45				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species 20 x 1 = 20 FACW species 0 x 2 = 0
Sapling/Shrub Stratum (Plot size: 15)				racw species xz =
1				7.7 x 5 =
2				FACU species $\begin{array}{cccccccccccccccccccccccccccccccccccc$
3				Column Totals: 135 (A) 380 (B)
4 5				Prevalence Index = B/A = 2.8148148148
6				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
5		= Total Cov	er	X 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:5) 1Echinochloa crus-galli	55	Yes	FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Typha angustifolia	20	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Persicaria maculosa	45	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must
4 Ambrosia artemisiifolia	15	No	FACU	be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7 8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	135	= Total Cov	er	
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic
3				Vegetation
4		T / 10		
Decrease (Include the transfer to the transfer	1()	= Total Cov	er	
Remarks: (Include photo numbers here or on a separate	e sneet.)			

SOIL Sampling Point: Wetland PM-05

Depth _	Matrix	%		x Features	Type ¹	Loc ²	Toyeture	Domorko
inches) _ 0 - 18	Color (moist) 10YR 3/1	95	Color (moist) 5YR 4/4		Concer	PL,M	Texture Silty clay loom	Remarks
0 16	10113/1	95	31K 4/4		Concer	PL,IVI	Silty clay loam	
-								
								-
<u> </u>								
-								
								-
		etion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.
ydric Soil Ind _ Histosol (A			Polyvalue Belov	v Surface (S	29) /I DE	. Б		for Problematic Hydric Soils ³ : Muck (A10) (LRR K, L, MLRA 149B)
	pedon (A2)		MLRA 149B)) (LKF	Λ,		Prairie Redox (A16) (LRR K, L, R)
Black Hist			Thin Dark Surfa		R R, ML	RA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky N		(LRR K	, L)		Surface (S7) (LRR K, L, M)
	_ayers (A5)	(0.4.4)	Loamy Gleyed I					alue Below Surface (S8) (LRR K, L)
	Below Dark Surface k Surface (A12)	e (A11)	Depleted Matrix X Redox Dark Sur					ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)
	cky Mineral (S1)		Depleted Dark S)			ont Floodplain Soils (F19) (MLRA 149B
Sandy Mu								Spodic (TA6) (MLRA 144A, 145, 149B)
_	eyed Matrix (S4)		Redox Depress	ions (F8)			IVIESIC	Spould (170) (MILIXA 144A, 143, 143b)
Sandy Gle Sandy Red	eyed Matrix (S4) dox (S5)		Redox Depress	ions (F8)			Red Pa	arent Material (F21)
Sandy Gle Sandy Red Stripped M	eyed Matrix (S4) dox (S5) Matrix (S6)	U DA 440		ions (F8)			Red Pa Very S	arent Material (F21) hallow Dark Surface (TF12)
Sandy Gle Sandy Red Stripped M	eyed Matrix (S4) dox (S5)	ILRA 149		ions (F8)			Red Pa Very S	arent Material (F21)
Sandy Gle Sandy Rec Stripped M Dark Surfa	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M				t, unless	disturbed	Red Pa Very S Other (arent Material (F21) shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Rec Stripped M Dark Surfa	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Rec Stripped M Dark Surfa	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Rec Stripped M Dark Surfa	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Rec Stripped M Dark Surfa ndicators of h estrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Rec Stripped M Dark Surfa ndicators of h estrictive La Type:	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Rec Stripped M Dark Surfa ndicators of h estrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)
Sandy Gle Sandy Red Stripped M Dark Surfandicators of hestrictive La Type: Depth (inch	eyed Matrix (S4) dox (S5) Matrix (S6) ace (S7) (LRR R, M nydrophytic vegetati yer (if observed):		В)		t, unless	disturbed	Red Pa Very S Other (arent Material (F21) Shallow Dark Surface (TF12) (Explain in Remarks)





Soil N



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S



W

Project/Site: Leroy Center-Mayfield 138 kV Transr	nission Line Projec City/County: Gear	uga County	Sampling Date: 08/05/2021
Applicant/Owner: FirstEnergy	·		Sampling Point: Wetland PM-06
Investigator(s): MJA	Section, Township		
Landform (hillslope, terrace, etc.): Flat			Slope (%): ²
Subregion (LRR or MLRA). LRR R	Lat: 41.59105973333334	Long81.23539358333333	No. 7 Datum: WGS 1984
Subregion (LRR or MLRA): LRR R Soil Map Unit Name: MgB: Mahoning silt loam, 2 t	o 6 percent slopes	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes X	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology		(If needed, explain any answe	
SUMMARY OF FINDINGS – Attach site	e map showing sampling poi	nt locations, transects	, important features, etc.
	X No If yes, optic	repled Area Vetland? Yes X Onal Wetland Site ID: Wetland	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required; c	shock all that apply)	<u>'</u>	
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Drainage Pat	
	Aquatic Fauna (B13)	Moss Trim Li	
	Marl Deposits (B15)		Water Table (C2)
	Hydrogen Sulfide Odor (C1)	Crayfish Burr	
	X Oxidized Rhizospheres on Living	- ·	sible on Aerial Imagery (C9)
	Presence of Reduced Iron (C4)		tressed Plants (D1)
	Recent Iron Reduction in Tilled So		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqui	tard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopogra	phic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral	Test (D5)
Field Observations:			
Surface Water Present? Yes No	X Depth (inches):		
Water Table Present? Yes No	X Depth (inches):		
(includes capillary fringe)	X Depth (inches):	Wetland Hydrology Presen	t? Yes X No
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspec	tions), if available:	
Remarks:			
			ļ

'EGETATION – Use scientific names of plants	i.		Sampling Point: Wetland PM-0
Tree Stratum (Plot size:) 1)		Dominant Indicato Species? Status	
2 3			Total Number of Dominant Species Across All Strata: 1 (B)
4 5			Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
		= Total Cover	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)			FACW species 91
1			FAC species 1 x 3 = 3
2			FACU species 0 x 4 = 0
3			UPL species 0 x 5 = 0
			Column Totals:92 (A)185 (B)
4			Prevalence Index = B/A = 2.0108695652
5			-
6			Hydrophytic Vegetation Indicators:
7			 X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50%
	-	= Total Cover	$\frac{X}{2}$ 3 - Prevalence Index is $\leq 3.0^{1}$
Herb Stratum (Plot size: 5 1. Phalaris arundinacea	90	Yes FACW	4 - Morphological Adaptations ¹ (Provide supporting
·· ·	1		
			_ _
3Apocynum cannabinum			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4			
5			Definitions of Vegetation Strata:
6 7			Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
8 9.			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
-			Herb – All herbaceous (non-woody) plants, regardless of
10			size, and woody plants less than 3.28 ft tall.
11			Woody vines – All woody vines greater than 3.28 ft in
12			height.
	92	= Total Cover	
Woody Vine Stratum (Plot size:)			
1			
2			Hydrophytic Vegetation
			Present? Yes X No
3			
		= Total Cover	_

SOIL Sampling Point: Wetland PM-06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redo	x Feature	<u>s</u> ,	2				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks		
0 - 12	10YR 3/2	90	5YR 4/6	10	Concer	PL_	Silty clay loam			
12 - 18	5Y 6/2	60	5YR 5/8	40	Concer	M	Fine sandy loam			
-										
-										
						-	-			
							-			
							·			
							<u></u>			
	oncentration, D=Deple	etion, RM:	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.		
Hydric Soil I					(00) (1	_		for Problematic Hydric Soils ³ :		
Histosol	(A1) ipedon (A2)		Polyvalue Belov MLRA 149B)		(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)		
Black His			Thin Dark Surfa		RR R, MI	RA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)		
	n Sulfide (A4)		Loamy Mucky N			, L)		Surface (S7) (LRR K, L, M)		
	Layers (A5) Below Dark Surface	(A11)	Loamy Gleyed I Depleted Matrix		2)			llue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)		
	rk Surface (A12)	(,,,,	X Redox Dark Sur	. ,				anganese Masses (F12) (LRR K, L, R)		
	ucky Mineral (S1)		Depleted Dark S		7)		· · · · · · · · · · · · · · · · · · ·	ont Floodplain Soils (F19) (MLRA 149B)		
	leyed Matrix (S4) edox (S5)		Redox Depress	ions (F8)				Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)		
	Matrix (S6)							Shallow Dark Surface (TF12)		
	face (S7) (LRR R, M	LRA 149E	3)					(Explain in Remarks)		
³ Indicators of	hydrophytic vegetati	on and we	etland hydrology mus	t be prese	ent. unless	disturbed	d or problemation	2.		
	ayer (if observed):				,					
Type:										
Depth (inc	ches):						Hydric Soil	Present? YesX No		
Remarks:										





Soil W





E S



Project/Site: Leroy Center-Ma	yfield 138 kV Trans	smission Line Pro	pjec City/County: Gea	uga County	;	Sampling Date: 08/05/2021
Applicant/Owner: FirstEnergy						Sampling Point: Upland PM-06,07
• •			Section, Township	n. Range: N	-	
Landform (hillslope, terrace, et						Slone (%). 5
candioini (illisiope, terrace, et	C.)	41 58998	Local Teller (concave	, convex, no -81	23663	Slope (76) Datum: WGS 1984
Soil Map Unit Name: MgB: Mg						
Are climatic / hydrologic condit	ions on the site typ	ical for this time of	of year? Yes X	No	(If no, explain in Re	marks.)
Are Vegetation, Soil	X, or Hydrology	/significa	antly disturbed?	Are "Norma	l Circumstances" pre	esent? Yes X No
Are Vegetation, Soil	, or Hydrology	/naturall	y problematic?	(If needed,	explain any answers	in Remarks.)
SUMMARY OF FINDIN	GS – Attach si	te map show	ring sampling po	int location	ons, transects,	important features, etc.
Hydrophytic Vegetation Prese	ent? Yes	NoX	Is the San	npled Area		
Hydric Soil Present?		No X		-	Yes	_ No
Wetland Hydrology Present?	Yes	No>	If yes, option	onal Wetland	d Site ID: Upland PN	1-06,07
Remarks: (Explain alternativ				onal Wolland	3 One 15	
easement.	vija-080521-01 an	d vv-inja-u8052	1-02. Data point situate	ed along sno	nuider of ATV access	s road in maintained powerline
HYDROLOGY						
Wetland Hydrology Indicate	ors:				Secondary Indicate	ors (minimum of two required)
Primary Indicators (minimum	of one is required;	check all that ap	ply)		Surface Soil C	racks (B6)
Surface Water (A1)		Water-Stai	ned Leaves (B9)		Drainage Patte	erns (B10)
High Water Table (A2)		Aquatic Fa			Moss Trim Lin	
Saturation (A3)		Marl Depos				ater Table (C2)
Water Marks (B1)			Sulfide Odor (C1)		Crayfish Burro	
Sediment Deposits (B2)			hizospheres on Living	Roots (C3)	· 	ble on Aerial Imagery (C9)
Drift Deposits (B3)			of Reduced Iron (C4)	" (00)		essed Plants (D1)
Algal Mat or Crust (B4)			n Reduction in Tilled S	oils (C6)	Geomorphic P	
Iron Deposits (B5)	rial Imagani (DZ)	Thin Muck		Shallow Aquitard (D3)Microtopographic Relief (D4)		
Inundation Visible on Ae Sparsely Vegetated Con		Other (Exp	lain in Remarks)		FAC-Neutral T	
Field Observations:	Lave Surface (Bo)				FAC-Neutral I	esi (D3)
Surface Water Present?	Yes No _	X Donth (inc	shoo):			
Water Table Present?	Yes No _					
Saturation Present?	Yes No _			Wetland I	Hydrology Present	? Yes NoX
(includes capillary fringe)						165 NO X
Describe Recorded Data (stre	eam gauge, monito	ring well, aerial p	hotos, previous inspec	ctions), if ava	ailable:	
Remarks:						
Remarks.						

/EGETATION – Use scientific names of plants	S.			Sampling Point:		
Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:		
1				Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)		
2.				(v)		
3				Total Number of Dominant Species Across All Strata: 2 (B)		
I				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC:0% (A/B)		
S				Prevalence Index worksheet:		
7.				Total % Cover of: Multiply by:		
		= Total Cov	ver	OBL species $0 \times 1 = 0$		
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0		
				FAC species x 3 = 0		
2				FACU species 125 x 4 = 500		
3				UPL species15		
l				Column Totals (A)(B)		
5				Prevalence Index = B/A = 4.11		
3				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cov	ver	2 - Dominance Test is >50%		
Herb Stratum (Plot size: 5)				3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide support		
Schedonorus arundinaceus	30	Yes	FACU	data in Remarks or on a separate sheet)		
2. Agrostis perennans	60	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)		
3 Daucus carota	15	No	UPL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
4Phleum pratense	15	No	FACU			
5Elymus repens	20	No	FACU	Definitions of Vegetation Strata:		
5				Tree – Woody plants 3 in. (7.6 cm) or more in diamete		
7				at breast height (DBH), regardless of height.		
3				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
9						
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
11	·		·	Woody vines – All woody vines greater than 3.28 ft in		
12	·		·	height.		
	140	= Total Cov	ver .			
Noody Vine Stratum (Plot size:)						
			· ——	Hydrophytic		
2	·		·	Hydrophytic Vegetation		
3			· ——	Present? Yes No X		
4						
		= Total Cov	ωr			

SOIL Sampling Point: Upland PM-06,07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			x Features	4 0			
(inches)	Color (moist)	<u></u> %	Color (moist)	% Type	Loc ²	<u>Texture</u>	Remarks	
0 - 2	10YR 3/2	100				Silty loam		
-								
				·		·		
-								
-								
-								
1 _{Type:} C-Ce	oncentration, D=Deple		- Paduaad Matrix, MS		Croins	² L coation:	: PL=Pore Lining, M=Matrix.	
Hydric Soil I		elion, Kivi=	Reduced Matrix, MS	S=IVIASKEU SAITU	Giailis.		for Problematic Hydric Soils ³ :	
Histosol	(A1)		Polyvalue Belov	v Surface (S8) (L	RR R,		Muck (A10) (LRR K, L, MLRA 149B)	
	ipedon (A2)		MLRA 149B)		·		Prairie Redox (A16) (LRR K, L, R)	
Black His	stic (A3)		Thin Dark Surfa	ce (S9) (LRR R,	MLRA 149B)	5 cm M	flucky Peat or Peat (S3) (LRR K, L, R)	
Hydroge	n Sulfide (A4)		Loamy Mucky N	lineral (F1) (LRR	k K, L)	Dark S	urface (S7) (LRR K, L, M)	
Stratified	Layers (A5)		Loamy Gleyed I	Matrix (F2)		Polyval	lue Below Surface (S8) (LRR K, L)	
Depleted	Below Dark Surface	(A11)	Depleted Matrix	(F3)		Thin Da	ark Surface (S9) (LRR K, L)	
Thick Da	rk Surface (A12)		Redox Dark Sur	rface (F6)		Iron-Ma	anganese Masses (F12) (LRR K, L, R)	
Sandy M	lucky Mineral (S1)		Depleted Dark S	Surface (F7)		Piedmo	ont Floodplain Soils (F19) (MLRA 149B)	
Sandy G	leyed Matrix (S4)		Redox Depress	ions (F8)		Mesic S	Spodic (TA6) (MLRA 144A, 145, 149B)	
Sandy R	edox (S5)					Red Pa	arent Material (F21)	
Stripped	Matrix (S6)					Very SI	hallow Dark Surface (TF12)	
Dark Sur	face (S7) (LRR R, M	LRA 149E	3)			Other (Explain in Remarks)	
³ Indicators of	hydrophytic vegetati	on and we	tland hydrology mus	t be present, unl	ess disturbed	or problematic) <u>.</u>	
Restrictive L	ayer (if observed):		,					
Type: Gra	avel							
Depth (inc	thes): 2					Hydric Soil	Present? Yes No X	
Remarks:								





Soil E

Project/Site: Leroy Center-Mayfield 138 kV Transmissio	n Line Projec City/County: Geau	iga County	Sampling Date: 08/05/2021	
Applicant/Owner: FirstEnergy			Sampling Point: Wetland PM-07	
Investigator(s): MJA	Section, Township			
Landform (hillslope, terrace, etc.): Lowland			Slope (%): 1	
Subregion (LRR or MLRA). LRR R	41.58992801666666	Long81.23662596666667	Natum: WGS 1984	
Subregion (LRR or MLRA): LRR R Lat:	ercent slopes	NWI classific	ation: N/A	
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes X	lo (If no, explain in Re	emarks.)	
Are Vegetation, SoilX_, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No	
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed, explain any answer	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	p showing sampling poi	nt locations, transects	, important features, etc.	
Hydrophytic Vegetation Present? YesX	No within a We	pled Area etland? Yes X nal Wetland Site ID: Wetland		
Data point for PEM wetland in maintained powerline ear connection between polygons.	Seriotic Golio (Golio)	note of wedard. Signs of nee	allig III load III alaataa Tyarologia	
HYDROLOGY		Cocondon Indico	toro (minimum of two required)	
Wetland Hydrology Indicators:	all that analys	·	tors (minimum of two required)	
Primary Indicators (minimum of one is required; check a		Surface Soil		
	Vater-Stained Leaves (B9)	Drainage Pat		
	Aquatic Fauna (B13)	Moss Trim Lines (B16) Dry-Season Water Table (C2)		
	Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Dry-Season \ Crayfish Burr		
	Dxidized Rhizospheres on Living F		sible on Aerial Imagery (C9)	
	Presence of Reduced Iron (C4)		ressed Plants (D1)	
	Recent Iron Reduction in Tilled So			
<u> </u>	hin Muck Surface (C7)	Shallow Aqui		
	Other (Explain in Remarks)	Microtopogra	` '	
Sparsely Vegetated Concave Surface (B8)	mer (Explain in Remarks)	X FAC-Neutral		
Field Observations:		× rac-neutral	Test (D3)	
Surface Water Present? Yes No _X	Denth (inches):			
Water Table Present? Yes No X				
Saturation Present? Yes No _X		Wetland Hydrology Presen	t? Yes X No	
(includes capillary fringe)	Deptil (iliches).	Welland Hydrology Fresen	t: 165 <u>x</u> NO	
Describe Recorded Data (stream gauge, monitoring we	ll, aerial photos, previous inspect	ions), if available:		
Domostro				
Remarks:				

/EGETATION – Use scientific names of plant	ts.			Sampling Point: Wetland PM-07
<u>Tree Stratum</u> (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Dominant Species Across All Strata: 1 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cove	er	OBL species
Sapling/Shrub Stratum (Plot size: 15)				FACW species $\frac{115}{40}$ x 2 = $\frac{230}{20}$
1				FAC species $\frac{10}{2}$ x 3 = $\frac{30}{2}$
2				FACU species 0 x 4 = 0
3				UPL species $0 \times 5 = 0$ Column Totals: $135 \times (\Delta) \times 270 \times (B)$
4				Column Totals:135 (A)270 (B)
5				Prevalence Index = B/A = 2
				Hydrophytic Vegetation Indicators:
6				X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
5		= Total Cove	er	X 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:5) 1Phalaris arundinacea	100	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Typha angustifolia	5	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Onoclea sensibilis	15	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
4 Apocynum cannabinum	10	No	FAC	be present, unless disturbed or problematic.
5. Scirpus cyperinus	5	No	OBL	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7 8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines – All woody vines greater than 3.28 ft in height.
	135	= Total Cove	ər	
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic
3				Vegetation
4		T / 10		
Develop (leghelegheters)		= Total Cove	er ———	
Remarks: (Include photo numbers here or on a separate	e sheet.)			

SOIL Sampling Point: Wetland PM-07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 2/2	90	5YR 3/4	10	Concer	PL	Clay loam	- Comana
								-
¹ Type: C=Co	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Polyvalue Below	v Surface	(S8) (LRF	RR,		fuck (A10) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B)				Coast I	Prairie Redox (A16) (LRR K, L, R)
Black His	stic (A3) n Sulfide (A4)		Thin Dark Surfa Loamy Mucky N					Mucky Peat or Peat (S3) (LRR K, L, R) furface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I			, L)		lue Below Surface (S8) (LRR K, L)
	l Below Dark Surface	(A11)	Depleted Matrix		,			ark Surface (S9) (LRR K, L)
	rk Surface (A12)		X Redox Dark Sur	, ,				anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark S		7)			ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5) Matrix (S6)							arent Material (F21) hallow Dark Surface (TF12)
	face (S7) (LRR R, M	LRA 149E	3)					(Explain in Remarks)
³ Indicators of	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	<u> </u>
	ayer (if observed):							
Type: Depth (inc	hoo):						Uvdria Sail	Present? Yes X No
Remarks:		-					nyuric Soii	Present? Yes X No
Remaiks.								



W



Soil





S E





N

Signs of flooding in road indicates hydrologic connection between sides

Project/Site: Leroy Center-Mayfield 138 kV Transr	nission Line Projec City/County: Geau	uga County	Sampling Date: 08/04/2021
Applicant/Owner: FirstEnergy	· ·		Sampling Point: Wetland PM-08
Investigator(s): MJA	Section, Township		
Landform (hillslope, terrace, etc.): Lowland			Slope (%): 1
Subregion (LRR or MLRA): LRR R			
Soil Map Unit Name: MgA: Mahoning silt loam, 0 t	to 2 percent slopes	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes X 1	No (If no, explain in R	emarks.)
Are Vegetation, SoilX, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology		(If needed, explain any answer	
SUMMARY OF FINDINGS – Attach sit	e map showing sampling poi	nt locations, transects	, important features, etc.
	X No If yes, option	pled Area detland? Yes X onal Wetland Site ID: Wetland	
Large PEM wetland in maintained powerline ease			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required; of	:heck all that apply)	Surface Soil	
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pat	
	Aquatic Fauna (B13)	Moss Trim Li	
	Marl Deposits (B15)	·	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burr	` ,
	X Oxidized Rhizospheres on Living		sible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		tressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqui	` '
	Other (Explain in Remarks)	Microtopogra	
Sparsely Vegetated Concave Surface (B8) Field Observations:		X FAC-Neutral	Test (D5)
	Y Donth (inches):		
	X Depth (inches):		
	X Depth (inches):	Wetlered Hudrele au Bresse	42 Van V Na
(includes capillary fringe)	X Depth (inches):	Wetland Hydrology Presen	it? Yes X No
Describe Recorded Data (stream gauge, monitori	ing well, aerial photos, previous inspec	tions), if available:	
Remarks:			
			ļ

/EGETATION - Use scientific names of plant	S.			Sampling Point: Wetland PM-08
<u>Tree Stratum</u> (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
23				Total Number of Dominant Species Across All Strata: 3 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7			<u> </u>	Total % Cover of: Multiply by:
		= Total Cov	/er	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species 110 x 2 = 220 FAC species 35 x 3 = 105
1				X 3 =
2				X 4 =
3				01 L species x 0 =
4				Column Totals:155 (A)365 (B)
5				Prevalence Index = B/A = 2.3548387096
6				Hydrophytic Vegetation Indicators:
			·	X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
		= Total Cov	/er	X 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:5) 1Phalaris arundinacea	70	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phragmites australis	40	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Agrostis perennans	10	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Euthamia graminifolia	20	No	FAC	be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
			-	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
6				at breast height (DBH), regardless of height.
8 9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10			. ———	Herb – All herbaceous (non-woody) plants, regardless of
11			-	size, and woody plants less than 3.28 ft tall.
				Woody vines – All woody vines greater than 3.28 ft in
12		T-1-1-0		height.
	140	= Total Cov	/er	
Woody Vine Stratum (Plot size: 30)				
1. Vitis riparia	15	Yes	FAC	Hydrophytic
2				Vegetation
3				Present? Yes X No
4				
	15	= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate	e sheet.)			

SOIL Sampling Point: Wetland PM-08

Profile Description: (Describe to the d	-			or confirm	the absence	of indicators.)
Depth Matrix		x Feature:	<u>S</u>	L = = ²	Taustuna	Damarka
(inches) Color (moist) %	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 18 10YR 3/1 85	5YR 4/4	15	Concer	PL,M	Silty loam	
-						
-		<u>, </u>				
-						
-		<u>, </u>				
-						
-		<u>, </u>				
-						
-						
17 00 17 00 17					21	BL B. III MAN
¹ Type: C=Concentration, D=Depletion, R Hydric Soil Indicators:	M=Reduced Matrix, M	S=Masked	Sand Gra	ins.		r PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belov	w Surface	(S8) (I DD	D		Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B		(SO) (LIKIN	ΙΧ,		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa	,	RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky N					Surface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed)			alue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix					eark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	X Redox Dark Su	, ,	7)			anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Depleted Dark Redox Depress		7)			ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)	Redox Depress	10113 (1 0)				arent Material (F21)
Stripped Matrix (S6)						Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 14	9B)					(Explain in Remarks)
³ Indicators of hydrophytic vegetation and	wetland hydrology mus	st be prese	ent, unless	disturbed	or problemation	D.
Restrictive Layer (if observed):						
Type:						
Depth (inches):	_				Hydric Soil	Present? YesX No
Remarks:						





Soil S





E N



W

Project/Site: Leroy Center-Mayfield 138 kV Trans	mission Line Projec City/Cour	nty: Geauga County	Sampling Date: 08/04/2021
Applicant/Owner: FirstEnergy			OH Sampling Point: Upland PM-08
Investigator(s): MJA	Section,		
Landform (hillslope, terrace, etc.): Shoulder slope		·	rex Slope (%): ³⁰
Subregion (LRR or MLRA): LRR R Soil Map Unit Name: MgA: Mahoning silt loam, 0	to 2 percent slopes	Long NWI	classification: N/A
Are climatic / hydrologic conditions on the site typi	cal for this time of year? Yes	No (If no, exp	olain in Remarks.)
Are Vegetation X, Soil , or Hydrology	significantly disturbed	d? Are "Normal Circumst	tances" present? Yes X No
Are Vegetation, Soil, or Hydrology	-		y answers in Remarks.)
SUMMARY OF FINDINGS – Attach sit	te map showing sampl	ing point locations, tra	nsects, important features, etc.
_ , , , , ,		the Sampled Area ithin a Wetland?	s No
	NoX NoX If	yes, optional Wetland Site ID:	·
Remarks: (Explain alternative procedures here of	prin a congrete report	yes, optional Wetland Site ID	
HADBOLOGA			
HYDROLOGY Westland Hydrology Indicators		Saganda	unu Indicatora (minimum of two required)
Wetland Hydrology Indicators:	ala ala all that anni A		ry Indicators (minimum of two required)
Primary Indicators (minimum of one is required; of			ace Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (E		nage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		s Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)		Season Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (Oxidized Rhizospheres of	-	rfish Burrows (C8) Iration Visible on Aerial Imagery (C9)
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced Iro		nation visible on Aerial imagery (C9)
Algal Mat or Crust (B4)	Recent Iron Reduction in		morphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	, ,	llow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remar		otopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			-Neutral Test (D5)
Field Observations:			, ,
Surface Water Present? Yes No _	X Depth (inches):		
Water Table Present? Yes No _	X Depth (inches):		
(includes capillary fringe)	X Depth (inches):		y Present? Yes No _X
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, previo	us inspections), if available:	
Remarks:			

Tree Stratum (Plot size:30)	Absolute	Dominant Species?		Dominance Test worksheet:
1			·	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2			- (<u></u> -	Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0 (A/B)
6				Presidence to describe est
7				Prevalence Index worksheet:
		= Total Cov		OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)		_ 10tai 00	VOI	FACW species15 x 2 =30
1. Rosa multiflora	5	Yes	FACU	FAC species 0 x 3 = 0
			17.00	FACU species155
2				UPL species0 x 5 =0
3				Column Totals:170 (A)650 (B)
4				Prevalence Index = B/A = 3.8235294117
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov		2 - Dominance Test is >50%
Herb Stratum (Plot size:5		= Total Cov	vei	3 - Prevalence Index is ≤3.0 ¹
1. Schedonorus arundinaceus	60	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Solidago canadensis	50	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Phalaris arundinacea	15	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
4. Poa annua		Yes	FACU	be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
				and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11		-		Woody vines – All woody vines greater than 3.28 ft in
12		T 0		height.
	100	= Total Cov	ver	
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
2				Vegetation
3		-		Present? Yes No X
4		-		
		= Total Cov	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: Upland PM-08

SOIL Sampling Point: Upland PM-08

Profile Desc	ription: (Describe t	o the dept	h needed to docui	ment the in	ndicator o	or confirm	the absence	of indicators.)
Depth	Matrix	0/		x Features	T 1	12	Tautuna	Damarka
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 3	10YR 3/2	100					Silty loam	
-								
	-							<u> </u>
-								
-								
	-							<u> </u>
-								
-								
-								
-								
-								
1- 0.0							21	BL B. III MAN
Hydric Soil I	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.		r PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belo	w Surface	(S8) (I DD	D		Muck (A10) (LRR K, L, MLRA 149B)
	oipedon (A2)	-	MLRA 149B		(30) (LIXIX	. 11,		Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa	•	RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	=	Loamy Mucky I					Surface (S7) (LRR K, L, M)
Stratified	Layers (A5)	_	Loamy Gleyed	Matrix (F2)	1		Polyva	alue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
	ark Surface (A12)	-	Redox Dark Su	, ,	7 \			anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1) leyed Matrix (S4)	-	Depleted DarkRedox Depress		7)			ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)	-	Redux Depress	SIONS (FO)				arent Material (F21)
	Matrix (S6)							Shallow Dark Surface (TF12)
	rface (S7) (LRR R, M	LRA 149B)					(Explain in Remarks)
	hydrophytic vegetati		land hydrology mus	st be prese	nt, unless	disturbed	or problemation	Э.
	ayer (if observed):	X						
Type: Gra								
Depth (inc	ches): <u>3</u>						Hydric Soil	Present? Yes NoX
Remarks:								





Soil E

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec Cit	ty/County: Geauga County Sampling Date: 08/04/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Wetland PM-09
Investigator(s): MJA Se	
Landform (hillslope, terrace, etc.): Lowland Local	
	Long: -81.24471126666667 Datum: WGS 1984
Soil Map Unit Name: Da: Damascus silt loam	NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation, Soil, or Hydrology significantly dis	
Are Vegetation, Soil, or Hydrology naturally proble	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: Wetland PM-09
Remarks: (Explain alternative procedures here or in a separate report.)	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea	aves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B ²	
Saturation (A3) Marl Deposits (B1	
Water Marks (B1) Hydrogen Sulfide	
Sediment Deposits (B2) X Oxidized Rhizospl Drift Deposits (B3) Presence of Redu	heres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) uced Iron (C4) Stunted or Stressed Plants (D1)
<u> </u>	ction in Tilled Soils (C6) X Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface	
Inundation Visible on Aerial Imagery (B7) Other (Explain in I	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _X _ Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes NoX Depth (inches):	Wetland Hydrology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Remarks:	
Tromano.	

			Sampling Point: Wetland PM-09
Absolute % Cover	Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
			That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B)
			Percent of Dominant Species
			That Are OBL, FACW, or FAC:1 (A/B)
			Prevalence Index worksheet:
			Total % Cover of: Multiply by:
	= Total Cov	er	OBL species 70 x 1 = 70 FACW species 73 x 2 = 146
			FACW species $\frac{73}{0}$ x 2 = $\frac{146}{0}$ FAC species $\frac{0}{0}$ x 3 = $\frac{0}{0}$
			FACU species 20 x 4 = 80
			UPL species 0 x 5 = 0
			Column Totals: 163 (A) 296 (B)
			Prevalence Index = B/A = 1.8159509202
			Hydrophytic Vegetation Indicators:
			X 1 - Rapid Test for Hydrophytic Vegetation
			X 2 - Dominance Test is >50%
	= Total Cov	er	$\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^{1}$
35	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
60	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
15	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
10	No	OBL	be present, unless disturbed or problematic.
5	No	OBL	Definitions of Vegetation Strata:
5	No	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
15	No	FACU	at breast height (DBH), regardless of height.
5	No	OBL	Sapling/shrub – Woody plants less than 3 in. DBH
10	No	FACW	and greater than or equal to 3.28 ft (1 m) tall.
3	No	FACW	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
	-		Woody vines – All woody vines greater than 3.28 ft in
	= Total Cov	er	height.
			Hydrophytic Vegetation
			Present? Yes X No
	= Total Cov	er	
	35 60 15 10 5 5 10 3	= Total Cov = Total Cov 35	= Total Cover = Total Cover = Total Cover = Total Cover 35

SOIL Sampling Point: Wetland PM-09

Profile Description: (D	Describe to the	depth needed to docu	ment the i	ndicator o	r confirn	n the absence	of indicators.)
Depth	Matrix		x Features	<u>S</u>	1 2	Ta	Damarka
(inches) Color (Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
<u>0 - 18</u> <u>10YF</u>	R 3/2 90	2.5YR 4/6	10	Concer	PL_	Silty clay loam	
-							
-				<u> </u>			
			-			· ·	
<u> </u>						·	
-							
				<u> </u>			
						· ·	
<u> </u>						·	
-							
-				<u> </u>			
<u> </u>							
-							
1- 00						21	BL B. III MAN
¹ Type: C=Concentration Hydric Soil Indicators:		RM=Reduced Matrix, M	S=Masked	Sand Gra	ins.		r PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)		Polyvalue Belo	w Surface	(S8) (I DD	D		Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2	')	MLRA 149B		(SO) (LIKIN	ıx,		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	-,	Thin Dark Surfa	•	.RR R, ML	RA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A	\4)	Loamy Mucky I					Surface (S7) (LRR K, L, M)
Stratified Layers (A		Loamy Gleyed)		-	alue Below Surface (S8) (LRR K, L)
Depleted Below Da							ark Surface (S9) (LRR K, L)
Thick Dark Surface	. ,	X Redox Dark Su	. ,	7\			anganese Masses (F12) (LRR K, L, R)
Sandy Mucky MineSandy Gleyed Matr		Depleted Dark Redox Depress		7)			ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)	ix (04)	Redox Depress	310113 (1 0)				arent Material (F21)
Stripped Matrix (S6)						Shallow Dark Surface (TF12)
Dark Surface (S7) (49B)					(Explain in Remarks)
³ Indicators of hydrophyt		wetland hydrology mus	st be prese	ent, unless	disturbed	l or problemation	D.
Restrictive Layer (if ob	served):						
Type:							
Depth (inches):						Hydric Soil	Present? YesX No
Remarks:							





SW Soil





N E





S W

Project/Site: Leroy Center-Mayfield 138 kV Transmissi	ion Line Projec City/County: Geau	iga County	Sampling Date: 08/04/2021
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-09,10
Investigator(s): MJA	Section, Township		
Landform (hillslope, terrace, etc.): Terrace			Slope (%): ³
Subregion (LRR or MLRA): LRR R Lat: Soil Map Unit Name: JtA: Jimtown silt loam, 0 to 3 per	cent slopes	NWI classification	ation: N/A
Are climatic / hydrologic conditions on the site typical for	or this time of year? Yes X	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology		(If needed, explain any answer	
SUMMARY OF FINDINGS – Attach site m	nap showing sampling poi	nt locations, transects	, important features, etc.
_ · · · · ·	No X Is the Sam within a W. No If yes, option		
Remarks: (Explain alternative procedures here or in a Upland data point for wetlands W-MJA-080421-05 and		tuated in maintained powerline	e easement.
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required; check	k all that apply)	Surface Soil (
	Water-Stained Leaves (B9)	Drainage Pat	
	Aquatic Fauna (B13)	Moss Trim Lii	
	Marl Deposits (B15)		Vater Table (C2)
	Hydrogen Sulfide Odor (C1)	Crayfish Burr	
	Oxidized Rhizospheres on Living I	Roots (C3) Saturation Vis	sible on Aerial Imagery (C9)
	Presence of Reduced Iron (C4)	Stunted or St	ressed Plants (D1)
	Recent Iron Reduction in Tilled Sc	oils (C6) Geomorphic	Position (D2)
	Thin Muck Surface (C7)	Shallow Aqui	tard (D3)
	Other (Explain in Remarks)	Microtopogra	
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral	
Field Observations:			
Surface Water Present? Yes No _X	Depth (inches):		
Water Table Present? Yes No _X	Depth (inches):		
Saturation Present? Yes NoX (includes capillary fringe)	Depth (inches):	Wetland Hydrology Presen	t? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monitoring v	vell, aerial photos, previous inspec	tions), if available:	
Remarks:			
Tromano.			

	•			Sampling Point: Upland PM-09,10
Tron Stratum (Diet size) 30	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant Species Across All Strata:3 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
5				
6				Prevalence Index worksheet:
7		= Total Cov	· · · · · · · · · · · · · · · · · · ·	Total % Cover of: Multiply by: OBL species 15 x 1 = 15
Sapling/Shrub Stratum (Plot size: 15)		- Total Cov	CI	FACW species 0 x 2 = 0
				FAC species 13 x 3 = 39
1				FACU species130
2				UPL species0 x 5 =0
3				Column Totals:158 (A)574 (B)
4				Prevalence Index = B/A = 3.6329113924
5				
6			 -	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
5		= Total Cov	er er	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: 5 1. Potentilla simplex	30	Yes	FACU	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
Potentilla simplex Plantago lanceolata	20	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
Distance			FACU	
Schedonorus arundinaceus	25	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Dactylis glomerata		-	FACU	Definitions of Vegetation Strata:
6. Agrostis perennans	10	No	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. Carex vulpinoidea	10	No	OBL	at breast height (DBH), regardless of height.
8. Juncus effusus	·		OBL	Sapling/shrub – Woody plants less than 3 in. DBH
9. Prunella vulgaris	3	No	FAC	and greater than or equal to 3.28 ft (1 m) tall.
10. Frangula alnus	10	No	FAC	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12			·	height.
	158	= Total Cov	er	
Woody Vine Stratum (Plot size:)				
1,				Hydrophytic
		-		Vegetation
2				
			·	Present? Yes No X
2		= Total Cov		Present? Yes No ^

SOIL Sampling Point: Upland PM-09,10

1	inchesi	Matrix	%		x Features	vpe ¹ Loc ²	Touture	Domorko
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.		Color (moist)		Color (moist)			Texture Silty clay loom	Remarks
Addric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Mineral (F1) (LRR K, L) Dark Surface (F2) Polyvalue Thick Dark Surface (A12) X Redox Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):	0 10	1011 3/2	95	31K 4/0		FL,IVI	Silly clay loan	
Adric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Melicators for Murk Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Matrix (F2) Polyvalue Thin Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):							<u> </u>	
Adric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Murchistic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S4) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators for Murchistory for Murchistory (S8) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators for Murchistory for Mur	<u> </u>							
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Adric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Melicators for Murk Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Matrix (F2) Polyvalue Thin Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):	-							
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Indicators for Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Murchistic Epipedon (A2) MLRA 149B) Coast Problem Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Murchistic Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR R, MLRA 149B) Dark Surface (A12) Depleted Matrix (F2) Polyvalue Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (A12) X Redox Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmon Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp. Sandy Redox (S5) Red Pare Stripped Matrix (S6) Very Sha Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):								
Addric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Mineral (F1) (LRR K, L) Dark Surface (F2) Polyvalue Thick Dark Surface (A12) X Redox Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):								
Adric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Melicators for Murk Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Matrix (F2) Polyvalue Thin Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):								
Adric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Melicators for Murk Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Matrix (F2) Polyvalue Thin Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):	<u> </u>							
Adric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Melicators for Murk Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Matrix (F2) Polyvalue Thin Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):	-							
Addric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Mineral (F1) (LRR K, L) Dark Surface (F2) Polyvalue Thick Dark Surface (A12) X Redox Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):							<u> </u>	
Addric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Mineral (F1) (LRR K, L) Dark Surface (F2) Polyvalue Thick Dark Surface (A12) X Redox Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):							-	
Adric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Melicators for Murk Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Matrix (F2) Polyvalue Thin Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Extractive Layer (if observed):								
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Murch Histic Epipedon (A2) MLRA 149B) Coast Pr. Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Murch Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Thick Dark Surface (A12) X Redox Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmon Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp. Stripped Matrix (S6) Nestrace (S7) (LRR R, MLRA 149B) Thin Dark Surface (S7) (LRR R, MLRA 149B) Other (Estaticity Layer (if observed):			etion, RM	=Reduced Matrix, MS	S=Masked Sar	nd Grains.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S4) Dark Surface (S7) (LRR R, MLRA 149B) MIRA 149B) Coast Pr Thin Dark R, MLRA 149B Dark Surface (S9) (LRR R, MLRA 149B) Coast Pr Thin Dark Surface (S9) (LRR R, MLRA 149B) Stripped Matrix (S6) Dark Surface (F7) Dark Surface (F7) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Experimental Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B)				Polyvalue Belov	v Surface (S8)	(I RR R		luck (A10) (LRR K, L, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (A5) Loamy Gleyed Matrix (F2) Polyvalue Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Thick Dark Surface (A12) X Redox Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmon Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp. Sandy Redox (S5) Red Pare Stripped Matrix (S6) Very Sha Dark Surface (S7) (LRR R, MLRA 149B) Other (Examples of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.						(LINICITY,		Prairie Redox (A16) (LRR K, L, R)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Thick Dark Surface (A12) X Redox Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmon Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Sandy Redox (S5) Red Pare Stripped Matrix (S6) Very Sha Dark Surface (S7) (LRR R, MLRA 149B) Other (Examples of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.							3) 5 cm M	lucky Peat or Peat (S3) (LRR K, L, R)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Thick Dark Surface (A12) X Redox Dark Surface (F6) Iron-Man Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmon Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp. Sandy Redox (S5) Red Pare Stripped Matrix (S6) Very Sha Dark Surface (S7) (LRR R, MLRA 149B) Other (Extrictive Layer (if observed):						RR K, L)		urface (S7) (LRR K, L, M)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox Depressions (F8) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			(Δ11)					lue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmon Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Sp Sandy Redox (S5) Red Pare Stripped Matrix (S6) Very Sha Dark Surface (S7) (LRR R, MLRA 149B) Other (Examples of the property of the prope			(A11)					anganese Masses (F12) (LRR K, L, R)
Sandy Redox (S5) Red Pare Stripped Matrix (S6) Very Sha Dark Surface (S7) (LRR R, MLRA 149B) Other (Examples to the condition of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed):								ont Floodplain Soils (F19) (MLRA 149E
Stripped Matrix (S6) Very Sha Other (Example 2014)				Redox Depress	ions (F8)			Spodic (TA6) (MLRA 144A, 145, 149B
Dark Surface (S7) (LRR R, MLRA 149B) Other (Example 2012)								arent Material (F21) hallow Dark Surface (TF12)
estrictive Layer (if observed):	Strinned N		LRA 149	3)				Explain in Remarks)
estrictive Layer (if observed):		Ce (SI) (LIXIX IX, IVI	on ond	atland hydrology mus	t he present i	ınless disturbe	d or problematic	
Туре:	_ Dark Surfa			charla riyarology mas	t be present, e	anicoo diotarbe	a or problematic	•
	_ Dark Surfa	nydrophytic vegetation	on and we					
Depth (inches): Hydric Soil Pr	Dark Surfandicators of hestrictive La	nydrophytic vegetation	on and we					
emarks:	_ Dark Surfandicators of hestrictive La	nydrophytic vegetation	on and we				Hydric Soil	Present? Yes X No
Hydric Soil Pr	ace (S7) (LRR R, MLRA 149B) nydrophytic vegetation and wetland hydrology must be preser		etiana nyarology must be preser					
	Dark Surfadicators of hastrictive La Type: Depth (inch	nydrophytic vegetation	on and w				Hydric Soil	Present? Yes X No
	Dark Surfa	nydrophytic vegetation	on and w				Hydric Soil	Present? Yes X No
	Dark Surfa	nydrophytic vegetation	on and w				Hydric Soil	Present? Yes X No
	_ Dark Surfandicators of hestrictive La Type: Depth (inch	nydrophytic vegetation	on and w				Hydric Soil	Present? Yes X No
	_ Dark Surfandicators of hestrictive La Type:_ Depth (inch	nydrophytic vegetation	on and w				Hydric Soil	Present? Yes X No
	Dark Surfa	nydrophytic vegetation	on and w				Hydric Soil	Present? Yes X No
	Dark Surfa	nydrophytic vegetation	on and w				Hydric Soil	Present? Yes X No No





Soil W

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line F	rojec City/County: Geau	ga County	Sampling Date: 08/04/2021
Applicant/Owner: FirstEnergy			Sampling Point: Wetland PM-10
Investigator(s): MJA	Section, Township,	Range: N/A	
Landform (hillslope, terrace, etc.): Lowland			Slope (%): 1
Subregion (LRR or MLRA): LRR R Lat: 41.5829 Soil Map Unit Name: JtA: Jimtown silt loam, 0 to 3 percent slope	es	NWI classific	cation: N/A
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes X N	o (If no, explain in R	Remarks.)
Are Vegetation X, Soil , or Hydrology signifi	icantly disturbed? A	re "Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology natura		If needed, explain any answe	
SUMMARY OF FINDINGS – Attach site map sho	wing sampling poir	nt locations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a separate	within a We	V	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that a	annly)	Surface Soil	
	ained Leaves (B9)	Drainage Pa	
High Water Table (A2) Aquatic F		Moss Trim L	
Saturation (A3) Marl Dep			Water Table (C2)
	n Sulfide Odor (C1)	Crayfish Bur	
Sediment Deposits (B2) X Oxidized	Rhizospheres on Living R	Roots (C3) Saturation V	isible on Aerial Imagery (C9)
Drift Deposits (B3) Presence	e of Reduced Iron (C4)	Stunted or S	tressed Plants (D1)
Algal Mat or Crust (B4) Recent Ir	ron Reduction in Tilled Soi	lls (C6) X Geomorphic	Position (D2)
Iron Deposits (B5) Thin Muc	ck Surface (C7)	Shallow Aqu	itard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Ex	xplain in Remarks)	Microtopogra	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral	Test (D5)
Field Observations:			
Surface Water Present? Yes No _X _ Depth (i	nches):		
Water Table Present? Yes No _X _ Depth (i	nches):		
Saturation Present? Yes No _X Depth (i (includes capillary fringe)	•	Wetland Hydrology Preser	nt? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monitoring well, aeria	photos, previous inspecti	ions), if available:	
Remarks:			

'EGETATION – Use scientific names of plants				Sampling Point: Wetland PM-1
Tree Stratum (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2 3				Total Number of Dominant Species Across All Strata: 1 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species 20 x 1 = 20 FACW species 90 x 2 = 180
Sapling/Shrub Stratum (Plot size: 15)				racivi species x z =
1				FAC species $\begin{array}{ccccc} 0 & x & 3 = & 0 \\ \hline FACU species & \begin{array}{ccccccccccccccccccccccccccccccccccc$
2				UPL species 0
3				Column Totals: 125 (A) 260 (B)
4 5				Prevalence Index = B/A = 2.08
6				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov		X 2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		- Total Cov	5 1	$X = 3$ - Prevalence Index is $\leq 3.0^1$
1. Phalaris arundinacea	90	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Carex lurida	10	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carex vulpinoidea	5	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Schoenoplectus tabernaemontani	5	No	OBL	be present, unless disturbed or problematic.
5. Phleum pratense	15	No	FACU	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
20	125	= Total Cov	er	
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
2				Vegetation
				Present? Yes X No
3				
3 4		= Total Cov		

SOIL Sampling Point: Wetland PM-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature:	<u>S</u> Type ¹	Loc ²	Texture	Remarks	
0 - 18	10YR 3/2	85	2.5YR 4/6	15	Concer	PL	Silty loam		
-									
							-		
							-		
_									
-									
	oncentration, D=Deple	etion, RM=	-Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.	
Hydric Soil I								for Problematic Hydric Soils ³ :	
Histosol			Polyvalue Belov		(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B)	
	ipedon (A2)		MLRA 149B)		DD D MI	D 4 440D		Prairie Redox (A16) (LRR K, L, R)	
Black His	n Sulfide (A4)		Thin Dark Surfa Loamy Mucky N					flucky Peat or Peat (S3) (LRR K, L, R) urface (S7) (LRR K, L, M)	
	Layers (A5)		Loamy Gleyed I			, L)		lue Below Surface (S8) (LRR K, L)	
	l Below Dark Surface	(A11)	Depleted Matrix		.)			ark Surface (S9) (LRR K, L)	
	rk Surface (A12)	(Д11)	X Redox Dark Sui	. ,				anganese Masses (F12) (LRR K, L, R)	
	lucky Mineral (S1)		Depleted Dark S	. ,				ont Floodplain Soils (F19) (MLRA 149B)	
					7)				
	leyed Matrix (S4)		Redox Depress	10115 (F6)				Spodic (TA6) (MLRA 144A, 145, 149B)	
	edox (S5)							arent Material (F21)	
	Matrix (S6) face (S7) (LRR R, M	LRA 149E	3)					hallow Dark Surface (TF12) Explain in Remarks)	
	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	.	
Restrictive L	ayer (if observed):								
Type:									
Depth (inc	ches):						Hydric Soil	Present? Yes X No	
Remarks:									





N E





Soil W



S

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line F	Projec City/County: Geaug	a County	Sampling Date: 08/02/2021
Applicant/Owner: FirstEnergy			Sampling Point: Wetland PM-11
Investigator(s): MJA	Section, Township, I		
Landform (hillslope, terrace, etc.): Shoreline			Slope (%): ⁵
Subregion (LRR or MLRA): LRR R Lat: 41.5793 Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent silts.	opes	NWI classific	ation:_N/A
Are climatic / hydrologic conditions on the site typical for this tim	e of year? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology signif	cantly disturbed? Ar	e "Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology nature		needed, explain any answe	
SUMMARY OF FINDINGS – Attach site map sho	wing sampling poin	t locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No D	within a Wet	land? Yes X	
Wetland Hydrology Present? Yes X No Remarks: (Explain alternative procedures here or in a separat	-	al Wetland Site ID: Wetland	PM-11
HYDROLOGY			
		Socondary Indica	tors (minimum of two required)
Wetland Hydrology Indicators:	anniu)		
Primary Indicators (minimum of one is required; check all that a		Surface Soil	
	ained Leaves (B9)	Drainage Par	
High Water Table (A2) Seturation (A3) Mark Doc		Moss Trim Li	Water Table (C2)
Saturation (A3) Marl Dep Water Marks (B1) Hydroge	n Sulfide Odor (C1)	Crayfish Buri	
	Rhizospheres on Living Ro	- '	sible on Aerial Imagery (C9)
	e of Reduced Iron (C4)		tressed Plants (D1)
	on Reduction in Tilled Soils		
	ck Surface (C7)	Shallow Aqui	
<u> </u>	xplain in Remarks)	Microtopogra	` '
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral	
Field Observations:			<u></u>
Surface Water Present? Yes No _X _ Depth (i	nches):		
Water Table Present? Yes No _X _ Depth (i	nches):		
Saturation Present? Yes No _X _ Depth (includes capillary fringe)	-	Wetland Hydrology Presen	t? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aeria	I photos, previous inspection	ons), if available:	
Remarks:			

/EGETATION – Use scientific names of plants	S.			Sampling Point: Wetland PM-11
<u>Tree Stratum</u> (Plot size:) 1)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2				Total Number of Dominant Species Across All Strata: 3 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet: Total % Cover of: Multiply by:
		= Total Cov	/er	OBL species60x 1 =60
Sapling/Shrub Stratum (Plot size: 15)				FACW species120 x 2 =240
1Salix interior	70	Yes	FACW	FAC species 0 x 3 = 0
2. Cornus amomum	10	No	FACW	FACU species1 x 4 = 4
3				01 L species x 0 =
4 5				Column Totals:181(A)304(B) Prevalence Index = B/A =1.679558011(
5				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
·		= Total Cov		X 2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		10101 001		X 3 - Prevalence Index is ≤3.0 ¹
1. Leersia oryzoides	30	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Onoclea sensibilis	35	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carex lurida	20	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Carex vulpinoidea	10	No	OBL	be present, unless disturbed or problematic.
5. Eupatorium perfoliatum	5	No	FACW	Definitions of Vegetation Strata:
6. Dipsacus fullonum 7		No	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9	-	-		Herb – All herbaceous (non-woody) plants, regardless of
11				size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
		= Total Cov	/er	height.
Woody Vine Stratum (Plot size:30)				
1				
2				Hydrophytic Vegetation
3				Present? Yes X No
4				
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate		·		

SOIL Sampling Point: Wetland PM-11

Profile Desc	ription: (Describe t	o the depti	n needed to docur	nent the i	ndicator o	or confirm	the absence	of indicators.)
Depth	Matrix			x Features	<u>s</u>			
(inches)	Color (moist)		Color (moist)		Type ¹	Loc ²	Texture	Remarks
0 - 10	10YR 3/2	95	2.5YR 4/8	5	Concer	PL,M	Silty loam	
_								
-								
-								
-								
-								
_	_							
¹ Type: C=Co	ncentration, D=Depl	etion. RM=I	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil I			, , , , , , , , , , , , , , , , , , , ,					for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	w Surface	(S8) (LRR	R.		Muck (A10) (LRR K, L, MLRA 149B)
· 	ipedon (A2)	_	MLRA 149B)		() (,		Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	Loamy Mucky N					Surface (S7) (LRR K, L, M)
	Layers (A5)	_	Loamy Gleyed			,		alue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix				-	Park Surface (S9) (LRR K, L)
Thick Da	rk Surface (A12)	_	X Redox Dark Su	rface (F6)			Iron-M	langanese Masses (F12) (LRR K, L, R)
Sandy M	ucky Mineral (S1)	_	Depleted Dark	Surface (F	7)		Piedm	ont Floodplain Soils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)	_	Redox Depress	ions (F8)			Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Re	edox (S5)						Red P	arent Material (F21)
Stripped	Matrix (S6)						Very S	Shallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149B)					Other	(Explain in Remarks)
_								
	hydrophytic vegetati		and hydrology mus	t be prese	nt, unless	disturbed	or problemati	С.
	ayer (if observed):	Χ						
Type: Roo	cky							
Depth (inc	hes): 10						Hydric Soil	Present? Yes X No No
Remarks:							1	





Soil W





N E



Project/Site: Leroy Center-Mayfield 138 kV Trans	smission Line Projec City/Cou	unty: Geauga County	Sampling Date: 08/02/2021
Applicant/Owner: FirstEnergy			H Sampling Point: Upland PM-11
Investigator(s): MJA	Section		
Landform (hillslope, terrace, etc.): Terrace			Slope (%): ³
Subregion (LRR or MLRA): LRR R			
Soil Map Unit Name: MgB: Mahoning silt loam, 2	to 6 percent slopes	NWI c	classification: N/A
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes	S X No (If no, expla	ain in Remarks.)
Are Vegetation X, Soil , or Hydrology	/ significantly disturbe	ed? Are "Normal Circumsta	nces" present? Yes X No
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach si	te map showing samp	ling point locations, tran	sects, important features, etc.
1		s the Sampled Area within a Wetland? Yes	No
	No <u>X</u>	f yes, optional Wetland Site ID: U	pland PM-11
Upland data point in regularly mowed field.			
HYDROLOGY			
Wetland Hydrology Indicators:			y Indicators (minimum of two required)
Primary Indicators (minimum of one is required;			ce Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves		age Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)		eason Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor		ish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres		ation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced I		ed or Stressed Plants (D1) norphic Position (D2)
Algal Mat or Crust (B4)	Recent Iron Reduction	, ,	
Iron Deposits (B5)	Thin Muck Surface (C7		ow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Rema		topographic Relief (D4)
Sparsely Vegetated Concave Surface (B8) Field Observations:		FAU-I	Neutral Test (D5)
	X Depth (inches):		
	X Depth (inches):		
	X Depth (inches):	Wetlend Hydrology	Dragont2 Von No V
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches):	wetiand hydrology	Present? Yes NoX
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previ	ous inspections), if available:	
Remarks:			
Nemarks.			

Tree Stratum (Plot size: 30)	Absolute	Dominant Species?		Dominance Test worksheet:		
1				Number of Dominant Species That Are OBL, FACW, or FAC:1(A)		
2						
3				Total Number of Dominant Species Across All Strata:3 (B)		
4				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC: 33% (A/B)		
6						
				Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
0 15 (0) 1 0 1 (0) 1		= Total Cov	er	OBL species0		
Sapling/Shrub Stratum (Plot size: 15)				FAC species x 2 = FAC species 25 x 3 = 75		
1				FACU species 135 x 4 = 540		
2		-		UPL species5 x 5 =25		
3				Column Totals: 165 (A) 640 (B)		
4				0.00		
5				Prevalence Index = B/A = 3.88		
6				Hydrophytic Vegetation Indicators:		
7		-		1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cov	er	2 - Dominance Test is >50%		
Herb Stratum (Plot size:5				3 - Prevalence Index is ≤3.0 ¹		
1. Dactylis glomerata	15	No	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2. Phleum pratense	30	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)		
3. Poa annua	40	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must		
4. Trifolium repens			FACU	be present, unless disturbed or problematic.		
5. Plantago lanceolata	15	No	FACU	Definitions of Vegetation Strata:		
6. Taraxacum officinale	15	No	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
7. Prunella vulgaris	25	Yes	FAC	at breast height (DBH), regardless of height.		
- Danisia and t			UPL	Sapling/shrub – Woody plants less than 3 in. DBH		
<u> </u>				and greater than or equal to 3.28 ft (1 m) tall.		
9				Herb – All herbaceous (non-woody) plants, regardless of		
10				size, and woody plants less than 3.28 ft tall.		
11		-		Woody vines – All woody vines greater than 3.28 ft in		
12		-	. ———	height.		
	165	= Total Cov	er			
Woody Vine Stratum (Plot size:)						
1		-		Hadran bada		
2				Hydrophytic Vegetation		
3				Present? Yes No X		
4						
		= Total Cov	er			
Remarks: (Include photo numbers here or on a separate	sheet.)					

Sampling Point: Upland PM-11

SOIL Sampling Point: Upland PM-11

Profile Desci	ription: (Describe to	o the dep	oth needed to docun	nent the ir	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix			K Features		. 2	_	
(inches)	Color (moist)	%	Color (moist)	<u></u> %	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 18	10YR 3/2	100					Silty loam	
-								
-								
-								
-								
-								
-								
¹Type: C=Co	ncentration, D=Deple	etion, RM	=Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil I		,	,					for Problematic Hydric Soils ³ :
Histosol ((A1)		Polyvalue Belov	/ Surface ((S8) (LRF	RR,	2 cm M	fuck (A10) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B)				Coast	Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa					flucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky M			, L)		urface (S7) (LRR K, L, M)
	Layers (A5)	(044)	Loamy Gleyed N				-	lue Below Surface (S8) (LRR K, L)
	Below Dark Surface rk Surface (A12)	(A11)	Depleted Matrix Redox Dark Sur					ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark S	, ,	7)			ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depressi		')			Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)			(, ,				arent Material (F21)
	Matrix (S6)							hallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149	B)				Other (Explain in Remarks)
3								
		on and w	etland hydrology mus	t be prese	nt, unless	disturbed	or problemation).
	ayer (if observed):							
Type:								· ·
	hes):		•				Hydric Soil	Present? Yes NoX
Remarks:								





E So

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City	y/County: Geauga County Sampling Date: 08/06/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Wetland PM-12
Investigator(s): MJA See	ction, Township, Range: N/A
Landform (hillslope, terrace, etc.): Terrace Local	
	Long: -81.25250 Datum: WGS 1984
Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes	NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly dis	turbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally proble	
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report.)	Is the Sampled Area within a Wetland? Yes X No If yes, optional Wetland Site ID: Wetland PM-12
Remarks: (Explain alternative procedures here or in a separate report.) PEM wetland adjacent to access road in maintained powerline easement	·
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea	
High Water Table (A2) Aquatic Fauna (B1	
Saturation (A3) Marl Deposits (B15	
Water Marks (B1) Hydrogen Sulfide (
	neres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduc	· · · · · · · · · · · · · · · · · · ·
	etion in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface	
Inundation Visible on Aerial Imagery (B7) Other (Explain in R	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	A PAO Neutral Pest (50)
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 X No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	previous inspections), if available:
Remarks:	
Nomano.	

Tree Stratum (Plot size: 30 9				Sampling Point: Wetland PM-1
1		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
-		= Total Cov	er	OBL species x 1 = 80
Sapling/Shrub Stratum (Plot size: 15)				FACW species $\frac{41}{0}$ $\times 2 = \frac{82}{0}$
1				1 AC species X 3 =
2				7 ACO species
3				450 x 0 =
4				Column Totals: $\underline{\hspace{1cm}}$ 152 (A) $\underline{\hspace{1cm}}$ 287 (B) Prevalence Index = B/A = 1.89
5				Hydrophytic Vegetation Indicators:
6				X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
-		= Total Cov	er	X 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: 5 1. Carex vulpinoidea	60	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea	40	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Schedonorus arundinaceus	30	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Onoclea sensibilis	1	No	FACW	be present, unless disturbed or problematic.
5. Daucus carota	1	No	UPL	Definitions of Vegetation Strata:
6. Scirpus atrovirens	20	No	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
7				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
<u>-</u>	152	= Total Cov	er	
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic
3				Vegetation Present? YesX No
4.				
		= Total Cov		
		- 10tai 00V	OI .	

SOIL Sampling Point: Wetland PM-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Feature %	<u>s</u> _Type ¹	Loc ²	Texture	Remarks	
0 - 10	10YR 3/1	95	2.5YR 3/6		Concer	PL,M	Silty loam	Kenidiks	
10 - 18	10YR 2/1	98	10YR 5/6	2	Concer		Silty loam		
-	1011(2/1		1011(3/0		0011001		Only loans		
=									
-									
¹Type: C=Co	ncentration, D=Deple	etion RM	=Reduced Matrix MS	S=Masker	Sand Gra		² l ocation	: PL=Pore Lining, M=Matrix.	
Hydric Soil I		otion, raw	-rtoddod Matrix, Me	<u>J-Macket</u>	. Carra Ore			for Problematic Hydric Soils ³ :	
Histosol	` '		Polyvalue Belov		(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B)	
Histic Ep	ipedon (A2) stic (A3)		MLRA 149B) Thin Dark Surfa		RR R. MI	RA 149B		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		Loamy Mucky N					Surface (S7) (LRR K, L, M)	
	Layers (A5)		Loamy Gleyed I		2)			lue Below Surface (S8) (LRR K, L)	
	Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)	
	rk Surface (A12)		X Redox Dark Su	. ,				anganese Masses (F12) (LRR K, L, R)	
	ucky Mineral (S1) leyed Matrix (S4)		Depleted Dark S Redox Depress		-7)		·	ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)	
	edox (S5)		Redox Depress	10113 (1 0)			Red Parent Material (F21)		
	Matrix (S6)						Very Shallow Dark Surface (TF12)		
	face (S7) (LRR R, M	LRA 1491	3)					(Explain in Remarks)	
³ Indicators of	hydrophytic vegetati	on and we	etland hydrology mus	t be prese	ent. unless	disturbed	or problematic	2.	
	ayer (if observed):		, , , , , , , , , , , , , , , , , , , ,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Type:									
Depth (inc	:hes):						Hydric Soil	Present? Yes X No No	
Remarks:									





Soil W





N E



Project/Site: Leroy Center-Ma	yfield 138 kV Tran	smission Line	Projec City/C	County: Geau	iga County		Sampling Date: 08/0	06/2021
Applicant/Owner: FirstEnergy				,			Sampling Point: U	
			Secti	ion. Township.	Range: N	_	,	
							Slone (9	o ₆). 3
Landform (hillslope, terrace, et Subregion (LRR or MLRA): LF	2.). 2R R	41 578	Local lei 840	ilei (concave,	-81	25239	Slope (/0) \N/GS 1984
Soil Map Unit Name: MgB: Ma								
Are climatic / hydrologic condit	ons on the site typ	oical for this ti	me of year? \	Yes X N	10	(If no, explain in Re	emarks.)	
Are Vegetation, Soil	, or Hydrolog	ysigr	nificantly distu	rbed?	Are "Norma	l Circumstances" p	resent? Yes X	No
Are Vegetation, Soil	, or Hydrolog	ynatı	urally problem	atic? (If needed,	explain any answer	s in Remarks.)	
SUMMARY OF FINDING	GS – Attach s	ite map sh	owing san	npling poi	nt locatio	ons, transects,	, important featu	ıres, etc.
Hydrophytic Vegetation Prese	ant? Ves	No _	Х	Is the Sam	pled Area			
Hydric Soil Present?		No _		within a We		Yes	No	
Wetland Hydrology Present?		No No		If yes ontion	nal Wetland	d Site ID: Upland P	M-12	
Remarks: (Explain alternative				ii yes, optio	nai wellan	d Site ID		
HYDROLOGY								
Wetland Hydrology Indicate	ors:					Secondary Indicat	tors (minimum of two	required)
Primary Indicators (minimum	of one is required;	check all tha	t apply)			Surface Soil (Cracks (B6)	
Surface Water (A1)		Water-	Stained Leave	es (B9)		Drainage Pat	terns (B10)	
High Water Table (A2)		Aquatio	c Fauna (B13))		Moss Trim Li	nes (B16)	
Saturation (A3)		Marl D	eposits (B15)			Dry-Season V	Vater Table (C2)	
Water Marks (B1)			gen Sulfide Od			Crayfish Burr		
Sediment Deposits (B2)				_	g Roots (C3) Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)			ice of Reduce					
Algal Mat or Crust (B4)				on in Tilled So	• • • • • • • • • • • • • • • • • • • •			
Iron Deposits (B5) Inundation Visible on Aei	rial Imagery (R7)		uck Surface ((Explain in Re		Shallow Aquitard (D3)Microtopographic Relief (D4)			
Sparsely Vegetated Con-		Outer (LAPIGIT III IVO	marks)		FAC-Neutral		
Field Observations:	<u> </u>						1001 (20)	
Surface Water Present?	Yes No	X Denth	(inches):					
Water Table Present?	Yes No							
Saturation Present?	Yes No				Wetland I	Hydrology Presen	t? Yes N	o <u>X</u>
(includes capillary fringe)						-		
Describe Recorded Data (stre	am gauge, monito	oring well, aer	rial photos, pre	evious inspect	tions), if ava	ailable:		
Remarks:								

Tree Stratum (Plot size: 30)	Absolute			Dominance Test worksheet:
		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
3				Species Across All Strata:2 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC:0% (A/B)
5				That Are OBE, I AGW, OF I AG.
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species x 1 = 20
Sapling/Shrub Stratum (Plot size: 15				FACW species 0 x 2 = 0
1				FAC species $0 \times 3 = 0$
2				FACU species5
3				01 E species x 0 =
4				Column Totals:130 (A)465 (B)
5				Prevalence Index = B/A = 3.58
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	er	2 - Dominance Test is >50%
Herb Stratum (Plot size:5		= Total Cov	Ci	3 - Prevalence Index is ≤3.0 ¹
1. Schedonorus arundinaceus	70	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Agrostis perennans		Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Daucus carota		·	UPL	¹ Indicators of hydric soil and wetland hydrology must
4. Carex vulpinoidea	20		OBL	be present, unless disturbed or problematic.
5. Plantago lanceolata	_		FACU	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
7				Sapling/shrub – Woody plants less than 3 in. DBH
8				and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10		-		size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
20	130	= Total Cov	er	
Woody Vine Stratum (Plot size: 30)				
1		-		Hydrophytic
2				Vegetation
3				Present? Yes No ^
4		-		
		= Total Cov	er	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: Upland PM-12

SOIL Sampling Point: Upland PM-12

Depth (inches) Matrix Color (moist) % Type¹ Loc² Texture Remarks
0 - 18
<u>-</u>
<u>-</u>
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12) Redox Dark Surface (F6) Ifon-Mangariese Masses (F12) (LRR R, L, R) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if observed):
Type:
Depth (inches):
Remarks:





Soil E

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City	y/County: Geauga County	Sampling Date: 08/06/2021			
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Wetland PM-13			
Investigator(s): MJA Se					
Landform (hillslope, terrace, etc.): Terrace Local		Slope (%): ³			
Subregion (LRR or MLRA): LRR R Lat: 41.575783600000 Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes	NWI classific	eation:_N/A			
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in R	emarks.)			
Are Vegetation X, Soil , or Hydrology significantly dis	sturbed? Are "Normal Circumstances" p	oresent? Yes X No			
Are Vegetation, Soil, or Hydrology naturally proble					
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations, transects	, important features, etc.			
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: Wetland				
Remarks: (Explain alternative procedures here or in a separate report.)	If yes, optional Wetland Site ID: Wetland	1 101-13			
HYDROLOGY					
	Sacandan/Indian	store (minimum of two required)			
Wetland Hydrology Indicators:		ators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil				
Surface Water (A1) Water-Stained Lea					
High Water Table (A2)Saturation (A3)Aquatic Fauna (B1Marl Deposits (B15)		Moss Trim Lines (B16)			
Saturation (AS) Main Deposits (B1s) Hydrogen Sulfide (Dry-Season Water Table (C2) Crayfish Burrows (C8)			
		sible on Aerial Imagery (C9)			
Drift Deposits (B3) Presence of Reduc		tressed Plants (D1)			
	ction in Tilled Soils (C6) X Geomorphic				
Iron Deposits (B5) Thin Muck Surface					
Inundation Visible on Aerial Imagery (B7) Other (Explain in F		aphic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral	Test (D5)			
Field Observations:					
Surface Water Present? Yes NoX _ Depth (inches):					
Water Table Present? Yes NoX _ Depth (inches):					
Saturation Present? Yes No _X _ Depth (inches): (includes capillary fringe)	Wetland Hydrology Preser	nt? Yes X No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	previous inspections), if available:				
Remarks:					

EGETATION – Use scientific names of plants				Sampling Point: Wetland PM-1
Tree Stratum (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2 3				Total Number of Dominant Species Across All Strata: 1 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species x 1 = 20
Sapling/Shrub Stratum (Plot size: 15)				FACW species65
1				FACULE procises $\frac{10}{25}$ x 3 = $\frac{30}{100}$
2				TACO species X 4 =
3	-			UPL species0 x 5 =0 Column Totals:120 (A)280 (B)
4				Prevalence Index = B/A = 2.33333333333
5				Hydrophytic Vegetation Indicators:
6				X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
		= Total Cov	er	$\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^{1}$
Herb Stratum (Plot size:5) 1Impatiens capensis	65	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Scirpus atrovirens	20	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Schedonorus arundinaceus	20	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
4Phleum pratense	5	No	FACU	be present, unless disturbed or problematic.
5Euthamia graminifolia	10	No	FAC	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
20	120	= Total Cov	er	
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
				Vegetation
				Present? Yes X No
2		= Total Cov		

SOIL Sampling Point: Wetland PM-13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature:	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 3/2	90	2.5YR 3/4	10	Concer	PL,M	Silty loam	
							Only loans	
¹ Type: C=Co	oncentration, D=Deple	etion. RM=		= S=Masked	Sand Gra	ains.	² I ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil I								for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov		(S8) (LRF	RR,		fluck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149B)		DD D MI	DA 440D		Prairie Redox (A16) (LRR K, L, R)
Black His	n Sulfide (A4)		Thin Dark Surfa Loamy Mucky N					flucky Peat or Peat (S3) (LRR K, L, R) urface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I			, L)		lue Below Surface (S8) (LRR K, L)
	l Below Dark Surface	(A11)	Depleted Matrix		,			ark Surface (S9) (LRR K, L)
	rk Surface (A12)	(/(1/)	X Redox Dark Sur					anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark S	, ,				ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress		• ,			Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)		Redox Depress	10113 (1 0)				arent Material (F21)
	Matrix (S6)							hallow Dark Surface (TF12)
	face (S7) (LRR R, M	LRA 149E	3)					Explain in Remarks)
³ Indicators of	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation).
Restrictive L	ayer (if observed):							
Type:								- · · · · · · · · · · · · · · · · · · ·
Depth (inc	ches):						Hydric Soil	Present? Yes X No
Remarks:								





E





Soil S



W

Project/Site: Leroy Center-Mayfield 138 kV Transmission Lin	e Projec City/County: Geau	iga County	Sampling Date: 08/06/2021		
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-13		
Investigator(s): MJA					
Landform (hillslope, terrace, etc.): Terrace			Slope (%): ⁵		
Subregion (LRR or MLRA): LRR R Lat: 41.57					
Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percen	t slopes	NWI classifi	cation: N/A		
Are climatic / hydrologic conditions on the site typical for this t	ime of year? Yes X N	lo (If no, explain in F	Remarks.)		
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed?	Are "Normal Circumstances"	present? Yes X No		
Are Vegetation, Soil, or Hydrology na		If needed, explain any answe			
SUMMARY OF FINDINGS – Attach site map s	howing sampling poi	nt locations, transects	s, important features, etc.		
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No	within a We	etland? Yes			
Wetland Hydrology Present? Yes No	X If yes, optio	nal Wetland Site ID: Upland I	PM-13		
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)		
Primary Indicators (minimum of one is required; check all the	at annly)	Surface Soil			
	-Stained Leaves (B9)	Ourlace Soil			
	ic Fauna (B13)	=			
	Deposits (B15)	Moss Trim Lines (B16) Dry-Season Water Table (C2)			
	gen Sulfide Odor (C1)	Crayfish Burrows (C8)			
	ed Rhizospheres on Living F	_ ,	isible on Aerial Imagery (C9)		
Drift Deposits (B3) Prese	nce of Reduced Iron (C4)	Stunted or S	Stressed Plants (D1)		
Algal Mat or Crust (B4) Recer	nt Iron Reduction in Tilled So	ils (C6) X Geomorphic	Position (D2)		
<u> </u>	Muck Surface (C7)	Shallow Aqu	` · ·		
	(Explain in Remarks)		aphic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)	Ţ	FAC-Neutra	I Test (D5)		
Field Observations:					
Surface Water Present? Yes No X Dept					
Water Table Present? Yes No _X _ Depti			10 V		
Saturation Present? Yes No _X _ Depti (includes capillary fringe)	1 (inches):	Wetland Hydrology Prese	nt? Yes NoX		
Describe Recorded Data (stream gauge, monitoring well, as	rial photos, previous inspect	ions), if available:			
Remarks:					
Tremane.					

EGETATION – Use scientific names of plants				Sampling Point: Upland PM-1
ree Stratum (Plot size:)		Dominant Species?	<u>Status</u>	Dominance Test worksheet: Number of Dominant Species
				That Are OBL, FACW, or FAC:1 (A)
				Total Number of Dominant Species Across All Strata: 2 (B)
				(2)
·				Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/E
·				
·				Prevalence Index worksheet:
			-	Total % Cover of: Multiply by:
45	-	= Total Cov	er	OBL species 40 x 1 = 40 FACW species 0 x 2 = 0
apling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0 FAC species15 x 3 =45
				FACU species 115 x 4 = 460
				UPL species 10 x 5 = 50
				Column Totals:180
				Prevalence Index = B/A = 3.31
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
5		= Total Cov	er	3 - Prevalence Index is ≤3.0 ¹
erb Stratum (Plot size:5) Potentilla simplex	30	No	FACU	4 - Morphological Adaptations ¹ (Provide supportindata in Remarks or on a separate sheet)
Prunella vulgaris	15	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
Trifolium pratense		No	FACU	¹ Indicators of hydric soil and wetland hydrology must
Phleum pratense	10	No	FACU	be present, unless disturbed or problematic.
Schedonorus arundinaceus	40	Yes	FACU	Definitions of Vegetation Strata:
Scirpus atrovirens	40	Yes	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
Daucus carota	10	No	UPL	at breast height (DBH), regardless of height.
Plantago lanceolata			FACU	Sapling/shrub – Woody plants less than 3 in. DBH
Agrostis perennans	10	No	FACU	and greater than or equal to 3.28 ft (1 m) tall.
0				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
1				
2				Woody vines – All woody vines greater than 3.28 ft in height.
	180	= Total Cov	er	
/oody Vine Stratum (Plot size: 30)				
•				Hydrophytic
·				Vegetation Present? Yes No X
		= Total Cov		

SOIL Sampling Point: Upland PM-13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix Color (moist)	%	Redo:	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 10	2.5Y 4/3	98	5YR 4/6	2	Concer	PL,M	Silty loam	
							Only loans	
¹ Type: C=Co	oncentration, D=Deple	etion. RM=	Reduced Matrix, MS	=S=Masked	Sand Gra	ains.	² I ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil I		,						for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov		(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B)
Histic Ep	oipedon (A2)		MLRA 149B) Thin Dark Surfa		DD D MI	DA 140B		Prairie Redox (A16) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N					Mucky Peat or Peat (S3) (LRR K, L, R) Surface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I			, -)		ilue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix		,			ark Surface (S9) (LRR K, L)
	ark Surface (A12)	()	Redox Dark Sui	. ,				anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark S					ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress		,			Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)			` '				arent Material (F21)
-	Matrix (S6)							shallow Dark Surface (TF12)
	face (S7) (LRR R, M	LRA 149B	3)					(Explain in Remarks)
	hydrophytic vegetati		tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	D.
	ayer (if observed):	X						
Type: Ro							11-1-1-1-0-11	Brancia Van Na Y
Depth (inc	ches): 10						Hydric Soil	Present? Yes No _X
Remarks:								





Soil

Project/Site: Leroy Center-Mayfield 138 kV Transr	mission Line Projec City/County: Gea	uga County	Sampling Date: 08/05/2021		
Applicant/Owner: FirstEnergy			Sampling Point: Wetland PM-14		
Investigator(s): MJA	Section, Township				
Landform (hillslope, terrace, etc.): Lowland			Slope (%): 1		
Subregion (LRR or MLRA): LRR R					
Soil Map Unit Name: Ho: Holly silt loam, frequently	y flooded	NWI classific	ation: N/A		
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes X	No (If no, explain in R	emarks.)		
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No		
Are Vegetation, Soil, or Hydrology		(If needed, explain any answe			
SUMMARY OF FINDINGS – Attach sit	e map showing sampling poi	nt locations, transects	, important features, etc.		
	X No Is the Sam within a W X No If yes, option	_			
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is required; of	theck all that apply)	Surface Soil	Cracks (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pat	tterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burr	,		
Sediment Deposits (B2)	X Oxidized Rhizospheres on Living		sible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced Iron (C4)		tressed Plants (D1)		
	Recent Iron Reduction in Tilled So				
	X Thin Muck Surface (C7)	Shallow Aqui	, ,		
	Other (Explain in Remarks)	Microtopogra			
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral	Test (D5)		
Field Observations:	V Booth (Socker)				
	X Depth (inches):				
	X Depth (inches):	Watland Hudralans Busan	40 Van V Na		
(includes capillary fringe)	X Depth (inches):	Wetland Hydrology Presen	t? Yes X No		
Describe Recorded Data (stream gauge, monitori	ing well, aerial photos, previous inspec	tions), if available:			
Remarks:					

/EGETATION - Use scientific names of plant	S.	Sampling Point: Wetland PM-14
<u>Tree Stratum</u> (Plot size:) 1)	Absolute Dominant Indicato % Cover Species? Status	
2		Total Number of Dominant Species Across All Strata:1 (B)
45		Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6	-	Prevalence Index worksheet:
7		
	= Total Cover	OBL species $0 \times 1 = 0$ $EACW species 110 \times 2 = 220$
Sapling/Shrub Stratum (Plot size: 15)		racivi species x z =
1		FAC species x s =
2		x 4 =
3		01 L species x 0 =
4		Column Totals:110 (A)220 (B)
5		Prevalence Index = B/A = 2
		Hydrophytic Vegetation Indicators:
6		X 1 - Rapid Test for Hydrophytic Vegetation
7		X 2 - Dominance Test is >50%
_	= Total Cover	X 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 1. Phalaris arundinacea	100 Yes FACW	4 - Morphological Adaptations ¹ (Provide supporting
2. Impatiens capensis	10 No FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3		Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
4		Definitions of Vegetation Strata:
5		-
6		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10		Herb – All herbaceous (non-woody) plants, regardless of
		size, and woody plants less than 3.28 ft tall.
11		Woody vines – All woody vines greater than 3.28 ft in
12		height.
	110 = Total Cover	
Woody Vine Stratum (Plot size:)		
1		_
2		Hydrophytic Vegetation
3		Present? Yes X No
4.		
	= Total Cover	
Remarks: (Include photo numbers here or on a separate		
Remarks: (Include photo numbers here or on a separate	e sheet.)	

SOIL Sampling Point: Wetland PM-14

Profile Desc	ription: (Describe t	to the dept	h needed to docun	nent the i	ndicator c	or confirm	the absence	of indicators.)	
Depth	Matrix			x Feature:	<u>S</u> _ 1	. 2			
(inches) 0 - 1	Color (moist) 10YR 3/3	100	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u> Silt	Remarks Mucky	
0 - 1									
1 - 10	10YR 3/2	95	5YR 4/6	5	Concer	PL,M	Silt	Gravelly	
-									
-			_						
								·	
-									
-									
-			_						
-									
-									
-									
1Typo: C-Co	oncentration, D=Depl	otion PM-	Poducod Matrix MS			inc	² L ocation	n: PL=Pore Lining, M=Matrix.	
Hydric Soil I		ellon, Kivi=	Reduced Matrix, Mc	=iviaske0	i Saliu Gla	11115.		for Problematic Hydric Soils ³ :	
Histosol			Polyvalue Belov	v Surface	(S8) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B)	
	pipedon (A2)	·	MLRA 149B)		`	·		Prairie Redox (A16) (LRR K, L, R)	
Black His		•	Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		Loamy Mucky N			L)		Surface (S7) (LRR K, L, M)	
	l Layers (A5) I Below Dark Surface	e (A11)	Loamy Gleyed I Depleted Matrix)			alue Below Surface (S8) (LRR K, L) Park Surface (S9) (LRR K, L)	
-	ark Surface (A12)	, , , , ,	X Redox Dark Sur					langanese Masses (F12) (LRR K, L, R)	
	lucky Mineral (S1)	;	Depleted Dark S		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
-	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)	
-	edox (S5)							arent Material (F21)	
	Matrix (S6) face (S7) (LRR R, M	II RA 149R)					Shallow Dark Surface (TF12) (Explain in Remarks)	
Dark our	race (O7) (ERR R, W	ILIXA 143D)				01101	(Explain in Remarks)	
³ Indicators of	hydrophytic vegetat	ion and we	tland hydrology mus	t be prese	ent, unless	disturbed of	or problemation	c.	
	ayer (if observed):	Х							
Type: Gra									
Depth (inc	ches): 10	-					Hydric Soil	Present? Yes X No No	
Remarks:									





Soil W





S N



Ε

Project/Site: Leroy Center-Mayfield 138 kV Tran	nsmission Line Projec City/County:	Geauga County	Sampling Date: 08/05/2021
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-14
Investigator(s): MJA			
Landform (hillslope, terrace, etc.): Hillside			Slope (%): ¹⁵
Subregion (LRR or MLRA): LRR R			
Soil Map Unit Name: Ho: Holly silt loam, frequen	ntly flooded	NWI class	sification: N/A
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes X	No (If no, explain in	n Remarks.)
Are Vegetation, Soil, or Hydrolog	y significantly disturbed?	Are "Normal Circumstance	s" present? Yes X No
Are Vegetation, Soil, or Hydrolog		(If needed, explain any ans	
SUMMARY OF FINDINGS – Attach s	ite map showing sampling	point locations, transec	cts, important features, etc.
		e Sampled Area n a Wetland? Yes	No
	No X If yes	, optional Wetland Site ID: Uplan	d PM-14
HYDROLOGY			
		Cocondony Inc	diagtors (minimum of two required)
Wetland Hydrology Indicators:	, about all that apply)	·	dicators (minimum of two required)
Primary Indicators (minimum of one is required			oil Cracks (B6) Patterns (B10)
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9)Aquatic Fauna (B13)	_	n Lines (B16)
Saturation (A3)	Marl Deposits (B15)		on Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	•	Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on L		n Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (r Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Til		hic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		equitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopo	graphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Neut	tral Test (D5)
Field Observations:			
	X Depth (inches):		
	X Depth (inches):		
(includes capillary fringe)	X Depth (inches):	Wetland Hydrology Pres	sent? Yes No _X
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, previous i	nspections), if available:	
Remarks:			

Tree Stratum (Plot size: 30)	Absolute	Dominant Species?		Dominance Test worksheet:
1	,		<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				
				Prevalence Index worksheet:
7				
Ocalica (Obsult Obstace (District		= Total Cov	rei	OBL species0 x 1 =0 FACW species0 x 2 =0
Sapling/Shrub Stratum (Plot size: 15)				FAC species 5 x 3 = 15
1				FACU species160
2				UPL species 15 x 5 = 75
3				Column Totals: 180 (A) 730 (B)
4				Provalence Index - R/A - 4.06
5				Prevalence Index = B/A = 4.06
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	ver .	2 - Dominance Test is >50%
Herb Stratum (Plot size:5				3 - Prevalence Index is ≤3.0 ¹
1. Schedonorus arundinaceus	65	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Agrostis perennans	30	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Dipsacus fullonum	25	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Melilotus officinalis	10	No	FACU	be present, unless disturbed or problematic.
5 Verbascum thapsus	5	No	UPL	Definitions of Vegetation Strata:
6. Daucus carota	10	No	UPL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. Pycnanthemum muticum	5	No	FAC	at breast height (DBH), regardless of height.
8. Phleum pratense			FACU	Sapling/shrub – Woody plants less than 3 in. DBH
9. Solidago canadensis			FACU	and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of
11				size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
12		= Total Cov		height.
Manda Vine Otestana (Blataina 30		= Total Cov	rei	
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
2			. ——	Vegetation
3				Present? Yes No X
4				
		= Total Cov	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: Upland PM-14

SOIL Sampling Point: Upland PM-14

Profile Descr	iption: (Describe to	the dep	th needed to docun	ent the indic	ator or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redox Color (moist)	<u>Features</u>	pe ¹ Loc ²	Texture	Remarks
0 - 1	10YR 3/3	100				Silty loam	
-							
-							
-							
-							
-							
	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Masked San	nd Grains.		PL=Pore Lining, M=Matrix.
Hydric Soil Ir			Daharaha Dalam	· Cf (CO)	// DD D		for Problematic Hydric Soils ³ :
Histosol (pedon (A2)		Polyvalue Belov MLRA 149B)		(LKK K,		luck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa) 5 cm M	ucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky M		RR K, L)		urface (S7) (LRR K, L, M)
	Layers (A5)	(044)	Loamy Gleyed N				ue Below Surface (S8) (LRR K, L)
	Below Dark Surface rk Surface (A12)	(A11)	Depleted Matrix Redox Dark Sur				ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Redox Dark Sur Depleted Dark S				ont Floodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S4)		Redox Depressi				Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Re			Redox Depressi	0113 (1 0)			rent Material (F21)
-	Matrix (S6)						nallow Dark Surface (TF12)
	face (S7) (LRR R, M	LRA 149E	3)				Explain in Remarks)
	hydrophytic vegetation		tland hydrology mus	t be present, u	ınless disturbed	or problematic	
Type: Roc	ayer (if observed):	X					
Depth (incl						Hydric Soil	Present? Yes No X_
Remarks:	1103)	•				Tiyunc 30ii	resent: res No
romano.							





Soil E

Project/Site: Leroy Center-May	yfield 138 kV Tran	smission Line Projec City	/County: Geauga County	,	Sampling Date: 08/02/2021		
Applicant/Owner: FirstEnergy			,		Sampling Point: Wetland PM-15		
Investigator(s): MJA		Sec	tion, Township, Range: N		<u> </u>		
					Slone (%). 1		
Landform (hillslope, terrace, etc.	o.)	41 56814315	-81 (concave, convex, nc	26362861666667	Slope (70) Salara WGS 1984		
					Datum: WGS 1984		
Soil Map Unit Name: MgB: Ma							
Are climatic / hydrologic conditi	ons on the site typ	pical for this time of year?	Yes X No	(If no, explain in Re	emarks.)		
Are Vegetation, Soil	, or Hydrolog	y significantly dist	urbed? Are "Norma	al Circumstances" p	resent? Yes X No		
Are Vegetation, Soil	, or Hydrolog	y naturally probler	matic? (If needed,	explain any answe	rs in Remarks.)		
SUMMARY OF FINDING	GS – Attach s	ite map showing sa	mpling point locati	ons, transects	, important features, etc.		
Hydrophytic Vegetation Prese	ent? Yes	X No	Is the Sampled Area				
Hydric Soil Present?		X No	within a Wetland?	Yes X	No		
Wetland Hydrology Present?		X No	If yes, optional Wetlan	d Site ID: Wetland I	PM-15		
Remarks: (Explain alternative		or in a separate report.)	, , ,				
HYDROLOGY							
Wetland Hydrology Indicato	ors:				tors (minimum of two required)		
Primary Indicators (minimum	of one is required;			Surface Soil	` ,		
Surface Water (A1)		Water-Stained Leav		Drainage Pat			
High Water Table (A2)		Aquatic Fauna (B13		Moss Trim Lines (B16)			
Saturation (A3)		Marl Deposits (B15)		Dry-Season Water Table (C2)			
Water Marks (B1)Sediment Deposits (B2)		Hydrogen Sulfide O	eres on Living Roots (C3)	Crayfish Burrows (C8) Roots (C3) Saturation Visible on Aerial Imagery (C9)			
Orift Deposits (B3)		Presence of Reduce	= : :				
Algal Mat or Crust (B4)			ion in Tilled Soils (C6)	Stunted or Stressed Plants (D1) Soils (C6) X Geomorphic Position (D2)			
Iron Deposits (B5)		Thin Muck Surface		Shallow Aquitard (D3)			
Inundation Visible on Aer	ial Imagery (B7)	Other (Explain in Re		Microtopographic Relief (D4)			
Sparsely Vegetated Cond				X FAC-Neutral			
Field Observations:							
Surface Water Present?	Yes No	X Depth (inches):					
Water Table Present?	Yes No	X Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes No	X Depth (inches):	Wetland	Hydrology Presen	t? Yes <u>X</u> No		
Describe Recorded Data (stre	eam gauge, monito	oring well, aerial photos, p	revious inspections), if av	ailable:			
Devente							
Remarks:							

Tree Stratum (Plot size: 30)	Absolute	Dominant Species?		Dominance Test worksheet:			
1				Number of Dominant Species That Are OBL, FACW, or FAC:4(A)			
2							
3				Total Number of Dominant Species Across All Strata: 4 (B)			
4				Percent of Deminent Species			
5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)			
6				Prevalence Index worksheet:			
7				Total % Cover of: Multiply by:			
		= Total Cov	/er	OBL species 80 x 1 = 80 FACW species 40 x 2 = 80			
Sapling/Shrub Stratum (Plot size: 15				x 2 = x 2 =			
1. Cornus racemosa	40	Yes	FAC	X S =			
2. Viburnum dentatum	15	No	FAC	FACU species0 x 4 =0 UPL species0 x 5 =0			
3. Frangula alnus	30	Yes	FAC	Column Totals: 220 (A) 460 (B)			
4							
5				Prevalence Index = B/A = 2.0909090909			
6				Hydrophytic Vegetation Indicators:			
7			·	X 1 - Rapid Test for Hydrophytic Vegetation			
		= Total Cov	/Or	X 2 - Dominance Test is >50%			
Herb Stratum (Plot size:5		= 10tai 00t	701	X 3 - Prevalence Index is ≤3.0 ¹			
1. Euthamia graminifolia	15	No	FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
2. Carex vulpinoidea	30	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. Juncus effusus			OBL	¹ Indicators of hydric soil and wetland hydrology must			
4. Carex tribuloides			FACW	be present, unless disturbed or problematic.			
5. Phalaris arundinacea	20	No	FACW	Definitions of Vegetation Strata:			
Mark and bootst	10	No	FACW	_			
			OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
7. Lythrum salicaria	10		OBL				
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.			
9				Herb – All herbaceous (non-woody) plants, regardless of			
10				size, and woody plants less than 3.28 ft tall.			
11		-		Woody vines – All woody vines greater than 3.28 ft in			
12				height.			
	135	= Total Cov	/er				
Woody Vine Stratum (Plot size: 30							
1							
2				Hydrophytic Vegetation			
3				Present? Yes X No			
4.			·				
·		= Total Cov	/er				
Remarks: (Include photo numbers here or on a separate	sheet.)	10101 001					
` '	,						

Sampling Point: Wetland PM-15

SOIL Sampling Point: Wetland PM-15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Feature: %	<u>s</u> _Type ¹	Loc ²	Texture	Remarks	
0 - 10	10YR 4/2	97	7.5YR 4/6	3	Concer	PL,M	Silty loam	romano	
10 - 18	2.5Y 6/2	80	10YR 5/8	20	Concer	М	Silty clay loam		
-									
-									
1							2		
'Type: C=Co Hydric Soil I	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :	
Histosol			Polyvalue Belov	v Surface	(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B)	
Histic Ep	ipedon (A2)		MLRA 149B) Thin Dark Surfa		DD D MI	DA 1/0D		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		Loamy Mucky N					Surface (S7) (LRR K, L, M)	
	Layers (A5)	(4.44)	Loamy Gleyed I		2)			alue Below Surface (S8) (LRR K, L)	
	Below Dark Surface rk Surface (A12)	e (A11)	X Depleted Matrix Redox Dark Sur	. ,				ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)	
Sandy M	ucky Mineral (S1)		Depleted Dark S					ont Floodplain Soils (F19) (MLRA 149B)	
	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)	
	edox (S5) Matrix (S6)							arent Material (F21) Shallow Dark Surface (TF12)	
	face (S7) (LRR R, M	LRA 149E	3)					(Explain in Remarks)	
³ Indicators of	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	D.	
	ayer (if observed):		, ,,	•					
Type:								5 10 Y Y	
Depth (inc	:hes):						Hydric Soil	Present? Yes X No No	
Remarks:									





Soil W



Ν



E



Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/County: Geauga County	Sampling Date: 08/02/2021			
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Upland PM-15,16			
Investigator(s): MJA Section, Township, Range: N/A				
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none bubble) Subregion (LRR or MLRA): LRR R Lat: 41.56812 Long: -81.20	6359 WGS 1984			
Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes $\frac{X}{X}$ No (I	f no, explain in Remarks.)			
Are Vegetation X, Soil , or Hydrology significantly disturbed? Are "Normal of the Normal of the Norm	Circumstances" present? Yes X No			
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, ex	xplain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sampling point location	ns, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes NoX Is the Sampled Area				
Hydric Soil Present? Yes X No within a Wetland?	Yes No			
Wetland Hydrology Present? Yes No X If yes, optional Wetland	Site ID: Upland PM-15,16			
Remarks: (Explain alternative procedures here or in a separate report.)	<u> </u>			
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1) Water-Stained Leaves (B9)	Drainage Patterns (B10)			
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)			
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)			
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)			
	Shallow Aquitard (D3)			
Inch Depends (DE) Infinitely Carlotte (DE) Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present? Yes NoX _ Depth (inches):				
Water Table Present? Yes No _X _ Depth (inches):				
	ydrology Present? Yes NoX_			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if avail	able:			
Remarks:				

	•			Sampling Point: Upland PM-15,1		
ree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:		
				Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)		
				Total Number of Dominant Species Across All Strata: 5 (B)		
				Percent of Dominant Species		
				That Are OBL, FACW, or FAC: 40% (A/B		
				Dravelance Index worksheets		
				Prevalence Index worksheet: Total % Cover of: Multiply by:		
		= Total Cov	er	OBL species $0 \times 1 = 0$		
apling/Shrub Stratum (Plot size: 15)				FACW species 0 x 2 = 0		
Rosa multiflora	25	Yes	FACU	FAC species65		
Cornus racemosa			FAC	FACU species x 4 = 600		
				UPL species <u>5</u> x 5 = <u>25</u>		
				Column Totals: (A) (B)		
				Prevalence Index = B/A = 3.73		
				Hydrophytic Vegetation Indicators:		
				1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cov		2 - Dominance Test is >50%		
erb Stratum (Plot size:5		- Total Cov	Ci	3 - Prevalence Index is ≤3.0 ¹		
Agrostis perennans	20	No	FACU	4 - Morphological Adaptations ¹ (Provide supportin data in Remarks or on a separate sheet)		
Prunella vulgaris	25		FAC	Problematic Hydrophytic Vegetation ¹ (Explain)		
Schedonorus arundinaceus			FACU	¹ Indicators of hydric soil and wetland hydrology must		
Daucus carota	5	No	UPL	be present, unless disturbed or problematic.		
Phleum pratense	15	No	FACU	Definitions of Vegetation Strata:		
Vernonia gigantea	15	No	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
Solidago canadensis	30	Yes	FACU	at breast height (DBH), regardless of height.		
Trifolium repens			FACU	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
				Herb – All herbaceous (non-woody) plants, regardless of		
D				size, and woody plants less than 3.28 ft tall.		
1				Woody vines – All woody vines greater than 3.28 ft in		
2	170	T-1-1-0		height.		
20	170	= Total Cov	er			
oody Vine Stratum (Plot size:)						
			-	Hydrophytic		
				Vegetation		
			-	Present? Yes No ^		
<u> </u>		= Total Cov				

SOIL Sampling Point: Upland PM-15,16

Profile Desc	ription: (Describe t	o the deptl				or confirm	the absence	of indicators.)
Depth	Matrix Color (moist)	<u></u> %	Redo Color (moist)	x Features	Type ¹	Loc ²	Texture	Remarks
(inches)			•	<u>%</u>				Remarks
0 - 18	10YR 4/2	98	10YR 5/4	2	Concer	M	Silty loam	
-								
-								
-								
-								
-								
			_					
<u>-</u>								
-								
¹ Type: C=Co	oncentration, D=Depl	etion RM=I	Reduced Matrix MS	S=Masked	Sand Gra	ins	² l ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil I		50011, 1001-1	toddood Watrix, We	<u>J-Macked</u>	Carra Cra			for Problematic Hydric Soils ³ :
Histosol	(A1)	_	Polyvalue Belov	w Surface	(S8) (LRR	R,	2 cm N	Muck (A10) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B)				Coast	Prairie Redox (A16) (LRR K, L, R)
Black His		-	Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	-	Loamy Mucky N			L)		Surface (S7) (LRR K, L, M)
	l Layers (A5) I Below Dark Surface	-(^11)	Loamy GleyedDepleted Matrix)		-	alue Below Surface (S8) (LRR K, L) Park Surface (S9) (LRR K, L)
-	rk Surface (A12)	(A11) _	Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)	_	Depleted Dark	. ,	7)			ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	_	Redox Depress					Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)							arent Material (F21)
	Matrix (S6)							Shallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149B)					Other	(Explain in Remarks)
³ Indicators of	hydrophytic vegetati	on and wet	and hydrology mus	t he prese	ent unless	disturbed	or problematic	2
	ayer (if observed):	on and wor	and Hydrology mac	7. 50 p.000	, di 11000	diotarboa	Probleman	
Type:	,							
	ches):						Hvdric Soil	Present? Yes X No No
Remarks:							,	
rtomanto.								





S Soil

Project/Site: Leroy Center-Mayfield 138 kV Transr	mission Line Projec City/County: Ger	auga County	Sampling Date: 08/02/2021
Applicant/Owner: FirstEnergy	· ·		Sampling Point: Wetland PM-16
Investigator(s): MJA	Section, Townsh		
Landform (hillslope, terrace, etc.): Toeslope			Slope (%): ³
Subregion (LRR or MLRA): LRR R Soil Map Unit Name: MgB: Mahoning silt loam, 2 t	to 6 percent slopes	NWI classific	eation:_N/A
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes X	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology _		(If needed, explain any answe	
SUMMARY OF FINDINGS – Attach site	e map showing sampling po	int locations, transects	, important features, etc.
	X No within a N	npled Area Vetland? Yes X ional Wetland Site ID: Wetland	
Remarks: (Explain alternative procedures here o		ional Wetland Site ID:	1 W-10
HYDROLOGY			
		Socondary Indica	ators (minimum of two required)
Wetland Hydrology Indicators:	haalaallahaa aaaha		
Primary Indicators (minimum of one is required; c		Surface Soil	
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	
	Aquatic Fauna (B13)	Moss Trim Li	Water Table (C2)
	Marl Deposits (B15)	Dry-Season Crayfish Bur	
	Hydrogen Sulfide Odor (C1)Oxidized Rhizospheres on Living		sible on Aerial Imagery (C9)
	Presence of Reduced Iron (C4)		tressed Plants (D1)
	Recent Iron Reduction in Tilled S		` '
	Thin Muck Surface (C7)	Shallow Aqu	
	Other (Explain in Remarks)	Microtopogra	` '
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	X FAC-Neutral	
Field Observations:		I AO-Neuliai	1631 (03)
	X Depth (inches):		
	X Depth (inches):		
	X Depth (inches):	Wetland Hydrology Preser	nt? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monitori	ing well, aerial photos, previous inspe	 ctions), if available:	
		,,	
Remarks:			

20			Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant
2				Total Number of Dominant
4				Charles Assess All Ctrate:
5				Species Across All Strata:1 (B) Percent of Dominant Species
				That Are OBL, FACW, or FAC: 1 (A/B)
6				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15)		= Total Cove	er	OBL species0
1				FAC species0 x 3 =0
2				FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
3				Column Totals:105 (A) (B)
4				Prevalence Index = B/A = 2
6				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cove	er	$\frac{X}{X}$ 2 - Dominance Test is >50% $\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^{1}$
Herb Stratum (Plot size: 5 1. Phalaris arundinacea	100	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Impatiens capensis	5	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12	405			height.
Woody Vine Stratum (Plot size: 30)	105	= Total Cove	er	
1				
2				Hydrophytic Vegetation
3				Present? Yes X No
4				
Remarks: (Include photo numbers here or on a separate she		= Total Cove	er ————	

SOIL Sampling Point: Wetland PM-16

Profile Desc	ription: (Describe to	o the dep	th needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 3/2	98	5YR 4/6	2	Concer	M	Silty loam	remano
-								
								-
-								
-								
-								
¹Type: C=Co	oncentration, D=Deple	etion. RM=	-Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² l ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil I		30011, 11111	-reduced mann, me	<u>J-MacRoc</u>	Cana On			for Problematic Hydric Soils ³ :
Histosol	• •		Polyvalue Belov		(S8) (LRF	RR,		fluck (A10) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B) Thin Dark Surfa		RRR MI	RΔ 149R		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N					urface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I			,		lue Below Surface (S8) (LRR K, L)
	l Below Dark Surface	(A11)	Depleted Matrix	. ,				ark Surface (S9) (LRR K, L)
	rk Surface (A12)		X Redox Dark Sur	, ,				anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark S		7)			ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4) edox (S5)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B) arent Material (F21)
	Matrix (S6)							hallow Dark Surface (TF12)
	face (S7) (LRR R, M	LRA 149E	3)					Explain in Remarks)
³ Indicators of	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problematic	i.
Restrictive L	ayer (if observed):							
Type:								- v
Depth (inc	ches):						Hydric Soil	Present? Yes X No No
Remarks:								





N S





Soil E



W

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec	City/County: Geauga County Sampling Date: 08/02/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Wetland PM-17
	Section, Township, Range: N/A
	cal relief (concave, convex, none): Concave Slope (%): 2
	99999 Long: -81.26604439999998 Datum: WGS 1984
Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes	NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pro	
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report	Is the Sampled Area within a Wetland? Yes X No
Wetland Hydrology Present? YesX No Remarks: (Explain alternative procedures here or in a separate report	If yes, optional Wetland Site ID: Wetland PM-17
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
Surface Water (A1) Water-Stained	Surface Soil Cracks (B6) Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna	
Saturation (A3) Marl Deposits (
Water Marks (B1) Hydrogen Sulfid	
	spheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Re	
	duction in Tilled Soils (C6) X Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surf.	
Inundation Visible on Aerial Imagery (B7) Other (Explain	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _X Depth (inches)	y:
Water Table Present? Yes No _X _ Depth (inches)	
Saturation Present? Yes No _X _ Depth (inches)	: Wetland Hydrology Present? Yes X No No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photo	on provious inspections), if available:
Describe Recorded Data (Stream gauge, monitoring well, aerial prioto	s, previous inspections), ii available.
Remarks:	

		Sampling Point: Wetland PM-1
	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
		Total Number of Dominant Species Across All Strata: 2 (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
	= Total Cover	OBL species x 1 = 0
		FACW species x 2 = 200
		FACT species $\frac{30}{0}$ x 3 = $\frac{90}{0}$
		FACU species
		UPL species $0 \times 5 = 0$
		Column Totals:130 (A)290 (B)
		Prevalence Index = B/A = 2.230769230
		Hudranbutia Vanatatian Indicatana
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50%
	= Total Cover	$\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^{\circ}$
100	Yes FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
		Problematic Hydrophytic Vegetation¹ (Explain)
		•
		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		•
		Definitions of Vegetation Strata:
		Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
		Herb – All herbaceous (non-woody) plants, regardless of
		size, and woody plants less than 3.28 ft tall.
		Woody vines – All woody vines greater than 3.28 ft in
		height.
130	= Total Cover	
		Hydrophytic
		Vegetation Present? Yes X No
		· —
	= Total Cover	
	100 30	30 Yes FAC

SOIL Sampling Point: Wetland PM-17

cription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirm	the absence	of indicators.)
Matrix Color (moist)	<u>%</u>	Redo Color (moist)	x Features	Type ¹	Loc ²	Texture	Remarks
10YR 4/2	95	2.5YR 4/6	5	Concer	PL,M	Silty loam	
oncentration, D=Deple Indicators:	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Irface (S7) (LRR R, M	ILRA 149B	MLRA 149B; Thin Dark Surfa Loamy Mucky M Loamy Gleyed I X Depleted Matrix Redox Dark Su Depleted Dark S Redox Depress) ace (S9) (L Mineral (F1 Matrix (F2) (F3) (F3) rface (F6) Surface (F ions (F8)	.RR R, MI) (LRR K)	.RA 149B) , L)	Coast I	Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R) urface (S7) (LRR K, L, M) Ilue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R) ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B) arent Material (F21) hallow Dark Surface (TF12) Explain in Remarks)
ches):	_					Hydric Soil	Present? Yes <u>X</u> No
	Matrix Color (moist) 10YR 4/2 10YR 4/2 oncentration, D=Depl Indicators: (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR R, M	Matrix Color (moist) % 10YR 4/2 95 10YR 4/2 95 concentration, D=Depletion, RM= Indicators: (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) d Below Dark Surface (A11) ark Surface (A12) Mucky Mineral (S1) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Irface (S7) (LRR R, MLRA 149B of hydrophytic vegetation and we Layer (if observed):	Matrix Redo Color (moist) % Color (moist) 10YR 4/2 95 2.5YR 4/6 Depleted Matrix Ms. Reduced Matrix, Ms.	Matrix Color (moist) % Color (moist) % 10YR 4/2 95 2.5YR 4/6 5	Matrix Redox Features Color (moist) % Type¹ 10YR 4/2 95 2.5YR 4/6 5 Concer	Matrix Redox Features Color (moist) % Color (moist) % Type¹ Loc² 10YR 4/2 95 2.5YR 4/6 5 Concer PL,M Doncentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Indicators: (A1) Polyvalue Below Surface (S8) (LRR R, pipedon (A2) Sistic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Sistic (A4) Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2) d Below Dark Surface (A11) Redox Dark Surface (F7) Gleyed Matrix (S4) Redox Dark Surface (F7) Gleyed Matrix (S4) Redox Depressions (F8) Redox (S5) Hatrix (S6) If the MLRA 149B) of hydrophytic vegetation and wetland hydrology must be present, unless disturbed Layer (if observed):	Color (moist) % Color (moist) % Type³ Loc² Texture 10YR 4/2 95 2.5YR 4/6 5 Concer PL,M Sitty loam Oncentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Indicators: (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm MLRA 149B) pipedon (A2) MLRA 149B) istic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm MLRA 149B) and Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark S del Alexon (A5) Loamy Gleyed Matrix (F2) Polyval d Below Dark Surface (A11) X Depleted Matrix (F3) Thin Dark Surface (F6) Alexon Mark Surface (A12) Redox Dark Surface (F6) Iron-Michael (S6) Redox (S5) Redox (S5) Redox (S5) Redox (S5) Redox (S6) Redox (S5) Redox (S6) Redox (S6) Redox (S6) Redox (S6) Redox (S6) Redox (S7) (LRR R, MLRA 149B) If hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic Layer (if observed):





N W





Soil E



Project/Site: Leroy Center-Mayfield 138 kV Tran	smission Line Projec City/Cour	nty: Geauga County	Sampling Date: 08/02/2021			
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-17			
Investigator(s): MJA	Section,					
Landform (hillslope, terrace, etc.): Terrace			Slope (%): ³			
Subregion (LRR or MLRA): LRR R	Lat. 41.566326616666665	Long: -81.26611706666667	Datum: WGS 1984			
Subregion (LRR or MLRA): LRR R Soil Map Unit Name: MgB: Mahoning silt loam, 2	2 to 6 percent slopes	NWI classifi	cation: N/A			
Are climatic / hydrologic conditions on the site type	oical for this time of year? Yes	X No (If no, explain in I	Remarks.)			
Are Vegetation, Soil, or Hydrolog	y significantly disturbed	? Are "Normal Circumstances"	present? Yes X No			
Are Vegetation, Soil, or Hydrolog						
SUMMARY OF FINDINGS – Attach s	ite map showing sampl	ing point locations, transects	s, important features, etc.			
		the Sampled Area ithin a Wetland? Yes	No			
	INO					
Wetland Hydrology Present? Yes _ Remarks: (Explain alternative procedures here	NO^ If	yes, optional Wetland Site ID: Upland	- IVI-17			
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)			
	chack all that apply)					
Primary Indicators (minimum of one is required:		Surface Soi				
Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (E Aquatic Fauna (B13)	-	Drainage Patterns (B10) Moss Trim Lines (B16)			
Saturation (A3)	Aqualic Fauria (B13) Marl Deposits (B15)		Moss frim Lines (B16) Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (Crayfish Burrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres of		/isible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence of Reduced Iro		Stressed Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Reduction in		Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqu	uitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remark	ks) Microtopogr	aphic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutra	l Test (D5)			
Field Observations:						
Surface Water Present? Yes No	X Depth (inches):					
Water Table Present? Yes No	X Depth (inches):					
(includes capillary fringe)	X Depth (inches):	Wetland Hydrology Prese	nt? Yes NoX			
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previo	us inspections), if available:				
Remarks:						

Tree Stratum (Plot size: 30)	Absolute	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	ver	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACVV species x z =
1	·			1710 openies x 0 =
2				FACU species $\begin{array}{ccc} & 150 & \text{x 4} = & 600 \\ & & & \\$
3				Column Totals: 150 (A) 600 (B)
4				, , ,
5				Prevalence Index = B/A = 4
6				Hydrophytic Vegetation Indicators:
7	· · · · · · · · · · · · · · · · · · ·			1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	· · ·	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5		_ 10tai C0	vei	3 - Prevalence Index is ≤3.0 ¹
1. Phleum pratense	15	No	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Dactylis glomerata			FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Agrostis perennans			FACU	¹ Indicators of hydric soil and wetland hydrology must
Cahadanawa awandinasaya			FACU	be present, unless disturbed or problematic.
Scriedonorus arundinaceus Solidago canadensis		Yes	FACU	Definitions of Vegetation Strata:
•				_
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7				
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Horb All harbonous (non woody) plants recordless of
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12	·			height.
	150	= Total Cov	ver	
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic
3				Vegetation Present? Yes No X
4.				
		= Total Cov	· · ·	
Remarks: (Include photo numbers here or on a separate	sheet)	= 10tai C0	vei	
Tromano. (monade priote numbers here of on a separate	oncoi.)			

Sampling Point: Upland PM-17

SOIL Sampling Point: Upland PM-17

Profile Desc	ription: (Describe t	o the depth	needed to docur	nent the i	ndicator o	or confirm	the absence	of indicators.)
Depth	Matrix			x Features	<u>s</u>	2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 18	10YR 3/2	98	7.5YR 4/4	2	Concer	M	Silty loam	. <u></u> .
-								
-								
-								
-								
			_					
-								
	ncentration, D=Depl	etion, RM=R	Reduced Matrix, MS	S=Masked	Sand Gra	ins.		n: PL=Pore Lining, M=Matrix.
Hydric Soil I								s for Problematic Hydric Soils ³ :
Histosol	. ,	_	_ Polyvalue Belov		(S8) (LRR	? R,		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		MLRA 149B)		DD D MI	D A 440D)		Prairie Redox (A16) (LRR K, L, R)
Black His		_	_ Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	_ Loamy Mucky N			L)		Surface (S7) (LRR K, L, M)
	Layers (A5)		_ Loamy Gleyed)		-	alue Below Surface (S8) (LRR K, L)
	Below Dark Surface rk Surface (A12)	(A11) _	Depleted MatrixRedox Dark Su					Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)	_	Redox Dark Su Depleted Dark S	. ,	7)			nont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	_	_ Redox Depress		7)			Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)	_	_ Redux Depress	10115 (F6)				Parent Material (F21)
-								
	Matrix (S6) face (S7) (LRR R, M	I DA 140D\						Shallow Dark Surface (TF12) (Explain in Remarks)
Daik Sui	iace (37) (LKK K, W	LNA 1430)					Other	(Explain in Kemarks)
³ Indicators of	hydrophytic vegetati	on and wetl	and hydrology mus	st be prese	ent. unless	disturbed	or problemati	C.
	ayer (if observed):		a, a. o. o. g , a c		,	4.014.204		<u>. </u>
Type:	, (0.000. 100.).							
	haa):						Hydria Sai	I Procent? Voc. No. X
	hes):						nyaric soi	Present?
Remarks:								





Soil S

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/County: Geauga County Sampling Date: 07/14/2021
Applicant/Owner: FirstEnergy State: OH Sampling Point: Wetland PM-1
Investigator(s): MJA Section, Township, Range: N/A
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 2
Subregion (LRR or MLRA): LRR R Lat: 41.565657883333344 Long: -81.2669158 Datum: WGS 198
Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes \underline{X} No $\underline{\hspace{1cm}}$ No $\underline{\hspace{1cm}}$ (If no, explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes X No
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) Drainage Patterns (B10)
Surface valer (A1) Valer-stained Leaves (B9) Brainage Fatterns (B10) High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)
X Saturation (A3) — Marl Deposits (B15) — Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) X Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
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)X Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8) X FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No _X Depth (inches):
Water Table Present? Yes No _X Depth (inches):
Saturation Present? Yes X No Depth (inches): 4 Wetland Hydrology Present? Yes X No (includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

Tree Stratum (Plot size:			Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B)
2				Total Number of Dominant
5				
6				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
<u> </u>		= Total Cove	er	OBL species35 x 1 =35
Sapling/Shrub Stratum (Plot size: 15)				FACW species 48 x 2 = 96
1				X 3 =
2		-		FACO species X 4 =
3				UPL species $0 \times 5 = 0$ Column Totals: $96 \times 6 \times 180 \times 180$
4				Prevalence Index = $B/A = 1.875$
6				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cove		X 2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		_ 10tal 00V		X 3 - Prevalence Index is ≤3.0 ¹
	20	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phragmites australis	40	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
	15		OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Eupatorium perfoliatum	3	No	FACW	be present, unless disturbed or problematic.
5. Impatiens capensis	5	<u>No</u>	FACW	Definitions of Vegetation Strata:
6. Dipsacus fullonum	10	No	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diamete
7Solidago rugosa	3	No	FAC	at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of
11				size, and woody plants less than 3.28 ft tall.
				Woody vines – All woody vines greater than 3.28 ft in height.
		= Total Cove	er	neight.
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic
3				Vegetation Present? Yes X No
4.				
·		= Total Cove	er	
Remarks: (Include photo numbers here or on a separate shee			•	

SOIL Sampling Point: Wetland PM-18

Profile Desc	ription: (Describe to	the dep	h needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)	
Depth (inches)	Matrix Color (moist)	%	Redo: Color (moist)	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks	
0 - 18	10YR 4/2	85	2.5YR 4/6	15	Concer	PL	Silty loam		
-									
-									
¹ Type: C=Co	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :	
Histosol			Polyvalue Belov	v Surface	(S8) (LRF	R.		Muck (A10) (LRR K, L, MLRA 149B)	
	ipedon (A2)		MLRA 149B)		()(,		Prairie Redox (A16) (LRR K, L, R)	
Black His			Thin Dark Surfa) 5 cm M	flucky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		Loamy Mucky N			, L)		Surface (S7) (LRR K, L, M)	
	Layers (A5)		Loamy Gleyed I)			lue Below Surface (S8) (LRR K, L)	
	Below Dark Surface	(A11)	X Depleted Matrix					ark Surface (S9) (LRR K, L)	
	rk Surface (A12)		Redox Dark Sui					anganese Masses (F12) (LRR K, L, R)	
	ucky Mineral (S1)		Depleted Dark S		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
	leyed Matrix (S4)		Redox Depress	ions (F6)				Spodic (TA6) (MLRA 144A, 145, 149B)	
-	edox (S5)							arent Material (F21)	
	Matrix (S6) face (S7) (LRR R, M	LRA 149E	3)					hallow Dark Surface (TF12) (Explain in Remarks)	
	hydrophytic vegetation	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	<u>></u> .	
Restrictive L	.ayer (if observed):								
Type:									
Depth (inc	:hes):						Hydric Soil	Present? Yes X No No	
Remarks:									





Soil









Project/Site: Leroy Center-Ma	yfield 138 kV Trans	smission Line Projec City/C	county: Geauga County		Sampling Date: 07/14/2021		
Applicant/Owner: FirstEnergy			,		Sampling Point: Upland PM-18		
		Section	on, Township, Range: N		_		
					Slope (%): 3		
Landioini (illisiope, terrace, et	C.)	LUCAI TEI	lei (concave, convex, no	26687268333333	Slope (%): 3 Datum: WGS 1984		
Subregion (LRR or MLRA): Lr	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Lat: 41.5057610555555	Long:01.	20001200333333	Datum: WGS 1964		
Soil Map Unit Name: MgB: Ma	anoning silt loam, 2	to 6 percent slopes		NWI classifica	ation: N/A		
Are climatic / hydrologic condit	ions on the site typi	ical for this time of year? Y	'es X No	(If no, explain in Re	emarks.)		
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Norma	Il Circumstances" p	resent? Yes X No		
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed,	explain any answer	s in Remarks.)		
SUMMARY OF FINDIN	GS – Attach si	te map showing san	npling point location	ons, transects,	important features, etc.		
Hydrophytic Vagotation Brook	ont? Voc	No. X	Is the Sampled Area				
Hydrophytic Vegetation Presonal Hydric Soil Present?		No <u>X</u> No <u>X</u>	within a Wetland?	Yes	No		
Wetland Hydrology Present?		No <u>X</u>	If yes, optional Wetland	d Sito ID. Upland Pl	— M-18		
Remarks: (Explain alternativ			ii yes, optional wetian	u Site ID			
Upland data point taken in ma							
HYDROLOGY							
Wetland Hydrology Indicate	ors:			Secondary Indicat	tors (minimum of two required)		
Primary Indicators (minimum		check all that apply)		Surface Soil (
Surface Water (A1)	or one to require at	Water-Stained Leave	s (B9)	Drainage Patterns (B10)			
High Water Table (A2)		Aquatic Fauna (B13)	· (20)	Moss Trim Lir			
Saturation (A3)		Marl Deposits (B15)		Dry-Season Water Table (C2)			
Water Marks (B1)		Hydrogen Sulfide Od	or (C1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)		Oxidized Rhizospher	es on Living Roots (C3)				
Drift Deposits (B3)		Presence of Reduced	d Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)		Recent Iron Reduction	n in Tilled Soils (C6)	· · · — · · · · · · · · · · · · · · · ·			
Iron Deposits (B5)		Thin Muck Surface (C		Shallow Aquitard (D3)			
Inundation Visible on Ae		Other (Explain in Rer	narks)	Microtopographic Relief (D4)			
Sparsely Vegetated Con	cave Surface (B8)			FAC-Neutral	Test (D5)		
Field Observations:		V					
Surface Water Present?		X Depth (inches):					
Water Table Present?		X Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inches):	Wetland	Hydrology Present	t? Yes No _X_		
Describe Recorded Data (stre	eam gauge, monito	ring well, aerial photos, pre	vious inspections), if av	ailable:			
Remarks:							
1							

Tree Stratum (Diet size: 30	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
				That Are OBE, FACW, OF FAC.
2				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
5				(***)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	/er	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15				FACVV species x z =
1				FACUL species 0 x 3 = 0 103 x 4 = 412
2			<u> </u>	7 ACO species X 4 =
3				01 L species x 5 =
4				Column Totals:113 (A)422 (B)
5				Prevalence Index = B/A = 3.734513274;
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size:5	-			3 - Prevalence Index is ≤3.0 ¹
1. Solidago canadensis	50	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Dactylis glomerata			FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Agrostis perennans			FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Phleum pratense	20		FACU	be present, unless disturbed or problematic.
5. Ambrosia artemisiifolia	3	No	FACU	Definitions of Vegetation Strata:
6. Carex vulpinoidea	10	No	OBL	_
			. ——	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7				Sapling/shrub – Woody plants less than 3 in. DBH
8				and greater than or equal to 3.28 ft (1 m) tall.
9			· ——	Herb – All herbaceous (non-woody) plants, regardless of
			. ———	size, and woody plants less than 3.28 ft tall.
		-	-	Woody vines – All woody vines greater than 3.28 ft in
12		Tatal Car		height.
	113	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				
1			· ——	Hydrophytic
2				Vegetation
3				Present? Yes No X
4				
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: Upland PM-18

SOIL Sampling Point: Upland PM-18

Profile Description: (Describe to the de			or or confirm	the absence	of indicators.)
Depth Matrix		ox Features	1 12	T	Demodus
(inches) Color (moist) %	Color (moist)	% Type	Loc ²	<u>Texture</u>	Remarks
0 - 18 10YR 3/2 100				Silty loam	
-					
-					
				-	·
-					
-					
	· 			-	·
-					
-					
				-	·
-					
-					
17 00 17 00 17			<u> </u>	21	
¹ Type: C=Concentration, D=Depletion, RN Hydric Soil Indicators :	I=Reduced Matrix, M	S=Masked Sand	Grains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Relo	w Surface (S8) (L	DD D		fuck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B		ixix ix,		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)		ace (S9) (LRR R,	MLRA 149B		flucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)		Mineral (F1) (LRF			urface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed			-	lue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matri				ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Su	, ,			anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Depleted Dark Redox Depress				ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)	Redox Depress	310113 (1 0)			arent Material (F21)
Stripped Matrix (S6)					hallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149) B)				Explain in Remarks)
³ Indicators of hydrophytic vegetation and w	etland hydrology mu	st be present, unl	ess disturbed	or problemation	<u>. </u>
Restrictive Layer (if observed):					
Type:	=				
Depth (inches):	=			Hydric Soil	Present? Yes NoX
Remarks:					





Soil

Project/Site: Leroy Center-Mayfield 138 kV Transmission	Line Projec City/County: Gear	uga County	Sampling Date: 08/03/2021
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: Wetland PM-19
Investigator(s): MJA	Section, Township	, Range: N/A	
Landform (hillslope, terrace, etc.): Hillside			Slope (%): 15
Subregion (LRR or MLRA): LRR R Lat: 4			
Soil Map Unit Name: LxF: Lordstown-Rock outcrop comp	olex, 18 to 70 percent slopes	NWI classific	cation: N/A
Are climatic / hydrologic conditions on the site typical for t	his time of year? Yes X I	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology			present? Yes X No
Are Vegetation, Soil, or Hydrology		(If needed, explain any answe	
SUMMARY OF FINDINGS – Attach site map	p showing sampling poi	nt locations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative procedures here or in a s	No within a W No If yes, optic	•	
HYDROLOGY Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; check a	II that apply)	Surface Soil	Cracks (B6)
Surface Water (A1) W	ater-Stained Leaves (B9)	Drainage Pa	
	quatic Fauna (B13)	Moss Trim L	
	arl Deposits (B15)		Water Table (C2)
	ydrogen Sulfide Odor (C1) xidized Rhizospheres on Living	Crayfish Bur	rows (C8) isible on Aerial Imagery (C9)
	resence of Reduced Iron (C4)		stressed Plants (D1)
	ecent Iron Reduction in Tilled Sc		` ,
	nin Muck Surface (C7)	Shallow Aqu	· ·
Inundation Visible on Aerial Imagery (B7) Of	ther (Explain in Remarks)	Microtopogra	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutra	Test (D5)
Field Observations:			
Surface Water Present? Yes No _X D			
Water Table Present? Yes X No D			
Saturation Present? Yes X No D C (includes capillary fringe)	Depth (inches): 0	Wetland Hydrology Prese	nt? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monitoring wel	l, aerial photos, previous inspec	tions), if available:	
Remarks:			
. G. I.a. I.a.			

Tree Stratum (Plot size:			Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species		
2				Total Number of Dominant Species Across All Strata: 1 (B)		
3				Species Across All Strata: 1 (B)		
4				(2)		
5				Percent of Dominant Species		
6				That Are OBL, FACW, or FAC:1 (A/B)		
7				(14b)		
-				Prevalence Index worksheet:		
-				Total % Cover of: Multiply by:		
Sapling/Shrub Stratum (Plot size: 15)		= Total Cov	er	OBL species 70 x 1 = 70		
				racivi species x z =		
1				FAC species		
2				FACU species $\begin{array}{ccccc} 0 & x & 4 = & 0 \\ UPL species & 0 & x & 5 = & 0 \\ \end{array}$		
3				Column Totals: 121 (A) 172 (B)		
4				Column Totals (A) (B)		
5				Prevalence Index = B/A = 1.421487603;		
6				Hydrophytic Vegetation Indicators:		
7				X 1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cov		X 2 - Dominance Test is >50%		
Herb Stratum (Plot size:5)		. 010. 001	·	X 3 - Prevalence Index is ≤3.0 ¹		
1. Scirpus cyperinus	65	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2. Impatiens capensis	15	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)		
3. Eupatorium perfoliatum	15	No	FACW	¹ Indicators of hydric soil and wetland hydrology must		
4 Mimulus ringens	5	No	OBL	be present, unless disturbed or problematic.		
5. Dichanthelium clandestinum	20	No	FACW	Definitions of Vegetation Strata:		
6Onoclea sensibilis	1	No	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
7				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
9						
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
11				Woody vines – All woody vines greater than 3.28 ft in		
12				height.		
<u>-</u>	121	= Total Cov	er			
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic Vegetation		
3				Present? Yes X No		
4.						
		= Total Cov	er			
Remarks: (Include photo numbers here or on a separate she						
Remarks: (Include photo numbers here or on a separate she	et.)					

SOIL Sampling Point: Wetland PM-19

Profile Desc	ription: (Describe to	o the dep	th needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	k Features %	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 2/1	95	2.5YR 3/6	5	Concer	PL,M	Silty loam	Sandy
-								
-								
-								
-								
-								
-								
-			_					
-								
-								
-								
-								
¹Type: C=Cc	oncentration, D=Deple	etion, RM	Reduced Matrix, MS	=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.
Hydric Soil I								for Problematic Hydric Soils ³ :
Histosol	` '		Polyvalue Belov		(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B) Thin Dark Surfa		DD D MI	PA 1/0R)		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky M					surface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I			, –,		lue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix		,			ark Surface (S9) (LRR K, L)
Thick Da	rk Surface (A12)	, ,	X Redox Dark Sur					anganese Masses (F12) (LRR K, L, R)
Sandy M	ucky Mineral (S1)		Depleted Dark S	Surface (F	7)		Piedmo	ont Floodplain Soils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depress	ions (F8)			Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (S5)						Red Pa	arent Material (F21)
Stripped	Matrix (S6)						Very S	hallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149E	3)				Other ((Explain in Remarks)
	hydrophytic vegetation	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation).
	.ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes X No No
Remarks:								





N W





S E



Soil

Project/Site: Leroy Center-Ma	yfield 138 kV Tran	smission Line P	rojec City/Co	ounty: Geauga	a County		Sampling Date: 0	8/03/2021
Applicant/Owner: FirstEnergy				,			Sampling Point	
			Section	n. Township. F	Range: N	-	_	
							Slope	o (9/.): 30
Landform (hillslope, terrace, et	C.)	41 5503	LUCAI IEIIE	er (concave, co	۱۱۷ex, ۱۱۵۱ ۱ 81ء	2746464	Slope	3 (%)
Subregion (LRR or MLRA): LF	AN N	_ Lat: 41.5595	10-300000000	L:	.ong:01.2	2740404	Datum	. WG3 1904
Soil Map Unit Name: LxF: Lor	astown-Rock outer	op complex, 18	to 70 percen	it siopes		NWI classification	ation: N/A	
Are climatic / hydrologic condit	ions on the site typ	oical for this time	e of year? Ye	es X No	·	(If no, explain in Re	emarks.)	
Are Vegetation, Soil	, or Hydrology	ysignifi	cantly disturb	ed? Ar	e "Normal	Circumstances" p	resent? Yes>	< No
Are Vegetation, Soil					needed, e	explain any answer	s in Remarks.)	
SUMMARY OF FINDING	GS – Attach si	ite map sho	wing sam	pling point	t locatio	ons, transects,	, important fea	atures, etc.
Lludronbutio Variation Drag	ent? Vee	No	X	Is the Sample	ed Area			
Hydrophytic Vegetation Present?		No No		within a Wet		Yes	No	
Wetland Hydrology Present?		No	X	If we ontions	al Wetland	I Site ID: Upland P	M-19	
Remarks: (Explain alternative				ii yes, optiona	ai vveliano	I Site ID. ·		
Upland data point situated on				mt				
Opiana data point situated on	steep filliside iii fil	airitairieu powe	illile easeille	iii.				
LIVERGLOOV								
HYDROLOGY Wetland Hydrology Indicate						Secondary Indicat	tors (minimum of t	wo roquirod)
		abaak all that a	ابرامم					wo required)
Primary Indicators (minimum	or one is required;			(DO)		Surface Soil (, ,	
Surface Water (A1)		Water-Sta		s (B9)		Drainage Pat		
High Water Table (A2)		Aquatic F				Moss Trim Li		
Saturation (A3)		Marl Dep		·~ (C1)	Dry-Season Water Table (C2)			
Water Marks (B1)Sediment Deposits (B2)		Hydroger		s on Living Ro	Crayfish Burrows (C8) g Roots (C3) Saturation Visible on Aerial Imagery (C9)			
Orift Deposits (B3)		Presence			JOIS (C3)	· 		
Algal Mat or Crust (B4)				n in Tilled Soils	Soils (C6) Stunted or Stressed Plants (D1) Geomorphic Position (D2)			
Iron Deposits (B5)			k Surface (C		Shallow Aquitard (D3)			
Inundation Visible on Ae	rial Imagery (B7)		cplain in Rem		Microtopographic Relief (D4)			
Sparsely Vegetated Con-		00. (2)				FAC-Neutral		
Field Observations:								
Surface Water Present?	Yes No	X Denth (ii	nches).					
Water Table Present?	Yes No							
Saturation Present?	Yes No				Watland L	lydrology Presen	t2 Vos	No Y
(includes capillary fringe)	165100_	Deptii (ii	nches).	"	vvetianu r	iyurology Freseli	l: les	No X
Describe Recorded Data (stre	eam gauge, monito	ring well, aerial	photos, prev	vious inspectio	ns), if ava	ilable:		
Remarks:								

Tree Stratum (Plot size: 30)	Absolute	Dominant Species?		Dominance Test worksheet:
1			·	Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	/er	OBL species $0 \times 1 = 0$ FACW species $50 \times 2 = 100$
Sapling/Shrub Stratum (Plot size: 15				x 2 =
1. Rubus allegheniensis	20	Yes	FACU	X 3 =
2. Frangula alnus	25	Yes	FAC	FACU species
3. Quercus rubra	5	No	FACU	Column Totals: 190 (A) 610 (B)
4				
5				Prevalence Index = B/A = 3.2105263157
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0 ¹
1. Schedonorus arundinaceus	40	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Dichanthelium clandestinum	50	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Solidago canadensis		No	FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Euthamia graminifolia	4.5		FAC	be present, unless disturbed or problematic.
5. Solidago rugosa			FAC	Definitions of Vegetation Strata:
				_
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7				Sapling/shrub – Woody plants less than 3 in. DBH
8				and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10			- ——	size, and woody plants less than 3.28 ft tall.
11		-		Woody vines – All woody vines greater than 3.28 ft in
12				height.
	140	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				
1				Undershadia
2				Hydrophytic Vegetation
3				Present? Yes No X
4				
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: Upland PM-19

SOIL Sampling Point: Upland PM-19

Profile Desc	ription: (Describe t	o the dep	th needed to docum	ent the indica	tor or confirm	the absence o	of indicators.)	
Depth	Matrix			Features _	1 . 2	_	_	
(inches) 0 - 4	Color (moist) 10YR 4/2	<u>%</u> 100	Color (moist)	<u>%</u> Typ	e ¹ Loc ²	Texture Sandy loam	R	emarks
						 .		
4 - 10	10YR 5/6	100				Sandy loam		
-								
-								
								_
1Type: C-Ce	anapatration D-Donle	otion DM		-Maakad Sana		2l continu	PL=Pore Lining	n M-Motriy
Hydric Soil I		elion, Kivi	=Reduced Matrix, MS	=Maskeu Sanc	i Giailis.			: Hydric Soils ³ :
Histosol			Polyvalue Below	Surface (S8) (LRR R,			K, L, MLRA 149B)
Histic Ep Black His	ipedon (A2)		MLRA 149B) Thin Dark Surface	ce (SQ) (I PP P	MI DA 1/QR			16) (LRR K, L, R) at (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky M				ucky i cat of i c	
	Layers (A5)		Loamy Gleyed N					ce (S8) (LRR K, L)
	Below Dark Surface rk Surface (A12)	(A11)	Depleted MatrixRedox Dark Sur	, ,			rk Surface (S9)	(LRR K, L) es (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark S				-	oils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depressi			Mesic S	podic (TA6) (MI	LRA 144A, 145, 149B)
-	edox (S5)						rent Material (F2	-
	Matrix (S6) face (S7) (LRR R, M	LRA 149E	3)				allow Dark Surf Explain in Rema	
³ Indicators of	hydrophytic vegetati	on and we	etland hydrology mus	t be present, ur	less disturbed	or problematic.		
	.ayer (if observed):	Х						
Type: Roo								V
Depth (inc	hes): 10					Hydric Soil F	Present? Yes	s NoX
Remarks:								





Soil S

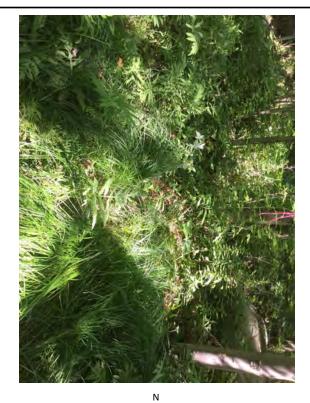
Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/C	County: Geauga County Sampling Date: 08/03/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Wetland PM-20
Investigator(s): MJA Section	
Landform (hillslope, terrace, etc.): Hillside Local rel	
	D5 Long: -81.27512213333333 Datum: WGS 1984
Soil Map Unit Name: LxF: Lordstown-Rock outcrop complex, 18 to 70 percentage.	ent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation, Soil, or Hydrology significantly distur	
Are Vegetation, Soil, or Hydrology naturally problem. SUMMARY OF FINDINGS – Attach site man showing san	atic? (If needed, explain any answers in Remarks.) npling point locations, transects, important features, etc.
	Is the Sampled Area
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: Wetland PM-20
Remarks: (Explain alternative procedures here or in a separate report.)	ii yes, optional wetiand Site ib.
HYDROLOGY	
	Connecting Indicators (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	
Surface Water (A1) Water-stained Leave Aquatic Fauna (B13)	
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Od	
Sediment Deposits (B2) X_ Oxidized Rhizospher	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	
Algal Mat or Crust (B4) Recent Iron Reduction	
Iron Deposits (B5) Thin Muck Surface (Control of the Control of the Co	· · · · · · · · · · · · · · · · · · ·
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rel Sparsely Vegetated Concave Surface (B8)	marks) Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations:	A TAC-Neutral Test (D3)
Surface Water Present? Yes No _X _ Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes NoX _ Depth (inches):	Wetland Hydrology Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	avious inspections) if available:
Describe recorded bata (stream gauge, monitoring wen, acrial photos, pre	, vious inspections), ii available.
Remarks:	

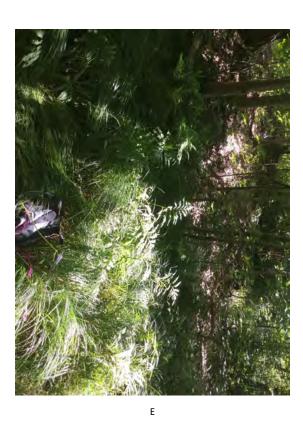
te Dominan er Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 1 (A/B)		
		Total Number of Dominant Species Across All Strata: Percent of Dominant Species (B)		
		(**-)		
		Prevalence Index worksheet:		
		Total % Cover of: Multiply by: OBL species 90 x 1 = 90		
= Total Co	ver	OBL species 90 x 1 = 90 FACW species 40 x 2 = 80		
No	EACH	FAC species		
		FACU species 1 x 4 = 4		
	FACW	UPL species 0 x 5 = 0		
		Column Totals:131 (A)174 (B)		
		Prevalence Index = B/A = 1.3282442748		
		Hydrophytic Vegetation Indicators:		
		X 1 - Rapid Test for Hydrophytic Vegetation		
		X 2 - Dominance Test is >50%		
= Lotal Co	ver	X 3 - Prevalence Index is ≤3.0¹		
Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
		Problematic Hydrophytic Vegetation ¹ (Explain)		
	FACW	¹Indicators of hydric soil and wetland hydrology must		
		be present, unless disturbed or problematic.		
		Definitions of Vegetation Strata:		
		Tree – Woody plants 3 in. (7.6 cm) or more in diamete		
		at breast height (DBH), regardless of height.		
		Sapling/shrub – Woody plants less than 3 in. DBH		
		and greater than or equal to 3.28 ft (1 m) tall.		
		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
		Woody vines – All woody vines greater than 3.28 ft in		
		height.		
= Total Co	ver			
		Hydrophytic Vegetation		
		Present? Yes X No		
= Total Co				
	No Yes Total Co Yes No No Total Co Total Co Total Co	Yes FACW Total Cover Yes OBL No FACW No FACW The second of the seco		

SOIL Sampling Point: Wetland PM-20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			x Feature:	<u>3</u> _ 1	. 2		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 10	10YR 3/2	90	5YR 4/6	10	Concer	PL,M	Silty loam	
-								
-								
							-	-
-								
-								
	-						·	<u> </u>
-								
_								
·							<u> </u>	·
								-
	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators	for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belo	w Surface	(S8) (LRR	? R ,	2 cm N	Muck (A10) (LRR K, L, MLRA 149B)
-	oipedon (A2)		MLRA 149B	•				Prairie Redox (A16) (LRR K, L, R)
Black Hi			Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4) d Layers (A5)		Loamy Mucky I Loamy Gleyed			L)		Surface (S7) (LRR K, L, M) Ilue Below Surface (S8) (LRR K, L)
	d Below Dark Surface	(Δ11)	Loanly Gleyed Depleted Matrix)			ark Surface (S9) (LRR K, L)
	ark Surface (A12)	(7(1)	X Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	fucky Mineral (S1)		Depleted Dark	, ,	7)			ont Floodplain Soils (F19) (MLRA 149B)
	Bleyed Matrix (S4)		Redox Depress				·	Spodic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)							arent Material (F21)
	Matrix (S6)							shallow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, M	ILRA 149E	3)				Other	(Explain in Remarks)
3Indicators of	f hydrophytic vegetati	میں امم مما	tland budralagu mu		مممامین عمر	diaturbad	or problematic	
	Layer (if observed):		tiand hydrology mus	st be prese	ent, uniess	disturbed	T	<i>.</i> .
Type: Ro		Χ						
Depth (in							Hydria Sail	Present? Yes X No No
	cnes). 10						Hydric Soil	Present? Yes X No No
Remarks:								











Project/Site: Leroy Center-Mayfield 138 kV Tran	nsmission Line Projec City/Count	ty: Geauga County	Sampling Date: 08/03/2021
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-20
Investigator(s): MJA			
Landform (hillslope, terrace, etc.): Mound			Slope (%): ¹⁰
Subregion (LRR or MLRA): LRR R			
Soil Map Unit Name: LxF: Lordstown-Rock outc	rop complex, 18 to 70 percent sl	opes NWI clas	ssification: N/A
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes $\frac{1}{2}$	X No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydrolog	y significantly disturbed?	Are "Normal Circumstanc	es" present? Yes X No
Are Vegetation, Soil, or Hydrolog			
SUMMARY OF FINDINGS – Attach s	ite map showing sampli	ng point locations, transe	ects, important features, etc.
		the Sampled Area	No
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	NO	es, optional Wetland Site ID: Upla	
Remarks: (Explain alternative procedures here	NO If y	es, optional wetland Site ID:	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Ir	ndicators (minimum of two required)
Primary Indicators (minimum of one is required	· check all that apply)		Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B		e Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		im Lines (B16)
Saturation (A3)	Marl Deposits (B15)		son Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C		Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres or		on Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron		or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in	Tilled Soils (C6) Geomor	phic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow	Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remark	s) Microtop	ographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-Ne	utral Test (D5)
Field Observations:			
	X Depth (inches):		
	X Depth (inches):		
(includes capillary fringe)	X Depth (inches):	Wetland Hydrology Pro	esent? Yes No _X
Describe Recorded Data (stream gauge, monit	oring weil, aerial photos, previou	s inspections), if available:	
Remarks:			

Tree Stratum (Diet size) 30	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size)	% Cover	Species? Yes	<u>Status</u> FACU	Number of Dominant Species
	·	-		That Are OBL, FACW, or FAC:1 (A)
2. Acer saccharum	80		FACU	Total Number of Dominant
3				Species Across All Strata:6 (B)
4				Percent of Dominant Species
5	·			That Are OBL, FACW, or FAC:17% (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	100	= Total Co	ver	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
1. Quercus rubra	20	Yes	FACU	FAC species10 x 3 =30
Frangula alnus	4.0		FAC	FACU species185 x 4 =740
				UPL species15 x 5 =75
3				Column Totals: (A) (B)
4 5.				Prevalence Index = B/A = 4.02
5				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
T		= Total Co		2 - Dominance Test is >50%
		= Total Co	vei	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: 5 1. Eurybia macrophylla	15	No	UPL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Polystichum acrostichoides	20	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Maianthemum canadense			FACU	¹ Indicators of hydric soil and wetland hydrology must
•		Yes	FACU	be present, unless disturbed or problematic.
	· ——	-		Definitions of Vegetation Strata:
5				_
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7	·			
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines All woody vines areaton than 2.20 ft in
12				Woody vines – All woody vines greater than 3.28 ft in height.
	80	= Total Co	ver	
Woody Vine Stratum (Plot size:)				
1				
2.				Hydrophytic
3	· -			Vegetation Present? Yes No X
4				
7	· · ·	= Total Co	ver.	
Remarks: (Include photo numbers here or on a separate	sheet)	= Total Co	vei	
remarks. (menuce prote numbers here or on a separate	Silcot.)			

Sampling Point: Upland PM-20

SOIL Sampling Point: Upland PM-20

Profile Desc	ription: (Describe t	o the dep	th needed to document th	e indicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redox Featu	<u>ires</u>			
(inches)	Color (moist)	%	Color (moist) %	Type ¹	Loc ²	Texture	Remarks
0 - 8	10YR 3/2	100				Sandy loam	
-							
-							
-							
-							
-							
¹ Type: C=C	oncentration D-Denl	etion PM-	=Reduced Matrix, MS=Mask	ed Sand Gr	aine	² Location:	: PL=Pore Lining, M=Matrix.
Hydric Soil I		Cuon, Min-	-Neduced Matrix, MO-Masr	ieu Sanu Oi	airis.		for Problematic Hydric Soils ³ :
Histosol			Polyvalue Below Surfa	رم (S8) (J R ا	2 R		luck (A10) (LRR K, L, MLRA 149B)
· 	pipedon (A2)		MLRA 149B)	ce (So) (Livi	ν ιν,		Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surface (S9)	(IRRR.M	I RA 149B		flucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky Mineral				urface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed Matrix (-, -,		lue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix (F3)	,		-	ark Surface (S9) (LRR K, L)
	ark Surface (A12)	,	Redox Dark Surface (F	- 6)			anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark Surface				ont Floodplain Soils (F19) (MLRA 149B)
Sandy G	lleyed Matrix (S4)		Redox Depressions (F	8)		Mesic S	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (S5)					Red Pa	arent Material (F21)
Stripped	Matrix (S6)					Very SI	hallow Dark Surface (TF12)
Dark Sui	rface (S7) (LRR R, M	LRA 149E	3)			Other (Explain in Remarks)
_							
			tland hydrology must be pre	esent, unles	s disturbed	or problematic	
	ayer (if observed):	Χ					
Type: Ro	ot						
Depth (inc	ches): <u>8</u>					Hydric Soil	Present? Yes No _X
Remarks:						<u> </u>	





Project/Site: Leroy Center-Mayfield 138 kV Transmission Li	ne Projec City/County: Geaug	a County	Sampling Date: 08/03/2021		
Applicant/Owner: FirstEnergy		State: OH	_ Sampling Point: Wetland PM-21		
Investigator(s): MJA	Section, Township, F				
Landform (hillslope, terrace, etc.): Floodplain			Slope (%): 1		
Subregion (LRR or MLRA): LRR R Lat. 41.5	5859545	ong: -81.27508616666667	Datum: WGS 1984		
Soil Map Unit Name: LxF: Lordstown-Rock outcrop complex	x, 18 to 70 percent slopes	NWI classific	ation: N/A		
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X No	(If no, explain in Re	emarks.)		
Are Vegetation, Soil, or Hydrology si	gnificantly disturbed? Ar	e "Normal Circumstances" p	resent? Yes X No		
Are Vegetation, Soil, or Hydrologyna	aturally problematic? (If	needed, explain any answer	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach site map s	howing sampling point	t locations, transects	, important features, etc.		
Hydrophytic Vegetation Present? YesX	within a Wet	ed Area land? Yes X al Wetland Site ID: Wetland I			
Remarks: (Explain alternative procedures here or in a sepa	-	al Wetland Site ID:			
HYDROLOGY		Canadan Indian	to us (maining use of two us assisted)		
Wetland Hydrology Indicators:			tors (minimum of two required)		
Primary Indicators (minimum of one is required; check all the		Surface Soil (
	er-Stained Leaves (B9)	Drainage Pat			
	tic Fauna (B13)	Moss Trim Lines (B16)			
	Deposits (B15)	Dry-Season Water Table (C2) Crayfish Burrows (C8)			
	ogen Sulfide Odor (C1) zed Rhizospheres on Living Ro	_ ,	sible on Aerial Imagery (C9)		
	ence of Reduced Iron (C4)		ressed Plants (D1)		
	ent Iron Reduction in Tilled Soils				
	Muck Surface (C7)	Shallow Aqui			
<u> </u>	r (Explain in Remarks)	Microtopogra	` '		
X Sparsely Vegetated Concave Surface (B8)	(Explain in Nemarks)	X FAC-Neutral			
Field Observations:		× 1 AO Neutiai	1631 (150)		
Surface Water Present? Yes No X Dep	th (inches):				
Water Table Present? Yes No X Dep	` '				
Saturation Present? Yes No _X _ Dep		Wetland Hydrology Presen	t? Yes X No		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous inspectio	ons), if available:			
Remarks:					

EGETATION – Use scientific names of plants				Sampling Point: Wetland PM-2
Tree Stratum (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
2				Total Number of Dominant Species Across All Strata: 5 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
5				Prevalence Index worksheet:
y		= Total Cov		
Sapling/Shrub Stratum (Plot size: 15)		- rotal Gov	01	FACW species 58
Fraxinus pennsylvanica	15	Yes	FACW	FAC species15
2. Lindera benzoin	15	Yes	FACW	FACU species x 4 = 0
i				UPL species 0 x 5 = 0 Column Totals: 108 (A) 196 (B)
				Column Totals. (A)
5				Trevalence index = B/A =
S				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50%
<u>-</u>	30	= Total Cov	er	X 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5) Impatiens capensis	15	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Packera aurea		No	FACW	Problematic Hydrophytic Vegetation¹ (Explain)
3. Carex prasina			OBL	¹Indicators of hydric soil and wetland hydrology must
Lysimachia ciliata	3		FACW	be present, unless disturbed or problematic.
5. Persicaria virginiana	15		FAC	Definitions of Vegetation Strata:
S				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
3				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
) 0				Herb – All herbaceous (non-woody) plants, regardless of
11				size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in height.
		= Total Cov	er	noigh.
Noody Vine Stratum (Plot size:)				
1				Hydrophytic Vegetation
1				Hydrophytic Vegetation Present? Yes X No
1 2				Vegetation

SOIL Sampling Point: Wetland PM-21

Profile Desc	ription: (Describe t	o the deptl				or confirm	the absence	of indicators.)
Depth (in the ca)	Matrix	0/		x Features	<u>S</u>	1 2	Taustuna	Damadu
(inches)	Color (moist)	<u>%</u> _	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 2/2	85	2.5YR 4/6	15	Concer	PL	Silty loam	Some sand
-								
-								
-								
				-				
-								
-								<u> </u>
-								
¹Type: C=Co	oncentration, D=Depl	etion PM-I	Peduced Matrix MS	S-Mackad	Sand Gra	ine	² l ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil I		ellori, ixivi–i	veduced Matrix, Mi	J-IVIASKEU	Sand Gra			for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	w Surface	(S8) (I RR	R		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	=	MLRA 149B		(00) (Litit	,		Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	 Loamy Mucky N					Surface (S7) (LRR K, L, M)
	Layers (A5)	_	Loamy Gleyed					llue Below Surface (S8) (LRR K, L)
Depleted	Below Dark Surface	(A11) _	Depleted Matrix	(F3)			Thin D	ark Surface (S9) (LRR K, L)
	rk Surface (A12)	_	X Redox Dark Su	, ,				anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)	-	Depleted Dark		7)			ont Floodplain Soils (F19) (MLRA 149B)
-	leyed Matrix (S4)	=	Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)							arent Material (F21)
	Matrix (S6)	L D A 440D)						Shallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149B)					Other	(Explain in Remarks)
³ Indicators of	hydrophytic vegetati	on and wet	and hydrology mus	t he prese	nt unless	disturbed	or problematic	<u>, </u>
	ayer (if observed):	on and wet	and flydrology fride	n be prese	int, unicoo	distarbed	Т	·-
Type:	ayer (ii observeu).							
	de e e V						Unadaia Cail	Present? Yes X No No
	:hes):						Hydric Soil	Present? res // No
Remarks:								
l								





Soil N





E S



W

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City,	/County: Geauga County Sampling Date: 08/03/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Upland PM-21
Investigator(s): MJA Sec	
Landform (hillslope, terrace, etc.): Floodplain Local re	
	67 Long: -81.27518673333334 Datum: WGS 1984
Soil Map Unit Name: LXF: Lordstown-Rock outcrop complex, 18 to 70 percentage of the complex of t	cent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year?	
Are Vegetation, Soil, or Hydrology significantly distr	
Are Vegetation, Soil, or Hydrology naturally probler	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes NoX	Is the Sampled Area
Hydric Soil Present? Yes NoX	within a Wetland? Yes No
Wetland Hydrology Present? Yes NoX	If yes, optional Wetland Site ID: Upland PM-21
Remarks: (Explain alternative procedures here or in a separate report.)	
Upland data point on mound in wooded riparian corridor.	
HYDROLOGY	
	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leav	
High Water Table (A2) Aquatic Fauna (B13	
Saturation (A3) Marl Deposits (B15)	
Water Marks (B1) Hydrogen Sulfide O	
	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduct	
Algal Mat or Crust (B4) Recent Iron Reduct	
Iron Deposits (B5) Thin Muck Surface	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes No _X Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p.	revious inspections), if available:
Remarks:	

EGETATION – Use scientific names of plants	•			Sampling Point: Upland PM-2
Tree Stratum (Plot size: 30)	Absolute	Dominant Species?	Indicator Status	Dominance Test worksheet:
Liriodendron tulipifera	40	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Acer saccharum	50	Yes	FACU	
Juglans nigra	20	No	FACU	Total Number of Dominant Species Across All Strata: 7 (B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.285714285 (A/B)
i <u>. </u>				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
	110	= Total Cov	er	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species18
Fagus grandifolia	10	Yes	FACU	FACUL species 15 x 3 = 45 620
. Hamamelis virginiana	10	Yes	FACU	X 4 =
. Fraxinus pennsylvanica	15	Yes	FACW	UPL species $0 \times 5 = 0$ Column Totals: $188 \times (A) \times 701 \times (B)$
				(,
i				Prevalence Index = B/A = 3.7287234042
S				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
	35	= Total Cov	er	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:5)				4 - Morphological Adaptations ¹ (Provide supporting
. Amphicarpaea bracteata	15	Yes	FAC	data in Remarks or on a separate sheet)
2. Allium tricoccum	15	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
Polystichum acrostichoides	5	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
L. Thalictrum dioicum		No	FACU	be present, unless disturbed or problematic.
5. Packera aurea	3	No	FACW	Definitions of Vegetation Strata:
ò		-		Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
7				
3				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
)				Herb – All herbaceous (non-woody) plants, regardless of
0				size, and woody plants less than 3.28 ft tall.
1		-		Woody vines – All woody vines greater than 3.28 ft in
2		T		height.
Manda Vina Otratura (Plataina 30	43	= Total Cov	er	
Voody Vine Stratum (Plot size:30)				
l				Hydrophytic
2				Vegetation Present? Yes No X
3		-		165 165
4		= Total Cov		
	sheet.)	_ Total Cov	CI	

SOIL Sampling Point: Upland PM-21

Profile Description: (Describe to the de	-		ator or confir	m the absence	of indicators.)
Depth Matrix (inches) Color (moist) %	Color (moist)	ox Features % Ty	vpe ¹ Loc ²	Texture	Remarks
	Coloi (moist)		pe Loc		Remarks
0 - 18 10YR 3/2 100				Sandy loam	-
<u> </u>	<u></u> -				
-					
					
-					
-					
	· 			-	
	<u> </u>				
-					
-					
					
<u> </u>					
¹ Type: C=Concentration, D=Depletion, RI	M=Reduced Matrix, M	S=Masked Sar	nd Grains.	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:					for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belo		(LRR R,		Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B	,			Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa				Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Stratified Layers (A5)	Loamy Mucky I Loamy Gleyed		KK K, L)		Surface (S7) (LRR K, L, M) slue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matri:			-	eark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Su				anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Depleted Dark				ont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	Redox Depress	sions (F8)			Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)					arent Material (F21)
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14)	ar)				Shallow Dark Surface (TF12) (Explain in Remarks)
Baik Gallage (67) (ERR R, MERA 14)	<i>3</i> 2)			Outlot	(Explain in Remarks)
³ Indicators of hydrophytic vegetation and v	vetland hydrology mu	st be present, ι	unless disturbe	d or problemation	c.
Restrictive Layer (if observed):					
Type:	_				
Depth (inches):	_			Hydric Soil	Present? Yes No _X
Remarks:					





Soil S

Project/Site: Leroy Center-Ma	yfield 138 kV Trans	smission Line Projec City/0	County: Geauga County		Sampling Date: 08/03/2021	
Applicant/Owner: FirstEnergy		· · •			Sampling Point: Wetland PM-22	
• •		Secti	on, Township, Range: N		_	
Landform (hillslope, terrace, et					Slone (%). 5	
Subregion (LRR or MLRA): Lr	worth ailt loam 10	_ Lat:	Long:	27077413333332	Datum: WGS 1984	
Soil Map Unit Name: EhD: Ell						
Are climatic / hydrologic condit	ions on the site typ	pical for this time of year?	/es X No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil	, or Hydrology	y significantly distu	rbed? Are "Norma	l Circumstances" p	resent? Yes X No	
Are Vegetation, Soil	, or Hydrology	ynaturally problem	atic? (If needed,	explain any answer	s in Remarks.)	
SUMMARY OF FINDING	GS – Attach si	ite map showing san	npling point location	ons, transects,	important features, etc.	
Hydrophytic Vegetation Prese	ent? Yes	X No	Is the Sampled Area			
Hydric Soil Present?		X No	within a Wetland?	Yes X	No	
Wetland Hydrology Present?		X No	If yes, optional Wetland	d Site ID: Wetland F	PM-22	
Remarks: (Explain alternative			yee, ephenal rrelian	<u> </u>		
stream.						
HYDROLOGY						
Wetland Hydrology Indicate	ors:			Secondary Indicat	tors (minimum of two required)	
Primary Indicators (minimum	of one is required;	check all that apply)		Surface Soil (Cracks (B6)	
Surface Water (A1)		Water-Stained Leave	es (B9)	Drainage Pat	terns (B10)	
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Li	nes (B16)	
Saturation (A3)		Marl Deposits (B15)		Dry-Season V	Vater Table (C2)	
Water Marks (B1)		Hydrogen Sulfide Oc		Crayfish Burrows (C8)		
Sediment Deposits (B2)		X Oxidized Rhizospher	= : :		sible on Aerial Imagery (C9)	
Drift Deposits (B3)		Presence of Reduce	, ,		ressed Plants (D1)	
Algal Mat or Crust (B4)		Recent Iron Reduction		X Geomorphic I	` '	
Iron Deposits (B5)	sial las a sam. (DZ)	Thin Muck Surface (Shallow Aquitard (D3)Microtopographic Relief (D4)		
Inundation Visible on Ae Sparsely Vegetated Con-		Other (Explain in Re	marks)			
Field Observations:	cave Surface (B6)			X FAC-Neutral	Test (D5)	
Surface Water Present?	Voc. No.	X Donth (inches):				
		X Depth (inches): X Depth (inches):				
Water Table Present? Saturation Present?		X Depth (inches):	Wetland	Hudrology Proces	12 Vac V Na	
(includes capillary fringe)	res No_	Depth (inches):	vvetiand	Hydrology Presen	t? Yes <u>X</u> No	
Describe Recorded Data (stre	eam gauge, monito	oring well, aerial photos, pre	evious inspections), if ava	ailable:		
Devente						
Remarks:						

ree Stratum (Plot size:)				Sampling Point: Wetland PM-2
·		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
·				Total Number of Dominant Species Across All Strata: 2 (B)
·				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B
				Prevalence Index worksheet:
·				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species x 1 = 90
apling/Shrub Stratum (Plot size: 15)				FACW species 23 $x = 46$
				x 3 =
·				x 4 =
<u>. </u>				01 L 3pccics
<u>. </u>				Coldini Totals. (A)
				Prevalence Index = B/A = 1.203539823(
				Hydrophytic Vegetation Indicators:
				X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	er	$\frac{X}{X}$ 2 - Dominance Test is >50% $\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^{1}$
lerb Stratum (Plot size: 5)				4 - Morphological Adaptations ¹ (Provide supporting
. Typha latifolia	55	Yes	OBL	data in Remarks or on a separate sheet)
Onoclea sensibilis	20	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
. Leersia oryzoides	30		OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Eupatorium perfoliatum			FACW	
. Scirpus cyperinus	5	No	OBL	Definitions of Vegetation Strata:
·				Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
·				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
0				Herb – All herbaceous (non-woody) plants, regardless of
1				size, and woody plants less than 3.28 ft tall.
2				Woody vines – All woody vines greater than 3.28 ft in height.
	113	= Total Cov	er	
Voody Vine Stratum (Plot size:)				
				Hydrophytic Vegetation
				Present? Yes X No
		= Total Cov	er	
	heet.)	= Total Cov	er	

SOIL Sampling Point: Wetland PM-22

Profile Desc	ription: (Describe to	o the dep	th needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo:	x Features	S Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 3/2	95	2.5YR 4/6	5	Concer	PL	Silty loam	
-								
								-
-								
-								
¹ Type: C=Co	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	v Surface	(S8) (LRF	R.		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		MLRA 149B)		(/(,		Prairie Redox (A16) (LRR K, L, R)
Black His	stic (A3)		Thin Dark Surfa	ce (S9) (L	.RR R, MI	RA 149B)) 5 cm M	flucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N			, L)		surface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I)			lue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
	rk Surface (A12)		X Redox Dark Sur	. ,				anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark S	Surface (F	7)		Piedmo	ont Floodplain Soils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depress	ions (F8)			Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (S5)						Red Pa	arent Material (F21)
Stripped	Matrix (S6)						Very S	hallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149E	3)				Other ((Explain in Remarks)
	hydrophytic vegetation	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problematic).
	.ayer (if observed):							
Type:								
Depth (inc	thes):						Hydric Soil	Present? Yes X No No
Remarks:								





E W





N Soil



Project/Site: Leroy Center-Mayfield 138 kV Transmission	on Line Projec City/County: Geau	ıga County	Sampling Date: 08/03/2021		
Applicant/Owner: FirstEnergy		State: OH	_ Sampling Point: Upland PM-22,23		
Investigator(s): MJA	Section, Township	, Range: N/A			
Landform (hillslope, terrace, etc.): Hillside			Slope (%): ¹⁵		
Subregion (LRR or MLRA): LRR R Lat: Soil Map Unit Name: LxF: Lordstown-Rock outcrop cor	mplex, 18 to 70 percent slopes	NWI classific	ation: N/A		
Are climatic / hydrologic conditions on the site typical fo	or this time of year? Yes X	No (If no, explain in Re	emarks.)		
Are Vegetation X, Soil , or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No		
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answer	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach site m	ap showing sampling poi	nt locations, transects	, important features, etc.		
Hydrophytic Vegetation Present? Yes	No X Is the Sam				
	No X within a W				
Wetland Hydrology Present? Yes X Remarks: (Explain alternative procedures here or in a		nal Wetland Site ID: Upland P	M-22,23		
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is required; check	all that apply)	Surface Soil	Cracks (B6)		
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pat	terns (B10)		
	Aquatic Fauna (B13)	Moss Trim Lines (B16)			
	Marl Deposits (B15)	Dry-Season Water Table (C2)			
	Hydrogen Sulfide Odor (C1)	Crayfish Burr	` ,		
	Oxidized Rhizospheres on Living I		sible on Aerial Imagery (C9)		
	Presence of Reduced Iron (C4)		ressed Plants (D1)		
	Recent Iron Reduction in Tilled So				
	Thin Muck Surface (C7) Other (Explain in Remarks)	Shallow Aqui Microtopogra			
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	FAC-Neutral			
Field Observations:			1001 (20)		
Surface Water Present? Yes No _X	Depth (inches):				
Water Table Present? Yes No X					
Saturation Present? Yes No X (includes capillary fringe)		Wetland Hydrology Presen	t? Yes <u>X</u> No		
Describe Recorded Data (stream gauge, monitoring w	vell, aerial photos, previous inspec	tions), if available:			
Remarks:					
Tromano.					

/EGETATION – Use scientific names of plants.	•			Sampling Point: Upland PM-22,23
Troe Stratum (Plot aize: 30	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:) 1		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
3. 4.				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0 (A/B)
6				Prevalence Index worksheet:
7		·		Total % Cover of: Multiply by:
		= Total Cov	ver	OBL species 0 x 1 = 0 FACW species 15 x 2 = 30
Sapling/Shrub Stratum (Plot size: 15)				racvi species x z =
1	-	-		FAC species x 3 =
2				
3				UPL species $0 \times 5 = 0$ Column Totals: $165 \times 630 \times 6$
4				Prevalence Index = B/A = 3.818181818
5				Trevalence index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5	60	V	EACH	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
1. Schedonorus arundinaceus		Yes	FACU	data in Remarks or on a separate sheet)
2. Taraxacum officinale	15		FACU	Problematic Hydrophytic Vegetation¹ (Explain)
Medicago lupulina Trifolium repens	<u>20</u> 15	No No	FACU FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
·	40		FACU	Definitions of Vegetation Strata:
5. Poa annua6. Dichanthelium clandestinum	15	No No	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8 9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	165	= Total Cov	ver	
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic Vegetation
3	-	-		Present? Yes No X
4				
		= Total Cov	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			
Remarks. (include photo numbers here of on a separate	sneet.)			

SOIL Sampling Point: Upland PM-22,23

Profile Desc	ription: (Describe t	o the dept	h needed to docur	nent the i	ndicator o	or confirm	the absence	of indicators.)		
Depth	Matrix			x Feature:	<u>S</u> _ 1	. 2				
(inches)	Color (moist)	%	Color (moist)	<u></u> %	Type ¹	Loc ²	<u>Texture</u>	Remarks		
0 - 18	10YR 3/2	98	2.5YR 4/6	2	Concer	PL,M	Silty loam			
-										
	-									
			_							
-										
								·		
								. <u></u> .		
-			_		·					
-										
-										
1Typo: C-C	oncentration, D=Depl	otion PM-	Poducod Matrix MS	S-Mackad	Sand Gra	nine	² Location	n: PL=Pore Lining, M=Matrix.		
Hydric Soil I		elion, Kivi=	Reduced Matrix, Mis	5=IVIA5KeC	i Sanu Gra	11115.		s for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Belov	v Surface	(S8) (LRR	2 R.		Muck (A10) (LRR K, L, MLRA 149B)		
	pipedon (A2)		MLRA 149B)		() (-,		Prairie Redox (A16) (LRR K, L, R)		
Black His	stic (A3)		Thin Dark Surfa	ice (S9) (L	RR R, ML	RA 149B)	5 cm l	Mucky Peat or Peat (S3) (LRR K, L, R)		
	n Sulfide (A4)		Loamy Mucky N			, L)	Dark Surface (S7) (LRR K, L, M)			
	Layers (A5)	(044)	Loamy Gleyed		2)		Polyvalue Below Surface (S8) (LRR K, L)			
	l Below Dark Surface ark Surface (A12)	(A11)	Depleted Matrix Redox Dark Su				Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)			
	lucky Mineral (S1)		Nedox Bark 3d Depleted Dark 3				Piedmont Floodplain Soils (F19) (MLRA 149B)			
	leyed Matrix (S4)		Redox Depress		.,			Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy R	edox (S5)						Red Parent Material (F21)			
	Matrix (S6)						Very Shallow Dark Surface (TF12)			
Dark Sui	rface (S7) (LRR R, M	ILRA 149B	3)				Other	(Explain in Remarks)		
3Indicators of	hydrophytic vegetati	ion and wa	tland bydrology mus	t ha proce	ont unloco	diaturbad	or problemati			
	-ayer (if observed):	on and we	liand flydrology fflus	it be blese	ent, unicss	uistuibeu	T probleman	С.		
Type:	ayor (ii oboor rou).									
Depth (inc	ches):						Hydric Soi	I Present? Yes No X		
Remarks:							11,741.10 001.			
ixemaiks.										





Soil E

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City	//County: _Geauga County	Sampling Date: 08/03/2021			
Applicant/Owner: FirstEnergy		_ Sampling Point: Wetland PM-23E			
Investigator(s): MJA Sec					
Landform (hillslope, terrace, etc.): Terrace Local r		Slope (%): 1			
Subregion (LRR or MLRA):					
Soil Map Unit Name: RmB: Rawson silt loam, 2 to 6 percent slopes					
Are climatic / hydrologic conditions on the site typical for this time of year?					
Are Vegetation X , Soil , or Hydrology significantly dist					
Are Vegetation, Soil, or Hydrology naturally problem					
SUMMARY OF FINDINGS – Attach site map showing sa		,			
	Is the Sampled Area	mportant routeroo, otor			
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No	within a Wetland? Yes X	_ No			
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: Wetland F	PM-23E			
Remarks: (Explain alternative procedures here or in a separate report.)	ii yes, optional wetiand site ib.				
HYDROLOGY					
Wetland Hydrology Indicators:		ors (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil C				
Surface Water (A1) Water-Stained Lea					
High Water Table (A2)Saturation (A3)Aquatic Fauna (B1)Marl Deposits (B15)		Moss Trim Lines (B16) Dry-Season Water Table (C2)			
Water Marks (B1) Hydrogen Sulfide C					
		sible on Aerial Imagery (C9)			
Drift Deposits (B3) Presence of Reduc		ressed Plants (D1)			
	tion in Tilled Soils (C6) X Geomorphic F				
Iron Deposits (B5) Thin Muck Surface	(C7) Shallow Aquit	ard (D3)			
Inundation Visible on Aerial Imagery (B7) Other (Explain in R	temarks) Microtopograp	ohic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral	Test (D5)			
Field Observations:					
Surface Water Present? Yes No X Depth (inches):					
Water Table Present? Yes No X Depth (inches):	Wetlend Huduslam Present	NO Voc V No			
Saturation Present? Yes No _X _ Depth (inches): (includes capillary fringe)	Wetland Hydrology Present	? Yes <u>X</u> No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	previous inspections), if available:				
Remarks:					
1					

Tree Stratum (Plot size:30)	Absolute	Dominant Indic	
1		· · · · · · · · · · · · · · · · · · ·	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2			Total Number of Dominant
3			4
4			
5			That Are OBL, FACW, or FAC:1 (A/B)
6			1 TO VALOTICO III AGA WOTKONOOLI
7			
		_ = Total Cover	OBL species5 x 1 =5
Sapling/Shrub Stratum (Plot size: 15)			x 2 =
1			X 3 =
2			FACU species
3			Column Totals: 105 (A) 210 (B)
4	·		(7)
5			Provolongo Indox - P/A - 2
6			Undrankutia Variatian Indiaatara
7			X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cover	X 2 - Dominance Test is >50%
Herb Stratum (Plot size: 5		_ = Total Cover	X 3 - Prevalence Index is $\leq 3.0^1$
1. Phragmites australis	90	Yes FA	.CW 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Typha latifolia	5	No C	BL Problematic Hydrophytic Vegetation¹ (Explain)
Eupatorium perfoliatum			CW Indicators of hydric soil and wetland hydrology must
4. Solanum dulcamara	_		be present, unless disturbed or problematic.
			Definitions of Vegetation Strata:
5			
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7			
8			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9			Herb – All herbaceous (non-woody) plants, regardless of
10			size, and woody plants less than 3.28 ft tall.
11	-		Woody vines – All woody vines greater than 3.28 ft in
12			height.
	105	= Total Cover	
Woody Vine Stratum (Plot size:)			
1			
2.			Hydrophytic
3			Vegetation
4			<u> </u>
		= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet)	_ = Total Cover	
remaiks. (include proto numbers here of on a separate	Silect.)		

Sampling Point: Wetland PM-23E

SOIL Sampling Point: Wetland PM-23E

Profile Desc	ription: (Describe to	the dep	h needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)		
Depth (inches)	Matrix Color (moist)	%	Redo:	K Features	S Type ¹	Loc ²	Texture	Remarks		
0 - 18	10YR 3/1	97	7.5YR 4/6	3	Concer	PL	Silty loam			
-										
-										
-										
-										
¹Type: C=Co	oncentration, D=Deple	 etion RM=	:Reduced Matrix MS	 S=Masked	Sand Gr		² I ocation	: PL=Pore Lining, M=Matrix.		
Hydric Soil I		50011, TUVI=	rtoddod Matrix, Me	Machad	Ouria Ori	<u></u>		for Problematic Hydric Soils ³ :		
Histosol	(A1)		Polyvalue Belov	v Surface	(S8) (LRF	RR,	2 cm N	Muck (A10) (LRR K, L, MLRA 149B)		
Histic Ep	ipedon (A2)		MLRA 149B)				Coast	Prairie Redox (A16) (LRR K, L, R)		
Black His			Thin Dark Surfa				5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
	n Sulfide (A4)		Loamy Mucky M			, L)		surface (S7) (LRR K, L, M)		
Stratified	Layers (A5)		Loamy Gleyed I	Matrix (F2))		Polyvalue Below Surface (S8) (LRR K, L)			
Depleted	Below Dark Surface	(A11)	Depleted Matrix	(F3)			Thin Dark Surface (S9) (LRR K, L)			
Thick Da	rk Surface (A12)		X Redox Dark Sur	face (F6)			Iron-Manganese Masses (F12) (LRR K, L, R)			
Sandy M	ucky Mineral (S1)		Depleted Dark S	Surface (F	7)		Piedmont Floodplain Soils (F19) (MLRA 149B)			
	leyed Matrix (S4)		Redox Depress				Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
	edox (S5)			()			Red Parent Material (F21)			
-	Matrix (S6)						Very Shallow Dark Surface (TF12)			
	face (S7) (LRR R, M	LRA 149E	3)					(Explain in Remarks)		
	hydrophytic vegetation	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation).		
Restrictive L	.ayer (if observed):									
Type:										
Depth (inc	:hes):						Hydric Soil	Present? Yes X No No		
Remarks:										





Soil E





S W



Ν

Project/Site: Leroy Center-Mayfield 138 kV Transmission L	ine Projec City/County: Geau	ga County	Sampling Date: 08/03/2021		
Applicant/Owner: FirstEnergy			Sampling Point: Wetland PM-23S		
Investigator(s): MJA	Section, Township,				
Landform (hillslope, terrace, etc.): Terrace			Slope (%): 1		
Subregion (LRR or MLRA): LRR R Lat: 41. Soil Map Unit Name: RmB: Rawson silt loam, 2 to 6 percer	nt slopes	NWI classific	ation:		
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes $X ext{N}$	o (If no, explain in R	emarks.)		
Are Vegetation, Soil, or Hydrologys	significantly disturbed? A	are "Normal Circumstances" p	oresent? Yes X No		
Are Vegetation, Soil, or Hydrology r		If needed, explain any answe			
SUMMARY OF FINDINGS – Attach site map	showing sampling poir	nt locations, transects	, important features, etc.		
Hydrophytic Vegetation Present? Yes X N Hydric Soil Present? Yes X N Wetland Hydrology Present? Yes X N Remarks: (Explain alternative procedures here or in a sep	within a We of the second of t	V			
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is required; check all t	that apply)	Surface Soil			
	er-Stained Leaves (B9)	Drainage Pat			
	atic Fauna (B13)	Moss Trim Lines (B16)			
	I Deposits (B15)	Noss Tim Elics (BTo) Dry-Season Water Table (C2)			
	rogen Sulfide Odor (C1)	Crayfish Burr			
	dized Rhizospheres on Living R	_ ,	sible on Aerial Imagery (C9)		
	sence of Reduced Iron (C4)		tressed Plants (D1)		
	ent Iron Reduction in Tilled Soi				
	Muck Surface (C7)	Shallow Aqui			
	er (Explain in Remarks)	Microtopogra	` '		
Sparsely Vegetated Concave Surface (B8)		X FAC-Neutral	Test (D5)		
Field Observations:					
Surface Water Present? Yes No _X _ De	pth (inches):				
Water Table Present? Yes No _X _ De	pth (inches):				
Saturation Present? Yes No _X _ Del (includes capillary fringe)	pth (inches):	Wetland Hydrology Presen	t? Yes <u>X</u> No		
Describe Recorded Data (stream gauge, monitoring well, a	aerial photos, previous inspecti	ions), if available:			
Remarks:					

Tree Stratum (Plot size: 30)	Absolute	Dominant Species?		Dominance Test worksheet:
1			·	Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Deminent Species
5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	-	= Total Cov	ver	OBL species 5 x 1 = 5 FACW species 145 x 2 = 290
Sapling/Shrub Stratum (Plot size: 15)				FACVV species
1Salix interior	40	Yes	FACW	X S =
2				- X 4 =
3				UPL species 0 x 5 = 0 Column Totals: 150 (A) 295 (B)
4				Column Totals. (A) (B)
5				Prevalence Index = B/A = 1.96666666666
6				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
	40	= Total Cov	ver	X 2 - Dominance Test is >50%
Herb Stratum (Plot size: 5		•		X 3 - Prevalence Index is ≤3.0¹
1. Phragmites australis	70	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Scirpus atrovirens	5	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carex tribuloides	20	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
4. Impatiens capensis	40	-	FACW	be present, unless disturbed or problematic.
5. Eupatorium perfoliatum	_		FACW	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12.				Woody vines – All woody vines greater than 3.28 ft in height.
	110	= Total Cov	ver	
Woody Vine Stratum (Plot size: 30)				
1				
2.				Hydrophytic
3				Vegetation Present? Yes X No
4				
4	-	= Total Cov	ver	
Remarks: (Include photo numbers here or on a separate	sheet)	_ 10tal C0	vei	
Tromano. (modae photo hambers here of on a separate	once,			

Sampling Point: Wetland PM-23S

SOIL Sampling Point: Wetland PM-23S

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks		
0 - 18	10YR 3/2	98	7.5YR 4/6	5	Concer	PL,M	Silty loam			
-										
-										
-										
	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.		
Hydric Soil I								for Problematic Hydric Soils ³ :		
Histosol	• •		Polyvalue Belov		(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B)		
Histic Ep	ipedon (A2)		MLRA 149B) Thin Dark Surfa		RRR MI	RΔ 149R		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)		
	n Sulfide (A4)		Loamy Mucky M				Dark Surface (S7) (LRR K, L, M)			
	Layers (A5)		Loamy Gleyed I			, –,	Polyvalue Below Surface (S8) (LRR K, L)			
	l Below Dark Surface	(A11)	Depleted Matrix		,		Thin Dark Surface (S9) (LRR K, L)			
Thick Da	rk Surface (A12)		X Redox Dark Sur	face (F6)			Iron-Manganese Masses (F12) (LRR K, L, R)			
	lucky Mineral (S1)		Depleted Dark S	Surface (F	7)		Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sandy G	leyed Matrix (S4)		Redox Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
	edox (S5)							arent Material (F21)		
	Matrix (S6)							hallow Dark Surface (TF12)		
Dark Sur	face (S7) (LRR R, M	LRA 149E	3)				Other (Explain in Remarks)		
	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problematio	s.		
	ayer (if observed):									
Type: Depth (inc	hhaa):						Hydria Sail	Present? Yes X No No		
Remarks:	nes)						nyuric Soil	Present? Yes X No No		
Remarks:										





Soil S





E W



Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/v	County: Geauga County Sampling Date: 08/03/2021						
	State: OH Sampling Point: Wetland PM-24						
Investigator(s): MJA Sect							
• , , -							
Landform (hillslope, terrace, etc.): Terrace Local re	Slef (concave, convex, none):						
	Eng: -81.27970313333334 Datum: WGS 1984						
Soil Map Unit Name: RmB: Rawson silt loam, 2 to 6 percent slopes	NWI classification: N/A						
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in Remarks.)						
Are Vegetation X, Soil X, or Hydrology significantly distu	irbed? Are "Normal Circumstances" present? Yes X No						
Are Vegetation, Soil, or Hydrology naturally problem							
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area						
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Yes	within a Wetland? Yes X No						
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: Wetland PM-24						
Remarks: (Explain alternative procedures here or in a separate report.)	Il yes, optional vvetiano site ib.						
PEM in maintained powerline easement. Some minor vegetation and soil of							
HYDROLOGY							
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)						
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)						
Surface Water (A1) Water-Stained Leave	es (B9) Drainage Patterns (B10)						
High Water Table (A2) Aquatic Fauna (B13							
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)						
Water Marks (B1) Hydrogen Sulfide Oc							
_ , , , , ,	res on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)						
Drift Deposits (B3) Presence of Reduce							
Algal Mat or Crust (B4) Recent Iron Reducti Iron Deposits (B5) Thin Muck Surface (
Inin Deposits (B5) Thin Muck Surface (Inundation Visible on Aerial Imagery (B7) Other (Explain in Re							
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)						
Field Observations:							
Surface Water Present? Yes No _X _ Depth (inches):							
Water Table Present? Yes No _X Depth (inches):							
Saturation Present? Yes No _X Depth (inches):	Wetland Hydrology Present? Yes X No						
(includes capillary fringe)	· · · · — —						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:						
Remarks:							

EGETATION – Use scientific names of plants.				Sampling Point: Wetland PM-2			
ree Stratum (Plot size:)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)			
				Total Number of Dominant Species Across All Strata: 2 (B)			
				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B			
				Prevalence Index worksheet:			
				Total % Cover of: Multiply by:			
		= Total Cov	er	OBL species x 1 = 80			
apling/Shrub Stratum (Plot size: 15)				FACW species30			
				FACUS procies 3 x 4 = 12			
				FACO species			
				01 L 3pcolc3			
				Column Totals:143 (A)242 (B) Prevalence Index = B/A = 1.692307692;			
				Hydrophytic Vegetation Indicators:			
				X 1 - Rapid Test for Hydrophytic Vegetation			
·				X 2 - Dominance Test is >50%			
		= Total Cov	er	X 3 - Prevalence Index is ≤3.0 ¹			
erb Stratum (Plot size:5) Phalaris arundinacea	20	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supportin data in Remarks or on a separate sheet)			
Scirpus cyperinus	60	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)			
Leersia oryzoides	15	No	OBL	¹ Indicators of hydric soil and wetland hydrology must			
Verbena hastata	5	No	FACW	be present, unless disturbed or problematic.			
Lythrum salicaria	5	No	OBL	Definitions of Vegetation Strata:			
Eupatorium perfoliatum	5	No	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
Dipsacus fullonum	3	No	FACU	at breast height (DBH), regardless of height.			
Apocynum cannabinum	15	No	FAC	Sapling/shrub – Woody plants less than 3 in. DBH			
Pycnanthemum muticum	15	No	FAC	and greater than or equal to 3.28 ft (1 m) tall.			
0				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
1							
2				Woody vines – All woody vines greater than 3.28 ft in height.			
	143	= Total Cov	er	no.gan			
/oody Vine Stratum (Plot size:)							
/ Interest of the state of the							
				Hydrophytic			
				Vegetation Present? Yes X No			
				100 <u></u> 100			
·							
		= Total Cov					

SOIL Sampling Point: Wetland PM-24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix			x Feature	<u>s</u>	2					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0 - 4	10YR 2/2	98	5YR 4/6	2	Concer	PL	Silty loam				
4 - 8	2.5Y 5/2	80	5YR 5/6	20	Concer	M	Silty clay loam				
-											
-											
-											
-											
-											
-											
-											
¹ Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.	² Location	: PL=Pore Lining, M=Matrix.			
Hydric Soil I		•						for Problematic Hydric Soils ³ :			
Histosol			Polyvalue Belo		(S8) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B)			
Black Hi	oipedon (A2) stic (A3)		MLRA 149B Thin Dark Surfa	,	RR R, ML	RA 149B		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)			
	n Sulfide (A4)		Loamy Mucky I			L)		urface (S7) (LRR K, L, M)			
	l Layers (A5) l Below Dark Surface	(Δ11)	Loamy Gleyed Depleted Matrix)			lue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)			
	ark Surface (A12)	(A11)	X Redox Dark Su					anganese Masses (F12) (LRR K, L, R)			
	lucky Mineral (S1)		Depleted Dark		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)				
	edox (S5)		Redox Depress	sions (F8)				Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)			
-	Matrix (S6)						Very Shallow Dark Surface (TF12)				
Dark Su	rface (S7) (LRR R, M	LRA 149E	3)				Other (Explain in Remarks)			
³ Indicators of	hydrophytic vegetati	on and we	tland hydrology mus	st be prese	ent, unless	disturbed	or problemation				
	ayer (if observed):	Х									
Type: Ro							Undria Cail	Present? Yes X No			
Depth (ind	cnes): o						Hydric Soil	Present? Yes X No			
itemarks.											





Soil S





N W



Ε

Project/Site: Leroy Center-Mayfield 138 kV Tran	smission Line Projec City/C	county: Geauga County	Sa	mpling Date: 08/03/2021		
Applicant/Owner: FirstEnergy	-			Sampling Point: Upland PM-24		
Investigator(s): MJA	Section	on, Township, Range: N/A				
Landform (hillslope, terrace, etc.): Terrace				Slope (%): 3		
Subregion (LRR or MLRA): LRR R						
Soil Map Unit Name: RmB: Rawson silt loam, 2						
Are climatic / hydrologic conditions on the site type	oical for this time of year? Y	res X No (If	no, explain in Rema	arks.)		
Are Vegetation, Soil, or Hydrolog	y significantly distur	bed? Are "Normal C	circumstances" pres	ent? Yes X No		
Are Vegetation, Soil, or Hydrolog			plain any answers ir			
SUMMARY OF FINDINGS – Attach s	ite map showing sam	npling point location	s, transects, in	nportant features, etc.		
Hydrophytic Vegetation Present? Yes _	NoX	Is the Sampled Area within a Wetland?	Yes	No		
Hydric Soil Present? Yes	No X	If yes, optional Wetland S	Site ID. Upland PM-2	24		
HYDROLOGY						
Wetland Hydrology Indicators:		<u>S</u>	econdary Indicators	(minimum of two required)		
Primary Indicators (minimum of one is required	; check all that apply)		Surface Soil Cra	cks (B6)		
Surface Water (A1)	Water-Stained Leave	s (B9)	Drainage Patterr			
High Water Table (A2)	Aquatic Fauna (B13)	-	Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)	-	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Od		Crayfish Burrows	` '		
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizosphero Presence of Reduced	- · · · · · · · · · · · · · · · · · · ·		e on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Recent Iron Reductio		Soils (C6) Stunted or Stressed Plants (D1) Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C		Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Rer	· —	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		<u>-</u>	FAC-Neutral Tes	st (D5)		
Field Observations:						
Surface Water Present? Yes No	X Depth (inches):					
Water Table Present? Yes No	X Depth (inches):					
	X Depth (inches):	Wetland Hy	drology Present?	Yes NoX		
(includes capillary fringe) Describe Recorded Data (stream gauge, monite	oring well, aerial photos, pre	vious inspections), if availa	able:			
Demode						
Remarks:						

Tree Stratum (Plot size: 30)	Absolute	Dominant Species?		Dominance Test worksheet:			
1				Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)			
2							
3				Total Number of Dominant Species Across All Strata: 5 (B)			
4				Percent of Dominant Species			
5				That Are OBL, FACW, or FAC: 20% (A/B)			
6							
				Prevalence Index worksheet:			
7							
0 15 (0) 1 0) 1 (0) 1 15	-	= Total Cov	ver	OBL species $\frac{15}{3}$ $x 1 = \frac{15}{6}$ FACW species $\frac{3}{3}$ $x 2 = \frac{6}{3}$			
Sapling/Shrub Stratum (Plot size: 15)	_	V	E4.011	FAC species			
1. Elaeagnus angustifolia				FACU species 80 x 4 = 320			
Fraxinus pennsylvanica	3	No	FACW	UPL species 15 x 5 = 75			
3				Column Totals: 158 (A) 551 (B)			
4				2.40			
5				Prevalence Index = B/A = 3.49			
6				Hydrophytic Vegetation Indicators:			
7				1 - Rapid Test for Hydrophytic Vegetation			
	8	= Total Cov	ver	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹			
Herb Stratum (Plot size:5				3 - Prevalence index is \$3.0 4 - Morphological Adaptations ¹ (Provide supporting)			
1. Dipsacus fullonum	20	Yes	FACU	data in Remarks or on a separate sheet)			
2. Pycnanthemum muticum	20	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. Solidago canadensis	30	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must			
4. Solidago rugosa	10	No	FAC	be present, unless disturbed or problematic.			
5 Daucus carota	15	No	UPL	Definitions of Vegetation Strata:			
6 Agrostis perennans	25	Yes	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
7. Scirpus cyperinus	15	No	OBL	at breast height (DBH), regardless of height.			
8. Apocynum cannabinum	10	No	FAC	Sapling/shrub – Woody plants less than 3 in. DBH			
9. Prunella vulgaris	_		FAC	and greater than or equal to 3.28 ft (1 m) tall.			
10.				Herb – All herbaceous (non-woody) plants, regardless of			
11.				size, and woody plants less than 3.28 ft tall.			
12.				Woody vines – All woody vines greater than 3.28 ft in			
12:		= Total Cov		height.			
Woody Vine Stratum (Plot size:30)	100	_ = 10tai 00	vei				
1		-		Hydrophytic			
2				Vegetation			
3				Present? Yes No X			
4							
		= Total Cov	ver				
Remarks: (Include photo numbers here or on a separate	sheet.)						

Sampling Point: Upland PM-24

SOIL Sampling Point: Upland PM-24

Profile Desc	ription: (Describe t	o the depth	needed to docu	ment the i	ndicator o	or confirm	n the absence	of indicators.)
Depth	Matrix			x Feature	<u>S</u> _ 1	. 2	_	
(inches) 0 - 4	Color (moist) 10YR 3/2	<u>%</u> 99	Color (moist) 5YR 4/6	_ <u>%</u> 1	Type ¹ Concer	Loc ²	Texture Silty clay loam	Remarks
	-		_				· — · · · · · · · · · · · · · · · · · ·	
4 10	2.5Y 5/2	80	10YR 4/6	20	Concer	M	Clay loam	
-								
-								
-								
-								
-						-		
-								
-								
					-		· 	<u> </u>
					-			
-								
	oncentration, D=Depl	etion, RM=F	Reduced Matrix, M	S=Masked	Sand Gra	ins.		: PL=Pore Lining, M=Matrix.
Hydric Soil I			Dalasaksa Dala	0((OO) (LDD	. 5		for Problematic Hydric Soils ³ :
Histosol	(A1) ipedon (A2)	_	Polyvalue Belo MLRA 149B		(S8) (LRR	ί Κ,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black His		_	Thin Dark Surfa		RR R, ML	RA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	Loamy Mucky I			L)	Dark S	Surface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed		2)		-	alue Below Surface (S8) (LRR K, L)
-	l Below Dark Surface irk Surface (A12)	e (A11) _	 X Depleted Matri: Redox Dark Su 					ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)	_	Nedox Dark 30	, ,				ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	_	 Redox Depress		,			Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)							arent Material (F21)
	Matrix (S6)	U D A 440D\						Shallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	ILKA 149B)					Other	(Explain in Remarks)
³ Indicators of	hydrophytic vegetati	ion and wetl	and hydrology mu	st be prese	ent, unless	disturbed	l or problemation	c.
	ayer (if observed):	Χ						
Type: Ro								
Depth (inc	thes): 10						Hydric Soil	Present? Yes X No No
Remarks:								





Soil S

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/County: Geauga County	Sampling Date: 08/03/2021
	Sampling Point: Wetland PM-25
Investigator(s): MJA Section, Township, Range: N/A	
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave	Slope (%): ²
Subregion (LRR or MLRA): LRR R Lat: 41.55467808333333 Long: -81.28031833333334 Soil Map Unit Name: EhF: Ellsworth silt loam, 25 to 70 percent slopes NWI classifie	cation: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes $\frac{X}{X}$ No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answer	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes X No Is the Sampled Area within a Wetland? Yes X No If yes, optional Wetland Site ID: Wetland Remarks: (Explain alternative procedures here or in a separate report.)	
HYDROLOGY	
	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soil	
Surface Water (A1) Water-Stained Leaves (B9) Drainage Pa	
High Water Table (A2) Aquatic Fauna (B13) Moss Trim L	
	Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Bur	
	isible on Aerial Imagery (C9)
	Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)X Geomorphic	Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aqu	itard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopogra	aphic Relief (D4)
Sparsely Vegetated Concave Surface (B8) <u>X</u> FAC-Neutral	Test (D5)
Field Observations:	
Surface Water Present? Yes NoX Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes No _X _ Depth (inches): Wetland Hydrology Preser (includes capillary fringe)	nt? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	
	i

/EGETATION – Use scientific names of plan	ts.			Sampling Point: Wetland PM-25		
<u>Tree Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:		
1		•	Ctatas	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)		
2				Total Number of Dominant Species Across All Strata:3 (B)		
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 1 (A/B)		
5						
6				Prevalence Index worksheet:		
7						
Cardinar/Charle Charters (Districts 15		= Total Cov	ver	OBL species x 1 =		
Sapling/Shrub Stratum (Plot size: 15)				FAC species 0 x 3 = 0		
1				FACU species0 x 4 =0		
2				UPL species 0 x 5 = 0		
3				Column Totals:160 (A)245 (B)		
4				Prevalence Index = B/A = 1.53125		
5				Hydrophytic Vegetation Indicators:		
6				X 1 - Rapid Test for Hydrophytic Vegetation		
7				X 2 - Dominance Test is >50%		
5		= Total Cov	ver	X 3 - Prevalence Index is ≤3.0¹		
Herb Stratum (Plot size:5) 1Phalaris arundinacea	35	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2Carex lurida	35	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)		
3Onoclea sensibilis	30	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must		
4Typha latifolia	20	No	OBL	be present, unless disturbed or problematic.		
5. Thelypteris palustris	20	No	FACW	Definitions of Vegetation Strata:		
6. Scirpus atrovirens	15	No	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
7Juncus effusus	5	No	OBL	at breast height (DBH), regardless of height.		
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
9		•		Herb – All herbaceous (non-woody) plants, regardless of		
10				size, and woody plants less than 3.28 ft tall.		
11			<u> </u>	Woody vines – All woody vines greater than 3.28 ft in		
12		= Total Cov	ver	height.		
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic		
3				Vegetation Present? Yes X No		
4.						
		= Total Cov	ver			
Remarks: (Include photo numbers here or on a separat	te sheet.)					

SOIL Sampling Point: Wetland PM-25

Profile Desc	ription: (Describe to	o the dep	th needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 2/1	90	2.5YR 3/6	10	Concer	PL	Silty loam	
-								
-								
¹Type: C=Cc	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil I						_		for Problematic Hydric Soils ³ :
Histosol	(A1) ipedon (A2)		Polyvalue Belov MLRA 149B)		(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		RR R, MI	RA 149B)		flucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N			, L)		urface (S7) (LRR K, L, M)
	Layers (A5)	(4.4.4)	Loamy Gleyed I)			lue Below Surface (S8) (LRR K, L)
	Below Dark Surface rk Surface (A12)	(A11)	Depleted Matrix X Redox Dark Sur					ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark S	. ,				ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress		',			Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)			(- /				arent Material (F21)
	Matrix (S6)							hallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149E	3)				Other (Explain in Remarks)
	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	:.
	.ayer (if observed):							
Type: Depth (inc	shas):						Hydric Soil	Present? Yes X No No
Remarks:							Hydric 30ii	Fresent: res NO
Nemaiks.								





N E





S W



Soil

Project/Site: Leroy Center-Ma	yfield 138 kV Tran	smission Line	Projec City/0	County: Geau	uga County		Sampling Date: 08/03/2021		
Applicant/Owner: FirstEnergy				,			Sampling Point: Upland PM		
			Secti	ion. Township	. Range: N				
Landform (hillslope terrace et	C). Shoulder slop	e	Local re	lief (concave	convex no	ne). Convex	Slone (%): 10		
Subregion (LRR or MLRA): LF	8R R	1 at. 41.554	2000110 73	nor (oorloave,	1 ana81.	.28028	Detum: WGS	1984	
Soil Map Unit Name: EhF: Ells									
Are climatic / hydrologic condit	ions on the site typ	oical for this tin	ne of year? `	Yes X N	No	(If no, explain in Re	emarks.)		
Are Vegetation, Soil	, or Hydrolog	y sign	ificantly distu	rbed?	Are "Norma	l Circumstances" p	resent? Yes X No_		
Are Vegetation, Soil	, or Hydrolog	y natu	rally problem	natic? ((If needed,	explain any answer	s in Remarks.)		
SUMMARY OF FINDING	GS – Attach s	ite map sh	owing sar	npling poi	nt locatio	ons, transects,	important features, o	etc.	
Hydrophytic Vegetation Prese	ent? Yes	No _	Х	Is the Sam	pled Area				
Hydric Soil Present?		No _		within a Wo	-	Yes	No		
Wetland Hydrology Present?	Yes	No _		If ves. optio	nal Wetland	d Site ID: Upland P	M-25,26		
Remarks: (Explain alternative				ii yoo, optio	TIGI VVCIIGIN	u one ib		=	
Upland data point for wetland easement.	s W-MJA-080321-	07 and W-MJ∕	A-080321-08.	. Data point si	tuated alon	g ATV access road	in maintained powerline		
HYDROLOGY									
Wetland Hydrology Indicate	ors:					Secondary Indicat	tors (minimum of two require	<u>ed)</u>	
Primary Indicators (minimum	of one is required	; check all that	apply)			Surface Soil 0	Cracks (B6)		
Surface Water (A1)		Water-S	Stained Leave	es (B9)		Drainage Pat	terns (B10)		
High Water Table (A2)		Aquatic	Fauna (B13))		Moss Trim Li			
Saturation (A3)			posits (B15)				Vater Table (C2)		
Water Marks (B1)			en Sulfide Od			Crayfish Burr			
Sediment Deposits (B2)				res on Living I	Roots (C3)		sible on Aerial Imagery (C9)		
Drift Deposits (B3)			ce of Reduce		(==)		ressed Plants (D1)		
Algal Mat or Crust (B4)				on in Tilled So	oils (C6)		eomorphic Position (D2)		
Iron Deposits (B5)	-:(DZ)		uck Surface (_ Shallow Aquitard (D3)		
Inundation Visible on Aer			Explain in Re	marks)			phic Relief (D4)		
Sparsely Vegetated Con-	tave Surface (B6)					FAC-Neutral	Test (D5)		
Surface Water Present?	Voc. No.	Y Donth	(inabas):						
	Yes No								
Water Table Present? Saturation Present?	Yes No Yes No				Metlend I	Uvdralami Drasan	12 Van Na V		
(includes capillary fringe)	res No	Deptn	(inches):		wetiand	Hydrology Presen	t? Yes No_X	_	
Describe Recorded Data (stre	eam gauge, monito	oring well, aeri	al photos, pre	evious inspect	tions), if ava	ailable:			
Remarks:									

EGETATION – Use scientific names of plants	5.			Sampling Point: Upland PM-25,2			
Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:			
1				Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)			
				Total Number of Dominant			
i <u> </u>				Species Across All Strata: 4 (B)			
				Percent of Dominant Species			
i				That Are OBL, FACW, or FAC: 25% (A/B)			
i				Prevalence Index worksheet:			
				Total % Cover of: Multiply by:			
		= Total Cov	er	OBL species 0 x 1 = 0			
Sapling/Shrub Stratum (Plot size: 15)				FACW species 0 $x = 0$ $x = 0$ FAC species 45 $x = 135$			
		-		FAC species x 3 = 135 FACU species 75			
L				UPL species			
<u>. </u>				Column Totals:130			
	<u> </u>	<u> </u>		Prevalence Index - R/A - 3.73			
i				Trevalence much – B/A –			
i				Hydrophytic Vegetation Indicators:			
·				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%			
-		= Total Cov	er	3 - Prevalence Index is ≤3.0 ¹			
Herb Stratum (Plot size: 5)			LIDI	4 - Morphological Adaptations ¹ (Provide supporting			
. Daucus carota			UPL	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)			
Dipsacus fullonum	20		FACU FACU				
Agrostis perennans Phleum pratense	<u>20</u> 10	Yes No	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
5. Solidago rugosa			FAC	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diamete			
Solidago canadensis	20	Yes	FACU				
z. Euthamia graminifolia			FAC	at breast height (DBH), regardless of height.			
•	5	<u> </u>	FACU	Sapling/shrub – Woody plants less than 3 in. DBH			
).				and greater than or equal to 3.28 ft (1 m) tall.			
0				Herb – All herbaceous (non-woody) plants, regardless of			
1				size, and woody plants less than 3.28 ft tall.			
2				Woody vines – All woody vines greater than 3.28 ft in height.			
		= Total Cov	er				
Voody Vine Stratum (Plot size:)							
·							
2				Hydrophytic Vegetation			
3				Present? Yes No X			
. <u> </u>							

SOIL Sampling Point: Upland PM-25,26

Profile Descr	iption: (Describe to	the dep	th needed to docun	nent the indi	cator o	r confirm	the absence	of indicators.)			
Depth (inches)	Matrix Color (moist)	%	Color (moist)	<u>x Features</u> <u>%</u> T	ype ¹	Loc ²	Texture	Remarks			
0 - 4	10YR 4/2	100					Silty loam				
-											
-											
-											
-											
-											
-											
-											
-											
-											
					 -						
¹Type: C=Co	 ncentration, D=Deple	etion. RM=	-Reduced Matrix. MS	======================================	nd Grai	ns.	2Location	: PL=Pore Lining, M=Matrix.			
Hydric Soil Ir		,						for Problematic Hydric Soils ³ :			
Histosol (A1) pedon (A2)		Polyvalue Belov MLRA 149B)		B) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)			
Black His			Thin Dark Surfa		R, MLI	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)			
	Sulfide (A4)		Loamy Mucky M		_RR K,	L)		Surface (S7) (LRR K, L, M)			
	Layers (A5) Below Dark Surface	(A11)	Loamy Gleyed Matrix					Polyvalue Below Surface (S8) (LRR K, L)Thin Dark Surface (S9) (LRR K, L)			
Thick Dar	rk Surface (A12)	,	Redox Dark Sur	face (F6)			Iron-Ma	anganese Masses (F12) (LRR K, L, R)			
	ucky Mineral (S1)		Depleted Dark S					Piedmont Floodplain Soils (F19) (MLRA 149B)			
	eyed Matrix (S4) edox (S5)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)				
-	Matrix (S6)							hallow Dark Surface (TF12)			
	face (S7) (LRR R, M	LRA 149E	3)					(Explain in Remarks)			
	hydrophytic vegetation		tland hydrology mus	t be present,	unless	disturbed	or problematic	: .			
Type: Roc	ayer (if observed):	X									
Depth (incl							Hydric Soil	Present? Yes No _X			
Remarks:	11C3)						Tiyane con	Tresent: Tes No			
T to mante.											





E Soil

Project/Site: Leroy Center-Mayfield 138 kV Tr	ransmission Line Projec City/C	County: Geauga County	Sampling Date: 08/03/2021
Applicant/Owner: FirstEnergy		State: OH	· -
Investigator(s): MJA			
Landform (hillslope, terrace, etc.): Hillside			Slope (%): ⁸
Subregion (LRR or MLRA): LRR R			
Soil Map Unit Name: RmB: Rawson silt loam,	2 to 6 percent slopes	NWI clas	ssification: N/A
Are climatic / hydrologic conditions on the site	typical for this time of year? Y	es X No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydro	logy significantly distur	bed? Are "Normal Circumstance	es" present? Yes X No
Are Vegetation, Soil, or Hydrol			
SUMMARY OF FINDINGS – Attach	site map showing san	npling point locations, transe	cts, important features, etc.
	s X No s X No s X No	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: Wetland	
Remarks: (Explain alternative procedures he PEM wetland in maintained powerline easem	, , ,		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary In	dicators (minimum of two required)
Primary Indicators (minimum of one is requir	ed; check all that apply)	Surface	Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leave	es (B9) Drainage	e Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)		m Lines (B16)
Saturation (A3)	Marl Deposits (B15)		son Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Od	or (C1) Crayfish	Burrows (C8)
Sediment Deposits (B2)	X Oxidized Rhizospher		on Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced		or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction		phic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (0	· · · —	Aquitard (D3)
Inundation Visible on Aerial Imagery (B7		· —	ographic Relief (D4)
Sparsely Vegetated Concave Surface (E			utral Test (D5)
Field Observations:	,		
Surface Water Present? Yes	No X Depth (inches):		
	No X Depth (inches):		
	No X Depth (inches):	Wetland Hydrology Pre	esent? Yes X No No
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, pre	vious inspections), if available:	
Remarks:			
Remarks.			

/EGETATION - Use scientific names of plants	S.			Sampling Point: Wetland PM-26		
Tree Stratum (Plot size:) 1)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)		
2				Total Number of Dominant Species Across All Strata: 3 (B)		
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:100% (A/B)		
6		-		Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
		= Total Cov	/er	OBL species105 x 1 =105		
Sapling/Shrub Stratum (Plot size: 15				FACW species35		
				FAC species1 x 3 =3		
2		-		FACU species15 x 4 =60		
3				UPL species 3 x 5 = 15 Column Totals: 159 (A) 253 (B)		
1				Column Totals: $\underline{\hspace{1cm}}$ 159 (A) $\underline{\hspace{1cm}}$ 253 (B) Prevalence Index = B/A = 1.59		
5						
6			· ——	Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation		
7				X 2 - Dominance Test is >50%		
_		= Total Cov	/er	X 3 - Prevalence Index is ≤3.0¹		
Herb Stratum (Plot size: 5)	40	Voo	OBL	4 - Morphological Adaptations ¹ (Provide supporting		
Carex vulpinoidea Scirpus cyperinus	40	Yes	OBL	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)		
		Yes				
3. Phalaris arundinacea	45		FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
4Juncus effusus		No	OBL			
5. Phleum pratense	15		FACU	Definitions of Vegetation Strata:		
5. Daucus carota	3	No	UPL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
7Apocynum cannabinum 8	1		FAC	Sapling/shrub – Woody plants less than 3 in. DBH		
9				and greater than or equal to 3.28 ft (1 m) tall.		
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
11				Woody vines – All woody vines greater than 3.28 ft in		
12				height.		
	159	= Total Cov	/er			
Woody Vine Stratum (Plot size:)						
1						
2	_			Hydrophytic Vegetation		
3				Present? Yes X No		
4.						
		= Total Cov	/er			
Remarks: (Include photo numbers here or on a separate				<u> </u>		
remarks. (molade priote numbers here of on a separate	2 311001.)					

SOIL Sampling Point: Wetland PM-26

Profile Desc	ription: (Describe t	o the dep	th needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)		
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	<u>s</u> _Type ¹	Loc ²	Texture	Remarks		
0 - 8	10YR 3/2	95	2.5YR 3/6	5	Concer	PL,M	Silty loam			
8 - 18	10YR 4/1	60	7.5YR 4/6	40	Concer	М	Sandy clay loam			
-										
-										
-										
¹Type: C=Co	oncentration, D=Deple	 etion RM-	-Reduced Matrix MS	——————————————————————————————————————	Sand Gra		² l ocation	: PL=Pore Lining, M=Matrix.		
Hydric Soil I		otion, reivi-	-reduced Matrix, Me)—IVIASKOC	TOATIG OT	ii 13.		for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Belov		(S8) (LRF	R,		Muck (A10) (LRR K, L, MLRA 149B)		
Histic Ep	ipedon (A2) stic (A3)		MLRA 149B) Thin Dark Surfa		RR R, ML	RA 149B		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)		
Hydroge	n Sulfide (A4)		Loamy Mucky N	lineral (F	1) (LRR K		Dark Surface (S7) (LRR K, L, M)			
	Layers (A5)	(444)	Loamy Gleyed I		2)			llue Below Surface (S8) (LRR K, L)		
	Below Dark Surface rk Surface (A12)	(A11)	Depleted Matrix X Redox Dark Sur	. ,				ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)		
	ucky Mineral (S1)		Depleted Dark S	. ,			Piedmont Floodplain Soils (F19) (MLRA 149B)			
	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)		
	edox (S5)							Red Parent Material (F21) Very Shallow Dark Surface (TF12)		
	Matrix (S6) face (S7) (LRR R, M	LRA 149E	3)					(Explain in Remarks)		
	hydrophytic vegetati	on and we	etland hydrology mus	t be prese	ent, unless	disturbed	or problemation	<u>></u> .		
	.ayer (if observed):									
Type: Depth (inc	shae).						Hydric Soil	Present? Yes X No No		
Remarks:							Hyuric 30ii	rieseitt: Tes NO		
rtomanto.										





Soil E





S W



Ν

Project/Site: Leroy Center-Ma	yfield 138 kV Trans	smission Line Projec City/C	County: Geauga County		Sampling Date: 08/04/2021		
Applicant/Owner: FirstEnergy					Sampling Point: Wetland PM-27		
• •		Section	on, Township, Range: N		_		
Landform (hillslope, terrace, et					Slone (%): 5		
Subregion (LRR or MLRA):	awson silt loam 2 t	_ Lat:to 6 percent slopes	Long:		Datum: WGS 1984		
Soil Map Unit Name: RmB: Ra							
Are climatic / hydrologic condit	ions on the site typ	pical for this time of year? Y	'es X No	(If no, explain in Re	emarks.)		
Are Vegetation, Soil	, or Hydrology	y significantly distur	bed? Are "Norma	al Circumstances" p	resent? Yes X No		
Are Vegetation, Soil	, or Hydrology	y naturally problema	atic? (If needed,	explain any answer	rs in Remarks.)		
SUMMARY OF FINDING	GS – Attach si	ite map showing san	npling point location	ons, transects,	, important features, etc.		
Hydrophytic Vegetation Prese	ent? Ves	X No	Is the Sampled Area				
Hydric Soil Present?		X No	within a Wetland?	YesX	No		
Wetland Hydrology Present?		X No	If yes, optional Wetlan	d Site ID: Wetland F	PM-27		
Remarks: (Explain alternative			ii yoo, optional trotian	<u> </u>			
PEM wetland in maintained prolygons.	owerline easement	t. Mowed ATV access patri	disects wettand, with ev	dence of occasions	a water overnow between		
HYDROLOGY							
Wetland Hydrology Indicate	ors:			Secondary Indicat	tors (minimum of two required)		
Primary Indicators (minimum	of one is required;	check all that apply)		Surface Soil (Cracks (B6)		
Surface Water (A1)		Water-Stained Leave	es (B9)	Drainage Pat	terns (B10)		
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Li			
Saturation (A3)		Marl Deposits (B15)			Vater Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Od		Crayfish Burr			
Sediment Deposits (B2)		X Oxidized Rhizospher	= : :		sible on Aerial Imagery (C9)		
Drift Deposits (B3)		Presence of Reduced	` '	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)		Recent Iron Reduction					
Iron Deposits (B5) Inundation Visible on Ae	rial Imagary (P7)	Thin Muck Surface (0	•	Shallow Aquit			
Sparsely Vegetated Con-	• • • •	Other (Explain in Rer	ilaiks)	X FAC-Neutral	phic Relief (D4)		
Field Observations:	Jave Surface (Bb)			A PAC-Neutiai	1651 (D3)		
Surface Water Present?	Ves No	X Depth (inches):					
Water Table Present?		X Depth (inches):					
Saturation Present?		X Depth (inches):	Wetland	Hydrology Presen	t? Yes X No		
(includes capillary fringe)				-	165 <u>X</u> 116		
Describe Recorded Data (stre	am gauge, monito	oring well, aerial photos, pre	evious inspections), if av	ailable:			
Remarks:							
itemarks.							

over OBL OBL FAC	Dominance Test worksheet:Number of Dominant Species That Are OBL, FACW, or FAC:2(A)Total Number of Dominant Species Across All Strata:2(B)Percent of Dominant Species That Are OBL, FACW, or FAC:1(A/BPrevalence Index worksheet:Total % Cover of:Multiply by:OBL species105x 1 = 105FACW species1x 2 = 2FAC species20x 3 = 60FACU species0x 4 = 0UPL species0x 5 = 0Column Totals:126(A)167Mydrophytic Vegetation Indicators:X1 - Rapid Test for Hydrophytic VegetationX2 - Dominance Test is >50%X3 - Prevalence Index is ≤3.0¹4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet)Problematic Hydrophytic Vegetation¹ (Explain)
over OBL OBL OBL	Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 1 (A/B Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 105 x 1 = 105 FACW species 1 x 2 = 2 FAC species 20 x 3 = 60 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 126 (A) 167 (B) Prevalence Index = B/A = 1.325396825; Hydrophytic Vegetation Indicators: $\frac{X}{X}$ 1 - Rapid Test for Hydrophytic Vegetation $\frac{X}{X}$ 2 - Dominance Test is >50% $\frac{X}{X}$ 3 - Prevalence Index is \leq 3.01 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
over OBL OBL OBL	That Are OBL, FACW, or FAC: $1 $
over OBL OBL OBL	Total % Cover of:Multiply by:OBL species 105 x 1 = 105 FACW species1x 2 = 2 FAC species 20 x 3 = 60 FACU species0x 4 = 0 UPL species0x 5 = 0 Column Totals: 126 (A) 167 Hydrophytic Vegetation Indicators: $\frac{X}{2}$ 1 - Rapid Test for Hydrophytic Vegetation $\frac{X}{2}$ 2 - Dominance Test is >50% $\frac{X}{2}$ 3 - Prevalence Index is ≤3.01 $\frac{X}{2}$ 4 - Morphological Adaptations1 (Provide supportin data in Remarks or on a separate sheet)
over OBL OBL OBL	OBL species 105 $\times 1 = 105$ FACW species 1 $\times 2 = 2$ FAC species 20 $\times 3 = 60$ FACU species 0 $\times 4 = 0$ UPL species 0 $\times 5 = 0$ Column Totals: 126 (A) 167 (B) Prevalence Index $= B/A = 1.325396825$ Hydrophytic Vegetation Indicators: $\frac{X}{2} = 1.325396825$ $\frac{X}{2} = 1.325396825$ Hydrophytic Vegetation Indicators: $\frac{X}{2} = 1.325396825$ $\frac{X}{2} = 1.325396825$ Hydrophytic Vegetation Indicators: $\frac{X}{2} = 1.325396825$ $\frac{X}{2} = 1.325396825$ Hydrophytic Vegetation Indicators: $\frac{X}{2} = 1.325396825$ $\frac{X}{2} = 1.325396825$ Hydrophytic Vegetation Indicators: $\frac{X}{2} = 1.325396825$ $\frac{X}{2} = 1.325396825$ Hydrophytic Vegetation Indicators: $\frac{X}{2} = 1.325396825$ $\frac{X}{2} = 1.325396825$ Hydrophytic Vegetation Indicators: $\frac{X}{2} = 1.325396825$ $\frac{X}{2} = 1.325396825$ Hydrophytic Vegetation Indicators: $\frac{X}{2} = 1.325396825$ $\frac{X}{2} = 1.325396825$ Hydrophytic Vegetation Indicators: $\frac{X}{2} = 1.325396825$ $\frac{X}{2} = 1.325396825$
over OBL OBL OBL	FACW species $\frac{1}{20}$ $\times 2 = \frac{2}{60}$ FAC species $\frac{20}{0}$ $\times 3 = \frac{60}{0}$ FACU species $\frac{0}{0}$ $\times 4 = \frac{0}{0}$ UPL species $\frac{0}{0}$ $\times 5 = \frac{0}{0}$ Column Totals: $\frac{126}{0}$ (A) $\frac{167}{0}$ (B) Prevalence Index $= B/A = \frac{1.325396825}{0}$ Hydrophytic Vegetation Indicators: $\frac{X}{0} = \frac{1}{0} = $
OBL OBL	FAC species 20 $x 3 = 60$ FACU species 0 $x 4 = 0$ UPL species 0 $x 5 = 0$ Column Totals: 126 (A) 167 (B) Prevalence Index = B/A = 1.325396825 ; Hydrophytic Vegetation Indicators: $\frac{X}{2}$ 1 - Rapid Test for Hydrophytic Vegetation $\frac{X}{2}$ 2 - Dominance Test is >50% $\frac{X}{2}$ 3 - Prevalence Index is $\le 3.0^1$ $\frac{X}{2}$ 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
OBL OBL	FACU species 0 $x = 4$ 0 0 0 0 0 0 0 0 0 0
OBL OBL OBL	UPL species 0 $x = 0$ 126 0 0 0 0 0 0 0 0 0 0
OBL OBL OBL	Column Totals:126 (A)167 (B) Prevalence Index = B/A =1.325396825; Hydrophytic Vegetation Indicators: X
OBL OBL	Prevalence Index = B/A = 1.325396825; Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet)
OBL OBL	Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet)
OBL OBL	 X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet)
OBL OBL	 X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet)
OBL OBL	 X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet)
OBL OBL	4 - Morphological Adaptations ¹ (Provide supportin data in Remarks or on a separate sheet)
OBL OBL	data in Remarks or on a separate sheet)
OBL OBL	·
OBL	
	Indicators of hydric soil and watland hydrology must
	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
OBL	Definitions of Vegetation Strata:
OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diamete
_	at breast height (DBH), regardless of height.
	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
_	Herb – All herbaceous (non-woody) plants, regardless of
	size, and woody plants less than 3.28 ft tall.
	Woody vines – All woody vines greater than 3.28 ft in
	height.
over	
	Hydrophytic
	Vegetation
	Present? Yes X No
over	
	Diver

SOIL Sampling Point: Wetland PM-27

Profile Desc	ription: (Describe t	o the depth	needed to docur	ment the i	ndicator o	or confirm	the absence	of indicators.)
Depth (in the set)	Matrix			x Features	<u>3</u>	12	T	Damadu
(inches)	Color (moist)	<u>%</u> _	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 10	10YR 3/2	95	5YR 4/4	5	Concer	PL_	Silt	
-								
-								
-								
-								
-								
-								
1- 0.0							21	B. B. III.
Hydric Soil I	ncentration, D=Depl	etion, RM=F	Reduced Matrix, M	S=Masked	Sand Gra	iins.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	w Surface	(S8) (I DD	D		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	_	MLRA 149B		(OO) (EIVIV	. 11,		Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	n Sulfide (A4)	_	Loamy Mucky N			L)	Dark S	Surface (S7) (LRR K, L, M)
	Layers (A5)	_	_ Loamy Gleyed)		-	lue Below Surface (S8) (LRR K, L)
-	Below Dark Surface		Depleted Matrix					ark Surface (S9) (LRR K, L)
	rk Surface (A12)		Redox Dark Su		7)			anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1) leyed Matrix (S4)	_	Depleted Dark :Redox Depress		/)			ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)	_	Redox Depress	sions (1 0)				arent Material (F21)
	Matrix (S6)							hallow Dark Surface (TF12)
	face (S7) (LRR R, M	LRA 149B)						(Explain in Remarks)
	hydrophytic vegetati		and hydrology mus	st be prese	nt, unless	disturbed	or problematio	5.
	ayer (if observed):	X						
Type: Ro								
Depth (inc	:hes): <u>10</u>						Hydric Soil	Present? Yes X No No
Remarks:								





E





S W



Soil

Project/Site: Leroy Center-Mayfield 138 kV Trans	smission Line Projec City/County	: Geauga County	Sampling Date: 08/04/2021			
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-27			
Investigator(s): MJA	Section, To					
Landform (hillslope, terrace, etc.): Hillside			Slope (%): ¹⁰			
Subregion (LRR or MLRA). LRR R	Natum: WGS 1984					
Subregion (LRR or MLRA): LRR R Soil Map Unit Name: RmB: Rawson silt loam, 2 t	o 6 percent slopes	NWI clas	sification: N/A			
Are climatic / hydrologic conditions on the site typ						
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstance	es" present? Yes X No			
Are Vegetation, Soil, or Hydrology		(If needed, explain any ans				
SUMMARY OF FINDINGS – Attach si	te map showing samplir	g point locations, transe	cts, important features, etc.			
1		ne Sampled Area nin a Wetland? Yes	No			
		es, optional Wetland Site ID: Uplar	nd PM-27			
HYDROLOGY						
Wetland Hydrology Indicators:			dicators (minimum of two required)			
Primary Indicators (minimum of one is required;			Soil Cracks (B6)			
Surface Water (A1)	Water-Stained Leaves (B9		Patterns (B10)			
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)	·	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (C		Burrows (C8)			
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres onPresence of Reduced Iron		n Visible on Aerial Imagery (C9) or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Reduction in T		phic Position (D2)			
/ Iron Deposits (B5)	Thin Muck Surface (C7)	, ,	Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks		ographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)			utral Test (D5)			
Field Observations:			. ,			
Surface Water Present? Yes No _	X Depth (inches):					
Water Table Present? Yes No _	X Depth (inches):					
(includes capillary fringe)	X Depth (inches):	Wetland Hydrology Pre	sent? Yes No _X			
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous	inspections), if available:				
Remarks:						

Tree Stratum (Plot size:30)	Absolute	Dominant Species?		Dominance Test worksheet:
1			-	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				(1)
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
5				(***)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	ver	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species x z =
1				FACUL species 25 x 3 = 75 460
2				raco species x 4 =
3				01 L 3pccic3 X 0 =
4				Column Totals:140 (A)535 (B)
5				Prevalence Index = B/A = 3.821428571
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:5				3 - Prevalence Index is ≤3.0 ¹
1. Andropogon virginicus	35	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Poa annua	55	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Plantago lanceolata		·	FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Potentilla gracilis	0.5	<u> </u>	FAC	be present, unless disturbed or problematic.
5. Rubus allegheniensis	_		FACU	Definitions of Vegetation Strata:
-			17100	_
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7				
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11		-		Woody vines – All woody vines greater than 3.28 ft in
12				height.
	140	= Total Cov	ver	
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic
3				Vegetation Present? Yes No X
4.				
T-		= Total Cov		
Remarks: (Include photo numbers here or on a separate	sheet)	= 10tal C0	vei	
Tromano. (monade priote nambers here of on a separate	Siloct.)			

Sampling Point: Upland PM-27

SOIL Sampling Point: Upland PM-27

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo:	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 8	10YR 4/3	98	5YR 4/6	2	Concer	М	Silty loam	
-								
-								
-								
¹ Type: C=Co	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	v Surface	(S8) (I RE	P R		Muck (A10) (LRR K, L, MLRA 149B)
	oipedon (A2)		MLRA 149B)		(00) (Litti	,		Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa	ce (S9) (L	RR R, MI	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	n Sulfide (A4)		Loamy Mucky N	1ineral (F	I) (LRR K	, L)	Dark S	surface (S7) (LRR K, L, M)
Stratified	l Layers (A5)		Loamy Gleyed I	Matrix (F2)		Polyva	lue Below Surface (S8) (LRR K, L)
Depleted	d Below Dark Surface	(A11)	Depleted Matrix	(F3)			Thin Da	ark Surface (S9) (LRR K, L)
Thick Da	ark Surface (A12)		Redox Dark Sur	face (F6)			Iron-Ma	anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark S	Surface (F	7)		Piedmo	ont Floodplain Soils (F19) (MLRA 149B)
Sandy G	lleyed Matrix (S4)		Redox Depress	ions (F8)			Mesic S	Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy R	edox (S5)						Red Pa	arent Material (F21)
Stripped	Matrix (S6)						Very S	hallow Dark Surface (TF12)
Dark Sui	rface (S7) (LRR R, M	LRA 149B)				Other ((Explain in Remarks)
	hydrophytic vegetati		tland hydrology mus	t be prese	ent, unless	disturbed	or problematic) .
	ayer (if observed):	X						
Type: Ro							Uhadala Oali	Process No. V
Depth (inc	cnes): o						Hydric Soil	Present? Yes NoX
Remarks:								





Soil E

Project/Site: Leroy Center-May	yfield 138 kV Tr	ansmissio	n Line Projec City/C	County: Geau	iga County		Sampling Date: 08/04/202	21
Applicant/Owner: FirstEnergy				- -			Sampling Point: Wetland	
Investigator(s): MJA			Section	on, Township				
Landform (hillslope, terrace, etc					-	Concave	Slope (%): 8	
Subregion (LRR or MLRA): LR								
Soil Map Unit Name: CyF: Chi	li-Oshtemo com	plex, 25 to	50 percent slopes			NWI classificat	tion:_N/A	
Are climatic / hydrologic conditi	ons on the site	typical for	this time of year? Y	res X N	No (If n	o, explain in Rei	marks.)	
Are Vegetation, Soil	, or Hydrol	ogy	significantly distur	rbed?	Are "Normal Cir	cumstances" pre	esent? Yes X No	
Are Vegetation, Soil						ain any answers		
SUMMARY OF FINDING	GS – Attach	site ma	p showing san	npling poi	nt locations	, transects,	important features	, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?	Yes	s <u>X</u>	No No		etland?	Yes X e ID: Wetland P	=	
Remarks: (Explain alternative PEM wetland fringe adjacent to the period of the period								
HYDROLOGY								
Wetland Hydrology Indicato	ors:				Sec	condary Indicato	ors (minimum of two requi	red)
Primary Indicators (minimum		ed; check a	all that apply)			Surface Soil C		
X Surface Water (A1)		W	Vater-Stained Leave	es (B9)		Drainage Patte		
X High Water Table (A2)			quatic Fauna (B13)			Moss Trim Line		
X Saturation (A3)			farl Deposits (B15)				ater Table (C2)	
Water Marks (B1)			lydrogen Sulfide Od	for (C1)	<u></u>	Crayfish Burro	ws (C8)	
Sediment Deposits (B2)		<u>x</u> 0	xidized Rhizospher	es on Living F	Roots (C3)	Saturation Visi	ble on Aerial Imagery (CS))
Drift Deposits (B3)		P	resence of Reduced	d Iron (C4)		Stunted or Stre	essed Plants (D1)	
Algal Mat or Crust (B4)			ecent Iron Reduction		ils (C6) <u>X</u>	Geomorphic P	osition (D2)	
Iron Deposits (B5)		т	hin Muck Surface (0	C7)		Shallow Aquita	ard (D3)	
Inundation Visible on Aer	ial Imagery (B7) 0	ther (Explain in Rer	marks)		Microtopograp	hic Relief (D4)	
Sparsely Vegetated Cond	cave Surface (B	8)			X	FAC-Neutral T	est (D5)	
Field Observations:								
Surface Water Present?			Depth (inches):	1				
Water Table Present?	Yes X N	lo [Depth (inches):	0				
Saturation Present? (includes capillary fringe)		·	Depth (inches):	0	-		? Yes <u>X</u> No	
Describe Recorded Data (stre	am gauge, mor	nitoring we	ell, aerial photos, pre	evious inspect	tions), if availab	le:		
Remarks:								
I								

/EGETATION – Use scientific names of plants				Sampling Point: Wetland PM-2		
Tree Stratum (Plot size:)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species		
1				That Are OBL, FACW, or FAC: 2 (A)		
2				Total Number of Dominant Species Across All Strata: 2 (B)		
3				(2)		
4				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)		
5						
6				Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
		= Total Cove	er	OBL species 110 x 1 = 110 EACW species 26 x 2 = 52		
Sapling/Shrub Stratum (Plot size: 15)				racw species xz =		
1				FAC species 0 x 3 = 0 FACU species 0 x 4 = 0		
2				UPL species 0 x 5 = 0		
3				Column Totals: 136 (A) 162 (B)		
4				4.4044704704		
5				Prevalence Index = B/A = 1.191176470!		
6				Hydrophytic Vegetation Indicators:		
7				X 1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cove		X 2 - Dominance Test is >50%		
Herb Stratum (Plot size: 5)				X 3 - Prevalence Index is ≤3.0 ¹		
1. Carex lurida	50	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2. Typha latifolia	20	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)		
3. Schoenoplectus tabernaemontani	10	No	OBL	¹ Indicators of hydric soil and wetland hydrology must		
4Impatiens capensis	10	No	FACW	be present, unless disturbed or problematic.		
5. Leersia oryzoides	30	Yes	OBL	Definitions of Vegetation Strata:		
6 Dichanthelium clandestinum	5	No	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
7. Onoclea sensibilis	10	No	FACW	at breast height (DBH), regardless of height.		
8. Eupatorium perfoliatum 9.	1	No	FACW	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
10				Herb – All herbaceous (non-woody) plants, regardless of		
11				size, and woody plants less than 3.28 ft tall.		
12				Woody vines – All woody vines greater than 3.28 ft in height.		
		= Total Cove	er	neight.		
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic Vegetation		
3				Present? Yes X No		
4						
		= Total Cove	er			
Remarks: (Include photo numbers here or on a separate		= Total Cove	er			

SOIL Sampling Point: Wetland PM-28

Depth	Matrix Color (moist)	%	Color (moist)	x Features %	Type ¹	_Loc ²	Texture	Remarks
(inches) 0 - 14	10YR 3/1	90	2.5YR 3/4		Concer	PL,M	Silt	Remarks
14 - 18	Gley 1 10Y 2.5/1	100					Silt	Sandy
-								
-								
						-		
-								
-								
-								
-								
-								
ype: C=Co		etion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
_ Histosol			Polyvalue Belov	v Surface (S8) (LRF	R,		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		MLRA 149B)					Prairie Redox (A16) (LRR K, L, R)
_ Black His			Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4) Layers (A5)		Loamy Mucky M Loamy Gleyed M		(LKK K	, ∟)		furface (S7) (LRR K, L, M) lue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
	rk Surface (A12)	(,)	X Redox Dark Sur					anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark S		')			ont Floodplain Soils (F19) (MLRA 149E
_ Sandy G	leyed Matrix (S4)		Redox Depressi	ions (F8)			Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							arent Material (F21)
	Matrix (S6)		_,					hallow Dark Surface (TF12)
_ Dark Sur	face (S7) (LRR R, M	LRA 149	В)				Other ((Explain in Remarks)
		on and w	etland hydrology mus	t be preser	nt, unless	disturbed	or problematio	S
Type:	.ayer (if observed):							
Depth (inc	ches):		•				Hydric Soil	Present? Yes X No No
emarks:	,		•				,	





Soil W





E N



Project/Site: Leroy Center-Mayfield 138 kV Trans	smission Line Projec City/County: Gea	uga County	Sampling Date: 08/04/2021		
Applicant/Owner: FirstEnergy	· ·		Sampling Point: Upland PM-28,29		
Investigator(s): MJA	Section, Township				
Landform (hillslope, terrace, etc.): Hillside			Slope (%): ³⁵		
Subregion (LRR or MLRA): LRR R					
Soil Map Unit Name: Ho: Holly silt loam, frequent	ly flooded	NWI classific	eation: N/A		
Are climatic / hydrologic conditions on the site typi	ical for this time of year? Yes X	No (If no, explain in R	emarks.)		
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" r	present? Yes X No		
Are Vegetation, Soil, or Hydrology		(If needed, explain any answe			
SUMMARY OF FINDINGS – Attach si	te map showing sampling poi	int locations, transects	, important features, etc.		
	NoX		No		
Wetland Hydrology Present? Yes		onal Wetland Site ID: Upland P	PM-28,29		
LIVEROLOGY.					
HYDROLOGY		0	(1 (1		
Wetland Hydrology Indicators:		<u>- </u>	ators (minimum of two required)		
Primary Indicators (minimum of one is required;		Surface Soil Cracks (B6) Drainage Patterns (B10)			
Surface Water (A1)	Water-Stained Leaves (B9)	- ' '			
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)			
Saturation (A3) Water Marks (B1)	Marl Deposits (B15)Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2) Crayfish Burrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres on Living		isible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced Iron (C4)		tressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqui	, ,		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopogra			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral			
Field Observations:					
Surface Water Present? Yes No _	X Depth (inches):				
Water Table Present? Yes No _	X Depth (inches):				
(includes capillary fringe)	X Depth (inches):	Wetland Hydrology Presen	nt? Yes NoX		
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspec	tions), if available:			
Remarks:					

Trop Stratum (Diet size) 30	Absolute	Dominant		Dominance Test worksheet:		
Tree Stratum (Plot size:) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)		
2				Total Number of Dominant		
3				Species Across All Strata: 4 (B)		
4				Percent of Deminant Species		
5				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)		
6				Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
_		= Total Cov	er	OBL species $\frac{23}{0}$ $\times 1 = \frac{23}{0}$		
Sapling/Shrub Stratum (Plot size: 15)				FACW species X Z = 0		
1Rosa multiflora	5	Yes	FACU	X 3 =		
2				1 ACO species		
3				UPL species 0 x 5 = 0 Column Totals: 138 (A) 458 (B)		
4				Column Totals (A) (B)		
5				Prevalence Index = B/A = 3.3188405797		
6				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cov	or	2 - Dominance Test is >50%		
Herb Stratum (Plot size:5		- 10tai 00v	OI .	3 - Prevalence Index is ≤3.0 ¹		
1. Solidago rugosa	15	No	FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2. Solidago canadensis	45	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)		
3. Dipsacus fullonum			FACU	¹ Indicators of hydric soil and wetland hydrology must		
4. Juncus effusus			OBL	be present, unless disturbed or problematic.		
5. Euthamia graminifolia	10	No	FAC	Definitions of Vegetation Strata:		
	5	No No	OBL	_		
_				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
7. Poa annua			FACU			
8. Scirpus cyperinus			OBL	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
9				Herb – All herbaceous (non-woody) plants, regardless of		
10				size, and woody plants less than 3.28 ft tall.		
11				Woody vines – All woody vines greater than 3.28 ft in		
12	-			height.		
	133	= Total Cov	er			
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic Vegetation		
3				Present? Yes No X		
4.						
		= Total Cov	er			
Remarks: (Include photo numbers here or on a separate						
·	,					

Sampling Point: Upland PM-28,29

SOIL Sampling Point: Upland PM-28,29

Profile Description: (Describe to the de			or or confirm	the absence	of indicators.)
Depth Matrix		ox Features	_12	T	Demodus
(inches) Color (moist) %	Color (moist)	% Typ	e ¹ Loc ²	<u>Texture</u>	Remarks
0 - 18 10YR 4/3 100				Silty loam	
-					
-					
				-	·
-					
-					
				-	·
-					
-					
				-	·
	·				
-					
-					
17 00 17 00 17				21	
¹ Type: C=Concentration, D=Depletion, RN Hydric Soil Indicators :	I=Reduced Matrix, M	S=Masked Sand	Grains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Relo	w Surface (S8) (DD D		luck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B		_IXIX IX,		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)		, ace (S9) (LRR R	, MLRA 149B		flucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)		Mineral (F1) (LR	R K, L)	Dark S	urface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed			-	lue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matri				ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Su	, ,			anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Depleted Dark Redox Depress				ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)	Redox Depress	510113 (1 0)			arent Material (F21)
Stripped Matrix (S6)					hallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149)B)				Explain in Remarks)
³ Indicators of hydrophytic vegetation and w	etland hydrology mu	st be present, un	less disturbed	or problemation	<u>. </u>
Restrictive Layer (if observed):					
Type:	-				
Depth (inches):	=			Hydric Soil	Present? Yes NoX
Remarks:					





Soil W

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec C	Sity/County: Geauga County Sampling Date: 08/04/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Wetland PM-29
Investigator(s): MJA S	Section, Township, Range:_N/A
	al relief (concave, convex, none): Concave Slope (%): 2
Subregion (LRR or MLRA); LRR R Lat: 41.5511351833	3332 Long: -81.28464521666668 Datum: WGS 1984
Soil Map Unit Name: Ho: Holly silt loam, frequently flooded	NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year	r? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly d	listurbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally prob	olematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report.	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: Wetland PM-29 .)
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Le	
High Water Table (A2) Aquatic Fauna (B	
Saturation (A3) Marl Deposits (B	
Water Marks (B1) Hydrogen Sulfide Sediment Deposits (B2) X Oxidized Rhizos	
	pheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) luced Iron (C4) Stunted or Stressed Plants (D1)
	uction in Tilled Soils (C6) X Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surfac	
Indit Deposits (B5) Thirt Muck Surface Inundation Visible on Aerial Imagery (B7) Other (Explain in	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	A TAC-Neutral Test (DS)
Surface Water Present? Yes No _X _ Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes No _X Depth (inches):	
(includes capillary fringe)	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos	, previous inspections), if available:
Domorko	
Remarks:	

Tree Stratum (Diet size: 30	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:1 (A/B)
6				
7				Prevalence Index worksheet:
·				Total % Cover of: Multiply by: OBL species 101 x 1 = 101
Ocalica (Obsub Ocalesa (District		= Total Cov	ei	OBL species x 1 = 101 FACW species 45 x 2 = 90
Sapling/Shrub Stratum (Plot size: 15)				FAC species 5 x 3 = 15
1				FACU species3 x 4 =12
2				UPL species 0 x 5 = 0
3				Column Totals: 154 (A) 218 (B)
4				Prevalence Index - B/A - 1.415584415
5				Prevalence Index = B/A = 1.415584415:
6				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	er	X 2 - Dominance Test is >50%
Herb Stratum (Plot size:5				X 3 - Prevalence Index is ≤3.0¹
1Carex lurida	15	No	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Typha latifolia	50	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Leersia oryzoides	20	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must
4 Phalaris arundinacea	15	No	FACW	be present, unless disturbed or problematic.
5. Onoclea sensibilis	20	Yes	FACW	Definitions of Vegetation Strata:
6. Impatiens capensis	10	No	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. Symplocarpus foetidus	1	No	OBL	at breast height (DBH), regardless of height.
8. Juncus effusus			OBL	Sapling/shrub – Woody plants less than 3 in. DBH
9. Scirpus atrovirens	_		OBL	and greater than or equal to 3.28 ft (1 m) tall.
10. Euthamia graminifolia			FAC	Herb – All herbaceous (non-woody) plants, regardless of
51 (#	3	No	FACU	size, and woody plants less than 3.28 ft tall.
		INU	1 700	Woody vines – All woody vines greater than 3.28 ft in
12	151			height.
20	154	= Total Cov	er	
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
2				Vegetation
3				Present? Yes X No
4				
		= Total Cov	er	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: Wetland PM-29

SOIL Sampling Point: Wetland PM-29

Profile Description: (Describe to the d	epth needed to docur	nent the i	ndicator c	or confirm	n the absence	of indicators.)
Depth Matrix		x Features	<u>S</u>	1 a a ²	Toyeturo	Domostro
(inches) Color (moist) %	Color (moist)	<u> </u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 18 10YR 3/2 90	2.5YR 3/6	10	Concer	PL	Silty loam	
-						
-						
-						
-						
	_					
-						
-						
-						
-						
17 00 17 00 17					21	BL B. III WAR
¹ Type: C=Concentration, D=Depletion, R Hydric Soil Indicators:	M=Reduced Matrix, M	S=Masked	Sand Gra	iins.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belov	w Surface	(S8) (I DD	D		Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B		(30) (LIXIX	. IX,		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa		.RR R, ML	.RA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky N					Surface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed)		-	llue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	X Redox Dark Su	, ,	7)			anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Depleted Dark		7)			ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)	Redox Depress	10113 (1 0)				arent Material (F21)
Stripped Matrix (S6)						Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 14	9B)					(Explain in Remarks)
³ Indicators of hydrophytic vegetation and	wetland hydrology mus	st be prese	ent, unless	disturbed	or problemation	S
Restrictive Layer (if observed):						
Type:						
Depth (inches):	_				Hydric Soil	Present? Yes X No No
Remarks:						





Soil S





N W



Ε

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec C	ity/County: Geauga County	Sampling Date: 08/04/2021				
Applicant/Owner: FirstEnergy		Sampling Point: Wetland PM-30				
Investigator(s): MJA S	ection, Township, Range: N/A					
Landform (hillslope, terrace, etc.): Lowland Loca		Slope (%): ²				
Subregion (LRR or MLRA):LRR R Lat:41.55045208333						
Soil Map Unit Name: CnB: Chili loam, 2 to 6 percent slopes	NWI classific	cation: N/A				
Are climatic / hydrologic conditions on the site typical for this time of year	r? Yes X No (If no, explain in R	Remarks.)				
Are Vegetation, Soil, or Hydrology significantly di	isturbed? Are "Normal Circumstances" p	present? Yes X No				
Are Vegetation, Soil, or Hydrology naturally prob		·				
SUMMARY OF FINDINGS – Attach site map showing s	sampling point locations, transects	s, important features, etc.				
Hydrophytic Vegetation Present? YesX No Hydric Soil Present? YesX No Wetland Hydrology Present? YesX No	Is the Sampled Area within a Wetland? Yes Wetland					
Wetland Hydrology Present? YesX No Remarks: (Explain alternative procedures here or in a separate report.	If yes, optional Wetland Site ID: Wetland	F IVI-30				
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indica	ators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil					
Surface Water (A1) Water-Stained Le						
High Water Table (A2) Aquatic Fauna (B		Moss Trim Lines (B16)				
Saturation (A3) Marl Deposits (B)		Noss Till Liles (B10) Dry-Season Water Table (C2)				
Water Marks (B1) Hydrogen Sulfide						
		isible on Aerial Imagery (C9)				
Drift Deposits (B3) Presence of Red	uced Iron (C4) Stunted or S	tressed Plants (D1)				
Algal Mat or Crust (B4) Recent Iron Redu	uction in Tilled Soils (C6) X Geomorphic	Position (D2)				
Iron Deposits (B5) Thin Muck Surface	ce (C7) Shallow Aqu	itard (D3)				
Inundation Visible on Aerial Imagery (B7) Other (Explain in	Remarks) Microtopogra	aphic Relief (D4)				
X Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral	Test (D5)				
Field Observations:						
Surface Water Present? Yes No _X Depth (inches):						
Water Table Present? Yes NoX Depth (inches):						
Saturation Present? Yes No _X _ Depth (inches): (includes capillary fringe)	Wetland Hydrology Preser	nt? Yes <u>X</u> No				
Describe Recorded Data (stream gauge, monitoring well, aerial photos	, previous inspections), if available:					
Demodes						
Remarks:						
1						

/EGETATION – Use scientific names of plants	S.	Sampling Point: Wetland PM-30
<u>Tree Stratum</u> (Plot size:) 1)	Absolute Dominant Ind % Cover Species? S	
2		Total Number of Dominant
4 5		Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
	= Total Cover	OBL species x 1 = 130
Sapling/Shrub Stratum (Plot size: 15)		FACW species $0 \times 2 = 0$
1		
2	<u> </u>	FACU species x 4 =
3		VI E SPECICS X 3 =
4		Column Totals:130 (A)130 (B)
5		Prevalence Index = B/A = 1
6		Hydrophytic Vegetation Indicators:
		X 1 - Rapid Test for Hydrophytic Vegetation
7		X 2 - Dominance Test is >50%
	= Total Cover	$\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^1$
Herb Stratum (Plot size:5 1 Persicaria sagittata	30 Yes	OBL 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2Carex lurida	40Yes	OBL Problematic Hydrophytic Vegetation ¹ (Explain)
3Scirpus cyperinus 4		OBL Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_		Definitions of Vegetation Strata:
5		
6 7		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8 9.		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10		Herb – All herbaceous (non-woody) plants, regardless of
11		size, and woody plants less than 3.28 ft tall.
12.		Woody vines – All woody vines greater than 3.28 ft in
12	= Total Cover	height.
30	= Total Cover	
Woody Vine Stratum (Plot size:30)		
1		Hydrophytic
2	 	Vegetation
3		Present? Yes X No
4		
	= Total Cover	
Remarks: (Include photo numbers here or on a separate	e sheet.)	

SOIL Sampling Point: Wetland PM-30

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Feature %	<u>s</u> _Type ¹	Loc ²	Texture	Remarks	
0 - 3	10YR 3/2	95	5YR 4/6	5	Concer	PL	Silty loam	Gravely. Soil appears to be recoveri	
3 - 18	10YR 3/2	30	5YR 4/6	15	Concer	PL,M	Silty clay loam	Gravely	
3 - 18	10YR 4/3	55					Silty clay loam		
-									
-									
-									
-									
-									
-									
-									
¹ Type: C=Co	ncentration, D=Deple	etion, RM	=Reduced Matrix, MS	======================================	Sand Gra	ains.	² Location:	: PL=Pore Lining, M=Matrix.	
Hydric Soil I		,	,					for Problematic Hydric Soils ³ :	
Histosol	(A1) ipedon (A2)		Polyvalue Belov		(S8) (LRF	RR,		luck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)	
Black His			Thin Dark Surfa		RR R, ML	RA 149B)		flucky Peat or Peat (S3) (LRR K, L, R)	
Hydrogei	n Sulfide (A4)		Loamy Mucky N	/lineral (F	1) (LRR K		Dark Surface (S7) (LRR K, L, M)		
	Layers (A5)	(8.4.4)	Loamy Gleyed I		2)		Polyvalue Below Surface (S8) (LRR K, L)		
	Below Dark Surface rk Surface (A12)	(A11)	Depleted Matrix X Redox Dark Sur				Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)		
	ucky Mineral (S1)		Depleted Dark S	. ,			Piedmont Floodplain Soils (F19) (MLRA 149B)		
	leyed Matrix (S4)		Redox Depress		.,		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
	edox (S5)						Red Parent Material (F21)		
	Matrix (S6)						Very Shallow Dark Surface (TF12)		
Dark Sur	face (S7) (LRR R, M	LRA 149	B)				Other (Explain in Remarks)	
		on and w	etland hydrology mus	t be prese	ent, unless	disturbed	or problematic		
	ayer (if observed):								
Type: Depth (inc	:hes):						Hvdric Soil	Present? Yes X No No	
Remarks:							,		





N E





S W



Soil

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Pr	ojec City/County: Geauga Cou	inty S	ampling Date: 08/04/2021			
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-30			
Investigator(s): MJA	Section, Township, Range					
Landform (hillslope, terrace, etc.): Shoulder slope	· · · · · · · · · · · · · · · · · · ·		Slope (%): 10			
Subregion (LRR or MLRA): LRR R Lat: 41.55046						
Soil Map Unit Name: CnB: Chili loam, 2 to 6 percent slopes		NWI classificati	on: N/A			
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X No	(If no, explain in Rem	narks.)			
Are Vegetation X, Soil , or Hydrology signific	antly disturbed? Are "No	rmal Circumstances" pre	sent? Yes X No			
Are Vegetation, Soil, or Hydrology natural		ed, explain any answers				
SUMMARY OF FINDINGS – Attach site map show	ving sampling point loc	ations, transects, i	mportant features, etc.			
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No			No			
Wetland Hydrology Present? Yes No No	X If yes, ontional Wes	land Site ID: Upland PM-	-30			
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indicator	s (minimum of two required)			
Primary Indicators (minimum of one is required; check all that ap	oply)	Surface Soil Cra	acks (B6)			
Surface Water (A1) Water-Sta	ined Leaves (B9)	Drainage Patter	rns (B10)			
High Water Table (A2) Aquatic Fa		Moss Trim Lines (B16)				
Saturation (A3) Marl Depo	sits (B15)	Dry-Season Water Table (C2)				
	Sulfide Odor (C1)	Crayfish Burrows (C8)				
	Rhizospheres on Living Roots (ole on Aerial Imagery (C9)			
	of Reduced Iron (C4)		ssed Plants (D1)			
	on Reduction in Tilled Soils (C6)					
Iron Deposits (B5) Thin Muck Inundation Visible on Aerial Imagery (B7) Other (Ex	` '	Shallow Aquitar Microtopograph				
Sparsely Vegetated Concave Surface (B8)	olain in Remarks)	FAC-Neutral Te				
Field Observations:		1 AC-Neutral 16	(00)			
Surface Water Present? Yes No _X _ Depth (in	ches).					
Water Table Present? Yes No _X Depth (in	· ·					
Saturation Present? Yes No X Depth (in (includes capillary fringe)		nd Hydrology Present?	Yes NoX			
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if	available:				
Remarks:						
Remarks.						

Trop Stratum (Diet size: 30	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:) 1		Species?		Number of Dominant Species That Are OBL FACW, or FAC: 0 (A)
				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant Species Across All Strata: 3 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
5				
6				Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
		= Total Cov	er	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species 0 x 2 = 0
1. Rubus allegheniensis	15	Yes	FACU	FAC species0 x 3 =0
2		-		FACU species
3				01 L 3pccic3 X 0 =
4				Column Totals:180 (A)720 (B)
5				Prevalence Index = B/A = 4
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov		2 - Dominance Test is >50%
Herb Stratum (Plot size:5		_ 10tal 00V	OI .	3 - Prevalence Index is ≤3.0 ¹
1. Schedonorus arundinaceus	35	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Dactylis glomerata			FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Poa annua			FACU	¹ Indicators of hydric soil and wetland hydrology must
Trifolium rango	4.5		FACU	be present, unless disturbed or problematic.
· · · · · · · · · · · · · · · · · · ·	<u> </u>	•	FACU	Definitions of Vegetation Strata:
5. Plantago lanceolata		No No	FACU	_
6. Phytolacca americana	5	No		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7. Solidago canadensis	30	No	FACU	
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10		-		size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	165	= Total Cov	er	
Woody Vine Stratum (Plot size: 30)				
1				
2				Hydrophytic
3				Vegetation Present? Yes No X
4.				
		= Total Cov	er	
Remarks: (Include photo numbers here or on a separate	sheet.)			
	,			

Sampling Point: Upland PM-30

SOIL Sampling Point: Upland PM-30

Profile Desc	ription: (Describe t	o the dep	th needed to docun	nent the indicat	or or confirm	the absence	of indicators.)	
Depth	Matrix			x Features	1 2			
(inches)	Color (moist)	%	Color (moist)	% Type	e ¹ Loc ²	<u>Texture</u>	R	emarks
0 - 12	10YR 4/3	100				Silty loam		
-								
-								
-								
-								
-								
¹ Type: C=Co	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked Sand	Grains.		PL=Pore Lining	
Histosol			Polyvalue Belov	v Surface (S8) (RR R.			K, L, MLRA 149B)
	ipedon (A2)		MLRA 149B)					16) (LRR K, L, R)
Black His			Thin Dark Surfa		MLRA 149B)		,	eat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N				urface (S7) (LRF	
	Layers (A5)		Loamy Gleyed I		, ,			ce (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix				ark Surface (S9)	
	rk Surface (A12)	()	Redox Dark Sui					es (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark S					oils (F19) (MLRA 149B)
	leyed Matrix (S4)							
			Redox Depress	10115 (1-0)				LRA 144A, 145, 149B)
-	edox (S5)						rent Material (F2	-
	Matrix (S6)						hallow Dark Surf	
Dark Sur	face (S7) (LRR R, M	LRA 149E	3)			Other (Explain in Rema	arks)
	hydrophytic vegetati		tland hydrology mus	t be present, un	ess disturbed	or problematic		
	ayer (if observed):	Х						
Type: Roo Depth (inc						Hydria Sail	Present? Yes	s NoX
Remarks:	nes). <u>12</u>					nyuric 30ii	rieselli! Tes	S NO
Remarks:								





Soil SE

Project/Site: Leroy Center-May	/field 13	8 kV Tran	smissio	n Line Projec City	//County: Gea	uga County		Sampling Date:)7/15/2021
Applicant/Owner: FirstEnergy								_ Sampling Poin	
Investigator(s): MJA				Sec	ction, Township	o, Range: N/A			
Landform (hillslope, terrace, etc): Gulc						Concave	Slop	De (%): 1
Subregion (LRR or MLRA): LR	.R R		Lat:	41.548426833333	33	Long: -81.288	13151666667	 Datum	n: WGS 1984
Soil Map Unit Name: CyF: Chil	i-Oshter	no compl	ex, 25 to	o 50 percent slope	es		_ NWI classifica	ation: N/A	
Are climatic / hydrologic condition	ons on t	he site typ	oical for	this time of year?	Yes X	No (If n	no, explain in Re	emarks.)	
Are Vegetation, Soil	, or	Hydrolog	у	significantly dist	turbed?	Are "Normal Cir	rcumstances" p	resent? Yes	X No
Are Vegetation, Soil	, or	Hydrolog	у	naturally proble	matic?	(If needed, expl	ain any answer	s in Remarks.)	
SUMMARY OF FINDING	3S – A	ttach s	ite ma	ap showing sa	ampling po	int locations	s, transects,	important fe	atures, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?	nt?			No No	within a W		Yes X		
Remarks: (Explain alternative		Yes_		No	If yes, option	onal Wetland Sit	te ID: Wetland I	IVI-O I	
HADBOI OCA									
HYDROLOGY						<u> </u>	aandam (Indiaa)	oro (minimum of	tuo roquirod)
Wetland Hydrology Indicato				all that annia		<u>Se</u>		ors (minimum of	(wo required)
Primary Indicators (minimum	or one is	requirea			(DO)		Surface Soil (
Surface Water (A1)				Vater-Stained Lea			Drainage Pat		
X High Water Table (A2)				Aquatic Fauna (B1			Moss Trim Lir		
X Saturation (A3)Water Marks (B1)				Marl Deposits (B15 Hydrogen Sulfide (Crayfish Burr	Vater Table (C2)	
Sediment Deposits (B2)				Dxidized Rhizosph		Poots (C3)	_ ,	sible on Aerial Ima	agery (CQ)
Sediment Deposits (B2) Drift Deposits (B3)				Presence of Reduc	_	Koois (C3)		ressed Plants (D1	
Algal Mat or Crust (B4)				Recent Iron Reduc		oils (C6) X	_ Stanted of Stanted o		,
Iron Deposits (B5)				hin Muck Surface			Shallow Aquit		
Inundation Visible on Aer	ial Imag	erv (B7)		Other (Explain in R				phic Relief (D4)	
Sparsely Vegetated Cond	•			Stror (Explain in I	iornario)		_ FAC-Neutral		
Field Observations:	ave our	1400 (20)				1	_ 1710 11001101	1001 (20)	
Surface Water Present?	Yes	No	Χ	Depth (inches):					
Water Table Present?				Depth (inches):	12				
Saturation Present?				Depth (inches):	4	Wetland Hvd	rology Present	t? Yes X	No
(includes capillary fringe)							•	<u>X</u>	
Describe Recorded Data (stre	am gau	ge, monito	oring we	ell, aerial photos, p	previous inspec	ctions), if availab	ole:		
Remarks:									
Tromaine.									

/EGETATION – Use scientific names of plan	ts.			Sampling Point: Wetland PM-31		
<u>Tree Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet: Number of Dominant Species		
1	_			That Are OBL, FACW, or FAC:2 (A)		
2				Total Number of Dominant		
3				Species Across All Strata: 2 (B)		
4		-		Percent of Dominant Species		
5				That Are OBL, FACW, or FAC:1 (A/B)		
6				Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
		= Total Co	ver	OBL species65 x 1 =65		
Sapling/Shrub Stratum (Plot size: 15)				FACW species68		
1				FAC species x 3 = 0		
2				FACU species 0 x 4 = 0		
3				UPL species $0 \times 5 = 0$ Column Totals: $133 \times 5 = 0$ (A) $201 \times 5 = 0$		
4				Column Totals:133 (A)201 (B)		
5				Prevalence Index = B/A = 1.5112781954		
6				Hydrophytic Vegetation Indicators:		
				X 1 - Rapid Test for Hydrophytic Vegetation		
7				X 2 - Dominance Test is >50%		
5		= Total Co	ver	X 3 - Prevalence Index is ≤3.0 ¹		
Herb Stratum (Plot size: 5 1. Leersia oryzoides	35	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2Typha latifolia	25	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)		
3. Phragmites australis	50	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must		
4 Impatiens capensis	15	No	FACW	be present, unless disturbed or problematic.		
5. Symplocarpus foetidus	5	No	OBL	Definitions of Vegetation Strata:		
6Eupatorium perfoliatum	_ 3	No	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
7 8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
9						
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
11				Woody vines – All woody vines greater than 3.28 ft in		
12				height.		
	133	= Total Co	ver			
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic Vegetation		
3				Present? Yes X No		
4						
		= Total Co	ver			
Remarks: (Include photo numbers here or on a separa	te sheet.)					

SOIL Sampling Point: Wetland PM-31

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redo	x Feature	<u>s</u> _ 1	. 2	_			
(inches) 0 - 4	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	<u>Remarks</u>		
	10YR 3/1	90	2.5YR 3/6	10	Concer	PL_	Silt			
4 - 18	10YR 3/2	98	5YR 4/6	2	Concer	PL	Silt	Sandy		
-										
-										
-										
-										
-										
				-						
-										
-										
-										
1 _{T. max} C. C.		ation DM	Dadwaad Matrix M	C. Maalaa			21	Di Dana Linina M Matriu		
Hydric Soil I	oncentration, D=Depl Indicators:	etion, Rivi=	=Reduced Matrix, M	S=IVIASKe	sand Gra	iins.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Belo	w Surface	(S8) (LRR	R.		Muck (A10) (LRR K, L, MLRA 149B)		
	pipedon (A2)		MLRA 149B		() (,		Prairie Redox (A16) (LRR K, L, R)		
Black His			Thin Dark Surfa				5 cm N	flucky Peat or Peat (S3) (LRR K, L, R)		
	n Sulfide (A4)		Loamy Mucky N			L)		Surface (S7) (LRR K, L, M)		
	l Layers (A5) l Below Dark Surface	. (Δ11)	Loamy Gleyed Depleted Matrix		<u>2)</u>		Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)			
	ark Surface (A12)	<i>(</i> A11)	X Redox Dark Su		ı		Inin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R)			
	lucky Mineral (S1)		Depleted Dark					ont Floodplain Soils (F19) (MLRA 149B)		
	leyed Matrix (S4)		Redox Depress	sions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
-	edox (S5)							arent Material (F21)		
	Matrix (S6)	II D A 440E	3 \					hallow Dark Surface (TF12) (Explain in Remarks)		
Dark Sur	rface (S7) (LRR R, M	ILKA 1496	•)				Other (Explain in Remarks)		
³ Indicators of	hydrophytic vegetati	ion and we	tland hydrology mus	st be pres	ent, unless	disturbed	or problematic	<u>></u> .		
Restrictive L	ayer (if observed):									
Type:										
Depth (inc	ches):	_					Hydric Soil	Present? Yes X No No		
Remarks:							•			











Soil

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/C	County: Geauga County Sampling Date: 07/15/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Upland PM-31
Investigator(s): MJA Section	
Landform (hillslope, terrace, etc.): Hillside Local rel	
Subregion (LRR or MLRA): LRR R Lat: 41.54845	
Soil Map Unit Name: CyF: Chili-Oshtemo complex, 25 to 50 percent slopes	
Are climatic / hydrologic conditions on the site typical for this time of year? $$ Y	'es X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distur	bed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes NoX	Is the Sampled Area
Hydric Soil Present? Yes NoX	within a Wetland? Yes No
Wetland Hydrology Present? Yes No _X	If yes, optional Wetland Site ID: Upland PM-31
Remarks: (Explain alternative procedures here or in a separate report.)	ii yos, optional vveitand one ib.
Upland data point in maintained powerline easement.	
opiana data point in maintained powerine education.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Leave	
High Water Table (A2) Aquatic Fauna (B13)	
Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Od	
Sediment Deposits (B2) Oxidized Rhizospher	
Drift Deposits (B3) Presence of Reduced	d Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction	
Iron Deposits (B5) Thin Muck Surface (C	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rer	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _X _ Depth (inches):	
Water Table Present? Yes NoX Depth (inches):	
Saturation Present? Yes No X Depth (inches):	Wetland Hydrology Present? Yes No X
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:
Remarks:	
Remarks.	

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0% (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov		OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)		_ = 10tai 00t	, C1	FACW species15 x 2 =30
- Control of the cont	60	Yes	FACU	FAC species0 x 3 =0
		-	1700	FACU species 90 x 4 = 360
2				UPL species45 x 5 =225
3				Column Totals:150 (A)615 (B)
4				Prevalence Index = B/A = 4.10
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
-	60	= Total Cov	/er	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: 5) 1. Dennstaedtia punctilobula	45	Yes	UPL	4 - Morphological Adaptations¹ (Provide supporting
			FACW	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
	·			
3. Elymus glaucus		Yes		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. 5.				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11.			·	size, and woody plants less than 3.28 it tall.
12.				Woody vines – All woody vines greater than 3.28 ft in height.
		= Total Cov	/er	neight.
Woody Vine Stratum (Plot size:30)				
1				
				Hydrophytic
2				Vegetation Present? Yes No X
3				Tresent: TesNo
4		= Total Cov	· · · · · · · · · · · · · · · · · · ·	
Pamarke: (Include photo numbers here or on a separate	sheet)	_ = 10tal C0	/61	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: Upland PM-31

SOIL Sampling Point: Upland PM-31

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redox Fea	<u>itures</u>				
(inches)	Color (moist)	%	Color (moist) 9/	6 Type ¹	Loc ²		narks	
0 - 6	10YR 2/2	100				Loam		
6 - 18	10YR 5/4	100				Silty loam		
-								
-								
-								
-							_	
-								
						2		
Hydric Soil		etion, RM=	Reduced Matrix, MS=Ma	sked Sand Gra	ins.	² Location: PL=Pore Lining, Indicators for Problematic H		
Histosol			Polyvalue Below Surf	face (S8) (LRR	R,	2 cm Muck (A10) (LRR K	•	
	pipedon (A2)		MLRA 149B)			Coast Prairie Redox (A16		
Black Hi	stic (A3) en Sulfide (A4)		Thin Dark Surface (S Loamy Mucky Minera			5 cm Mucky Peat or PeatDark Surface (S7) (LRR In		
	d Layers (A5)		Loamy Gleyed Matrix		_,	Polyvalue Below Surface		
	d Below Dark Surface	(A11)	Depleted Matrix (F3)			Thin Dark Surface (S9) (L		
	ark Surface (A12) Nucky Mineral (S1)		Redox Dark SurfaceDepleted Dark Surface			Iron-Manganese MassesPiedmont Floodplain Soils		
	Gleyed Matrix (S4)		Redox Depressions (Mesic Spodic (TA6) (MLR		
-	Redox (S5)					Red Parent Material (F21)		
	Matrix (S6) rface (S7) (LRR R, M	LRA 149E	3)			Very Shallow Dark Surfac Other (Explain in Remarks)		
							-,	
		on and we	tland hydrology must be p	oresent, unless	disturbed	or problematic.		
Type:	Layer (if observed):							
Depth (inc	ches):					Hydric Soil Present? Yes _	No X	
Remarks:	,					_		





Project/Site: Leroy Center-Mayfield 138 kV Tra	nsmission Line Projec City/Cou	nty: Geauga County	Sampling Date: 07/15/2021			
Applicant/Owner: FirstEnergy			Sampling Point: Wetland PM-32			
Investigator(s): MJA	Section,					
Landform (hillslope, terrace, etc.): Gulch or Gu			Slope (%): 2			
Subregion (LRR or MLRA): LRR R						
Soil Map Unit Name: CyF: Chili-Oshtemo comp	olex, 25 to 50 percent slopes	NWI class	ification: N/A			
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes	X No (If no, explain in	Remarks.)			
Are Vegetation, Soil, or Hydrolo	gy significantly disturbe	d? Are "Normal Circumstances	" present? Yes X No			
Are Vegetation, Soil, or Hydrolo						
SUMMARY OF FINDINGS – Attach	site map showing samp	ling point locations, transec	ts, important features, etc.			
	X No	s the Sampled Area vithin a Wetland? yes, optional Wetland Site ID: Wetlar				
PEM wetland with hydrologic connection to str						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Ind	icators (minimum of two required)			
Primary Indicators (minimum of one is require	d; check all that apply)	Surface So	oil Cracks (B6)			
Surface Water (A1)	Water-Stained Leaves (Patterns (B10)			
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim	Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)	Dry-Seaso	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor	(C1) Crayfish B	urrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres	on Living Roots (C3) Saturation	Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence of Reduced In		Stressed Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Reduction i	· · · —	ic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)		quitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remai		graphic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	X FAC-Neuti	ral Test (D5)			
Field Observations:	Y Danth (inches)					
	Depth (inches):					
	Depth (inches):	Wetlered Hydrology, Duor				
Saturation Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, mon	<u>X</u> Depth (inches): toring well, aerial photos, previo	Wetland Hydrology Pres	ent? Yes <u>X</u> No			
Door is Noorded Data (Gream gaage, men	torning won, donar priotos, provid	nao mopositrio), ii avanabio.				
Remarks:						

EGETATION – Use scientific names of plants	•			Sampling Point: Wetland PM-3
<u>Tree Stratum</u> (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2 3				Total Number of Dominant Species Across All Strata: 2 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B
6				Prevalence Index worksheet:
7	·			Total % Cover of: Multiply by:
0 11 (0) 1 (0) 1 (15) 1 (15)		= Total Cov	er	OBL species 1 x 1 = 1 FACW species 125 x 2 = 250
Sapling/Shrub Stratum (Plot size: 15)				FACW species $\frac{125}{0}$ $\times 2 = \frac{250}{0}$ FAC species $\frac{0}{0}$ $\times 3 = \frac{0}{0}$
1				FACU species0
2				UPL species 0 x 5 = 0
3				Column Totals: 126 (A) 251 (B)
4				Prevalence Index = B/A = 1.9920634920
5				Trevalence much - B/A -
6				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50%
		= Total Cov	er	$\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^{\circ}$
Herb Stratum (Plot size: 5)		.,	E4.0\4/	4 - Morphological Adaptations ¹ (Provide supporting
1. Phragmites australis		Yes	FACW	data in Remarks or on a separate sheet)
2. Phalaris arundinacea	· · · · · · · · · · · · · · · · · · ·	Yes	FACW	Problematic Hydrophytic Vegetation¹ (Explain)
3. Impatiens capensis			FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4Carex lurida			OBL	
5				Definitions of Vegetation Strata:
6 7				Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12		= Total Cov		height.
Woody Vine Stratum (Plot size:30)	120	= Total Cov	3 1	
1				Hydrophytic
				Vegetation
2				Procent? Voc A No
2				Present? Yes X No
2				Present? Yes^_ No

SOIL Sampling Point: Wetland PM-32

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix Color (moist)	%	Color (moist)	x Feature: %	<u>S</u> Type ¹	_Loc ²	Texture	Remarks		
(inches) 0 - 8	10YR 3/2	98	10YR 4/4	2	Concer	M	Silty loam	Remarks		
8 - 18	10YR 3/2	95	10YR 4/6		Concer	M	Silty clay loam			
- 10	1011 3/2		10110 4/0		Conce	IVI	Oilty Clay Ioani			
							· 			
							· ——			
-										
-							·			
¹Type: C=Co	oncentration, D=Deple	etion RM	-Reduced Matrix MS	 S-Masker	Sand Gr	ains	² Location	: PL=Pore Lining, M=Matrix.		
Hydric Soil I		otion, rawi	-reduced Matrix, Me	J-Masket	r ourid Oil	AII 10.		for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Belov		(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B)		
Histic Ep	ipedon (A2)		MLRA 149B) Thin Dark Surfa		RR R. MI	RA 149B		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)		
	n Sulfide (A4)		Loamy Mucky N					5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L, M)		
	Layers (A5)		Loamy Gleyed I		2)			llue Below Surface (S8) (LRR K, L)		
	Below Dark Surface	(A11)	Depleted Matrix	. ,				ark Surface (S9) (LRR K, L)		
	rk Surface (A12)		X Redox Dark Sur	, ,				anganese Masses (F12) (LRR K, L, R)		
	ucky Mineral (S1) leyed Matrix (S4)		Depleted Dark S Redox Depress		.7)			ont Floodplain Soils (F19) (MLRA 149B)		
	edox (S5)		Redux Depress	10115 (F6)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)			
	Matrix (S6)						Ned Farent Material (F21) Very Shallow Dark Surface (TF12)			
	face (S7) (LRR R, M	LRA 149E	3)				Other (Explain in Remarks)			
³ Indicators of	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	d or problemation	2.		
	ayer (if observed):				,					
Type:										
Depth (inc	ches):						Hydric Soil	Present? Yes X No No		
Remarks:										





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Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec	City/County: Geauga County Sampling Date: 07/15/2021
Applicant/Owner: FirstEnergy	State: OH Sampling Point: Upland PM-32
Investigator(s): MJA	
	cal relief (concave, convex, none): Concave Slope (%): 3
Soil Map Unit Name: CyF: Chili-Oshtemo complex, 25 to 50 percent s	Long: -81.28889601666667 Datum: WGS 1984 Dopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No X	If yes, optional Wetland Site ID: Upland PM-32
Remarks: (Explain alternative procedures here or in a separate repo Upland data point in maintained powerline easement.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained	Leaves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna	
Saturation (A3) Marl Deposits (
Water Marks (B1) Hydrogen Sulfie	
	spheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Re	
	duction in Tilled Soils (C6) X Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surf Inundation Visible on Aerial Imagery (B7) Other (Explain	
Inundation Visible on Aerial Imagery (B7) Other (Explain Sparsely Vegetated Concave Surface (B8)	Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:	FAC-Neutral Test (D3)
Surface Water Present? Yes No _X _ Depth (inches)).
Water Table Present? Yes No _X _ Depth (inches)	
Saturation Present? Yes No X Depth (inches)	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks:	
Remarks.	

Tree Stratum (Plot size: 30)	Absolute	Dominant Indicator Species? Status	Dominance Test worksheet:
1			Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2			Total Number of Dominant
3			
4			Percent of Dominant Species
5			That Are OBL, FACW, or FAC:0 (A/B)
6			Trovalonos mask workshooti
7			
		= Total Cover	OBL species
Sapling/Shrub Stratum (Plot size: 15)			racivi species x z =
1			rac species x s =
2			FACU species x 4 =
3			UPL species 0 x 5 = 0 Column Totals: 106
4			Column Totals (A) (B)
5			Prevalence Index = B/A = 3.6886792452
6			Hydrophytic Vegetation Indicators:
7			1 - Rapid Test for Hydrophytic Vegetation
		= Total Cover	2 - Dominance Test is >50%
Herb Stratum (Plot size:5	-	_ 10tal 00v0l	3 - Prevalence Index is ≤3.0 ¹
1. Solidago canadensis	90	Yes FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea	15	No FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carex lurida			¹ Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
			at breast height (DBH), regardless of height.
7			Sapling/shrub – Woody plants less than 3 in. DBH
8			and greater than or equal to 3.28 ft (1 m) tall.
9			Herb – All herbaceous (non-woody) plants, regardless of
10			size, and woody plants less than 3.28 ft tall.
11			Woody vines – All woody vines greater than 3.28 ft in
12			height.
	106	= Total Cover	
Woody Vine Stratum (Plot size:)			
1			
2			Hydrophytic Vegetation
3			Present? Yes No X
4			
		= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		

Sampling Point: Upland PM-32

SOIL Sampling Point: Upland PM-32

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the i	ndicator o	or confirm	the absence	of indicators.)
Depth	Matrix			x Features	<u>S</u>	2	T	Demode
(inches) 0 - 16	Color (moist) 10YR 3/2	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture Silty loam	Remarks
16 - 18	10YR 4/3	95	5YR 4/6	5	Concer	M	Silty clay loam	
-								
-								
							-	
-								
-								
-								
-								
-								
-			_					
1Type: C-Cc	oncentration, D=Depl	etion PM-	Peduced Matrix MS	S-Masked	Sand Gra	ine	² l ocation:	PL=Pore Lining, M=Matrix.
Hydric Soil I		etion, ixivi=	rteduced Matrix, Mc	D-IVIASKEC	i Sand Gra			for Problematic Hydric Soils ³ :
Histosol		_	Polyvalue Below	v Surface	(S8) (LRR	R,		luck (A10) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B)				Coast I	Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa					lucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	•	Loamy Mucky N			L)		urface (S7) (LRR K, L, M)
	l Layers (A5) I Below Dark Surface	(A11)	Loamy Gleyed IDepleted Matrix)		-	lue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)
-	rk Surface (A12)		Redox Dark Sur					anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)	•	Depleted Dark S		7)			ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							arent Material (F21)
	Matrix (S6) face (S7) (LRR R, M	II DA 140B	١					hallow Dark Surface (TF12) Explain in Remarks)
Daik Sui	lace (37) (LKK K, W	ILNA 1430)				Other (Explain in Nemarks)
³ Indicators of	hydrophytic vegetat	ion and we	land hydrology mus	t be prese	ent, unless	disturbed	or problematic	<u>.</u>
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes No X
Remarks:								





Soil

Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec C	ity/County: Geauga County	Sampling Date: 07/15/2021			
Applicant/Owner: FirstEnergy		Sampling Point: Wetland PM-33			
Investigator(s): MJA S		- , ,			
Landform (hillslope, terrace, etc.): Gulch or Gully Loca		Slope (%): ³			
Subregion (LRR or MLRA): LRR R Lat: 41.54685240000					
Soil Map Unit Name: CyF: Chili-Oshtemo complex, 25 to 50 percent slo	pes NWI clas	sification: N/A			
Are climatic / hydrologic conditions on the site typical for this time of year					
Are Vegetation X, Soil , or Hydrology significantly d					
Are Vegetation, Soil, or Hydrology naturally prob					
SUMMARY OF FINDINGS – Attach site map showing s		· ·			
	Is the Sampled Area				
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Yes	within a Wetland? Yes	X No			
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: Wetla	and PM-33			
Remarks: (Explain alternative procedures here or in a separate report.					
HYDROLOGY					
	Sagandanula	diactors (minimum of two required)			
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)		dicators (minimum of two required)			
1		Soil Cracks (B6)			
Surface Water (A1) Water-Stained Let High Water Table (A2) Aquatic Fauna (B		Drainage Patterns (B10) Moss Trim Lines (B16)			
Saturation (A3) Marl Deposits (B		Moss Till Lines (B16) Dry-Season Water Table (C2)			
Water Marks (B1) Hydrogen Sulfide		Crayfish Burrows (C8)			
Drift Deposits (B3) Presence of Red	uced Iron (C4) Stunted o	or Stressed Plants (D1)			
Algal Mat or Crust (B4) Recent Iron Redu	uction in Tilled Soils (C6) X Geomorp	phic Position (D2)			
Iron Deposits (B5) Thin Muck Surface	· ·				
Inundation Visible on Aerial Imagery (B7) Other (Explain in		ographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	X FAC-Neu	utral Test (D5)			
Field 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): Saturation Present? Yes No X Depth (inches):	Wetland Hydrology Pre	osont? Vos Y No			
(includes capillary fringe)		esent? Yes X No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos	, previous inspections), if available:				
Remarks:					
1					

EGETATION – Use scientific names of plants	•			Sampling Point: Wetland PM-3		
Tree Stratum (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)		
2. 3				Total Number of Dominant Species Across All Strata: 3 (B)		
 			·	Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B		
i <u>. </u>		-		Prevalence Index worksheet:		
				Total % Cover of: Multiply by:		
		= Total Cov	ver .	OBL species x 1 = 40		
apling/Shrub Stratum (Plot size: 15)				FACW species $\frac{60}{2}$ x 2 = $\frac{120}{2}$		
				FAC species 3 x 3 = 9 72		
				FACU species18		
				Column Totals: 121 (A) 241 (B)		
			·	Prevalence Index = B/A = 1.991735537'		
				Hydrophytic Vegetation Indicators:		
				X 1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cov		$\frac{X}{2}$ 2 - Dominance Test is >50% $\frac{X}{3}$ 3 - Prevalence Index is ≤3.0 ¹		
erb Stratum (Plot size:5) Carex vulpinoidea	25	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supportin data in Remarks or on a separate sheet)		
Dockers ourse	45		FACW	Problematic Hydrophytic Vegetation ¹ (Explain)		
Packera aurea	<u> </u>					
Elymus glaucus			FACU FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
Eupatorium perfoliatum		·		Definitions of Vegetation Strata:		
Dichanthelium clandestinum	20		FACW			
Phalaris arundinacea		Yes	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diamet at breast height (DBH), regardless of height.		
Carex lurida	10	No No	OBL	Sapling/shrub – Woody plants less than 3 in. DBH		
Agrimonia parviflora			FAC	and greater than or equal to 3.28 ft (1 m) tall.		
Cirsium arvense	3	No No	FACU	Herb – All herbaceous (non-woody) plants, regardless of		
). Scirpus atrovirens	5	No	OBL	size, and woody plants less than 3.28 ft tall.		
1 2.				Woody vines – All woody vines greater than 3.28 ft in		
		= Total Cov	er	height.		
() () () () () () () ()		- rotal cov	0.			
roody vine Stratum (Plot size: 30)						
			·	Hydrophytic		
				Hydrophytic Vegetation Present? Yes X No		
·			·	Vegetation		
Voody Vine Stratum (Plot size:30)				Vegetation		

SOIL Sampling Point: Wetland PM-33

Profile Description: (Describe to the d	-			or confirm	the absence	of indicators.)
Depth Matrix		x Features	<u>3</u>	L = = ²	Taustuna	Damarka
(inches) Color (moist) %	Color (moist)	<u> %</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 18 10YR 4/2 98	5YR 3/4	2	Concer	PL	Silty loam	
-						
-						
-						
-						
-						
-						
-						
-						
17 00 17 00 17					21	BL B. III MAN
¹ Type: C=Concentration, D=Depletion, R Hydric Soil Indicators:	M=Reduced Matrix, M	S=Masked	Sand Gra	ins.		r PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belov	v Surface	(S8) (I DD	D		Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B		(OO) (LIKIK	. 11,		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa		RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky N	/Ineral (F1) (LRR K,	L)	Dark S	Surface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed)		-	alue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	X Depleted Matrix					ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Dark Su Depleted Dark	. ,	7)			anganese Masses (F12) (LRR K, L, R) ont Floodplain Soils (F19) (MLRA 149B)
Sandy Mucky Milleral (S1) Sandy Gleyed Matrix (S4)	Redox Depress		/)			Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)	Redox Depress	10113 (1 0)				arent Material (F21)
Stripped Matrix (S6)						Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 14	19B)					(Explain in Remarks)
³ Indicators of hydrophytic vegetation and	wetland hydrology mus	st be prese	nt, unless	disturbed	or problemation	D.
Restrictive Layer (if observed):						
Type:	<u> </u>					
Depth (inches):	<u> </u>				Hydric Soil	Present? Yes X No No
Remarks:						





Soil





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Project/Site: Leroy Center-Mayfield 138 kV Transi	mission Line Projec City/County: Geau	ıga County	Sampling Date: 07/15/2021
Applicant/Owner: FirstEnergy	· ·		Sampling Point: Upland PM-33
Investigator(s): MJA	Section, Township		
Landform (hillslope, terrace, etc.): Hillside			Slope (%): ¹⁵
Subregion (LRR or MLRA): LRR R Soil Map Unit Name: CyF: Chili-Oshtemo complex	x, 25 to 50 percent slopes	NWI classific	eation:_N/A
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes X 1	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology		(If needed, explain any answe	
SUMMARY OF FINDINGS – Attach sit	e map showing sampling poi	nt locations, transects	, important features, etc.
	No X Is the Sam within a Wo		No
	No X If yes, optio	onal Wetland Site ID: Upland P	PM-33
HYDROLOGY			
Wetland Hydrology Indicators:		·	tors (minimum of two required)
Primary Indicators (minimum of one is required; of		Surface Soil	
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pat	
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Li	
Saturation (A3)	Marl Deposits (B15)	•	Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)Oxidized Rhizospheres on Living I	Crayfish Burr	isible on Aerial Imagery (C9)
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced Iron (C4)		tressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqui	` '
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopogra	
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral	
Field Observations:			
Surface Water Present? Yes No	X Depth (inches):		
Water Table Present? Yes No _	X Depth (inches):		
(includes capillary fringe)	X Depth (inches):	Wetland Hydrology Presen	nt? Yes NoX
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspec	tions), if available:	
Remarks:			

Tree Stratum (Plot size: 30)	Absolute			Dominance Test worksheet:			
1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)			
2							
3				Total Number of Dominant Species Across All Strata: 2 (B)			
4							
				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)			
5				(***/			
6				Prevalence Index worksheet:			
7				Total % Cover of: Multiply by:			
		= Total Cov	/er	OBL species 0 x 1 = 0			
Sapling/Shrub Stratum (Plot size: 15)				FACW species			
1				FAC species x 3 = 0			
2				FACU species90 x 4 =360			
3				UPL species			
				Column Totals:115 (A)410 (B)			
4. 5.				Prevalence Index = B/A = 3.5652173910			
6.				Hydrophytic Vegetation Indicators:			
				1 - Rapid Test for Hydrophytic Vegetation			
7				2 - Dominance Test is >50%			
E		= Total Cov	/er	3 - Prevalence Index is ≤3.0 ¹			
Herb Stratum (Plot size: 5 1. Phleum pratense	15	No	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
2. Agrostis perennans	4.5		FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
			FACU				
5.1			FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
4. Dichanthelium clandestinum	<u> </u>						
5. Solidago canadensis	40	Yes	FACU	Definitions of Vegetation Strata:			
6. Packera aurea	10	No	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
7				at breast height (DBH), regardless of height.			
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.			
9				and greater than or equal to 5.20 ft (1 m) tail.			
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
11				size, and woody plants less than 3.26 it tan.			
12.				Woody vines – All woody vines greater than 3.28 ft in height.			
		= Total Cov	/er	neight.			
Woody Vine Stratum (Plot size:30)		_ 10ta 00v	.01				
1				Hydrophytic			
2				Vegetation			
3		-		Present? Yes No X			
4							
		= Total Cov	/er				
Remarks: (Include photo numbers here or on a separate	sheet.)						

Sampling Point: Upland PM-33

SOIL Sampling Point: Upland PM-33

Profile Desc	ription: (Describe t	o the dept	h needed to docu	ment the in	ndicator o	r confirm	the absence	of indicators.)
Depth	Matrix			x Features	<u> </u>	. 2		
(inches) 0 - 8	Color (moist) 10YR 4/3	100	Color (moist)	%	Type ¹	Loc ²	Texture Silty loam	Remarks
8 - 18	10YR 3/3	100					Silty loam	
-								
								<u> </u>
-								
-								
								<u> </u>
-								
-			_					
1Type: C=Cc	oncentration, D=Depl	etion PM-	Peduced Matrix M	S-Macked	Sand Gra	ine	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil I		etion, ixivi=	rteduced Matrix, M	<u>o-iviaskeu</u>	Sand Gra			for Problematic Hydric Soils ³ :
Histosol		_	Polyvalue Belo	w Surface	(S8) (LRR	R,		luck (A10) (LRR K, L, MLRA 149B)
Histic Ep	ipedon (A2)		MLRA 149B)			Coast F	Prairie Redox (A16) (LRR K, L, R)
Black His		-	Thin Dark Surfa					lucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4) I Layers (A5)	-	Loamy Mucky I Loamy Gleyed			L)		urface (S7) (LRR K, L, M) lue Below Surface (S8) (LRR K, L)
	l Below Dark Surface	e (A11)	Depleted Matrix		,		-	ark Surface (S9) (LRR K, L)
-	rk Surface (A12)		Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)	-	Depleted Dark		7)			ont Floodplain Soils (F19) (MLRA 149B)
-	leyed Matrix (S4)	-	Redox Depress	sions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5) Matrix (S6)							arent Material (F21) hallow Dark Surface (TF12)
	face (S7) (LRR R, M	II RA 149B	1					Explain in Remarks)
Bank Gan	(27) (211111)		,				0	zapan in Romano)
	hydrophytic vegetat	ion and wet	land hydrology mus	st be prese	nt, unless	disturbed	or problematic	
Restrictive L	.ayer (if observed):							
Type:								
	ches):	_					Hydric Soil	Present? Yes No X
Remarks:								





U-MJA-071521-01

Project/Site: Leroy Center-May	/field 138 kV T	ransmissio	on Line Projec City/0	County: Gea	uga County		Sampling Date: 07	/14/2021
Applicant/Owner: FirstEnergy							Sampling Point:	
Investigator(s): MJA								
Landform (hillslope, terrace, etc						Concave	Slope	(%): 1
Subregion (LRR or MLRA): LR								
Soil Map Unit Name: CnB: Chi	li loam, 2 to 6	percent slo	opes			NWI classifica	tion: N/A	
Are climatic / hydrologic condition	ons on the site	typical for	r this time of year?	Yes X 1	No (If n	o, explain in Re	marks.)	
Are Vegetation, Soil	, or Hydro	logy	significantly distu	rbed?	Are "Normal Cir	cumstances" pr	esent? Yes X	No
Are Vegetation, Soil					(If needed, expla			
SUMMARY OF FINDING	3S – Attacl	n site ma	ap showing sar	npling poi	nt locations	, transects,	important fea	tures, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?	Υe	es X	No No		pled Area etland? onal Wetland Sit	·	 '	
Remarks: (Explain alternative PUB wetland in maintained po	•		separate report.)					
HYDROLOGY								
Wetland Hydrology Indicato	rs:				Se	condary Indicate	ors (minimum of tw	o required)
Primary Indicators (minimum	of one is requi					Surface Soil C		
X Surface Water (A1)			Water-Stained Leave		_	Drainage Patt		
X High Water Table (A2)			Aquatic Fauna (B13))		Moss Trim Lin		
X Saturation (A3)		!	Marl Deposits (B15)		_	Dry-Season W	/ater Table (C2)	
Water Marks (B1)			Hydrogen Sulfide Oc			Crayfish Burro	ows (C8)	
Sediment Deposits (B2)			Oxidized Rhizospher		Roots (C3)	Saturation Vis	ible on Aerial Imag	ery (C9)
Drift Deposits (B3)		!	Presence of Reduce	d Iron (C4)		Stunted or Str	essed Plants (D1)	
X Algal Mat or Crust (B4)		ا	Recent Iron Reduction	on in Tilled So	oils (C6) X	Geomorphic F	Position (D2)	
Iron Deposits (B5)		Χ .	Thin Muck Surface (C7)		Shallow Aquita	ard (D3)	
X Inundation Visible on Aeri	ial Imagery (B	7)	Other (Explain in Re	marks)		Microtopograp	hic Relief (D4)	
Sparsely Vegetated Cond	ave Surface (I	B8)			<u>X</u>	FAC-Neutral 7	Test (D5)	
Field Observations:								
Surface Water Present?	·		Depth (inches):	6				
Water Table Present?			Depth (inches):	6				
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre			Depth (inches):	0	_		? Yes <u>X</u>	No
Describe Recorded Data (Stre	am gauge, mo	onitoring w	eii, aeriai photos, pre	evious inspec	tions), if availab	ile:		
Remarks:								

/EGETATION – Use scientific names of plants	S.		Sampling Point: Wetland PM-34
<u>Tree Stratum</u> (Plot size:) 1)		Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2			Total Number of Dominant
3 4			Percent of Dominant Species
5 6			That Are OBL, FACW, or FAC:1 (A/B)
7			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: 15)		_ = Total Cover	OBL species $\begin{array}{cccccccccccccccccccccccccccccccccccc$
2			FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
34			Column Totals: 70 (A) 70 (B) Prevalence Index = B/A = 1
5			Hydrophytic Vegetation Indicators:
7			 X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 1. Typha latifolia	70	Yes OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2			Problematic Hydrophytic Vegetation¹ (Explain)
3			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 5			Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8 9.			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11 12	·		Woody vines – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:30)	70	_ = Total Cover	
1			
2			Hydrophytic Vegetation
3			Present? Yes X No
4		= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet.)		

SOIL Sampling Point: Wetland PM-34

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox Featur	<u>es</u>				
(inches)	Color (moist)	%	Color (moist) %	Type ¹	Loc ²	Texture	Remarks	
0 - 1	10YR 2/1	100					Muck	
1 - 18	Gley 1 3/1	100				Silty loam		
-								
-								
-								
-								
-								
-								
-	-							
1Typo: C-C	ncontration D-Donl	otion DM-		d Sand Gr		² Location:	PL=Pore Lining, M=Matrix.	
Hydric Soil I		etion, Kivi-	FREGUCEG MAITIX, MO=MASKE	tu Sanu Gi	airis.		for Problematic Hydric Soils ³ :	
Histosol			Polyvalue Below Surfac	e (S8) (LRI	RR,		uck (A10) (LRR K, L, MLRA 149B)	
Histic Ep	pipedon (A2)		MLRA 149B) Thin Dark Surface (S9)	(IDDD M	I PA 1/0R)		Prairie Redox (A16) (LRR K, L, R) ucky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)		Loamy Mucky Mineral (I				urface (S7) (LRR K, L, M)	
Stratified	Layers (A5)		X Loamy Gleyed Matrix (F		. ,	Polyval	ue Below Surface (S8) (LRR K, L)	
-	Below Dark Surface	(A11)	Depleted Matrix (F3)				ark Surface (S9) (LRR K, L)	
	ark Surface (A12) lucky Mineral (S1)		Redox Dark Surface (F6Depleted Dark Surface (F6				anganese Masses (F12) (LRR K, L, R) ont Floodplain Soils (F19) (MLRA 149B)	
	sleyed Matrix (S4)		Redox Depressions (F8				Spodic (TA6) (MLRA 144A, 145, 149B)	
	edox (S5)			,			rent Material (F21)	
	Matrix (S6)						nallow Dark Surface (TF12)	
Dark Sui	rface (S7) (LRR R, M	LRA 149E	3)			Other (I	Explain in Remarks)	
		on and we	tland hydrology must be pres	sent, unles:	s disturbed	or problematic.		
	_ayer (if observed):							
Type:							- 10 Y Y	
Depth (inc	ches):					Hydric Soil I	Present? Yes X No No	
Remarks:								





NW Soil





S E

Project/Site: Leroy Center-Ma	yfield 138 kV Trar	nsmission Line	Projec City/	County: Geau	uga County		Sampling Date: 07/14	/2021
Applicant/Owner: FirstEnergy							Sampling Point: Upla	
			Sect	tion. Township	Range: N		_	
							Slone (%)	. 20
Landform (hillslope, terrace, et	e.). RR R	41 543	Local 16	S7	-81	29599985	Slope (76)	WGS 1984
Subregion (LRR or MLRA): LFA: limb								7700 1304
Soil Map Unit Name: JtA: Jimt						NWI classific		
Are climatic / hydrologic condit	ions on the site ty	pical for this tir	me of year?	Yes X 1	No	(If no, explain in R	emarks.)	
Are Vegetation, Soil	, or Hydrolog	ıy sign	nificantly distu	urbed?	Are "Norma	l Circumstances" p	resent? Yes X	No
Are Vegetation, Soil	, or Hydrolog	ıynatı	urally problen	natic? ((If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDIN	GS – Attach s	ite map sh	owing sa	mpling poi	nt location	ons, transects	, important featur	es, etc.
Hydrophytic Vegetation Prese	ent? Yes	No _	Х	Is the Sam	pled Area			
Hydric Soil Present?		No		within a W	etland?	Yes	No	
Wetland Hydrology Present?		No		If yes, optio	nal Wetland	d Site ID: Upland P	M-34,35	
Remarks: (Explain alternative				1 7 7 1				
HYDROLOGY								
Wetland Hydrology Indicate	ors:					Secondary Indica	tors (minimum of two re	equired)
Primary Indicators (minimum	of one is required	; check all tha	t apply)			Surface Soil	Cracks (B6)	
Surface Water (A1)		Water-	Stained Leav	res (B9)		Drainage Patterns (B10)		
High Water Table (A2)		Aquatio	c Fauna (B13	3)	Moss Trim Lines (B16)			
Saturation (A3)		Marl De	eposits (B15))	Dry-Season Water Table (C2)			
Water Marks (B1)			jen Sulfide O			Crayfish Burr		
Sediment Deposits (B2)			•	eres on Living I	· · —			
Drift Deposits (B3)			ce of Reduce		Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)				ion in Tilled So				
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery (B7)		uck Surface (Explain in Re		Shallow Aquitard (D3)Microtopographic Relief (D4)			
Sparsely Vegetated Con-	• • • •		LAPIAIITIITIC	ziriarko)		FAC-Neutral		
Field Observations:	<u> </u>						1001 (20)	
Surface Water Present?	Yes No	X Depth	(inches):					
Water Table Present?	Yes No							
Saturation Present?	Yes No				Wetland I	Hydrology Presen	t? Yes No	Χ
(includes capillary fringe) Describe Recorded Data (stre	eam daude monit	oring well aer	rial nhotos nr	evious inspec	tions) if ava	ailahle.		
Describe Necorded Data (Silv	Jam gauge, monit	oring wen, acr	iai priotos, pi	CVIOUS IIISPCO	110113), 11 ave	aliabic.		
Remarks:								
								J

Tree Stratum (Plot size: 30)	Absolute	Dominant Species?		Dominance Test worksheet:			
1				Number of Dominant Species That Are OBL, FACW, or FAC:2 (A)			
2							
3				Total Number of Dominant Species Across All Strata: 4 (B)			
4				Percent of Deminent Species			
5				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)			
6				Prevalence Index worksheet:			
7				Total % Cover of: Multiply by:			
	-	= Total Cov	er	OBL species 16 x 1 = 16 FACW species 5 x 2 = 10			
Sapling/Shrub Stratum (Plot size: 15				racw species xz =			
1. Liriodendron tulipifera	10	Yes	FACU	X S =			
2. Frangula alnus	5	Yes	FAC	1 ACC species			
3. Cornus alba	5	Yes	FACW	UPL species 0 x 5 = 0 Column Totals: 136 (A) 461 (B)			
4				Column Totals. (A)			
5				Prevalence Index = B/A = 3.3897058823			
6				Hydrophytic Vegetation Indicators:			
7				1 - Rapid Test for Hydrophytic Vegetation			
		= Total Cov		2 - Dominance Test is >50%			
Herb Stratum (Plot size:5)				3 - Prevalence Index is ≤3.0 ¹			
1. Solidago canadensis	60	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
2. Juncus effusus	15	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. Carex lurida			OBL	¹ Indicators of hydric soil and wetland hydrology must			
4. Vernonia gigantea			FAC	be present, unless disturbed or problematic.			
5. Schedonorus arundinaceus			FACU	Definitions of Vegetation Strata:			
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
7				at breast height (DBH), regardless of height.			
				Sapling/shrub – Woody plants less than 3 in. DBH			
8				and greater than or equal to 3.28 ft (1 m) tall.			
9				Herb – All herbaceous (non-woody) plants, regardless of			
10				size, and woody plants less than 3.28 ft tall.			
11		-		Woody vines – All woody vines greater than 3.28 ft in			
12				height.			
	116	= Total Cov	er				
Woody Vine Stratum (Plot size:)							
1							
2				Hydrophytic Vegetation			
3				Present? Yes No X			
4							
		= Total Cov	er				
Remarks: (Include photo numbers here or on a separate	sheet.)	•					

Sampling Point: Upland PM-34,35

SOIL Sampling Point: Upland PM-34,35

Profile Desc	ription: (Describe t	o the dept	h needed to docui	ment the in	ndicator o	or confirm	the absence	of indicators.)
Depth	Matrix			x Features	<u>.</u>	2	T	D d
(inches) 0 - 8	Color (moist) 10YR 4/3	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture Silty clay loam	Remarks
								Mith fine cond
8 - 18	10YR 5/4	100					Clay loam	With fine sand
-								
-								
-								
-								
-								
-								
-								
-								
17		-Car DM	Darlored March M	0. Marahara	0		21	Di Bara Lisian M Matrix
Hydric Soil I	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belo	w Surface	(S8) (I RR	R		Muck (A10) (LRR K, L, MLRA 149B)
	oipedon (A2)	-	MLRA 149B		(00) (L IXIX	. 11,		Prairie Redox (A16) (LRR K, L, R)
Black His		_	Thin Dark Surfa	•	RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	n Sulfide (A4)	-	Loamy Mucky I			L)	Dark S	Surface (S7) (LRR K, L, M)
	I Layers (A5)	-	Loamy Gleyed)		-	llue Below Surface (S8) (LRR K, L)
-	Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
	ark Surface (A12)	-	Redox Dark Su	, ,	7)			anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1) leyed Matrix (S4)	-	Depleted DarkRedox Depress		7)			ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)	-	Redox Depless	sions (1 0)				arent Material (F21)
-	Matrix (S6)							Shallow Dark Surface (TF12)
	rface (S7) (LRR R, N	ILRA 149B)					(Explain in Remarks)
	hydrophytic vegetat	on and wet	land hydrology mus	st be prese	nt, unless	disturbed	or problemation	S
	ayer (if observed):							
Type:								
	ches):						Hydric Soil	Present? Yes NoX
Remarks:								





Project/Site: Leroy Center-May	field 138 l	kV Trans	smission Line Projec City/	County: Gea	uga County		Sampling Date: 07/	14/2021
Applicant/Owner: FirstEnergy					S	tate: OH	_ Sampling Point: V	√etland PM-35
Investigator(s): MJA			Sect	ion, Township	o, Range: N/A			
Landform (hillslope, terrace, etc						Concave	Slope (%): 1
Subregion (LRR or MLRA): LR								
Soil Map Unit Name: JtA: Jimto								
Are climatic / hydrologic condition	ons on the	site typi	ical for this time of year?	Yes X	No (If n	o, explain in Re	marks.)	
Are Vegetation, Soil	, or H	ydrology	significantly distu	ırbed?	Are "Normal Cir	cumstances" pre	esent? Yes X	No
Are Vegetation, Soil					(If needed, expla			
SUMMARY OF FINDING	∋S – Att	ach si	te map showing sa	mpling poi	int locations	, transects,	important feat	ures, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?	nt?	Yes _ Yes _ Yes _	X No X No X No	within a W	npled Area /etland? onal Wetland Sit	Yes X	_	
Remarks: (Explain alternative PEM wetland in maintained po	procedur	es here	or in a separate report.)					
·								
HYDROLOGY								
Wetland Hydrology Indicato	rs:				Se	condary Indicate	ors (minimum of two	required)
Primary Indicators (minimum o	of one is re	equired;	check all that apply)			Surface Soil C		
Surface Water (A1)			Water-Stained Leav			Drainage Patte		
X High Water Table (A2)			Aquatic Fauna (B13			Moss Trim Line		
X Saturation (A3)			Marl Deposits (B15)			Dry-Season W	ater Table (C2)	
Water Marks (B1)			Hydrogen Sulfide O	dor (C1)		Crayfish Burro	ws (C8)	
Sediment Deposits (B2)			X Oxidized Rhizosphe	res on Living	Roots (C3)	Saturation Visi	ble on Aerial Image	ry (C9)
Drift Deposits (B3)			Presence of Reduce	ed Iron (C4)		Stunted or Stre	essed Plants (D1)	
Algal Mat or Crust (B4)			Recent Iron Reducti	on in Tilled So	oils (C6) X	Geomorphic P	osition (D2)	
Iron Deposits (B5)			Thin Muck Surface ((C7)		Shallow Aquita	ard (D3)	
Inundation Visible on Aeri	al Imager	y (B7)	Other (Explain in Re	emarks)		Microtopograp	hic Relief (D4)	
Sparsely Vegetated Cond	ave Surfa	ce (B8)			<u>X</u>	FAC-Neutral T	est (D5)	
Field Observations:								
Surface Water Present?	Yes	No _	X Depth (inches):					
Water Table Present?			Depth (inches):	12				
Saturation Present? (includes capillary fringe)			Depth (inches):	6			? Yes <u>X</u> N	lo
Describe Recorded Data (stre	am gauge	, monito	ring well, aerial photos, pr	evious inspec	ctions), if availab	le:		
Remarks:								

/EGETATION – Use scientific names of plants.			Sampling Point: Wetland PM-3
<u>Tree Stratum</u> (Plot size:) 1		Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
23			Total Number of Dominant Species Across All Strata: 1 (B)
4 5			Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
		= Total Cover	OBL species 20 x 1 = 20
Sapling/Shrub Stratum (Plot size: 15)			FACW species $90 \times 2 = 180$
1			TAC species
2			FACU species x 4 =
3			01 L species x 5 =
4			Column Totals:110 (A)200 (B)
5			Prevalence Index = B/A = 1.8181818181
6			Hydrophytic Vegetation Indicators:
			X 1 - Rapid Test for Hydrophytic Vegetation
7			X 2 - Dominance Test is >50%
5		= Total Cover	X 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:5 1Phalaris arundinacea	90	Yes FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Carex Iurida	5	No OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3Typha latifolia 4			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_		· ·	Definitions of Vegetation Strata:
5			•
6 7			Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
9			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless of
11			size, and woody plants less than 3.28 ft tall.
12.		·	Woody vines – All woody vines greater than 3.28 ft in
		Total Cover	height.
20		= Total Cover	
Woody Vine Stratum (Plot size:)			
1		·	Hydrophytic
2			Vegetation
3			Present? Yes X No
4			
		= Total Cover	
3			

SOIL Sampling Point: Wetland PM-35

Profile Description: (Describe to the d	-			or confirm	the absence	of indicators.)
Depth Matrix		x Features	<u>3</u> Tuno ¹	L 00 ²	Touture	Domorko
(inches) Color (moist) %	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 18 10YR 3/1 90	2.5YR 3/4	10	Concer	PL	Silty loam	
-						
-						
-						
-						
	_					
-						
-						
-						
-						
17 00 17 00 17					21	BL B. Litt M.M.
¹ Type: C=Concentration, D=Depletion, R Hydric Soil Indicators:	M=Reduced Matrix, M	S=Masked	Sand Gra	ins.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belov	w Surface	(S8) (I DD	D		Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B		(SO) (LIKIN	. т.,		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa	,	.RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky N					Surface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed)		-	llue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	X Redox Dark Su	, ,	7)			anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Depleted Dark Section Depress		7)			ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)	Redox Depress	sions (1 0)				arent Material (F21)
Stripped Matrix (S6)						Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 14	9B)					(Explain in Remarks)
³ Indicators of hydrophytic vegetation and	wetland hydrology mus	st be prese	ent, unless	disturbed	or problemation	S
Restrictive Layer (if observed):						
Type:						
Depth (inches):	_				Hydric Soil	Present? Yes X No No
Remarks:						





Soil





N



Project/Site: Leroy Center-May	yfield 138 kV Tra	ansmission Line Projec City/C	County: Geauga County	s	Sampling Date: 07/14/2021
Applicant/Owner: FirstEnergy					Sampling Point: Wetland PM-36
Investigator(s): MJA					
Landform (hillslope, terrace, etc				Concave	Slope (%): ²
Subregion (LRR or MLRA): LR	≀R R	Lat: 41.54109471666667	7 Long: -81.299	942863333333	WGS 1984
Subregion (LRR or MLRA): LR Soil Map Unit Name: MgC: Ma	honing silt loam	, 6 to 12 percent slopes		_ NWI classificat	ion:_N/A
Are climatic / hydrologic conditi	ions on the site t	ypical for this time of year? Y	'es X No (If i	no, explain in Rer	narks.)
Are Vegetation, Soil	, or Hydrolo	ogy significantly distur	bed? Are "Normal Ci	rcumstances" pre	esent? Yes X No
Are Vegetation, Soil				lain any answers	
SUMMARY OF FINDING	GS – Attach	site map showing san	npling point locations	s, transects, i	important features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative	Yes Yes		Is the Sampled Area within a Wetland? If yes, optional Wetland Si	·	
HYDROLOGY					
Wetland Hydrology Indicato	ors:		Se	econdary Indicato	rs (minimum of two required)
Primary Indicators (minimum	of one is require			_ Surface Soil Ci	
X Surface Water (A1)		Water-Stained Leave		_ Drainage Patte	
X High Water Table (A2)		Aquatic Fauna (B13)	_	_ Moss Trim Line	
X Saturation (A3)		Marl Deposits (B15)		-	ater Table (C2)
Water Marks (B1)		Hydrogen Sulfide Od		_ Crayfish Burrov	` '
Sediment Deposits (B2)		X Oxidized Rhizospher	=		ble on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduced		 '	essed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reductio		_ Geomorphic Po	
Iron Deposits (B5)	rial Imagery (R7)	Thin Muck Surface (C	· —	Shallow Aquita Microtopograph	` '
Inundation Visible on Aer				_ Microtopograpi	
Sparsely Vegetated Cond	Save Suriace (Do	5)		_ FAC-Neutral To	est (Do)
Surface Water Present?	Yes X N	o Depth (inches):	1		
Water Table Present?	· · · · · · · · · · · · · · · · · · ·	o Depth (inches):	2		
Saturation Present? (includes capillary fringe)		o Depth (inches):	0 Wetland Hyd	Irology Present?	Yes X No
Describe Recorded Data (stre	am gauge, mon	itoring well, aerial photos, pre	evious inspections), if availal	ble:	
Remarks:					

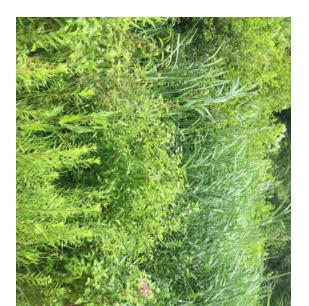
			Sampling Point: Wetland PM-3
	Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
			Total Number of Dominant Species Across All Strata: 5 (B)
			Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
			Prevalence Index worksheet:
	- 10tai 001	0.	FACW species $\frac{40}{x^2}$ $x^2 = \frac{80}{x^2}$
10	Yes	FACW	FAC species5 x 3 =15
			FACU species 0 x 4 = 0
			UPL species x 5 = 0
			Column Totals:110 (A)160 (B)
			Prevalence Index = B/A = 1.45454545454
			Hudronbutia Vagatatian Indiastora.
			Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation
			X 2 - Dominance Test is >50%
15	= Total Cov	er	X 3 - Prevalence Index is ≤3.0 ¹
15	No	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
		FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
			Definitions of Vegetation Strata:
			Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
	-		Herb – All herbaceous (non-woody) plants, regardless of
			size, and woody plants less than 3.28 ft tall.
			Woody vines – All woody vines greater than 3.28 ft in
	Total Cov		height.
95	= Total Cov	er	
			Hydrophytic
			Vegetation
			Present? Yes X No
	= Total Cov	· -	
	10 5 15 15 30 20 30	= Total Covered to the second	= Total Cover 10

SOIL Sampling Point: Wetland PM-36

Profile Desc	ription: (Describe t	o the dep	th needed to docu	ment the	indicator o	or confirm	n the absence	of indicators.)		
Depth	Matrix			x Feature	<u>s</u> _ 1	. 2	_			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0 - 14	10YR 3/2	90	2.5YR 4/6	10	Concer	PL	Silt	Some sand		
14 - 18	2.5Y 4/2	90	10YR 4/6	10	Concer	M	Silty loam	Some sand		
-										
-										
						-	·			
								·		
-										
-										
-										
	-									
-										
-										
-										
1Type: C-C	oncentration, D=Depl	otion DM	- Poducod Motrix M	S_Mooko	d Cond Cro	ine	² L coation	: PL=Pore Lining, M=Matrix.		
Hydric Soil I		ellori, Kivi:	Reduced Matrix, M	S=IVIASKE	a Sanu Gra	1115.		for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Belo	w Surface	(S8) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B)		
	pipedon (A2)		MLRA 149B		, , ,			Prairie Redox (A16) (LRR K, L, R)		
Black Hi			Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)		
	n Sulfide (A4)		Loamy Mucky I			L)		Surface (S7) (LRR K, L, M)		
	l Layers (A5) I Below Dark Surface	(A11)	Loamy Gleyed Depleted Matrix		2)			llue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)		
	ark Surface (A12)	()	X Redox Dark Su					anganese Masses (F12) (LRR K, L, R)		
Sandy M	lucky Mineral (S1)		Depleted Dark		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)			
	leyed Matrix (S4)		Redox Depress	sions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
	edox (S5)						Red Parent Material (F21)			
	Matrix (S6) face (S7) (LRR R, M	II DA 140E	2)					hallow Dark Surface (TF12) (Explain in Remarks)		
Dark out	race (O7) (ERR R, W	ILIXA 1431	•)				00101	(Explain in Nomains)		
³ Indicators of	hydrophytic vegetati	ion and we	tland hydrology mus	st be pres	ent, unless	disturbed	d or problemation	c .		
Restrictive L	ayer (if observed):									
Type:										
Depth (inc	ches):						Hydric Soil	Present? Yes X No No		
Remarks:										







Ε





Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec	City/County: Geauga County	Sampling Date: 07/14/2021
Applicant/Owner: FirstEnergy		Sampling Point: Upland PM-36,37
Investigator(s): MJA		
Landform (hillslope, terrace, etc.): Terrace Loc		Slope (%): ¹
Subregion (LRR or MLRA): LRR R Lat: 41.541091683 Soil Map Unit Name: MgC: Mahoning silt loam, 6 to 12 percent slopes	NWI c	lassification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes X No (If no, expla	in in Remarks.)
Are Vegetation X, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstar	nces" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pro		
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, trans	sects, important features, etc.
Hydrophytic Vegetation Present? Yes	Is the Sampled Area within a Wetland? Yes	No
Hydric Soil Present? Wetland Hydrology Present? Yes NoX NoX	If yes, optional Wetland Site ID: Up	
Remarks: (Explain alternative procedures here or in a separate report		
HINDBOLOGY		
HYDROLOGY Western Hydrology Indicators	Casandan	Indicators (minimum of two required)
Wetland Hydrology Indicators:		Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		ce Soil Cracks (B6)
Surface Water (A1) Water-Stained		age Patterns (B10)
High Water Table (A2) Aquatic Fauna		Trim Lines (B16)
Saturation (A3) Marl Deposits (eason Water Table (C2)
Water Marks (B1)Sediment Deposits (B2)Hydrogen SulficeOxidized Rhizo		sh Burrows (C8) ation Visible on Aerial Imagery (C9)
Oxidized Knizo Oxidized Knizo Drift Deposits (B3) Presence of Re		ed or Stressed Plants (D1)
		orphic Position (D2)
Iron Deposits (B5) Thin Muck Surf.	· ,	w Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain)		opographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No _X _ Depth (inches)	:	
Water Table Present? Yes No _X _ Depth (inches)	:	
Saturation Present? Yes No _X _ Depth (inches) (includes capillary fringe)	, ,	Present? Yes NoX
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:	
Remarks:		

			Sampling Point: Upland PM-36,3
			Dominance Test worksheet:
	·		Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
			(//
			Total Number of Dominant Species Across All Strata: 2 (B)
			Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B
			Prevalence Index worksheet:
			Total % Cover of: Multiply by:
	= Total Cov	er	OBL species
			FACW species0 x 2 =0 FAC species0 x 3 =0
			FACU species 140 x 4 = 560
			UPL species $0 \times 5 = 0$
			Column Totals:(A)(B)
	-		
			Prevalence Index = B/A = 4
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
	= Total Cov	er	2 - Dominance Test is >50%
			3 - Prevalence Index is ≤3.0 ¹
60	Yes	FACU	 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet)
40	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
20	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
15	No	FACU	be present, unless disturbed or problematic.
5	No	FACU	Definitions of Vegetation Strata:
	-		Tree – Woody plants 3 in. (7.6 cm) or more in diamete
			at breast height (DBH), regardless of height.
			Sapling/shrub – Woody plants less than 3 in. DBH
			and greater than or equal to 3.28 ft (1 m) tall.
			Herb – All herbaceous (non-woody) plants, regardless of
			size, and woody plants less than 3.28 ft tall.
			Woody vines – All woody vines greater than 3.28 ft in
	- Total Cov		height.
140	= Total Cov	eı	
			Hydrophytic
			Vegetation
			Present? Yes No ^
	= Total Cov	er	
sheet.)			
	Absolute % Cover	Absolute % Cover Species? ———————————————————————————————————	## Cover Species? Status

SOIL Sampling Point: Upland PM-36,37

Profile Desc	ription: (Describe t	o the dep	th needed to docun	nent the i	ndicator	or confirm	n the absence	of indicato	ors.)	
Depth	Matrix		Redox	x Feature:	<u>s</u>	2				
(inches)	Color (moist)	<u></u> %	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture		Remarks	
0 - 6	10YR 3/2	100					Silty loam			
6 - 18	10YR 4/3	90	10YR 5/6	10	Concer	M	Clay loam			
-										
-			_							
							· 			
					-			-		
-										
-										
¹ Type: C=Ce	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	= S=Masked	Sand Gra	ains.	² Location	: PL=Pore	Lining, M=Matri	X.
Hydric Soil		•	,						matic Hydric S	
Histosol			Polyvalue Belov		(S8) (LRF	RR,			(LRR K, L, MLF	
	oipedon (A2) stic (A3)		MLRA 149B) Thin Dark Surfa		DD D MI	PA 1/0R			ox (A16) (LRR l or Peat (S3) (LI	
	en Sulfide (A4)		Loamy Mucky M					-	(LRR K, L, M)	((K, L, K)
	d Layers (A5)		Loamy Gleyed I			, –,			Surface (S8) (LF	RR K, L)
	d Below Dark Surface	e (A11)	Depleted Matrix						(S9) (LRR K, L	
	ark Surface (A12)		Redox Dark Sur				Iron-M	anganese N	/lasses (F12) (L	.RR K, L, R)
	Nucky Mineral (S1)		Depleted Dark S		7)				ain Soils (F19) (
	Gleyed Matrix (S4)		Redox Depress	ions (F8)					6) (MLRA 144A	, 145, 149B)
-	Redox (S5)							arent Materi		
	l Matrix (S6) rface (S7) (LRR R, M	ILRA 149E	3)					nallow Dark (Explain in F	k Surface (TF12 Remarks)	:)
³ Indicators o	f hydrophytic vegetati	ion and we	tland hydrology mus	t be prese	ent, unless	disturbed	l or problemation).		
	Layer (if observed):		, ,,	•			<u> </u>			
Type:										
Depth (in	ches):						Hydric Soil	Present?	Yes	No <u>X</u>
Remarks:										





Project/Site: Leroy Center-May	field 138 kV Tran	smission Line Projec City/C	County: Geauga County	s	ampling Date: 07/14/2021
Applicant/Owner: FirstEnergy		-			Sampling Point: Wetland PM-37
Investigator(s): MJA		Section Section			
Landform (hillslope, terrace, etc			· · · · · · · ·		Slope (%): ⁵
Subregion (LRR or MLRA): LR	R R	Lat: 41.54033363333333	3 Long: -81.3	3011612	Datum: WGS 1984
Soil Map Unit Name: HsB: Has	skins loam, 2 to 6	percent slopes		NWI classificati	on: N/A
Are climatic / hydrologic condition	ons on the site typ	oical for this time of year? Y	/es X No (If no, explain in Ren	narks.)
Are Vegetation, Soil	, or Hydrolog	y significantly distur	bed? Are "Normal	Circumstances" pre	sent? Yes X No
Are Vegetation, Soil	, or Hydrolog	y naturally problema	atic? (If needed, e	xplain any answers	in Remarks.)
SUMMARY OF FINDING	SS – Attach s	ite map showing san	npling point locatio	ns, transects, i	mportant features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative	Yes _ Yes _		Is the Sampled Area within a Wetland? If yes, optional Wetland	·	
HYDROLOGY					
Wetland Hydrology Indicato	rs:			Secondary Indicator	rs (minimum of two required)
Primary Indicators (minimum o	of one is required	; check all that apply)		Surface Soil Cr	acks (B6)
Surface Water (A1)		Water-Stained Leave		Drainage Patte	
X High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Line	
X Saturation (A3)		Marl Deposits (B15)		Dry-Season Wa	
Water Marks (B1)		Hydrogen Sulfide Od		Crayfish Burrov	` '
Sediment Deposits (B2)		Oxidized Rhizospher			ble on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduced			ssed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reductio	, ,	X Geomorphic Po	
Iron Deposits (B5)	ial Imagary (R7)	Thin Muck Surface (C	•	Shallow Aquita	` '
Inundation Visible on Aeri		Other (Explain in Rer	narks)	Microtopograph	
Sparsely Vegetated Conc Field Observations:	ave Sullace (Do)			FAC-Neutral Te	est (Do)
Surface Water Present?	Yes No	X Depth (inches):			
Water Table Present?		Depth (inches):	8		
Saturation Present? (includes capillary fringe)		Depth (inches):		ydrology Present?	Yes X No
Describe Recorded Data (stre	am gauge, monite	oring well, aerial photos, pre	evious inspections), if avai	ilable:	
Remarks:					
rtomano.					

Trop Stratum (Diet size: 30	Absolute			Dominance Test worksheet:		
Tree Stratum (Plot size:) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)		
2				That Are OBE, I AGW, OF I AC.		
3				Total Number of Dominant Species Across All Strata: 3 (B)		
				Specific resident in Strata.		
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.666666666 (A/B)		
5						
6				Prevalence Index worksheet:		
7		-		Total % Cover of: Multiply by:		
		= Total Cov	er	OBL species		
Sapling/Shrub Stratum (Plot size: 15				FACW species 30		
1				FAC species $\frac{15}{20}$ x 3 = $\frac{45}{80}$		
2				7 ACO species X 4 =		
3				01 L species x 5 =		
4				Column Totals:105 (A)225 (B)		
5				Prevalence Index = B/A = 2.1428571428		
6				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cov	er	X 2 - Dominance Test is >50%		
Herb Stratum (Plot size:5				X 3 - Prevalence Index is ≤3.0 ¹		
1. Juncus effusus	10	No	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2. Carex vulpinoidea	20	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)		
3. Carex lurida	10	No	OBL	¹ Indicators of hydric soil and wetland hydrology must		
4. Carex tribuloides		Yes	FACW	be present, unless disturbed or problematic.		
5. Impatiens capensis	10	No	FACW	Definitions of Vegetation Strata:		
6. Agrostis perennans	20	Yes	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
7. Cornus racemosa	15		FAC	at breast height (DBH), regardless of height.		
				Sapling/shrub – Woody plants less than 3 in. DBH		
8				and greater than or equal to 3.28 ft (1 m) tall.		
9				Herb – All herbaceous (non-woody) plants, regardless of		
10				size, and woody plants less than 3.28 ft tall.		
11				Woody vines – All woody vines greater than 3.28 ft in		
12		-		height.		
	105	= Total Cov	er			
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic Vegetation		
3				Present? Yes X No		
4						
		= Total Cov	er			
Remarks: (Include photo numbers here or on a separate	sheet.)	•				

Sampling Point: Wetland PM-37

SOIL Sampling Point: Wetland PM-37

Profile Desc	ription: (Describe to	o the dep	th needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo:	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 3/2	90	7.5YR 4/6	10	Concer	M	Silty clay loam	
-								
_								
-								
-								
-								
-								
-								
	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.
Hydric Soil I				0 ((Oo) (I DE			for Problematic Hydric Soils ³ :
Histosol	(A1) ipedon (A2)		Polyvalue Belov MLRA 149B)		(S8) (LRF	кк,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		.RR R, MI	RA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	n Sulfide (A4)		Loamy Mucky N	1ineral (F	I) (LRR K	, L)	Dark S	surface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I)			lue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
	rk Surface (A12)		X Redox Dark Sur	. ,				anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark S		7)			ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							arent Material (F21)
	Matrix (S6) face (S7) (LRR R, M	LRA 149E	3)					hallow Dark Surface (TF12) (Explain in Remarks)
	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	2.
Restrictive L	.ayer (if observed):							
Type:								
Depth (inc	:hes):						Hydric Soil	Present? Yes X No No
Remarks:								





Soil





Ν



Project/Site: Leroy Center-Ma	yfield 13	38 kV	Trans	mission Line Projec City/C	County: Gea	uga County		Sampling Date:	07/13/2021
Applicant/Owner: FirstEnergy				•					nt: Wetland PM-38
Investigator(s): MJA				Section	on, Township	, Range: N/A			
Landform (hillslope, terrace, etc	c.): Gu						Concave	Slo	pe (%): ²
Subregion (LRR or MLRA): LF	≀R R			Lat: 41.52483573333333	3	Long: -81.328	40745	Datur	m: WGS 1984
Soil Map Unit Name: MgC: Ma	honing	silt lo	am, 6	to 12 percent slopes			NWI classifica	ation: N/A	
Are climatic / hydrologic conditi	ons on	the si	ite typi	cal for this time of year? Y	′es <u>X</u> 1	No (If n	no, explain in Re	marks.)	
Are Vegetation, Soil	, o	r Hyd	rology	significantly distur	bed?	Are "Normal Cir	rcumstances" pr	esent? Yes	X No
Are Vegetation, Soil						(If needed, expl	ain any answer	s in Remarks.)	
SUMMARY OF FINDING	GS – A	Attac	ch si	te map showing san	npling poi	nt locations	s, transects,	important fe	eatures, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative		`	Yes Yes	X No X No X No	Is the Sam within a W If yes, optic	etland?	Yes X te ID: Wetland F	_	
HYDROLOGY									
	ve.					90	condany Indicat	ors (minimum of	two required)
Wetland Hydrology Indicator Primary Indicators (minimum		io roa	uirod	ahook all that apply)		<u>3e</u>	Surface Soil C		two required)
X Surface Water (A1)	OI OIIE I	<u>s requ</u>	uneu, t	Water-Stained Leave	es (R9)		_ Ounace Son C _ Drainage Patt		
X High Water Table (A2)				Aquatic Fauna (B13)			_ Moss Trim Lir		
X Saturation (A3)				Marl Deposits (B15)				Vater Table (C2)	ı
Water Marks (B1)				Hydrogen Sulfide Od	or (C1)		_ Crayfish Burro		
Sediment Deposits (B2)				X Oxidized Rhizospher	es on Living	Roots (C3)	_ Saturation Vis	ible on Aerial Im	nagery (C9)
Drift Deposits (B3)				Presence of Reduced			- '	essed Plants (D	1)
Algal Mat or Crust (B4)				Recent Iron Reduction			_ Geomorphic F	` '	
Iron Deposits (B5)				Thin Muck Surface (0	•		_ Shallow Aquit		
Inundation Visible on Aer				Other (Explain in Rer	marks)		_ Microtopograp		
Sparsely Vegetated Cond	ave Su	ırtace	(B8)			<u>X</u>	FAC-Neutral	Test (D5)	
	V	~	NI-	Danth (in the sa).	1				
Surface Water Present? Water Table Present?				Depth (inches): Depth (inches):	1				
Saturation Present?				Depth (inches):	0	Wetland Hyd	rology Present	? Yes X	No
(includes capillary fringe)						,	0,	<u>/</u>	
Describe Recorded Data (stre	am ga	uge, n	nonitor	ring well, aerial photos, pre	evious inspec	tions), if availab	ole:		
Remarks:									

Cover Cover S OBL Cover S OBL Cover S OBL Cover S OBL Cover	Dominance Test worksheet: Number of Dominant Species 4 (A) Total Number of Dominant Species Across All Strata: 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 1 (A/B Prevalence Index worksheet: 1 (A/B Total % Cover of: Multiply by: 0 OBL species 100 x 1 = 100 FACW species 45 x 2 = 90 FAC species 0 x 3 = 0 FACU species 0 x 5 = 0 UPL species 0 x 5 = 0 Column Totals: 145 (A) 190 (B) Prevalence Index = B/A = 1.310344827! Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of bydris soil and watened bydralogy must		
Cover Cover S OBL Cover S OBL S OBL FACW	Total Number of Dominant Species Across All Strata: 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 1 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 100 x 1 = 100 FACW species 45 x 2 = 90 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 145 (A) 190 (B) Prevalence Index = B/A = 1.310344827! Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)		
Cover Cover S OBL Cover S OBL S OBL FACW	That Are OBL, FACW, or FAC: 1 (A/B Prevalence Index worksheet:		
Cover Cover S OBL Cover S OBL S OBL FACW	Total % Cover of: Multiply by: OBL species 100 $x 1 = 100$ FACW species 45 $x 2 = 90$ FAC species 0 $x 3 = 0$ FACU species 0 $x 4 = 0$ UPL species 0 $x 5 = 0$ Column Totals: 145 (A) 190 (B) Prevalence Index = B/A = 1.310344827! Hydrophytic Vegetation Indicators: $\frac{X}{2}$ 1 - Rapid Test for Hydrophytic Vegetation $\frac{X}{2}$ 2 - Dominance Test is >50% $\frac{X}{3}$ 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)		
Cover S OBL OBL FACW	OBL species $\frac{100}{45}$ x 1 = $\frac{100}{90}$ FACW species $\frac{45}{45}$ x 2 = $\frac{90}{90}$ FAC species $\frac{0}{45}$ x 4 = $\frac{0}{90}$ UPL species $\frac{0}{45}$ x 5 = $\frac{0}{90}$ Column Totals: $\frac{145}{45}$ (A) $\frac{190}{45}$ (B) Prevalence Index = B/A = $\frac{1.310344827!}{1.310344827!}$ Hydrophytic Vegetation Indicators: $\frac{X}{4}$ 1 - Rapid Test for Hydrophytic Vegetation $\frac{X}{4}$ 2 - Dominance Test is >50% $\frac{X}{4}$ 3 - Prevalence Index is $\leq 3.0^{1}$ 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain)		
Cover S OBL OBL FACW	FACW species $\frac{45}{0}$ x 2 = $\frac{90}{0}$ FAC species $\frac{0}{0}$ x 3 = $\frac{0}{0}$ FACU species $\frac{0}{0}$ x 4 = $\frac{0}{0}$ UPL species $\frac{0}{0}$ x 5 = $\frac{0}{0}$ Column Totals: $\frac{145}{0}$ (A) $\frac{190}{0}$ (B) Prevalence Index = B/A = $\frac{1.310344827!}{0.310344827!}$ Hydrophytic Vegetation Indicators: $\frac{X}{0}$ 1 - Rapid Test for Hydrophytic Vegetation $\frac{X}{0}$ 2 - Dominance Test is >50% $\frac{X}{0}$ 3 - Prevalence Index is $\frac{3.0^{1}}{0}$ $\frac{3.0^{1}}{0.000000000000000000000000000000000$		
Cover S OBL S OBL FACW	FACW species		
Cover S OBL S OBL FACW	FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 145 (A) 190 (B) Prevalence Index = B/A = 1.310344827! Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)		
Cover S OBL S OBL D FACW	UPL species 0 x 5 = 0 Column Totals: 145 (A) 190 (B) Prevalence Index = B/A = 1.310344827! Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)		
Cover S OBL S OBL D FACW	Column Totals:145(A)		
Cover S OBL S OBL D FACW	Prevalence Index = B/A = 1.310344827! Hydrophytic Vegetation Indicators: X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)		
Cover S OBL S OBL D FACW	 X 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportin data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 		
Cover S OBL S OBL FACW	 X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 		
Cover S OBL S OBL D FACW	 X 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supportindata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 		
S OBL O FACW	4 - Morphological Adaptations ¹ (Provide supportindata in Remarks or on a separate sheet) — Problematic Hydrophytic Vegetation ¹ (Explain)		
S OBL FACW	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)		
FACW	• _		
	1 Indicators of hydric soil and water of hydric soil		
E A C\A/	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
FACW	be present, unless disturbed or problematic.		
FACW	Definitions of Vegetation Strata:		
FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
s OBL	at breast height (DBH), regardless of height.		
OBL	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
	Herb – All herbaceous (non-woody) plants, regardless of		
	size, and woody plants less than 3.28 ft tall.		
	Woody vines – All woody vines greater than 3.28 ft in		
Cover	height.		
00101			
	- Hydrophytic		
	Vegetation Present? Yes X No		
	Tresent: TesNO		
Cover			
al	es OBL		

SOIL Sampling Point: Wetland PM-38

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix		Redo	x Feature	<u>s</u>	2					
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks			
0 - 10	10YR 3/1	90	7.5YR 5/6	10	Concer	PL	Silt				
10 - 18	5Y 5/2	75	10YR 5/8	25	Concer	M	Silty clay loam	Sand and gravel			
-											
-											
-											
-											
				-							
-											
¹ Type: C=Co	ncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :			
Histosol			Polyvalue Belov	w Surface	(S8) (I RE	P		Muck (A10) (LRR K, L, MLRA 149B)			
	ipedon (A2)		MLRA 149B)		(00) (211)	,		Prairie Redox (A16) (LRR K, L, R)			
Black His			Thin Dark Surfa					flucky Peat or Peat (S3) (LRR K, L, R)			
	n Sulfide (A4) Layers (A5)		Loamy Mucky M Loamy Gleyed			, L)		Surface (S7) (LRR K, L, M) Ilue Below Surface (S8) (LRR K, L)			
	l Below Dark Surface	(A11)	Depleted Matrix		.)			ark Surface (S9) (LRR K, L)			
	rk Surface (A12)	,	X Redox Dark Su	. ,				anganese Masses (F12) (LRR K, L, R)			
	ucky Mineral (S1)		Depleted Dark		7)		·	ont Floodplain Soils (F19) (MLRA 149B)			
	leyed Matrix (S4) edox (S5)		Redox Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)				
	Matrix (S6)						Very Shallow Dark Surface (TF12)				
	face (S7) (LRR R, M	LRA 1491	3)					(Explain in Remarks)			
³ Indicators of	hydrophytic vegetati	on and we	etland hydrology mus	st be prese	ent. unless	disturbed	l or problemation				
	ayer (if observed):		, , , , , , , , , , , , , , , , , , , ,		,						
Type:											
Depth (inc	:hes):						Hydric Soil	Present? Yes X No No			
Remarks:											





S





Ν



Project/Site: Leroy Center-Mayfield 138 kV Transr	mission Line Projec City/County: Gea	auga County	Sampling Date: 07/13/2021
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-38
Investigator(s): MJA	Section, Township		
Landform (hillslope, terrace, etc.): Shoulder slope		· -	Slope (%): 8
Subregion (LRR or MLRA). LRR R	Lat. 41.53938243333334	Long81.30343423333335	
Subregion (LRR or MLRA): LRR R Soil Map Unit Name: MgC: Mahoning silt loam, 6 t	to 12 percent slopes	NWI classific	eation: N/A
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes X	No (If no, explain in R	emarks.)
Are Vegetation X, Soil , or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	present? Yes X No
Are Vegetation, Soil, or Hydrology		(If needed, explain any answe	
SUMMARY OF FINDINGS – Attach site	e map showing sampling po	int locations, transects	, important features, etc.
	No X Is the Sar within a W	npled Area Vetland?	No
	No X If yes, opt	ional Wetland Site ID: Upland F	PM-38
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; c		Surface Soil	
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	
	Aquatic Fauna (B13)	Moss Trim Li	
	Marl Deposits (B15)	•	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bur	` ,
	Oxidized Rhizospheres on Living		isible on Aerial Imagery (C9)
	Presence of Reduced Iron (C4)Recent Iron Reduction in Tilled S		tressed Plants (D1) Position (D2)
	Thin Muck Surface (C7)	Shallow Aqu	
· · · · ·	Other (Explain in Remarks)	Microtopogra	
Sparsely Vegetated Concave Surface (B8)	Силог (2лрганг на теснианте)	FAC-Neutral	
Field Observations:			(/
Surface Water Present? Yes No	X Depth (inches):		
Water Table Present? Yes No	X Depth (inches):		
	X Depth (inches):	Wetland Hydrology Preser	nt? Yes NoX
Describe Recorded Data (stream gauge, monitori	ing well, aerial photos, previous inspe	ctions), if available:	
Remarks:			

	•			Sampling Point: Upland PM
e Stratum (Plot size:)		Dominant Species?	Status	Dominance Test worksheet: Number of Dominant Species
				That Are OBL, FACW, or FAC:0 (A
				Total Number of Dominant Species Across All Strata: 2 (B
				Percent of Dominant Species That Are OBL, FACW, or FAC: (A
				Prevalence Index worksheet:
		= Total Cove	er	OBL species0 x 1 =0
oling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
,				FAC species x 3 = 0
				FACU species x 4 = 620
				UPL species $0 \times 5 = 0$ Column Totals: $155 \times (\Delta) \times 620 \times (\Delta)$
				Column Totals:155 (A)620 (
	·	·		Prevalence Index = B/A = 4
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cove		2 - Dominance Test is >50%
b Stratum (Plot size:5)				3 - Prevalence Index is ≤3.0 ¹
Schedonorus arundinaceus	30	Yes	FACU	4 - Morphological Adaptations ¹ (Provide suppor data in Remarks or on a separate sheet)
Taraxacum officinale	20	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
Plantago major	20	No	FACU	¹ Indicators of hydric soil and wetland hydrology mus
Poa annua	70	Yes	FACU	be present, unless disturbed or problematic.
Trifolium dubium	15	No	FACU	Definitions of Vegetation Strata:
				Tree – Woody plants 3 in. (7.6 cm) or more in diame at breast height (DBH), regardless of height.
				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
				Herb – All herbaceous (non-woody) plants, regardless of
				size, and woody plants less than 3.28 ft tall.
				Woody vines – All woody vines greater than 3.28 ft in
	155	= Total Cove		height.
ody Vine Stratum (Plot size:30)		- rotal cove		
, , , , , , , , , , , , , , , , , , , ,				
				Hydrophytic
				Vegetation Present? Yes No X
		= Total Cove		
	sheet.)			

SOIL Sampling Point: Upland PM-38

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the i	ndicator o	or confirn	n the absence	of indicators.)
Depth	Matrix			x Features	<u>S</u>	1 2	T	December
(inches) 0 - 4	Color (moist) 10YR 4/2	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture Silty clay loam	Remarks
0 - 4								
4 - 18	10YR 5/3	98	10YR 5/6	2	Concer	M	Silty clay loam	
-								
-			_					
						-		-
-						-		
-								
-			_					
						•	· 	
-						-		
-								
-								
1Typo: C-Co	ncentration, D=Depl	otion PM-	Poducod Matrix MS			ine	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil I		elion, Rivi=	Reduced Matrix, Mc	=iviaskeu	i Sanu Gra	11115.		for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	v Surface	(S8) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	•	MLRA 149B)		`	•		Prairie Redox (A16) (LRR K, L, R)
Black His		-	Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N			L)		Surface (S7) (LRR K, L, M)
	l Layers (A5) I Below Dark Surface	(A11)	Loamy Gleyed IDepleted Matrix)		-	llue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)
-	rk Surface (A12)		Redox Dark Sur					anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)	•	Depleted Dark S		7)			ont Floodplain Soils (F19) (MLRA 149B)
-	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)							arent Material (F21)
	Matrix (S6) face (S7) (LRR R, M	II RA 149R	١					hallow Dark Surface (TF12) (Explain in Remarks)
Dark our	race (O7) (ERR R, II	ILIXA 143D	,				00101	(Explain in Nemarks)
³ Indicators of	hydrophytic vegetat	ion and we	land hydrology mus	t be prese	ent, unless	disturbed	l or problemation	.
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes NoX
Remarks:								





Project/Site: Leroy Center-May	field 138 kV Tra	nsmission Line Projec City/0	County: Geauga County	s	ampling Date: 07/13/2021
Applicant/Owner: FirstEnergy					Sampling Point: Wetland PM-39
Investigator(s): MJA		Secti			
Landform (hillslope, terrace, etc					Slope (%): ³
Subregion (LRR or MLRA): LR					
Soil Map Unit Name: EhF: Ells	worth silt loam, 2	25 to 70 percent slopes		_ NWI classificati	on: N/A
Are climatic / hydrologic condition	ons on the site ty	pical for this time of year?	Yes X No (If	no, explain in Rem	narks.)
Are Vegetation, Soil	, or Hydrolog	gy significantly distu	rbed? Are "Normal Ci	ircumstances" pre	sent? Yes X No
Are Vegetation, Soil	, or Hydroloo	gy naturally problem	atic? (If needed, exp	olain any answers	in Remarks.)
SUMMARY OF FINDING	S – Attach s	site map showing sar	npling point locations	s, transects, i	mportant features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?	Yes	X No X No X No	Is the Sampled Area within a Wetland? If yes, optional Wetland Si	<u></u>	
Remarks: (Explain alternative PEM wetland in maintained po	•				
HYDROLOGY					
Wetland Hydrology Indicato	rs:		Se	econdary Indicator	s (minimum of two required)
Primary Indicators (minimum of		d; check all that apply)		_ Surface Soil Cra	
Surface Water (A1)	-	Water-Stained Leave		Drainage Patte	
X High Water Table (A2)		Aquatic Fauna (B13)		_ Moss Trim Line	
X Saturation (A3)		Marl Deposits (B15)		_ Dry-Season Wa	
Water Marks (B1)		Hydrogen Sulfide Oc	dor (C1)	_ Crayfish Burrov	vs (C8)
Sediment Deposits (B2)		Oxidized Rhizospher	res on Living Roots (C3)	_ Saturation Visib	ole on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduce	d Iron (C4)	_ Stunted or Stre	ssed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction		_ Geomorphic Po	sition (D2)
Iron Deposits (B5)		Thin Muck Surface (C7)	_ Shallow Aquitar	rd (D3)
Inundation Visible on Aeri	al Imagery (B7)	Other (Explain in Re	marks)	_ Microtopograph	ic Relief (D4)
Sparsely Vegetated Conc	ave Surface (B8)	<u>x</u>	_ FAC-Neutral Te	est (D5)
Field Observations:					
Surface Water Present?		X Depth (inches):			
Water Table Present?		Depth (inches):	12		
Saturation Present? (includes capillary fringe)		Depth (inches):		drology Present?	YesX No
Describe Recorded Data (stre	am gauge, moni	toring well, aerial photos, pre	evious inspections), if availal	bie:	
Remarks:					

/EGETATION - Use scientific names of plant	S.			Sampling Point: Wetland PM-39
<u>Tree Stratum</u> (Plot size:) 1)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2				Total Number of Dominant Species Across All Strata: 1 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:100% (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
45		= Total Cov	er	OBL species 3 x 1 = 3 FACW species 85 x 2 = 170
Sapling/Shrub Stratum (Plot size: 15)				FACW species $\frac{85}{0}$ x 2 = $\frac{170}{0}$ FAC species $\frac{0}{0}$ x 3 = $\frac{0}{0}$
1				FACU species 15 x 4 = 60
2		-		UPL species 0 x 5 = 0
3				Column Totals: 103 (A) 233 (B)
4. <u> </u>				Prevalence Index = B/A = 2.26
5 6				Hydrophytic Vegetation Indicators:
6				X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
Hart Oracles (Blacking 5		= Total Cov	er	X 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size:5) 1Phalaris arundinacea	80	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Symplocarpus foetidus	3	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Onoclea sensibilis	5	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
4. Rosa multiflora	15	No	FACU	be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9		-		
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11		-		Woody vines – All woody vines greater than 3.28 ft in
12		-		height.
	103	= Total Cov	er	
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic Vegetation
3				Present? Yes X No
4.				
		= Total Cov	rer	
Remarks: (Include photo numbers here or on a separate	e sheet.)			<u> </u>
	,			

SOIL Sampling Point: Wetland PM-39

Profile Desc	ription: (Describe t	o the depth				or confirm	the absence	of indicators.)
Depth (in the set)	Matrix	0/		x Features	<u>S</u>	Loc ²	Taustuna	Damadu
(inches)	Color (moist)	<u></u> % _	Color (moist)	%	Type ¹		Texture	Remarks
0 - 18	10YR 4/2	98	10YR 4/4	2	Concer	M	Silty loam	Some sand
-								
							·	
-								
-								
-								
-								
-								
¹Type: C=Cc	oncentration, D=Depl	etion RM-F	Reduced Matrix MS	S-Masked	Sand Gra	ins	² I ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil I		Ction, rtivi–i	Codeca Matrix, Mi	J-Maskea	Odrid Ord			for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	w Surface	(S8) (L RR	R.		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	_	MLRA 149B		(00) (=::::	,		Prairie Redox (A16) (LRR K, L, R)
Black His		_	Thin Dark Surfa		.RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	_	Loamy Mucky N					Surface (S7) (LRR K, L, M)
Stratified	Layers (A5)	_	Loamy Gleyed	Matrix (F2))		Polyva	llue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11) _	X Depleted Matrix					ark Surface (S9) (LRR K, L)
	rk Surface (A12)	_	Redox Dark Su	, ,	_,			anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)	-	Depleted Dark		7)			ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	-	Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5) Matrix (S6)							arent Material (F21) Shallow Dark Surface (TF12)
	face (S7) (LRR R, M	I DA 140B\						(Explain in Remarks)
Daik Sui	iace (57) (LICIX IX, W	LIVA 1430)					Other	(Explain in Remarks)
³ Indicators of	hydrophytic vegetati	on and wetl	and hydrology mus	st be prese	nt. unless	disturbed	or problemation	2.
	ayer (if observed):				.,			
Type:								
	ches):						Hydric Soil	Present? Yes X No No
Remarks:							11,411.0001	
Remarks.								





Soil







Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Proj	City/County: Geauga County	Samp	oling Date: 07/13/2021
Applicant/Owner: FirstEnergy	· · · ·		mpling Point: Upland PM-39
Investigator(s): MJA	Section, Township, Range: N/A		
Landform (hillslope, terrace, etc.): Gulch or Gully			Slope (%): ³
Subregion (LRR or MLRA): LRR R Lat: 41.53798			
Soil Map Unit Name: EhF: Ellsworth silt loam, 25 to 70 percent slop	pes 2011g.	NWI classification:_	N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No (I	f no, explain in Remark	s.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal	Circumstances" present	? Yes X No
Are Vegetation, Soil, or Hydrology naturally		plain any answers in R	
SUMMARY OF FINDINGS – Attach site map showi	ng sampling point location	ns, transects, imp	ortant features, etc.
Hydrophytic Vegetation Present? Yes		Yes N	0
Wetland Hydrology Present? Yes No X	If yes, optional Wetland	Site ID. Upland PM-39	
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (m	ninimum of two required)
Primary Indicators (minimum of one is required; check all that app	y)	Surface Soil Cracks	s (B6)
	ed Leaves (B9)	Drainage Patterns ((B10)
High Water Table (A2) Aquatic Fau		Moss Trim Lines (B	
Saturation (A3) Marl Deposi	ts (B15)	Dry-Season Water	Table (C2)
Water Marks (B1) Hydrogen S		Crayfish Burrows (0	,
	izospheres on Living Roots (C3)		n Aerial Imagery (C9)
	Reduced Iron (C4)	Stunted or Stressed	
		X Geomorphic Position	
Iron Deposits (B5) Thin Muck S Inundation Visible on Aerial Imagery (B7) Other (Expla	, ,	Shallow Aquitard (D	,
Inundation Visible on Aerial Imagery (B7) Other (Expla Sparsely Vegetated Concave Surface (B8)	in in Remarks)	Microtopographic RFAC-Neutral Test (I	
Field Observations:		PAC-Neutral Test (I	53)
Surface Water Present? Yes No _X Depth (inch	es):		
Water Table Present? Yes No X Depth (inch			
Saturation Present? Yes No X Depth (incl (includes capillary fringe)		drology Present? Y	es No_X_
Describe Recorded Data (stream gauge, monitoring well, aerial ph	otos, previous inspections), if avail	able:	
Remarks:			
IXemans.			

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1			·	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				Percent of Dominant Species
5		-		That Are OBL, FACW, or FAC: 33% (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	ver	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species43 x 2 =86
1				FAC species0 x 3 =0
2				FACU species55 x 4 =220
3				UPL species 20 x 5 = 100
				Column Totals:118 (A)406 (B)
4				Prevalence Index = B/A = 3.44
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov		2 - Dominance Test is >50%
Herb Stratum (Plot size:5		_ 10tal C0	vei	3 - Prevalence Index is ≤3.0 ¹
1. Solidago canadensis	55	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea		Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Onoclea sensibilis		· ·	FACW	¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines – All woody vines greater than 3.28 ft in height.
	98	= Total Cov	ver	
Woody Vine Stratum (Plot size: 30)				
1. Celastrus orbiculatus	20	Yes	UPL	
2		-		Hydrophytic Vegetation
3				Present? Yes No X
4				
	20	= Total Cov	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: Upland PM-39

SOIL Sampling Point: Upland PM-39

Profile Desc	ription: (Describe to	the dep	th needed to docun	nent the indi	icator o	r confirm	the absence	of indicators.)
Depth	Matrix		Redox	K Features	- 1	. 2		
(inches)	Color (moist)	%	Color (moist)	<u>%</u> T	ype ¹	Loc	Texture	Remarks
0 - 18	10YR 3/2	100					Silty loam	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked Sa	and Gra	ins.		: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indicators	for Problematic Hydric Soils ³ :
Histosol	` ,		Polyvalue Belov		3) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)		MLRA 149B)					Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa					flucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky M		LRR K,	L)		surface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I					lue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
	rk Surface (A12)		Redox Dark Sur					anganese Masses (F12) (LRR K, L, R)
Sandy M	lucky Mineral (S1)		Depleted Dark S	Surface (F7)			Piedmo	ont Floodplain Soils (F19) (MLRA 149B)
Sandy G	leyed Matrix (S4)		Redox Depressi	ions (F8)			Mesic	Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							arent Material (F21)
-	Matrix (S6)							hallow Dark Surface (TF12)
	face (S7) (LRR R, M	LRA 149E	3)					(Explain in Remarks)
	hydrophytic vegetation	on and we	tland hydrology mus	t be present,	unless	disturbed	or problematic).
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes No X
Remarks:								





Soil

Project/Site: Leroy Center-May	yfield 138 kV Tra	ansmissio	on Line Projec City/	County: Gea	uga County		Sampling Date: 07/14/2021
Applicant/Owner: FirstEnergy							Sampling Point: Wetland PM-
• •			Sect	ion. Townshir	o. Range: N		
							Slope (%): 1
Landform (hillslope, terrace, etc Subregion (LRR or MLRA): LR	RR R	Lot	41.5360952		, convox, no 81.	30975056666666	0.000 (70)
Soil Map Unit Name: MgB: Ma	honing silt loam	Lat. 2 to 6 n	ercent slopes		Long.	NNA// -1'C-	Datum:
Are climatic / hydrologic conditi							
Are Vegetation X, Soil	X, or Hydrold	уду	significantly distu	rbed?	Are "Norma	l Circumstances" p	resent? Yes X No
Are Vegetation, Soil	, or Hydrold	gy	naturally problem	natic?	(If needed,	explain any answei	rs in Remarks.)
SUMMARY OF FINDING	GS – Attach	site m	ap showing sar	mpling poi	int location	ons, transects	, important features, etc
Hydrophytic Vegetation Prese	ent? Yes	Х	No	Is the Sam	npled Area		
Hydric Soil Present?			No	within a W	/etland?	Yes X	No
Wetland Hydrology Present?			No	If ves. option	onal Wetland	d Site ID: Wetland I	PM-40
Remarks: (Explain alternative				, 00, 00			
HYDROLOGY							
Wetland Hydrology Indicato	ors:					Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum	of one is require	d; check	all that apply)			Surface Soil	Cracks (B6)
Surface Water (A1)			Water-Stained Leav	es (B9)		Drainage Pat	tterns (B10)
X High Water Table (A2)			Aquatic Fauna (B13)			Moss Trim Li	
X Saturation (A3)			Marl Deposits (B15)				Water Table (C2)
Water Marks (B1)			Hydrogen Sulfide O			Crayfish Burr	
Sediment Deposits (B2)			Oxidized Rhizosphe	_	Roots (C3)	· · · · · · · · · · · · · · · · · · ·	sible on Aerial Imagery (C9)
Drift Deposits (B3)			Presence of Reduce	, ,	-: - (00)		tressed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)			Recent Iron Reducti		olis (C6)	Geomorphic	
Inundation Visible on Aer	ial Imagery (R7)		Thin Muck Surface (Other (Explain in Re			Shallow Aqui	phic Relief (D4)
Sparsely Vegetated Cond			Other (Explain in Ne	iliaiks)		X FAC-Neutral	
Field Observations:	Save Ganade (Br	<i>-</i>				1710 Noutrai	1031 (100)
Surface Water Present?	Yes N	o X	Depth (inches):				
Water Table Present?			Depth (inches):	8			
Saturation Present?			Depth (inches):	2	Wetland I	Hydrology Presen	t? Yes X No
(includes capillary fringe)		·					
Describe Recorded Data (stre	eam gauge, mon	itoring w	ell, aerial photos, pr	evious inspec	ctions), if ava	ailable:	
Remarks:							

Tree Stratum (Plot size: 30)	Absolute	Dominant Indicator Species? Status	Dominance Test worksheet:
1		- 	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2			That Are OBL, FACW, or FAC:1 (A)
			Total Number of Dominant Species Across All Strata: 1 (B)
3			(B)
4			Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
5			That rice GBE, Friend, GFFrie.
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
		_ = Total Cover	OBL species 10 x 1 = 10
Sapling/Shrub Stratum (Plot size: 15)			FACW species x 2 = 200
1			FAC species 0 x 3 = 0
2			FACU species 0 x 4 = 0
3			UPL species0 x 5 =0
4.			Column Totals:110 (A)210 (B)
5			Prevalence Index = B/A = 1.9090909090
6			Hydrophytic Vegetation Indicators:
7	·		X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cover	X 2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		_ = Total Cover	X 3 - Prevalence Index is ≤3.0 ¹
1. Phalaris arundinacea	100	Yes FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Carex vulpinoidea		No OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3	<u> </u>		¹ Indicators of hydric soil and wetland hydrology must
			be present, unless disturbed or problematic.
4			Definitions of Vegetation Strata:
5			_
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7			
8			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9			
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11			
12			Woody vines – All woody vines greater than 3.28 ft in height.
	110	_ = Total Cover	
Woody Vine Stratum (Plot size:)			
1			
2.			Hydrophytic
3			Vegetation Present? Yes X No
4			
7		= Total Cover	
Remarks: (Include photo numbers here or on a separate	sheet)	_ = Total Cover	
Tromano. (morade priote numbers here of on a separate	Silcot.)		

Sampling Point: Wetland PM-40

SOIL Sampling Point: Wetland PM-40

Depth (inches)	Matrix	%	Redo	x Features	Type ¹	Loc ²	Touturo	Domorko
(inches) 0 - 10	Color (moist) 10YR 3/2	98	5YR 4/4		Concer	PL	Texture Silty loam	Remarks
	10YR 4/1	-	5YR 4/6				·	
10 - 18	1018 4/1	95	31K 4/0	5	Concer	PL_	Silty clay loam	
							·	
							<u> </u>	
-								
-								
_		-						-
		-				-		
-								
		letion, RM	1=Reduced Matrix, M	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.
lydric Soil II			5 5.	0 1	00) / DE			for Problematic Hydric Soils ³ :
Histosol ((A1) ipedon (A2)		Polyvalue Below MLRA 149B		S8) (LRF	κκ,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa	•	RR R, MI	_RA 149B	· · · · · · · · · · · · · · · · · · ·	Mucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky I		(LRR K	, L)		Surface (S7) (LRR K, L, M)
	Layers (A5) Below Dark Surface	- (Λ11)	Loamy Gleyed Depleted Matrix					lue Below Surface (S8) (LRR K, L) ark Surface (S9) (LRR K, L)
	rk Surface (A12)	= (A11)	X Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark		')			ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress	sions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							arent Material (F21)
	Matrix (S6) face (S7) (LRR R, N	ILRA 149	9B)					hallow Dark Surface (TF12) (Explain in Remarks)
Indicators of	hydronhytic yogotat	ion and w	vetland hydrology mus	et ha procor	at unloce	disturbo	d or problematic	
	ayer (if observed):		reliand hydrology mus	st be preser	it, uniess	GISTUIDEC	or problematic	
Туре:	,		_					
Depth (inc	hes):		_				Hydric Soil	Present? Yes X No No
Remarks:								





Soil





S



Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/	/County: Geauga County	Sampling Date: 07/14/2021				
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: Upland PM-40,41,42				
Investigator(s): MJA Sec						
Landform (hillslope, terrace, etc.): Terrace Local re		Slope (%): ²				
Subregion (LRR or MLRA): LRR R Lat: 41.5355623833333 Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes	NWI classific	eation: N/A				
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes X No (If no, explain in R	temarks.)				
Are Vegetation, Soil, or Hydrology significantly distu	urbed? Are "Normal Circumstances" p	oresent? Yes X No				
Are Vegetation, Soil, or Hydrology naturally problem						
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects	, important features, etc.				
Hydrophytic Vegetation Present? Yes	Is the Sampled Area within a Wetland? Yes					
Wetland Hydrology Present? Yes X No Remarks: (Explain alternative procedures here or in a separate report.)	If yes, optional Wetland Site ID: Upland F	7101-40,41,42				
powerline easement.						
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indica	ators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil	Cracks (B6)				
Surface Water (A1) Water-Stained Leav	-					
High Water Table (A2) Aquatic Fauna (B13		Moss Trim Lines (B16)				
Saturation (A3) Marl Deposits (B15)		Water Table (C2)				
Water Marks (B1) Hydrogen Sulfide O		` '				
		isible on Aerial Imagery (C9)				
Drift Deposits (B3) Presence of Reduce	· ·	tressed Plants (D1)				
Algal Mat or Crust (B4) Recent Iron Reduct	· · · — ·	Position (D2)				
Iron Deposits (B5) Thin Muck Surface Inundation Visible on Aerial Imagery (B7) Other (Explain in Re						
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral	. , ,				
Field Observations:		1001 (20)				
Surface Water Present? Yes No _X _ Depth (inches):						
Water Table Present? Yes No _X Depth (inches):						
Saturation Present? Yes No _X Depth (inches): (includes capillary fringe)	Wetland Hydrology Preser	nt? Yes X No				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	revious inspections), if available:					
Remarks:						
Tromano.						

/EGETATION – Use scientific names of plants				Sampling Point: Upland PM-40,41,42		
Tree Stratum (Plot size: 30)	Absolute	Dominant		Dominance Test worksheet:		
		Species?		Number of Dominant Species That Are OBL_FACW_or_FAC: 0 (A)		
1				That Are OBL, FACW, or FAC: (A)		
				Total Number of Dominant Species Across All Strata: 2 (B)		
4				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)		
5						
6				Prevalence Index worksheet:		
7						
Ocalica (Ohach Orachusa (Distrains 15		= Total Cov	er	OBL species0		
Sapling/Shrub Stratum (Plot size: 15)				FAC species x 2 = FAC species x 3 = 60		
1				FACU species115 x 4 =460		
2				UPL species 0 x 5 = 0		
3				Column Totals:135		
4				Prevalence Index = B/A = 3.8518518518		
5				Trevalence index = B/A =		
6				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%		
		= Total Cov	er	3 - Prevalence Index is ≤3.0 ¹		
Herb Stratum (Plot size:)				4 - Morphological Adaptations ¹ (Provide supporting		
1Trifolium repens	55	Yes	FACU	data in Remarks or on a separate sheet)		
2. Phleum pratense	10	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)		
3. Schedonorus arundinaceus	20	No	FACU	¹ Indicators of hydric soil and wetland hydrology must		
4. Agrostis perennans	30	Yes	FACU	be present, unless disturbed or problematic.		
5. Ranunculus repens	20	No	FAC	Definitions of Vegetation Strata:		
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
7				at breast height (DBH), regardless of height.		
8				Sapling/shrub – Woody plants less than 3 in. DBH		
9				and greater than or equal to 3.28 ft (1 m) tall.		
10		-		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
11						
12				Woody vines – All woody vines greater than 3.28 ft in height.		
	135	= Total Cov	er			
Woody Vine Stratum (Plot size:)						
1						
				Hydrophytic		
2				Vegetation Present? Yes No X		
2 3.						
2						
3		= Total Cov	er			

SOIL Sampling Point: Upland PM-40,41,42

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			x Features	<u>s</u>	2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 18	10YR 3/2	90	2.5YR 4/6	10	Concer	PL	Silty loam	
-								
-								
-								
			_					
·								
-								
·	-							<u> </u>
-								
¹Type: C=C	oncentration, D=Depl	etion RM-	Reduced Matrix M	S-Maskad	Sand Gra	ine	² l ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil		Ction, raivi-	rtcaacca Matrix, Mi	<u>J-Masked</u>	Oana Ora			for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belo	w Surface	(S8) (LRR	R.		Muck (A10) (LRR K, L, MLRA 149B)
	oipedon (A2)		MLRA 149B		(00) (=	,		Prairie Redox (A16) (LRR K, L, R)
Black Hi			Thin Dark Surfa	•	.RR R, ML	RA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)		Loamy Mucky I	Mineral (F1) (LRR K,	L)	Dark S	Surface (S7) (LRR K, L, M)
	d Layers (A5)		Loamy Gleyed)			lue Below Surface (S8) (LRR K, L)
	d Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
	ark Surface (A12)		X Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark		7)			ont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress	sions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5) Matrix (S6)							arent Material (F21) hallow Dark Surface (TF12)
	rface (S7) (LRR R, M	II RA 149R	1)					(Explain in Remarks)
Bank ou	nace (Or) (Erricht, III	ILIKA 140D	''				0	(Explain in Nomano)
³ Indicators of	f hydrophytic vegetati	ion and we	tland hydrology mus	st be prese	ent, unless	disturbed	or problemation	.
	Layer (if observed):		, ,,	•				
Type:								
Depth (inc	ches):						Hvdric Soil	Present? Yes X No No
Remarks:							,	
ixemaiks.								





U-MJA-071421-03,04,05

Project/Site: Leroy Center-Mayfie	ld 138 kV Transı	mission Line Projec City/C	County: Geau	ga County	Sampling Date: 07/14/2021
Applicant/Owner: FirstEnergy		•	,		Sampling Point: Wetland PM-41
Investigator(s): MJA		Section	ion, Township,		
Landform (hillslope, terrace, etc.):					Slope (%): ⁰
					2 Datum: WGS 1984
Soil Map Unit Name: MgB: Mahor					
Are climatic / hydrologic conditions					
Are Vegetation, Soil					present? Yes X No
Are Vegetation, Soil				f needed, explain any answ	
				it locations, transect	s, important features, etc.
Hydrophytic Vegetation Present?		X No	Is the Samp	led Area	
Hydric Soil Present?		X No	within a We		
Wetland Hydrology Present? Remarks: (Explain alternative pr		X No	If yes, option	nal Wetland Site ID: Wetland	d PM-41
LIVEROL COV					
HYDROLOGY					
Wetland Hydrology Indicators:				·	cators (minimum of two required)
Primary Indicators (minimum of o	one is required; o		(DO)	Surface So	
X Surface Water (A1)		Water-Stained Leave		Drainage P	
X High Water Table (A2) X Saturation (A3)		Aquatic Fauna (B13)Marl Deposits (B15)		Moss Trim	n Water Table (C2)
Water Marks (B1)		Hydrogen Sulfide Od		Crayfish Bu	
Sediment Deposits (B2)		X Oxidized Rhizospher			Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduce	_		Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reduction	on in Tilled Soil	ls (C6) X Geomorphi	c Position (D2)
Iron Deposits (B5)		Thin Muck Surface (0	•	Shallow Aq	uitard (D3)
Inundation Visible on Aerial		Other (Explain in Rei	marks)	· -	raphic Relief (D4)
Sparsely Vegetated Concav	e Surface (B8)			X FAC-Neutra	al Test (D5)
Field Observations:	/oo Y No	Donth (inches)	1		
		Depth (inches): Depth (inches):	0		
		Depth (inches):		Wetland Hydrology Prese	ent? Yes X No
(includes capillary fringe)		. , , ,			
Describe Recorded Data (stream	i gauge, monitor	ing weii, aeriai photos, pre	evious inspection	ons), if available:	
Remarks:					

EGETATION – Use scientific names of plants				Sampling Point: Wetland PM-4
Tree Stratum (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2 3				Total Number of Dominant Species Across All Strata: 2 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species x 1 = 100
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
1				FAC species $0 \times 3 = 0$
2				FACU species15
3				UPL species 0 x 5 = 0 Column Totals: 115 (A) 160 (B)
4				Column Totals:115
5				Prevalence Index = B/A = 1.391304347{
				Hydrophytic Vegetation Indicators:
6				X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
-		= Total Cov	er	$\frac{X}{3}$ 3 - Prevalence Index is $\leq 3.0^{1}$
Herb Stratum (Plot size: 5 1. Persicaria hydropiperoides	25	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Carayyyylainaidaa		Yes	OBL	Problematic Hydrophytic Vegetation¹ (Explain)
		-	OBL	
		No No	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Agrostis perennans 5. Eleocharis obtusa	15	-	OBL	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diamete
7				at breast height (DBH), regardless of height.
8 9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12.				Woody vines – All woody vines greater than 3.28 ft in height.
	115	= Total Cov	<u></u>	norgin.
Woody Vine Stratum (Plot size:)				
1				
				Hydrophytic
				Vegetation Present? Yes X No
				riesent: resNo
2		= Total Cov		

SOIL Sampling Point: Wetland PM-41

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix			x Features	<u>S</u> _ 1	. 2	_				
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0 - 5	10YR 3/2	100					Silt				
5 ⁻ 18	10YR 3/2	90	2.5YR 4/6	10	Concer	PL	Silty clay loam				
-											
							·				
-											
							.				
-											
							·				
-											
¹Type: C=Conce	entration, D=Deple	etion. RM:	=Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location	: PL=Pore Lining, M=Matrix.			
Hydric Soil Indi			,					for Problematic Hydric Soils ³ :			
Histosol (A1))		Polyvalue Belov	w Surface	(S8) (LRR	2 R,	2 cm N	Muck (A10) (LRR K, L, MLRA 149B)			
Histic Epiped			MLRA 149B)					Prairie Redox (A16) (LRR K, L, R)			
Black Histic			Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)			
Hydrogen St			Loamy Mucky N Loamy Gleyed I			L)		Surface (S7) (LRR K, L, M) Ilue Below Surface (S8) (LRR K, L)			
	low Dark Surface	(A11)	Depleted Matrix)			ark Surface (S9) (LRR K, L)			
	Surface (A12)	(,,,,	X Redox Dark Su					anganese Masses (F12) (LRR K, L, R)			
	y Mineral (S1)		Depleted Dark S		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)				
	ed Matrix (S4)		Redox Depress	ions (F8)				Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy Redo								Red Parent Material (F21)			
Stripped Mat	trix (S6) e (S7) (LRR R, M	I D A 140E	2/					Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
Dark Surface	5 (37) (LIKIK IK, IVI	LIVA 143L	2)				Other ((Explain in Nemarks)			
³ Indicators of hyd	drophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	d or problemation	c.			
Restrictive Laye	er (if observed):										
Type:											
Depth (inches	s):						Hydric Soil	Present? Yes X No No			
Remarks:							.				













Project/Site: Leroy Center-May	field 138	3 kV Tran	smission Line Projec City/	County: Gea	uga County	;	Sampling Date: 07/14/2021
Applicant/Owner: FirstEnergy				<u> </u>			_ Sampling Point: Wetland PM
Investigator(s): MJA			Sect	ion, Township	o, Range: N/A		
Landform (hillslope, terrace, etc						Flat	Slope (%): ²
Subregion (LRR or MLRA): LR							
Soil Map Unit Name: CnB: Chil	i loam, 2	to 6 perc	cent slopes			NWI classifica	tion:_N/A
Are climatic / hydrologic condition	ons on th	ne site typ	oical for this time of year?	Yes X I	No (If n	o, explain in Re	marks.)
Are Vegetation, Soil	, or '	Hydrolog	y significantly distu	ırbed?	Are "Normal Cir	cumstances" pro	esent? Yes X No
Are Vegetation, Soil	, or !	Hydrolog	y naturally problem	natic?	(If needed, expl	ain any answers	s in Remarks.)
SUMMARY OF FINDING	3S – A	ttach si	ite map showing saı	mpling poi	int locations	, transects,	important features, et
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?	nt?		X No X No X No	Is the Sam within a W		Yes X	_
Remarks: (Explain alternative	procedu	res here	or in a separate report.)	ii yes, optic	Jilai Welland Sit	е ір	
PEM wetland within maintained	z powen	irie easer	ment.				
HYDROLOGY							
Wetland Hydrology Indicato	rs:				<u>Se</u>	condary Indicate	ors (minimum of two required)
Primary Indicators (minimum o	of one is	required;	check all that apply)			Surface Soil C	
Surface Water (A1)			Water-Stained Leav			Drainage Patte	
X High Water Table (A2)			Aquatic Fauna (B13			Moss Trim Lin	
X Saturation (A3)			Marl Deposits (B15)				/ater Table (C2)
Water Marks (B1)			Hydrogen Sulfide O			Crayfish Burro	` ,
Sediment Deposits (B2)			X Oxidized RhizosphePresence of Reduce	_	Roots (C3)		ible on Aerial Imagery (C9) essed Plants (D1)
Drift Deposits (B3) Algal Mat or Crust (B4)			Recent Iron Reducti	, ,		Geomorphic P	
Iron Deposits (B5)			Thin Muck Surface (Shallow Aquita	
Inundation Visible on Aeri	al Image	ary (R7)	Other (Explain in Re		·	Microtopograp	, ,
Sparsely Vegetated Conc	_	• , ,		iliaiks)		FAC-Neutral T	
Field Observations:	ave Sun	ace (Do)				1 AC-Neutlai I	est (D3)
Surface Water Present?	Yes	No	X Depth (inches):				
Water Table Present?			Depth (inches):	12			
Saturation Present?			Depth (inches):	4	Wetland Hydi	rology Present	? Yes X No
(includes capillary fringe)			-dan and a second		('\) '('\)	1-	
Describe Recorded Data (stre	am gaug	je, monito	oring well, aerial photos, pr	evious inspec	tions), if availab	ile:	
Remarks:							

bsolute		
6 Cover	Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
		Total Number of Dominant Species Across All Strata: 2 (B)
		Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
	= Total Cover	OBL species x 1 = 30
		FACW species 80 x 2 = 160
		rac species x s =
		ACU species x 4 =
		01 L species x 5 =
		Column Totals:110(A)190(B)
		Prevalence Index = $B/A = 1.72727272727272727272727272727272727272$
		Hydrophytic Vegetation Indicators:
		X 1 - Rapid Test for Hydrophytic Vegetation
		X 2 - Dominance Test is >50%
	= Total Cover	$\frac{X}{X}$ 3 - Prevalence Index is $\leq 3.0^{1}$
80	Yes FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
	· · · · · · · · · · · · · · · · · · ·	Problematic Hydrophytic Vegetation ¹ (Explain)
		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		Definitions of Vegetation Strata:
		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
		Herb – All herbaceous (non-woody) plants, regardless of
		size, and woody plants less than 3.28 ft tall.
		Woody vines – All woody vines greater than 3.28 ft in
		height.
110	= Total Cover	
		Hydrophytic
		Vegetation Present? Yes X No
		Tresent: Tes No
eet.)	= Total Cover	
	80 30	= Total Cover = Total Cover = Total Cover 80 Yes FACW 30 Yes OBL

SOIL Sampling Point: Wetland PM-42

Profile Desc	ription: (Describe t	o the dept	h needed to docun	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo:	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 4/1	80	2.5YR 4/6	20	Concer	PL	Silty loam	
			-					
-								
-								
-								
-								
-								
	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.
Hydric Soil I					(00) (1	_		for Problematic Hydric Soils ³ :
Histosol	(A1) iipedon (A2)		Polyvalue Belov MLRA 149B)		(S8) (LRF	R,		luck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		RR R. MI	RA 149B)		flucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N					urface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I			,		lue Below Surface (S8) (LRR K, L)
Depleted	Below Dark Surface	(A11)	X Depleted Matrix	(F3)			Thin D	ark Surface (S9) (LRR K, L)
	rk Surface (A12)		Redox Dark Sur					anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark S		7)		Piedmo	ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
	edox (S5)							arent Material (F21)
	Matrix (S6)							hallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149B	3)				Other (Explain in Remarks)
	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problematio	
	ayer (if observed):							
Type: Depth (inc	shoo):						Hydric Soil	Present? Yes X No No
Remarks:	nes)						nyuric Soii	Present? Yes X No
Nemaiks.								





Soil







Project/Site: Leroy Center-May	yfield 138 k	V Transn	mission Line Projec C	ity/County: Gea	auga County	S	ampling Date: 07/14/2021
Applicant/Owner: FirstEnergy							Sampling Point: Wetland PM-43
Investigator(s): MJA			S	ection, Townshi			
Landform (hillslope, terrace, etc						oncave	Slope (%): ⁰
Subregion (LRR or MLRA): LR							
Soil Map Unit Name: CnB: Chi	li loam, 2 to	o 6 perce	ent slopes		N	IWI classificati	on: N/A
Are climatic / hydrologic conditi	ons on the	site typic	cal for this time of year	r? Yes X	No (If no,	explain in Rem	narks.)
Are Vegetation, Soil	, or Hy	/drology	significantly di	isturbed?	Are "Normal Circu	mstances" pre	sent? Yes X No
Are Vegetation, Soil	, or Hy	drology _	naturally prob	lematic?	(If needed, explain	any answers	in Remarks.)
SUMMARY OF FINDING	3S – Atta	ach site	e map showing s	sampling po	int locations, t	ransects, i	mportant features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?		Yes	X No X No	within a V	npled Area Vetland? ional Wetland Site I		
Remarks: (Explain alternative					ional Wetland Site I	D: Wolland 1 1	
HYDROLOGY							
Wetland Hydrology Indicato	rs:				Seco	ndary Indicator	rs (minimum of two required)
Primary Indicators (minimum	of one is re	quired; c				Surface Soil Cra	
X Surface Water (A1)			Water-Stained Le			Prainage Patter	
X High Water Table (A2)			Aquatic Fauna (B			Moss Trim Line	
X Saturation (A3)			Marl Deposits (B			-	ater Table (C2)
Water Marks (B1)			Hydrogen Sulfide			Crayfish Burrow	` ,
Sediment Deposits (B2)			Oxidized Rhizosp				ble on Aerial Imagery (C9)
Drift Deposits (B3)			Presence of Red				ssed Plants (D1)
Algal Mat or Crust (B4)			Recent Iron Redu		• • • —	Seomorphic Po	
Iron Deposits (B5)	i-I Imagan		Thin Muck Surface	, ,		Shallow Aquitar	` '
Inundation Visible on Aer			Other (Explain in	Remarks		Aicrotopograph	
Sparsely Vegetated Cond Field Observations:	ave Surrac	;e (B8)			F	AC-Neutral Te	est (D5)
Surface Water Present?	Vec X	No	Depth (inches):	1			
Water Table Present?			Depth (inches):	10			
Saturation Present?			Depth (inches):	4	Wetland Hydrol	ogy Present?	Yes <u>X</u> No
(includes capillary fringe) Describe Recorded Data (stre	am gauge	monitori	ing well, aerial photos.	previous inspe			
Describe Resoluce Data (Sile	am gaage,	, moniton	ing well, derial priotos,	, previous mope	otionoj, ii avaliabio.		
Remarks:							
Wetland hydrology hisorically	altered by	structure	base installation.				

EGETATION – Use scientific names of plants				Sampling Point: Wetland PM-4
Tree Stratum (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2 3				Total Number of Dominant Species Across All Strata: 2 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7			-	Total % Cover of: Multiply by:
		= Total Cov	er	OBL species 75 x 1 = 75
Sapling/Shrub Stratum (Plot size: 15)				racivi species x z =
1				X 3 =
2				TACO species X 4 =
3				01 L species x 0 =
4 5				Column Totals:140
6				Hydrophytic Vegetation Indicators:
				X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
5		= Total Cov	er	X 3 - Prevalence Index is ≤3.01
Herb Stratum (Plot size:5) 1Carex vulpinoidea	55	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea	45	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Typha latifolia	20	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
4Potentilla simplex	10	No	FACU	be present, unless disturbed or problematic.
5. Agrostis perennans	5	No	FACU	Definitions of Vegetation Strata:
6. Carex scoparia 7	5	No	FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9 10				Herb – All herbaceous (non-woody) plants, regardless of
11				size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
12.		= Total Cov	er	height.
Woody Vine Stratum (Plot size:)				
1				
				Hydrophytic Vegetation
2				Present? Yes X No
2 3.				
3				
		= Total Cov	er	

SOIL Sampling Point: Wetland PM-43

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			x Feature:	<u>s</u>			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	<u>Remarks</u>
0 - 18	10YR 4/2	90	2.5YR 4/6	10	Concer	PL	Silty loam	
-								
								. <u></u> .
-					·			
								·
-								
								<u></u>
-								
1							2	
	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.		n: PL=Pore Lining, M=Matrix.
Hydric Soil I					(00) (1.55	_		s for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov		(S8) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B)
Histic Ep	oipedon (A2)		MLRA 149B Thin Dark Surfa		DD D MI	DA 140B)		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky N					Surface (S7) (LRR K, L, M)
	l Layers (A5)		Loamy Gleyed			L)		alue Below Surface (S8) (LRR K, L)
	d Below Dark Surface	(A11)	X Depleted Matrix		,		-	Dark Surface (S9) (LRR K, L)
	ark Surface (A12)	()	Redox Dark Su	. ,				Manganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)		Depleted Dark		7)			nont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress		,		·	Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)							Parent Material (F21)
Stripped	Matrix (S6)						Very S	Shallow Dark Surface (TF12)
Dark Sui	rface (S7) (LRR R, M	LRA 149E	3)				Other	(Explain in Remarks)
	hydrophytic vegetati	on and we	tland hydrology mus	st be prese	ent, unless	disturbed	or problemati	C.
Restrictive L	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soi	l Present? Yes X No
Remarks:								





Soil





S



Project/Site: Leroy Center-Mayfield 138 kV Transmission Line	Projec City/County: Geauga	County S	ampling Date: 07/14/2021
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-43,44
Investigator(s): MJA	Section, Township, Ra		
Landform (hillslope, terrace, etc.): Terrace			Slope (%): ³
Subregion (LRR or MLRA): LRR R Lat: 41.534			
Soil Map Unit Name: Pg: Pits, gravel		NWI classificati	on. N/A
Are climatic / hydrologic conditions on the site typical for this tin			
Are Vegetation X, Soil , or Hydrology sign			sent? Yes X No
Are Vegetation, Soil, or Hydrology natu	irally problematic? (If ne	eeded, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	owing sampling point l	ocations, transects, i	mportant features, etc.
Hydrophytic Vegetation Present? Yes No _			
Hydric Soil Present? Yes No _			
Wetland Hydrology Present? Yes No _ Remarks: (Explain alternative procedures here or in a separa		Wetland Site ID: Upland PM	-43,44
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicato	rs (minimum of two required)
Primary Indicators (minimum of one is required; check all that	t apply)	Surface Soil Cr	acks (B6)
Surface Water (A1) Water-	Stained Leaves (B9)	Drainage Patte	rns (B10)
High Water Table (A2) Aquation	Fauna (B13)	Moss Trim Line	es (B16)
	eposits (B15)	Dry-Season Wa	ater Table (C2)
	en Sulfide Odor (C1)	Crayfish Burrov	` '
	ed Rhizospheres on Living Root		ole on Aerial Imagery (C9)
	ce of Reduced Iron (C4)		ssed Plants (D1)
<u> </u>	Iron Reduction in Tilled Soils (· —	
	uck Surface (C7)	Shallow Aquita	
	Explain in Remarks)	Microtopograph	
Sparsely Vegetated Concave Surface (B8) Field Observations:		FAC-Neutral Te	est (D5)
Surface Water Present? Yes No X Depth	(inches):		
Water Table Present? Yes No _X _ Depth			
Saturation Present? Yes No X Depth		etland Hydrology Present?	Yes NoX
(includes capillary fringe)	, ,		
Describe Recorded Data (stream gauge, monitoring well, aer	ial photos, previous inspections	s), if available:	
Remarks:			

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:			
1			· '	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)			
2				Total Number of Dominant			
3				Species Across All Strata: 3 (B)			
4				Percent of Dominant Species			
5				That Are OBL, FACW, or FAC:0% (A/B)			
6				Prevalence Index worksheet:			
7				Total % Cover of: Multiply by:			
		= Total Cov		OBL species0 x 1 =0			
Sapling/Shrub Stratum (Plot size: 15)	-	_ 10tai 00	VCI	FACW species			
				FAC species15 x 3 =45			
1			<u> </u>	FACU species 105 x 4 = 420			
2				UPL species15 x 5 =75			
3				Column Totals:135 (A)540 (B)			
4				Provalence Index - R/A - 4.00			
5				Prevalence Index = B/A = 4.00			
6				Hydrophytic Vegetation Indicators:			
7				1 - Rapid Test for Hydrophytic Vegetation			
		= Total Cov	ver	2 - Dominance Test is >50%			
Herb Stratum (Plot size: 5)				3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting			
1. Krigia virginica			UPL	data in Remarks or on a separate sheet)			
2. Prunella vulgaris	15	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)			
3Plantago lanceolata	45	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
4Poa annua	35	Yes	FACU				
5. Schedonorus arundinaceus	25	Yes	FACU	Definitions of Vegetation Strata:			
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
7				at breast height (DBH), regardless of height.			
8				Sapling/shrub – Woody plants less than 3 in. DBH			
9				and greater than or equal to 3.28 ft (1 m) tall.			
10				Herb – All herbaceous (non-woody) plants, regardless of			
11				size, and woody plants less than 3.28 ft tall.			
12.				Woody vines – All woody vines greater than 3.28 ft in			
12:		= Total Cov	· · · · · ·	height.			
Woody Vine Stratum (Plot size:30)	100	_ 10tal 00	vei				
1		-	<u> </u>	Hydrophytic			
2		-		Vegetation			
3				Present? Yes No X			
4							
		= Total Cov	ver				
Remarks: (Include photo numbers here or on a separate	sheet.)						
Mowed							

Sampling Point: Upland PM-43,44

SOIL Sampling Point: Upland PM-43,44

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features %	<u>Type</u> 1	Loc ²	Texture	Remarks	
0 - 18	10YR 3/2	99	7.5YR 4/4	1	Concer	PL	Silty loam		
							<u> </u>		
			-						
-									
-									
-									
1Typo: C-Co	oncentration, D=Deple	otion PM-	Poducod Matrix MS		Sand Gr		² l ocation	: PL=Pore Lining, M=Matrix.	
Hydric Soil I		etion, ixivi–	rteduced Matrix, Mc	<u>J-IVIASKEU</u>	Sand Ora	iii i 5.		for Problematic Hydric Soils ³ :	
Histosol	(A1)		Polyvalue Belov	w Surface	(S8) (LRF	R,	2 cm N	fluck (A10) (LRR K, L, MLRA 149B)	
	ipedon (A2)		MLRA 149B)					Prairie Redox (A16) (LRR K, L, R)	
Black His	stic (A3) n Sulfide (A4)		Thin Dark Surfa Loamy Mucky N					Mucky Peat or Peat (S3) (LRR K, L, R)	
	Layers (A5)		Loamy Gleyed I			, L)		urface (S7) (LRR K, L, M) lue Below Surface (S8) (LRR K, L)	
	Below Dark Surface	(A11)	Depleted Matrix		,			ark Surface (S9) (LRR K, L)	
	rk Surface (A12)	(,)	Redox Dark Su	. ,				anganese Masses (F12) (LRR K, L, R)	
	ucky Mineral (S1)		Depleted Dark S		7)			ont Floodplain Soils (F19) (MLRA 149B)	
	leyed Matrix (S4)		Redox Depress		,			Spodic (TA6) (MLRA 144A, 145, 149B)	
	edox (S5)						Red Pa	arent Material (F21)	
Stripped	Matrix (S6)						Very S	hallow Dark Surface (TF12)	
Dark Sur	face (S7) (LRR R, M	LRA 149B)				Other (Explain in Remarks)	
	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	nt, unless	disturbed	or problematic	;.	
	.ayer (if observed):								
Type:	I >						11-1-1-1-0-11	Process Co. Voc.	
Depth (inc	ches):	-					Hydric Soil	Present? Yes NoX	
Remarks:									





Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/C	County: Geauga County Sampling Date: 07/14/2021
Applicant/Owner: FirstEnergy	OU Western DNA 44
Investigator(s): MJA Secti	
• , ,	
Landform (hillslope, terrace, etc.): Terrace Local re	lief (concave, convex, none): 5iope (%):
	4 Long: -81.31267336666666 Datum: WGS 1984
Soil Map Unit Name: Pg: Pits, gravel	NWI classification: PEM1C
Are climatic / hydrologic conditions on the site typical for this time of year? $\ ^{1}$	res X No (If no, explain in Remarks.)
Are Vegetation X, Soil , or Hydrology significantly distu	rbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally problem	
SUMMARY OF FINDINGS – Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area
Hydric Soil Present? Yes X No	within a Wetland? Yes X No
Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: Wetland PM-44
Remarks: (Explain alternative procedures here or in a separate report.)	II yes, optional violand one is.
PEM1C NWI, standing water with tadpoles. Wetland situated in regularly m	owed residential vard
1 Livito 1977, Standing water with tadpolos, Frontain States in regularly	owed residential yard.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
X Surface Water (A1) Water-Stained Leave	es (B9) Drainage Patterns (B10)
X High Water Table (A2) X Aquatic Fauna (B13)	
X Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Oc	
	res on Living Roots (C3) X Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	
Algal Mat or Crust (B4) Recent Iron Reduction	
Iron Deposits (B5) Thin Muck Surface (
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	
Sparsely Vegetated Concave Surface (B8)	X FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes X No Depth (inches):	2
Water Table Present? Yes X No Depth (inches):	2
Saturation Present? Yes X No Depth (inches): (includes capillary fringe)	0 Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
, , , , , , , , , , , , , , , , , , , ,	, ,
Remarks:	

/EGETATION - Use scientific names of plant	S.		Sampling Point: Wetland PM-44
<u>Tree Stratum</u> (Plot size:) 1)		Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2			Total Number of Dominant Species Across All Strata: 3 (B)
4			Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
		= Total Cover	OBL species x 1 = 70
Sapling/Shrub Stratum (Plot size: 15			FACW species x 2 = 60
1	_		FACT species $0 \times 3 = 0$
2			FACU species
3			01 L species x 0 =
4			Column Totals:100 (A)130 (B)
5			Prevalence Index = B/A = 1.3
6			Hydrophytic Vegetation Indicators:
			X 1 - Rapid Test for Hydrophytic Vegetation
7			X 2 - Dominance Test is >50%
		= Total Cover	X 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size:5 1 Ludwigia palustris	25	Yes OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Eleocharis obtusa	45	Yes OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Phalaris arundinacea		Yes FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 5			Definitions of Vegetation Strata:
5			-
6			 Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8 9.			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless of
11. <u> </u>			size, and woody plants less than 3.28 ft tall.
12.			Woody vines – All woody vines greater than 3.28 ft in height.
121		= Total Cover	neight.
30		- Total Cover	
Woody Vine Stratum (Plot size:)			
1			- Hydrophytic
2			- Vegetation
3			Present? Yes X No
4			-
		= Total Cover	
Remarks: (Include photo numbers here or on a separate	e sheet.)		
Mowed			

SOIL Sampling Point: Wetland PM-44

Profile Description: (Describe to the d	epth needed to docur	nent the i	ndicator c	r confirn	n the absence	of indicators.)
Depth Matrix (inches) Color (moist) %	Redo Color (moist)	x Features %	S Type ¹	Loc ²	Texture	Remarks
						Some sand
0 - 18 10YR 3/1 85	2.5YR 4/4	15	Concer	PL_	Silty clay loam	Some Sand
-						
	_				·	
					·	
<u> </u>	_					
-						
					·	
	_				· 	
<u> </u>						
-						
					·	
					·	-
					· ·	
-						
¹ Type: C=Concentration, D=Depletion, R	M-Reduced Matrix M	S-Maskad	Sand Gra	ine	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	ivi–reduced Matrix, Ivi	<u>J-Masked</u>	Cana Cia			for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belov	w Surface	(S8) (LRR	R,		Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B)		`	ŕ		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa	ace (S9) (L	.RR R, ML	RA 149B) 5 cm N	Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky N			L)		Surface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed)		-	alue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)	Depleted Matrix _X Redox Dark Su					ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Depleted Dark	. ,	7)			ont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	Redox Depress		',			Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)		` ,				arent Material (F21)
Stripped Matrix (S6)					Very S	shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 14	9B)				Other	(Explain in Remarks)
3						
³ Indicators of hydrophytic vegetation and Restrictive Layer (if observed):	wetland hydrology mus	st be prese	ent, unless	disturbed	or problemation	Ç
, , ,						
Type:	_				Unadaia Cail	Brassett Van Y
Depth (inches):	_				Hydric Soil	Present? YesX No
Remarks:						













Project/Site: Leroy Center-May	yfield 13	38 kV	Trans	mission Line Projec City/0	County: Gea	uga County		Sampling Date:)7/13/2021
Applicant/Owner: FirstEnergy				· •				Sampling Poin	
Investigator(s): MJA				Sect	ion, Townshir	o, Range: N/A			
Landform (hillslope, terrace, etc							Concave	Slop	e (%): ⁰
Subregion (LRR or MLRA): LR									
Soil Map Unit Name: MgA: Ma	honing	silt lo	am, 0	to 2 percent slopes			_ NWI classific	ation: N/A	
Are climatic / hydrologic conditi	ons on	the si	te typi	cal for this time of year? `	Yes X	No (If n	no, explain in R	emarks.)	
Are Vegetation X, Soil	Х <u>,</u> о	r Hyd	rology	significantly distu	rbed?	Are "Normal Cir	rcumstances" p	resent? Yes	X No
Are Vegetation, Soil	, 0	r Hyd	rology	naturally problem	atic?	(If needed, expl	lain any answei	rs in Remarks.)	
SUMMARY OF FINDING	GS – <i>I</i>	Attac	ch sit	te map showing sar	npling po	int locations	s, transects	, important fe	atures, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative	ent?	```	Yes Yes	X No X No	within a W	npled Area /etland? onal Wetland Sit	Yes X		
Remarks: (Explain alternative			res	No	If yes, option	onal Wetland Sit	te ID: Welland	1 101-43	
HADBOI OCA									
HYDROLOGY						0			(
Wetland Hydrology Indicato			dan d	ala ada add dhadaa a a b A		Se		tors (minimum of t	wo required)
Primary Indicators (minimum	of one i	s requ	uirea; ((DO)		Surface Soil		
X Surface Water (A1)				Water-Stained Leave			_ Drainage Pat		
X High Water Table (A2)X Saturation (A3)				Aquatic Fauna (B13) Marl Deposits (B15)			_ Moss Trim Li	Nater Table (C2)	
Water Marks (B1)				Hydrogen Sulfide Od			Crayfish Burr		
Sediment Deposits (B2)				X Oxidized Rhizosphe		Roots (C3)	_ ,	sible on Aerial Ima	egery (C9)
Drift Deposits (B3)				Presence of Reduce	_	110013 (00)		ressed Plants (D1	
Algal Mat or Crust (B4)				Recent Iron Reduction		oils (C6) X	_ Geomorphic	•	,
X Iron Deposits (B5)				Thin Muck Surface (Shallow Aqui		
Inundation Visible on Aer	ial Ima	gery (B7)	Other (Explain in Re				phic Relief (D4)	
Sparsely Vegetated Cond			•	_ ` ` '	,		FAC-Neutral		
Field Observations:									
Surface Water Present?	Yes	Χ	No _	Depth (inches):	1				
Water Table Present?	Yes	Χ	No _	Depth (inches):	10				
Saturation Present? (includes capillary fringe)	Yes_	Х	No_	Depth (inches):	1	Wetland Hyd	rology Presen	t? Yes <u>X</u>	No
Describe Recorded Data (stre	am ga	uge, n	nonitor	ring well, aerial photos, pro	evious inspec	ctions), if availab	ole:		
Remarks:									
Nemarks.									

EGETATION – Use scientific names of plants	S.			Sampling Point: Wetland PM-48			
Tree Stratum (Plot size:30) 1		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)			
2	<u> </u>			Total Number of Dominant Species Across All Strata: 2 (B)			
45				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)			
5				Prevalence Index worksheet:			
7		-		Total % Cover of: Multiply by:			
		= Total Cov	er	OBL species 90 x 1 = 90 FACW species 38 x 2 = 76			
Sapling/Shrub Stratum (Plot size: 15)				XZ =			
				170 species x 0 =			
				FACU species 20 $x 4 = 80$ UPL species 0 $x 5 = 0$			
				Column Totals: 148 (A) 246 (B)			
	_			Prevalence Index = B/A = 1.662162162'			
				Hydrophytic Vegetation Indicators:			
				X 1 - Rapid Test for Hydrophytic Vegetation			
		= Total Cov	rer	$\frac{X}{2}$ 2 - Dominance Test is >50% $\frac{X}{3}$ 3 - Prevalence Index is $\leq 3.0^{1}$			
Herb Stratum (Plot size: 5		Vac	OBL	4 - Morphological Adaptations ¹ (Provide supporting			
Carex vulpinoidea	55	Yes		data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)			
. Carex Iurida		No	OBL	Problematic Hydrophytic Vegetation (Explain)			
. Phalaris arundinacea			FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
. Agrostis perennans	15	No	FACU				
Juncus effusus	15	No	OBL	Definitions of Vegetation Strata:			
Rosa multiflora	5	No	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diamete			
Onoclea sensibilis	3	No	FACW	at breast height (DBH), regardless of height.			
Thelypteris palustris	5	No	FACW	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.			
0				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
1							
2.				Woody vines – All woody vines greater than 3.28 ft in height.			
		= Total Cov	rer	neight.			
Voody Vine Stratum (Plot size:)							
	.			Hydrophytic			
2				Vegetation			
3	· ——			Present? Yes X No			
1			. ——				
		= Total Cov	er				
Remarks: (Include photo numbers here or on a separate Portions of wetland recently mowed.	sheet.)						
onions of weitand recently mowed.							

SOIL Sampling Point: Wetland PM-45

Depth _	Matrix Color (moist)	%	Redo:	x Features %	Type ¹	Loc ²	Texture	Remarks
inches) 0 - 18	10YR 4/2	85	2.5YR 4/4		Concer	PL	Silty loam	Remarks
	1011(4/2		2.511(4/4		Odricci		Only loan	
								-
-								
-								
			-					
								-
		etion, RM	=Reduced Matrix, MS	S=Masked S	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.
dric Soil In								for Problematic Hydric Soils ³ :
_ Histosol (A	A1) pedon (A2)		Polyvalue Below MLRA 149B)		S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
_ Histic Epip _ Black Hist			Thin Dark Surfa		RR R, MI	LRA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky N					surface (S7) (LRR K, L, M)
	_ayers (A5)		Loamy Gleyed I					lue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	X Depleted Matrix					ark Surface (S9) (LRR K, L)
	Surface (A12)		Redox Dark Sur		^\			anganese Masses (F12) (LRR K, L, R)
_	cky Mineral (S1) eyed Matrix (S4)		Depleted Dark S Redox Depress		,			ont Floodplain Soils (F19) (MLRA 149E Spodic (TA6) (MLRA 144A, 145, 149B
_ Sandy Re				10110 (1 0)				arent Material (F21)
Stripped M								hallow Dark Surface (TF12)
_ Dark Surfa	ace (S7) (LRR R, M	LRA 149	B)				Other ((Explain in Remarks)
ndicators of h	nydrophytic vegetati	on and w	etland hydrology mus	t be preser	nt, unless	s disturbed	or problemation	<u>></u> .
	yer (if observed):		. 0,	· · · · · · · · · · · · · · · · · · ·				
Туре:								
Depth (inch	es):		-				Hydric Soil	Present? Yes X No
emarks:								











Project/Site: Leroy Center-Ma	yfield 138 kV Trar	nsmissior	n Line Projec City/C	County: Geaug	ga County		Sampling Date: 07/13/2021
Applicant/Owner: FirstEnergy				,			Sampling Point: Upland PM-45,4
Investigator(s): MJA			Section	on. Township.	Range: N	/A	
Landform (hillslope, terrace, et							Slope (%): 3
Subragion (LDD or MLDA): LF	s.,. RR R	Lot: 4	1.53324963333333	3 ,	.000, 110 .00081.	31437269999999	Datum: WGS 198
Soil Map Unit Name: MgB: Ma	ahoning silt loam	Lal 2 to 6 pe	rcent slones	<u> </u>	_ong	NA// -1'C'-	Datum
Are climatic / hydrologic condit							
Are Vegetation X, Soil	, or Hydrolog	JY	significantly distur	bed? A	re "Norma	I Circumstances" p	resent? Yes X No
Are Vegetation, Soil	, or Hydrolog	ıy	_ naturally problema	atic? (If	f needed, e	explain any answe	rs in Remarks.)
SUMMARY OF FINDING	GS – Attach s	ite ma	p showing san	npling poin	t location	ons, transects	, important features, etc.
Hydrophytic Vegetation Prese	ent? Yes		No X	Is the Samp	led Area		
	Yes_			within a Wet	tland?	Yes	No
Wetland Hydrology Present?			No X	If yes, option	al Wetland	d Site ID: Upland P	M-45,46
Remarks: (Explain alternative				, , , , , ,			
HYDROLOGY							
Wetland Hydrology Indicate	ors:					Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum	of one is required	; check a	all that apply)			Surface Soil	Cracks (B6)
Surface Water (A1)			ater-Stained Leave			Drainage Pat	
High Water Table (A2)			quatic Fauna (B13)			Moss Trim Li	
Saturation (A3)			arl Deposits (B15)				Water Table (C2)
Water Marks (B1)			ydrogen Sulfide Od			Crayfish Burr	
Sediment Deposits (B2)			xidized Rhizospher	•	oots (C3)		sible on Aerial Imagery (C9)
Drift Deposits (B3)			resence of Reduced		- (00)		tressed Plants (D1)
Algal Mat or Crust (B4)			ecent Iron Reduction		s (C6)	Geomorphic	
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery (R7)		hin Muck Surface (0 ther (Explain in Rer			Shallow Aqui	phic Relief (D4)
Sparsely Vegetated Con-	• • • •		tilei (Explaiii iii ivei	narks)		FAC-Neutral	
Field Observations:	<u> </u>	<u>'</u>				1710 11041141	1001 (20)
Surface Water Present?	Yes No	Хг	Denth (inches):				
Water Table Present?	Yes No						
Saturation Present?	Yes No				Wetland H	Hydrology Presen	t? Yes No_X_
(includes capillary fringe)							
Describe Recorded Data (stre	eam gauge, monit	oring we	II, aerial photos, pre	evious inspection	ons), if ava	ailable:	
Remarks:							

Troe Stratum (Plot size: 30	Absolute			Dominance Test worksheet:		
Tree Stratum (Plot size:) 1		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)		
2				Total Number of Dominant		
3				Species Across All Strata: 2 (B)		
4				Percent of Dominant Species		
5				That Are OBL, FACW, or FAC: 0.5 (A/B)		
6						
				Prevalence Index worksheet:		
7				Total % Cover of: Multiply by: OBL species 25 x 1 = 25		
45		= Total Cov	er	OBE openies x 1 =		
Sapling/Shrub Stratum (Plot size: 15				x 2 =		
1				FAC species x 3 = 30 FACU species 95		
2		-		UPL species 0 x 5 = 0		
3				Column Totals: 160 (A) 495 (B)		
4						
5		-		Prevalence Index = B/A = 3.09375		
6				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cov	or	2 - Dominance Test is >50%		
Herb Stratum (Plot size:5		_ 10tal 00V	CI .	3 - Prevalence Index is ≤3.0 ¹		
1. Potentilla simplex	20	No	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2. Phleum pratense	15	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)		
3 Apocynum cannabinum	10	No	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
4. Agrostis perennans		Yes	FACU			
5. Carex vulpinoidea	15	No	OBL	Definitions of Vegetation Strata:		
6. Scirpus atrovirens	10	No	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter		
	30	Yes	FACW	at breast height (DBH), regardless of height.		
			TAOW	Sapling/shrub – Woody plants less than 3 in. DBH		
8				and greater than or equal to 3.28 ft (1 m) tall.		
9		-	. ———	Herb – All herbaceous (non-woody) plants, regardless of		
10				size, and woody plants less than 3.28 ft tall.		
11				Woody vines – All woody vines greater than 3.28 ft in		
12				height.		
	160	= Total Cov	er			
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic Vegetation		
3				Present? Yes No X		
4.						
		= Total Cov	rer			
Remarks: (Include photo numbers here or on a separate						
Mowed	,					

Sampling Point: Upland PM-45,46

SOIL Sampling Point: Upland PM-45,46

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth (inches)	Matrix Color (moist)	%	Redo:	x Features	<u>S</u> Type ¹	Loc ²	Texture	Remarks		
0 - 18	10YR 4/2	90	7.5YR 5/6	10	Concer	М	Silty loam			
-										
-										
				-						
-										
¹ Type: C=Co	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Belov	v Surface	(S8) (LRF	R.		Muck (A10) (LRR K, L, MLRA 149B)		
_	ipedon (A2)		MLRA 149B)		(/(,		Prairie Redox (A16) (LRR K, L, R)		
Black His			Thin Dark Surfa) 5 cm M	flucky Peat or Peat (S3) (LRR K, L, R)		
	n Sulfide (A4)		Loamy Mucky N			, L)	Dark Surface (S7) (LRR K, L, M)			
	Layers (A5)		Loamy Gleyed I)		Polyvalue Below Surface (S8) (LRR K, L)			
	Below Dark Surface	(A11)	X Depleted Matrix					ark Surface (S9) (LRR K, L)		
	rk Surface (A12)		Redox Dark Sui					anganese Masses (F12) (LRR K, L, R)		
	ucky Mineral (S1)		Depleted Dark S		(1)			ont Floodplain Soils (F19) (MLRA 149B)		
	leyed Matrix (S4)		Redox Depress	ions (F6)				Spodic (TA6) (MLRA 144A, 145, 149B)		
-	edox (S5)							arent Material (F21)		
	Matrix (S6) face (S7) (LRR R, M	LRA 149E	3)					hallow Dark Surface (TF12) (Explain in Remarks)		
	hydrophytic vegetation	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	<u>></u> .		
Restrictive L	.ayer (if observed):									
Type:										
Depth (inc	:hes):						Hydric Soil	Present? Yes X No No		
Remarks:										



Soil



Project/Site: Leroy Center-Ma	yfield 13	38 kV	Trans	mission Line Projec City/0	County: Gea	uga County		Sampling Date:	07/13/2021
Applicant/Owner: FirstEnergy				· •	-			· -	nt: Wetland PM-46
Investigator(s): MJA				Secti	on, Township	o, Range: N/A			
Landform (hillslope, terrace, etc.							Concave	Slo	pe (%): 1
Subregion (LRR or MLRA): LF									
Soil Map Unit Name: MgB: Ma	honing	silt lo	am, 2	to 6 percent slopes			NWI classific	ation: N/A	
Are climatic / hydrologic condition	ons on	the si	te typi	cal for this time of year? `	Yes X	No (If n	o, explain in R	emarks.)	
Are Vegetation X, Soil	, o	r Hyd	rology	significantly distu	rbed?	Are "Normal Cir	cumstances" p	resent? Yes	X No
Are Vegetation, Soil	, 0	r Hyd	rology	naturally problem	atic?	(If needed, expl	ain any answe	rs in Remarks.)	
SUMMARY OF FINDING	GS – <i>I</i>	Attac	ch sit	te map showing sar	npling poi	int locations	, transects	, important fo	eatures, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?	ent?	`	Yes Yes	X No	within a W		Yes X		
Wetland Hydrology Present? Remarks: (Explain alternative)			res	X No	If yes, option	onal Wetland Sit	e ID: vvetland	PIVI-46	
HYDROLOGY									
Wetland Hydrology Indicato	ore:					Sa	condary Indica	tors (minimum of	two required)
Primary Indicators (minimum		ie ranı	uired: (check all that apply)		<u>00</u>	Surface Soil		two required)
X Surface Water (A1)	OI OIIC I	<u>3 requ</u>	ancu, c	Water-Stained Leave	es (R9)		Drainage Pat		
X High Water Table (A2)				Aquatic Fauna (B13)			Moss Trim Li		
X Saturation (A3)				Marl Deposits (B15)	'			Nater Table (C2)	ı
Water Marks (B1)				Hydrogen Sulfide Oc	dor (C1)		Crayfish Burr		
Sediment Deposits (B2)				X Oxidized Rhizosphe		Roots (C3)	Saturation Vi	sible on Aerial Im	nagery (C9)
Drift Deposits (B3)				Presence of Reduce	d Iron (C4)		Stunted or St	ressed Plants (D	1)
Algal Mat or Crust (B4)				Recent Iron Reduction	on in Tilled So	oils (C6) <u>X</u>	Geomorphic	Position (D2)	
Iron Deposits (B5)				Thin Muck Surface (C7)		Shallow Aqui	tard (D3)	
Inundation Visible on Aer	ial Imaç	gery (I	B7)	Other (Explain in Re	marks)		_ Microtopogra	phic Relief (D4)	
Sparsely Vegetated Cond	cave Su	ırface	(B8)			<u>X</u>	FAC-Neutral	Test (D5)	
Field Observations:		v							
Surface Water Present?				Depth (inches):	1				
Water Table Present?				Depth (inches):	14	Wattan dilland		10 V V	Ma
Saturation Present? (includes capillary fringe)	Yes_		No _	Depth (inches):	6	Wetland Hyd	rology Presen	t? Yes X	No
Describe Recorded Data (stre	am gai	uge, n	nonitor	ring well, aerial photos, pro	evious inspec	tions), if availab	le:		
Remarks:									
rtomanto.									

/EGETATION - Use scientific names of plant	ts.			Sampling Point: Wetland PM-46
<u>Tree Stratum</u> (Plot size:) 1)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
23				Total Number of Dominant Species Across All Strata: 2 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7	_			Total % Cover of: Multiply by:
		= Total Cov	er	OBL species65 x 1 =65
Sapling/Shrub Stratum (Plot size: 15)				FACW species 65 x 2 = 130
1				FAC species
2				ACO species x 4 =
3				UPL species0 x 5 =0 Column Totals:140 (A)225 (B)
4 5				Prevalence Index = $B/A = 1.607142857'$
6				Hydrophytic Vegetation Indicators:
				X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
5		= Total Cov	er	X 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:5) 1Carex vulpinoidea	50	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea	45	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Onoclea sensibilis	20	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
4 Apocynum cannabinum	10	No	FAC	be present, unless disturbed or problematic.
5. Juncus effusus	15	No	OBL	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7 8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	140	= Total Cov	er	
Woody Vine Stratum (Plot size: 30)				
1				Undrankatia
2				Hydrophytic Vegetation
3	_			Present? Yes X No
4				
		= Total Cov	er	
Remarks: (Include photo numbers here or on a separate	e sheet.)			
Portion mowed				

SOIL Sampling Point: Wetland PM-46

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth Matrix (inches) Color (moist) %	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks			
0 - 18 10YR 3/2 90	2.5YR 4/6	10 C	Concer	PL	Silty loam				
<u> </u>									
	·								
-									
									
<u> </u>									
¹Type: C=Concentration, D=Depletion, RN	M=Reduced Matrix, MS	S=Masked S	and Gra	ins.		PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:				_		for Problematic Hydric Soils ³ :			
Histosol (A1) Histic Epipedon (A2)	Polyvalue Belov		8) (LRR	к,		luck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)			
Black Histic (A3)	Thin Dark Surfa		R R, ML	.RA 149B)		lucky Peat or Peat (S3) (LRR K, L, R)			
Hydrogen Sulfide (A4)	Loamy Mucky N					urface (S7) (LRR K, L, M)			
Stratified Layers (A5)	Loamy Gleyed	Matrix (F2)			Polyva	lue Below Surface (S8) (LRR K, L)			
Depleted Below Dark Surface (A11)	Depleted Matrix	(F3)			Thin Da	ark Surface (S9) (LRR K, L)			
Thick Dark Surface (A12)	X Redox Dark Su	rface (F6)			Iron-Ma	anganese Masses (F12) (LRR K, L, R)			
Sandy Mucky Mineral (S1)	Depleted Dark	Surface (F7)			Piedmo	ont Floodplain Soils (F19) (MLRA 149B)			
Sandy Gleyed Matrix (S4)	Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy Redox (S5)						arent Material (F21)			
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149)	9B)					hallow Dark Surface (TF12) Explain in Remarks)			
³ Indicators of hydrophytic vegetation and w	vetland hydrology mus	st be present	, unless	disturbed	or problemation				
Restrictive Layer (if observed):									
Туре:	_								
Depth (inches):	_				Hydric Soil	Present? Yes X No No			
Remarks:					1				







S



W



Project/Site: Leroy Center-Mayfield 138 kV Tran	nsmission Line Projec City/C	county: Geauga County		Sampling Date: 07/13/2021			
Applicant/Owner: FirstEnergy				Sampling Point: Wetland PM-47			
•	Section	on, Township, Range: N		_			
Landform (hillslope, terrace, etc.): Gulch or Gull				Slone (%). 1			
Subregion (LRR or MLRA): LRR R EhC: Ellsworth silt loam 6	to 12 percent slopes	Long:		Datum:VCC 100-			
Soil Map Unit Name: EhC: Ellsworth silt loam, 6							
Are climatic / hydrologic conditions on the site ty	•						
Are Vegetation, Soil, or Hydrolog	y significantly distur	bed? Are "Norma	l Circumstances" p	resent? Yes X No			
Are Vegetation, Soil, or Hydrolog	y naturally problema	atic? (If needed,	explain any answer	rs in Remarks.)			
SUMMARY OF FINDINGS – Attach s	ite map showing sam	npling point location	ons, transects	, important features, etc.			
Hydrophytic Vegetation Present? Yes _	X No	Is the Sampled Area					
, , , ,	X No	within a Wetland?	Yes X	No			
	X No	If yes, optional Wetland	d Site ID. Wetland I	PM-47			
Remarks: (Explain alternative procedures here		n yoo, optional vvoidin	<u> </u>				
PEM wetland in maintained powerline easemer road.		,					
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)			
Primary Indicators (minimum of one is required	; check all that apply)		Surface Soil (Cracks (B6)			
X Surface Water (A1)	Water-Stained Leave	s (B9)	Drainage Pat	terns (B10)			
X High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Li	nes (B16)			
X Saturation (A3)	Marl Deposits (B15)						
Water Marks (B1)	Hydrogen Sulfide Ode	dor (C1) Crayfish Burrows (C8)					
Sediment Deposits (B2)	X Oxidized Rhizosphere	C Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)	Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)						
Algal Mat or Crust (B4)	Recent Iron Reductio	Position (D2)					
Iron Deposits (B5)	Thin Muck Surface (C	Shallow Aqui					
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Ren	narks)		phic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)			X FAC-Neutral	Test (D5)			
Field Observations:	5 (1	4					
	Depth (inches):	1					
	Depth (inches):	12					
(includes capillary fringe)	Depth (inches):		Hydrology Presen	t? Yes <u>X</u> No			
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, pre	vious inspections), if ava	ailable:				
Remarks:							
Nemarks.							

/EGETATION – Use scientific names of plants				Sampling Point: Wetland PM-4		
Tree Stratum (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)		
2				Total Number of Dominant Species Across All Strata: 4 (B)		
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)		
6				Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
		= Total Cov	er	OBL species x 1 = 85		
Sapling/Shrub Stratum (Plot size: 15)				FACW species 40 x 2 = 80		
l				X 3 =		
2				FACU species0		
3				Column Totals: 125 (A) 165 (B)		
4 5				Prevalence Index = B/A = 1.32		
6.				Hydrophytic Vegetation Indicators:		
7				X 1 - Rapid Test for Hydrophytic Vegetation		
		= Total Cov	er	$\frac{X}{2}$ 2 - Dominance Test is >50% $\frac{X}{3}$ 3 - Prevalence Index is $\leq 3.0^1$		
Herb Stratum (Plot size: 5) Carex lurida	20	Voo	OBL	4 - Morphological Adaptations (Provide supporting		
			OBL	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)		
Z. Typha latifolia	·	Yes				
3. Scirpus atrovirens			OBL FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
4. Impatiens capensis		No No		Definitions of Vegetation Strata:		
5. Eupatorium perfoliatum	5		FACW OBL	_		
5. Lythrum salicaria	10	No No		Tree – Woody plants 3 in. (7.6 cm) or more in diamet at breast height (DBH), regardless of height.		
7Phalaris arundinacea 8	20	Yes	FACW	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
9						
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
11				Woody vines – All woody vines greater than 3.28 ft in		
12				height.		
	125	= Total Cov	er			
Woody Vine Stratum (Plot size:)						
1,				Hydrophytic		
2				Vegetation		
3				Present? Yes X No		
4		= Total Cov				

SOIL Sampling Point: Wetland PM-47

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix Color (moist)	%	Redo:	x Feature: %	<u>S</u> Type ¹	Loc ²	Texture	Remarks	
0 - 18	10YR 3/1	80	2.5YR 3/6	20	Concer	PL	Silty loam		
-									
-									
-									
-									
-				-					
<u>-</u>									
¹Type: C=Co	oncentration, D=Deple	 etion RM=	Reduced Matrix MS	=	Sand Gr		² I ocation	: PL=Pore Lining, M=Matrix.	
Hydric Soil I		511011, 11111-	-reduced Matrix, Me	J-Maskee	i Garia Gre	AII 10.		for Problematic Hydric Soils ³ :	
Histosol			Polyvalue Belov	v Surface	(S8) (LRF	RR,	2 cm M	Muck (A10) (LRR K, L, MLRA 149B)	
Histic Ep	ipedon (A2)		MLRA 149B)		. , ,			Prairie Redox (A16) (LRR K, L, R)	
Black His	stic (A3)		Thin Dark Surfa	ce (S9) (L	RR R, MI	RA 149B)) 5 cm M	flucky Peat or Peat (S3) (LRR K, L, R)	
Hydrogei	n Sulfide (A4)		Loamy Mucky N	1ineral (F	I) (LRR K	, L)	Dark S	surface (S7) (LRR K, L, M)	
Stratified Layers (A5) Loamy Gleyed Matrix (F2))		Polyva	lue Below Surface (S8) (LRR K, L)		
Depleted	Below Dark Surface	(A11)	Depleted Matrix	(F3)			Thin D	ark Surface (S9) (LRR K, L)	
Thick Da	rk Surface (A12)		X Redox Dark Sur	face (F6)			Iron-Ma	anganese Masses (F12) (LRR K, L, R)	
Sandy M	ucky Mineral (S1)		Depleted Dark S	Surface (F	7)		Piedmo	ont Floodplain Soils (F19) (MLRA 149B)	
	leyed Matrix (S4)		Redox Depress					Spodic (TA6) (MLRA 144A, 145, 149B)	
	edox (S5)			` ,				arent Material (F21)	
-	Matrix (S6)							hallow Dark Surface (TF12)	
	face (S7) (LRR R, M	LRA 149E	3)					(Explain in Remarks)	
	hydrophytic vegetation	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	: .	
Restrictive L	.ayer (if observed):								
Type:									
Depth (inc	ches):						Hydric Soil	Present? Yes X No No	
Remarks:									







Ν



W



Project/Site: Leroy Center-Mag	yfield 138 kV Tran	smission Line	Projec City/0	County: Geau	uga County		Sampling Date: 07/13/	2021
Applicant/Owner: FirstEnergy				,			Sampling Point: Uplai	
Investigator(s): MJA			Sect	ion. Township	. Range: N	I/A		_
Landform (hillslope terrace et	c.). Shoulder slop	e	Local re	lief (concave	convex no	ne). Convex	Slope (%)	. 3
Subregion (LRR or MLRA): LF	R R	1 at: 41.530	2000, 10 057	mor (our loave,	1 ang81.	.31898	Dotum: V	 VGS 1984
Soil Map Unit Name: MgB: Ma								
Are climatic / hydrologic condition	ons on the site typ	pical for this tin	ne of year? `	Yes X N	No	(If no, explain in Re	emarks.)	
Are Vegetation, Soil	, or Hydrolog	y sign	ificantly distu	rbed?	Are "Norma	ll Circumstances" p	resent? Yes X	No
Are Vegetation, Soil	, or Hydrolog	y natu	rally problem	natic? ((If needed,	explain any answer	rs in Remarks.)	
SUMMARY OF FINDING	GS – Attach s	ite map sh	owing sar	npling poi	nt location	ons, transects	important feature	es, etc.
Hydrophytic Vegetation Prese	ent? Yes	No _	Х	Is the Sam	pled Area			
Hydric Soil Present?		No _		within a Wo	-	Yes	No	
Wetland Hydrology Present?		No _		If ves. optio	nal Wetland	d Site ID: Upland P	M-47,48	
Remarks: (Explain alternative				ii yee, optio	Tial Welland	u one ib		
HYDROLOGY								
Wetland Hydrology Indicato	ors:					Secondary Indica	tors (minimum of two re	quired)
Primary Indicators (minimum	of one is required;	check all that	apply)			Surface Soil (Cracks (B6)	
Surface Water (A1)		Water-S	Stained Leave	es (B9)		Drainage Pat	terns (B10)	
High Water Table (A2)		Aquatic	Fauna (B13))	Moss Trim Lines (B16)			
Saturation (A3)			eposits (B15)		Dry-Season Water Table (C2)			
Water Marks (B1)			en Sulfide Od		Crayfish Burrows (C8)			
Sediment Deposits (B2)				_	Roots (C3) Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)			ce of Reduce		(00)		ressed Plants (D1)	
Algal Mat or Crust (B4)				on in Tilled So				
Iron Deposits (B5) Inundation Visible on Aer	rial Imagary (P7)		uck Surface (Shallow Aquitard (D3) Microtopographic Relief (D4)			
Sparsely Vegetated Cond	• • • •		Explain in Re	illaiks)		FAC-Neutral		
Field Observations:	ave Surface (Bo)					rac-neutial	1651 (D3)	
Surface Water Present?	Yes No	X Denth	(inches):					
Water Table Present?	Yes No							
Saturation Present?	Yes No				Wetland I	Hydrology Presen	t? Yes No	Х
(includes capillary fringe)						-	103 <u> </u>	
Describe Recorded Data (stre	am gauge, monito	oring well, aeri	al photos, pro	evious inspect	tions), if ava	ailable:		
Remarks:								
itemarks.								

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:				
1		-		Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)				
2		-		Total Number of Dominant				
3				Species Across All Strata:3 (B)				
4				Percent of Dominant Species				
5				That Are OBL, FACW, or FAC: 33% (A/B)				
6				Prevalence Index worksheet:				
7				Total % Cover of: Multiply by:				
	-	= Total Cov	/er	OBL species 0 x 1 = 0				
Sapling/Shrub Stratum (Plot size: 15)				FACW species5 x 2 =10				
1. Rubus allegheniensis	20	Yes	FACU	FAC species 10 x 3 = 30				
Fraxinus pennsylvanica	5	No	FACW	FACU species x 4 = 540				
3. Frangula alnus	10	Yes	FAC	UPL species 0 x 5 = 0 Column Totals: 150 (A) 580 (B)				
4				Column Totals:150 (A)580 (B)				
5				Prevalence Index = B/A = 3.87				
6				Hydrophytic Vegetation Indicators:				
7				1 - Rapid Test for Hydrophytic Vegetation				
	35	= Total Cov	ver	2 - Dominance Test is >50%				
Herb Stratum (Plot size:5)				3 - Prevalence Index is ≤3.0 ¹				
1. Solidago canadensis	70	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
2. Dactylis glomerata	15	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)				
3 Melilotus albus	10	No	FACU	¹ Indicators of hydric soil and wetland hydrology must				
4 Phleum pratense	20	No	FACU	be present, unless disturbed or problematic.				
5				Definitions of Vegetation Strata:				
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter				
7				at breast height (DBH), regardless of height.				
8				Sapling/shrub – Woody plants less than 3 in. DBH				
9				and greater than or equal to 3.28 ft (1 m) tall.				
10.				Herb – All herbaceous (non-woody) plants, regardless of				
11.				size, and woody plants less than 3.28 ft tall.				
12.				Woody vines – All woody vines greater than 3.28 ft in height.				
		= Total Cov	/er	norgan.				
Woody Vine Stratum (Plot size:)		•						
1								
2.				Hydrophytic				
3				Vegetation Present? Yes No X				
4.								
7.		= Total Cov	/er					
Remarks: (Include photo numbers here or on a separate	sheet.)							
	,							

Sampling Point: Upland PM-47,48

SOIL Sampling Point: Upland PM-47,48

Profile Desc	ription: (Describe t	o the dep	th needed to docun	ent the indicat	or or confirm	the absence	of indicators.)
Depth	Matrix			<u> Features</u>	4 2		
(inches)	Color (moist)	%	Color (moist)	% Type	e ¹ Loc ²	<u>Texture</u>	Remarks
0 - 8	10YR 3/2	100				Silty loam	Gravelly
-							
-							
					<u> </u>		
						-	
							-
¹ Type: C=Co	ncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Masked Sand	Grains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
-			Polyvalue Belov	, Surface (SS) (I	DD D		•
Histosol	ipedon (A2)		MLRA 149B)		-KK K,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa		MI RA 149B)		flucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky M				urface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I		(I(, L)		lue Below Surface (S8) (LRR K, L)
	l Below Dark Surface	(Δ11)	Depleted Matrix				ark Surface (S9) (LRR K, L)
	rk Surface (A12)	(Δ11)	Redox Dark Sur	· ,			anganese Masses (F12) (LRR K, L, R)
	ucky Mineral (S1)		Depleted Dark S				ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)		Redox Depress	ons (F8)			Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)						arent Material (F21)
Stripped	Matrix (S6)						hallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149E	3)			Other (Explain in Remarks)
	hydrophytic vegetati		tland hydrology mus	t be present, un	ess disturbed	or problematic	;.
	.ayer (if observed):	Χ					
Type: Gra							
Depth (inc	:hes): <u>8</u>					Hydric Soil	Present? Yes No _X
Remarks:							





Project/Site: Leroy Center-May	yfield 138 kV	Transmis	sion Line Projec City/C	County: Geau	iga County	S	ampling Date: 07/13/202	1
Applicant/Owner: FirstEnergy			-	-			Sampling Point: Wetland	
Investigator(s): MJA			Section					
Landform (hillslope, terrace, etc						Concave	Slope (%): 1	
								3 1984
Subregion (LRR or MLRA): LR Soil Map Unit Name: EhC: Ells								
Are climatic / hydrologic conditi	ons on the sit	e typical	for this time of year? Y	/es <u>X</u> N	No (If n	o, explain in Rem	narks.)	
Are Vegetation, Soil	, or Hydr	ology	significantly distur	rbed?	Are "Normal Cire	cumstances" pres	sent? Yes X No_	
Are Vegetation, Soil						ain any answers i		
SUMMARY OF FINDING	3S – Attac	h site ı	map showing san	npling poi	nt locations	, transects, i	mportant features,	etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative	Y Y	es X			etland?	Yes X e ID: Wetland PM		
HYDROLOGY								
Wetland Hydrology Indicato	rs:				Sec	condary Indicator	s (minimum of two requir	<u>ed)</u>
Primary Indicators (minimum	<u>of one is requ</u>	ired; che	ck all that apply)			Surface Soil Cra		
X Surface Water (A1)		_	_ Water-Stained Leave			Drainage Patter		
X High Water Table (A2)			_ Aquatic Fauna (B13)			Moss Trim Line		
X Saturation (A3)			_ Marl Deposits (B15)	. (04)		Dry-Season Wa		
Water Marks (B1)			_ Hydrogen Sulfide Od			Crayfish Burrow	` '	Λ.
Sediment Deposits (B2) Drift Deposits (B3)			Oxidized RhizospherPresence of Reduced	_	(U3)		ole on Aerial Imagery (C9))
Algal Mat or Crust (B4)			Recent Iron Reductio		ile (C6) X	Geomorphic Po	ssed Plants (D1)	
Iron Deposits (B5)			Thin Muck Surface (0		······································	Shallow Aquitar		
Inundation Visible on Aer	ial Imagery (E		Other (Explain in Rer	•		Microtopograph	` '	
Sparsely Vegetated Cond				,		FAC-Neutral Te		
Field Observations:		,			<u> </u>	•		
Surface Water Present?	Yes X	No	Depth (inches):	1				
Water Table Present?	Yes X	No	Depth (inches):	2				
Saturation Present? (includes capillary fringe)			Depth (inches):	0	-	ology Present?	Yes <u>X</u> No	
Describe Recorded Data (stre	am gauge, m	onitoring	well, aerial photos, pre	evious inspect	ions), if availab	le:		
								ļ
Remarks:								

/EGETATION – Use scientific names of plants	S.			Sampling Point: Wetland PM-48		
Tree Stratum (Plot size:) 1)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)		
2				Total Number of Dominant Species Across All Strata: 2 (B)		
1. 5.				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)		
5				Prevalence Index worksheet:		
7			-	Total % Cover of: Multiply by:		
		= Total Cov	er	OBL species 90 x 1 = 90		
Sapling/Shrub Stratum (Plot size: 15)				FACW species		
				FAC species 0 x 3 = 0		
		-		FACU species 0 x 4 = 0		
i <u> </u>				UPL species 0 x 5 = 0 Column Totals: 153 (A) 216 (B)		
<u>. </u>				Column Totals:153 (A)216 (B)		
5				Prevalence Index = B/A = 1.4117647058		
				Hydrophytic Vegetation Indicators:		
). ,				X 1 - Rapid Test for Hydrophytic Vegetation		
7				X 2 - Dominance Test is >50%		
F		= Total Cov	er	X 3 - Prevalence Index is ≤3.0 ¹		
Herb Stratum (Plot size: 5)				4 - Morphological Adaptations ¹ (Provide supporting		
. Typha latifolia	15		OBL	data in Remarks or on a separate sheet)		
Leersia oryzoides	45	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)		
Phalaris arundinacea	50	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must		
1. Impatiens capensis	10	No	FACW	be present, unless disturbed or problematic.		
5. Scirpus atrovirens	5	No	OBL	Definitions of Vegetation Strata:		
S. Carex Iurida	20	No	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
Persicaria sagittata	5	No	OBL			
3. Onoclea sensibilis	3	No	FACW	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.		
0				Herb – All herbaceous (non-woody) plants, regardless of		
				size, and woody plants less than 3.28 ft tall.		
11				Woody vines – All woody vines greater than 3.28 ft in		
2				height.		
	153	= Total Cov	er			
Noody Vine Stratum (Plot size:)						
				Undrankida		
2				Hydrophytic Vegetation		
3				Present? Yes X No		
4. <u> </u>						
		= Total Cov	er			
Remarks: (Include photo numbers here or on a separate	e sheet.)					
Remarks: (Include photo numbers here or on a separate	e sheet.)					

SOIL Sampling Point: Wetland PM-48

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth Matrix (inches) Color (moist) %	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks			
0 - 18 10YR 3/1 95	5YR 4/4	5	Concer	PL	Silt				
-									
-	_								
	_								
-	_								
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, MS	S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :			
•	Dalamaka Dalam		00) // DE			•			
Histosol (A1) Histic Epipedon (A2)	Polyvalue Belov MLRA 149B)		58) (LRF	К К,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)			
Black Histic (A3)	Thin Dark Surfa				5 cm M	lucky Peat or Peat (S3) (LRR K, L, R)			
Hydrogen Sulfide (A4)	Loamy Mucky N			, L)		urface (S7) (LRR K, L, M)			
Stratified Layers (A5)	Matrix (F2)				lue Below Surface (S8) (LRR K, L)				
Depleted Below Dark Surface (A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)			
Thick Dark Surface (A12)	X Redox Dark Su	, ,				anganese Masses (F12) (LRR K, L, R)			
Sandy Mucky Mineral (S1)	Depleted Dark S	Surface (F7	7)		Piedmo	ont Floodplain Soils (F19) (MLRA 149B)			
Sandy Gleyed Matrix (S4)Sandy Redox (S5)	Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B) arent Material (F21)			
						hallow Dark Surface (TF12)			
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14	19B)					Explain in Remarks)			
³ Indicators of hydrophytic vegetation and	wetland hydrology mus	st be preser	nt, unless	disturbed	or problematic				
Restrictive Layer (if observed):									
Type:	<u> </u>								
Depth (inches):					Hydric Soil	Present? Yes X No No			
Remarks:									











Project/Site: Leroy Center-May	yfield 138 kV	Transmi	ssion Line Projec City/C	County: Geaug	a County	(Sampling Date: 07/13/2021
Applicant/Owner: FirstEnergy				-			Sampling Point: Wetland PM-49
Investigator(s): MJA							
Landform (hillslope, terrace, etc						Concave	Slope (%): ²
Soil Map Unit Name: MgB: Ma	honing silt loa	am, 2 to	6 percent slopes			NWI classification	Datum: WGS 1984
Are climatic / hydrologic condition	ons on the sit	te typica	I for this time of year? Y	es X No) (If no	, explain in Re	marks.)
Are Vegetation, Soil	, or Hydr	ology	significantly distur	bed? Ar	e "Normal Circ	cumstances" pre	esent? Yes X No
Are Vegetation, Soil						in any answers	
SUMMARY OF FINDING	3S – Attac	h site	map showing sam	npling point	t locations,	transects,	important features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative	Y Y	/es X /es X			land?	Yes X	=
PEM wetland in maintained po connection between wetland p		ment. A	TV access road passes	through wetlan	d. Water flows	over access ro	ad, maintaining hydrologic
HYDROLOGY							
Wetland Hydrology Indicato							ors (minimum of two required)
Primary Indicators (minimum	of one is requ	<u>ıired; che</u>				Surface Soil C	
X Surface Water (A1)		_	Water-Stained Leave			Drainage Patte	
X High Water Table (A2)			Aquatic Fauna (B13)			Moss Trim Line	
X Saturation (A3)			Marl Deposits (B15)	(04)		-	/ater Table (C2)
Water Marks (B1)			Hydrogen Sulfide Odd			Crayfish Burro	,
Sediment Deposits (B2)			Oxidized Rhizosphere	_	oots (C3)		ible on Aerial Imagery (C9)
Drift Deposits (B3)			_ Presence of Reduced				essed Plants (D1)
Algal Mat or Crust (B4)			Recent Iron Reductio			Geomorphic P	
Iron Deposits (B5)	ار برموموند الم		Thin Muck Surface (C			Shallow Aquita	, ,
Inundation Visible on Aer	• • •		Other (Explain in Ren	marks)		Microtopograp	
Sparsely Vegetated Cond	ave Surface	(B8)				FAC-Neutral T	est (D5)
Surface Water Present?	Yes X	No	Depth (inches):	1			
Water Table Present?			Depth (inches):	1			
Saturation Present? (includes capillary fringe)			Depth (inches):	0	Wetland Hydro	ology Present	? Yes <u>X</u> No
Describe Recorded Data (stre	am gauge, m	ionitorino	g well, aerial photos, pre	evious inspectio	ons), if available	e:	
_							
Remarks:							

/EGETATION – Use scientific names of plants.				Sampling Point: Wetland PM-4
<u>Tree Stratum</u> (Plot size:) 1		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
4 5			·	Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species x 1 = 40
Sapling/Shrub Stratum (Plot size: 15)				FACW species $\frac{85}{}$ $\times 2 = \frac{170}{}$
1				x 3 =
2				ACO species x 4 =
3				VI L SPECIES X V =
4				Column Totals:125 (A)210 (B)
5				Prevalence Index = B/A = 1.68
6				Hydrophytic Vegetation Indicators:
				X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
		= Total Cov	er	X 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:5) 1Typha latifolia	40	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea	75	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3lmpatiens capensis 4			FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_				Definitions of Vegetation Strata:
5				
6 7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8 9.				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of
11				size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in height.
		= Total Cov	ver.	neight.
30	120	= Total Cov	CI .	
Woody Vine Stratum (Plot size:30)				
1				Hydrophytic
2				Vegetation
3				Present? Yes^ No
4				
		= Total Cov	er	
3			er	Vegetation Present? Yes X No

SOIL Sampling Point: Wetland PM-49

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (in the set)	Matrix	0/		x Features	<u>S</u>	Loc ²	T	Damadu	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹		Texture	Remarks	
0 - 18	10YR 3/1	95	2.5YR 4/6	5	Concer	PL_	Silt	Gravelly	
-									
			-	-					
				-					
-									
-									
-									
-								<u> </u>	
-									
¹Type: C=Co	oncentration, D=Depl	etion PM-I	Peduced Matrix MS	S-Mackad	Sand Gra	ine	² l ocation	: PL=Pore Lining, M=Matrix.	
Hydric Soil I		etion, ixivi–i	veduced Matrix, Mi	J-Maskeu	Sand Gra			for Problematic Hydric Soils ³ :	
Histosol			Polyvalue Belov	w Surface	(S8) (I RR	R		Muck (A10) (LRR K, L, MLRA 149B)	
	ipedon (A2)	=	MLRA 149B		(00) (EITH	. 11,		Prairie Redox (A16) (LRR K, L, R)	
Black His			Thin Dark Surfa		.RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4)	<u>=</u> _	 Loamy Mucky N					Surface (S7) (LRR K, L, M)	
	Layers (A5)	_	Loamy Gleyed					llue Below Surface (S8) (LRR K, L)	
Depleted	Below Dark Surface	(A11) _	Depleted Matrix	(F3)			Thin D	ark Surface (S9) (LRR K, L)	
	rk Surface (A12)	_	X Redox Dark Su	, ,				anganese Masses (F12) (LRR K, L, R)	
	ucky Mineral (S1)	=	Depleted Dark		7)			ont Floodplain Soils (F19) (MLRA 149B)	
-	leyed Matrix (S4)	=	Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)	
-	edox (S5)							arent Material (F21)	
	Matrix (S6)	L D A 440D						Shallow Dark Surface (TF12)	
Dark Sur	face (S7) (LRR R, M	LRA 149B)					Other	(Explain in Remarks)	
³ Indicators of	hydrophytic vegetati	on and wet	and hydrology mus	t he prese	nt unless	disturbed	or problematic	<u>, </u>	
	ayer (if observed):	on and wet	and flydrology fride	st be piese	int, unicoo	disturbed		·-	
Type:	ayer (ii observeu).								
	de e e V						Hardela Call	Present? Yes X No No	
	:hes):						nyaric Soil	Present? res // No	
Remarks:									
l									





E



Hydrologic connection flow S to N between polygons

Hydrologic connection









Soil

Project/Site: Leroy Center-Ma	yfield 138 kV Tran	smission Line	Projec City/	County: Geau	uga County		Sampling Date: 07/13/2021	
Applicant/Owner: FirstEnergy				,			Sampling Point: Upland PM-	49,50
			Sect	ion. Township	Range: N		<u> </u>	
							Slone (%): 3	
Landform (hillslope, terrace, et	C.)	41 528	Local 16	S64	-81	32232895	Slope (%) WGS	1084
Subregion (LRR or MLRA): LF								1904
Soil Map Unit Name: MgB: Ma							ation: N/A	
Are climatic / hydrologic condit	ions on the site typ	oical for this tin	ne of year?	Yes X 1	No	(If no, explain in R	emarks.)	
Are Vegetation, Soil	, or Hydrology	ysigni	ficantly distu	ırbed?	Are "Norma	l Circumstances" p	resent? Yes X No	
Are Vegetation, Soil	, or Hydrology	ynatu	rally problen	natic? ((If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDIN	GS – Attach si	ite map sh	owing sa	mpling poi	nt locatio	ons, transects	, important features, e	etc.
Hydrophytic Vegetation Prese	ent? Yes	No _	Х	Is the Sam	pled Area			
Hydric Soil Present?		No _		within a W	etland?	Yes	No	
Wetland Hydrology Present?		No		If ves. optio	nal Wetland	d Site ID: Upland P	M-49,50	
Remarks: (Explain alternative				, 555, 541.5		<u> </u>		
Shared upland data point for powerline easement.				,	, and the second			
HYDROLOGY								
Wetland Hydrology Indicate	ors:					Secondary Indica	tors (minimum of two require	<u>d)</u>
Primary Indicators (minimum	of one is required;	check all that	apply)			Surface Soil	Cracks (B6)	
Surface Water (A1)		Water-S	Stained Leav	es (B9)		Drainage Pat	tterns (B10)	
High Water Table (A2)		Aquatic	Fauna (B13)	Moss Trim Lines (B16)			
Saturation (A3)		Marl De	posits (B15)		Dry-Season Water Table (C2)			
Water Marks (B1)			en Sulfide O		Crayfish Burrows (C8)			
Sediment Deposits (B2)				res on Living I	Roots (C3)		sible on Aerial Imagery (C9)	
Drift Deposits (B3)		· · · · · · · · · · · · · · · · · · ·	ce of Reduce		· · · · · · · · · · · · · · · · · · ·			
Algal Mat or Crust (B4)				ion in Tilled So				
Iron Deposits (B5)	-:(DZ)		ick Surface (
Inundation Visible on Ae		Other (E	Explain in Re	emarks) Microtopographic Relief (D4) FAC-Neutral Test (D5)				
Sparsely Vegetated Con- Field Observations:	Cave Surface (Bo)			1		FAC-Neutral	Test (Do)	
	Voc. No.	Y Donth	(inches):					
Surface Water Present?	Yes No							
Water Table Present? Saturation Present?	Yes No _ Yes No _				Metlend I	Uvdreleny Dresen	42 Van Na V	
(includes capillary fringe)	res No_	Depth	(inches):		wetiana	Hydrology Presen	t? Yes NoX	_
Describe Recorded Data (stre	eam gauge, monito	oring well, aeri	al photos, pr	evious inspec	tions), if ava	ailable:		
_								
Remarks:								

Troe Stratum (Blot aire: 30	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2				
3				Total Number of Dominant Species Across All Strata: 1 (B)
4				
				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
5				(
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	ver	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species 15 x 2 = 30
1				FAC species0 x 3 =0
2				FACU species x 4 = 480
3				UPL species 5 x 5 = 25 Column Totals: 140 (Δ) 535 (Β)
4				Column Totals:140 (A)535 (B)
5				Prevalence Index = B/A = 3.8214285714
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		_ 10tai 00	VCI	3 - Prevalence Index is ≤3.0 ¹
1. Solidago canadensis	70	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phleum pratense	20	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Agrostis perennans			FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Phalaris arundinacea	4.5		FACW	be present, unless disturbed or problematic.
	_	No	FACU	Definitions of Vegetation Strata:
5. Lotus corniculatus 6. Daucus carota	5	No	UPL	_
		-		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7				
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11		·		Woody vines – All woody vines greater than 3.28 ft in
12				height.
	140	= Total Cov	ver	
Woody Vine Stratum (Plot size:)				
1				
2.				Hydrophytic
3				Vegetation Present? Yes No X
4		= Total Cov		
Remarks: (Include photo numbers here or on a separate	sheet)	= 10tai C0	vei	
Tremains. (mediae photo humbers here of on a separate	Silect.)			

Sampling Point: Upland PM-49,50

SOIL Sampling Point: Upland PM-49,50

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in the set)	Matrix	0/		x Features	T 1	12	Ta	Damarka
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 2	10YR 3/2	100					Silty loam	Gravelly
-								
-								
-								
-								<u> </u>
-								
-								
-								
-								
1- 0.0							21	BL B. III MAN
Hydric Soil I	ncentration, D=Depl	etion, RM=I	Reduced Matrix, M	S=Masked	Sand Gra	ins.		r PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belo	w Surface	(S8) (I DD	D		Muck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)	-	MLRA 149B		(00) (LIXIX	. 10,		Prairie Redox (A16) (LRR K, L, R)
Black His		_	Thin Dark Surfa	•	RR R, ML	RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	n Sulfide (A4)	-	Loamy Mucky I			L)	Dark S	Surface (S7) (LRR K, L, M)
	Layers (A5)	=	Loamy Gleyed				-	alue Below Surface (S8) (LRR K, L)
-	Below Dark Surface	(A11) _	Depleted Matri					eark Surface (S9) (LRR K, L)
	rk Surface (A12) lucky Mineral (S1)	=	Redox Dark Su Depleted Dark	, ,	7)			anganese Masses (F12) (LRR K, L, R) ont Floodplain Soils (F19) (MLRA 149B)
	leyed Matrix (S4)	=	Depleted Dark Redox Depress		<i>(</i>)			Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)	=	Nodox Boproot) (i o)				arent Material (F21)
-	Matrix (S6)							Shallow Dark Surface (TF12)
Dark Sur	face (S7) (LRR R, M	LRA 149B)	1				Other	(Explain in Remarks)
2								
	hydrophytic vegetati		land hydrology mu	st be prese	nt, unless	disturbed	or problemation	S
	ayer (if observed):	X						
Type: Ro								- v
Depth (inc	ches): <u></u>						Hydric Soil	Present? Yes NoX
Remarks:								





Project/Site: Leroy Center-May	yfield 138 kV Tra	ansmissio	on Line Projec City/0	County: Gea	uga County	;	Sampling Date: 07/13/2021	
Applicant/Owner: FirstEnergy							Sampling Point: Wetland PM-50	
Investigator(s): MJA			Secti	on, Township	o, Range: N/			
Landform (hillslope, terrace, etc					-		Slope (%): 1	
							Datum: WGS 198	
Soil Map Unit Name: Or: Orrvil	lle silt loam, fred	quently flo	ooded			NWI classifica	tion: N/A	
Are climatic / hydrologic conditi	ons on the site	typical for	r this time of year?	res X	No (If no, explain in Re	marks.)	
Are Vegetation, Soil	, or Hydrold	ogy	significantly distu	rbed?	Are "Normal	Circumstances" pro	esent? Yes X No	
Are Vegetation, Soil	-		-			xplain any answers		
SUMMARY OF FINDING	3S – Attach	site ma	ap showing san	npling poi	int locatio	ns, transects,	important features, etc.	
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present? Remarks: (Explain alternative	Yes Yes	x X		within a W	npled Area /etland? onal Wetland	Yes X Site ID: Wetland P	=	
PEM wetland in maintained por road.	owerline easeme	ent. Culve	erted ATV access roa	ad passes the	rough wetlan	d. Water passes th	rough culvert and over top of	
HYDROLOGY								
Wetland Hydrology Indicato	ors:					Secondary Indicate	ors (minimum of two required)	
Primary Indicators (minimum	of one is require	ed; check	all that apply)			Surface Soil C	racks (B6)	
X Surface Water (A1)		'	Water-Stained Leave	es (B9)		Drainage Patte	erns (B10)	
X High Water Table (A2)			Aquatic Fauna (B13)			Moss Trim Lines (B16)		
X Saturation (A3)		!	Marl Deposits (B15)			Dry-Season Water Table (C2)		
Water Marks (B1)			Hydrogen Sulfide Od			Crayfish Burro	ws (C8)	
Sediment Deposits (B2)			Oxidized Rhizospher	_	Roots (C3)	Saturation Vis	ible on Aerial Imagery (C9)	
Drift Deposits (B3)			Presence of Reduce				essed Plants (D1)	
Algal Mat or Crust (B4)			Recent Iron Reduction		oils (C6)	X Geomorphic P		
Iron Deposits (B5)			Thin Muck Surface (Shallow Aquita	` '	
Inundation Visible on Aer			Other (Explain in Re	marks)		Microtopograp		
Sparsely Vegetated Cond	cave Surface (B	8)			1	X FAC-Neutral T	est (D5)	
Field Observations:	.,							
Surface Water Present?			Depth (inches):	1				
Water Table Present?			Depth (inches):	3				
Saturation Present? (includes capillary fringe)	Yes X N	0	Depth (inches):	0	Wetland H	ydrology Present	? Yes <u>X</u> No	
Describe Recorded Data (stre	eam gauge, mor	nitoring w	ell, aerial photos, pre	evious inspec	tions), if ava	ilable:		
Remarks:								

/EGETATION – Use scientific names of plant	S.			Sampling Point: Wetland PM-50
Tree Stratum (Plot size:) 1)		Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7	_	-		Total % Cover of: Multiply by:
	-	= Total Cove	er	OBL species 40 x 1 = 40 FACW species 90 x 2 = 180
Sapling/Shrub Stratum (Plot size: 15)				racivi species x z =
1				rac species x s =
2				FACU species
3				01 L species x 0 =
4				Column Totals:130 (A)220 (B)
5				Prevalence Index = B/A = 1.6923076923
6				Hydrophytic Vegetation Indicators:
				X 1 - Rapid Test for Hydrophytic Vegetation
7				X 2 - Dominance Test is >50%
5		= Total Cove	er	X 3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size:5) 1Typha latifolia	30	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea	80	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3Impatiens capensis	10	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
4. Lythrum salicaria	10	No	OBL	be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
_				at breast height (DBH), regardless of height.
/				Sapling/shrub – Woody plants less than 3 in. DBH
8				and greater than or equal to 3.28 ft (1 m) tall.
9	-			Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	130	= Total Cove	er	
Woody Vine Stratum (Plot size:)				
1				
2				Hydrophytic Vegetation
3				Present? Yes X No
4.				
		= Total Cove		
Remarks: (Include photo numbers here or on a separate	e sheet.)			
Tromano. (morado prioto namboro noro or on a doparat	0 011001.)			

SOIL Sampling Point: Wetland PM-50

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			x Features	<u>s</u>	2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0 - 18	10YR 3/2	90	2.5YR 4/6	10	Concer	PL	Silty loam	
-								
-								
_								
-								
			_					
-								
-								
·	-							<u> </u>
-								
¹Type: C=C	oncentration, D=Depl	etion RM-	Reduced Matrix M	S-Maskad	Sand Gra	ine	² l ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil		Ction, raivi-	rtcaacca Matrix, Mi	<u>J-Masked</u>	Cana Ora			for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belo	w Surface	(S8) (LRR	R.		Muck (A10) (LRR K, L, MLRA 149B)
	oipedon (A2)		MLRA 149B		(00) (=	,		Prairie Redox (A16) (LRR K, L, R)
Black Hi			Thin Dark Surfa	•	.RR R, ML	RA 149B		Mucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)		Loamy Mucky I	Mineral (F1) (LRR K,	L)	Dark S	Surface (S7) (LRR K, L, M)
	d Layers (A5)		Loamy Gleyed)			lue Below Surface (S8) (LRR K, L)
	d Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
	ark Surface (A12)		X Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)		Depleted Dark		7)			ont Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress	sions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5) Matrix (S6)							arent Material (F21) hallow Dark Surface (TF12)
	rface (S7) (LRR R, M	II RA 149R	1)					(Explain in Remarks)
Bank ou	nace (Or) (Erricht, III	ILIKA 140D	''				0	(Explain in Nomano)
³ Indicators of	f hydrophytic vegetati	ion and we	tland hydrology mus	st be prese	ent, unless	disturbed	or problemation	.
	Layer (if observed):		, ,,	•				
Type:								
Depth (inc	ches):						Hvdric Soil	Present? Yes X No No
Remarks:							,	
ixemaiks.								



Hydrologic connection





Soil



W





Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec	City/County: Geauga County	Sampling Date: 07/13/2021
Applicant/Owner: FirstEnergy		Sampling Point: Wetland PM-51
Investigator(s): MJA	Section, Township, Range: N/A	
Landform (hillslope, terrace, etc.): Shoulder slope Loc		Slope (%): ³
Subregion (LRR or MLRA): LRR R Lat: 41.527640416	666666 Long: -81.32365905	
Soil Map Unit Name: EhD: Ellsworth silt loam, 12 to 18 percent slopes	NWI class	ification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes ^X No (If no, explain in	n Remarks.)
Are Vegetation, Soil, or Hydrology significantly		
Are Vegetation, Soil, or Hydrology naturally pro		
SUMMARY OF FINDINGS – Attach site map showing		
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area within a Wetland?	X No
Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	If yes, optional Wetland Site ID: Wetlar	
Remarks: (Explain alternative procedures here or in a separate report		
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Ind	icators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		oil Cracks (B6)
Surface Water (A1) Water-Stained		
X High Water Table (A2) Aquatic Fauna	-	Lines (B16)
X Saturation (A3) Marl Deposits (on Water Table (C2)
Water Marks (B1) Hydrogen Sulfid	de Odor (C1) Crayfish B	surrows (C8)
		Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Re		Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Re Iron Deposits (B5) Thin Muck Surf.		nic Position (D2)
Indit Deposits (B3) Thirt Muck Suffice Countries (B3) Other (Explain in the Countries (B3) Other (B3)	• •	graphic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	× FAC-Neut	
Field Observations:		. ,
Surface Water Present? Yes No _X _ Depth (inches)):	
Water Table Present? Yes X No Depth (inches)): 12	
Saturation Present? Yes X No Depth (inches) (includes capillary fringe)	Wetland Hydrology Pres	ent? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:	
Remarks:		
1		

•	i		Sampling Point: Wetland PM-5
Tree Stratum (Plot size:) 1		Dominant Indicator Species? Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2 3			Total Number of Dominant Species Across All Strata: 2 (B)
4 5			Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
		= Total Cover	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)			FACW species x 2 = 240
1			FAC species $0 \times 3 = 0$
2			racu species x 4 =
3			UPL species $0 \times 5 = 0$ Column Totals: $120 \times (A) \times 240 \times (B)$
4			Column Totals:120 (A)240 (B)
_			Prevalence Index = B/A = 2
5			Hydrophytic Vegetation Indicators:
6			X 1 - Rapid Test for Hydrophytic Vegetation
7			X 2 - Dominance Test is >50%
_		= Total Cover	X 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5 1. Phragmites australis	90	Yes FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea	30	Yes FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3			¹ Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7			at breast height (DBH), regardless of height.
8			Sapling/shrub – Woody plants less than 3 in. DBH
9			and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11			
12.			Woody vines – All woody vines greater than 3.28 ft in height.
		= Total Cover	noight.
Woody Vine Stratum (Plot size:)		. Gta. Govo.	
//voody vine Stratum (Flot size:			
1			
			Hydrophytic
2			Hydrophytic Vegetation
1			
2			Vegetation

SOIL Sampling Point: Wetland PM-51

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth (inches)	Matrix Color (moist)	%	Redo:	x Features %	<u>S</u> Type ¹	Loc ²	Texture	Remarks	
0 - 18	10YR 3/1	97	2.5YR 4/6	3	Concer	PL	Silty loam		
-									
-									
-									
-									
-									
	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	= S=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix.	
Hydric Soil I			5 5.	0 ((Oo) (I DE			for Problematic Hydric Soils ³ :	
Histosol	(A1) ipedon (A2)		Polyvalue Belov MLRA 149B)		(S8) (LRF	κ,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)	
Black His			Thin Dark Surfa		.RR R, MI	RA 149B)		flucky Peat or Peat (S3) (LRR K, L, R)	
Hydroge	n Sulfide (A4)		Loamy Mucky N	/lineral (F1	I) (LRR K	, L)	Dark S	urface (S7) (LRR K, L, M)	
	Layers (A5)		Loamy Gleyed I)			lue Below Surface (S8) (LRR K, L)	
	l Below Dark Surface	(A11)	Depleted Matrix	. ,				ark Surface (S9) (LRR K, L)	
	rk Surface (A12)		X Redox Dark Sur	. ,				anganese Masses (F12) (LRR K, L, R)	
	lucky Mineral (S1)		Depleted Dark S		7)			ont Floodplain Soils (F19) (MLRA 149B)	
	leyed Matrix (S4)		Redox Depress	ions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)	
	edox (S5)							arent Material (F21)	
	Matrix (S6) face (S7) (LRR R, M	LRA 149E	3)					hallow Dark Surface (TF12) Explain in Remarks)	
	hydrophytic vegetati	on and we	tland hydrology mus	t be prese	ent, unless	disturbed	or problemation	.	
Restrictive L	.ayer (if observed):								
Type:									
Depth (inc	ches):						Hydric Soil	Present? Yes X No No	
Remarks:									





N







Project/Site: Leroy Center-May	yfield 138 kV T	Fransmiss	sion Line Projec City/	County: Gea	luga County		Sampling Date: 07/1	2/2021
Applicant/Owner: FirstEnergy		_		<u>-</u>			Sampling Point: Up	
Investigator(s): MJA			Sec	tion, Townshi				
Landform (hillslope, terrace, etc							Slope (%	
Subregion (LRR or MLRA): LR Soil Map Unit Name: MgB: Ma	honing silt loa	m, 2 to 6	percent slopes			_ NWI classifica	tion: N/A	
Are climatic / hydrologic conditi	ons on the site	e typical f	for this time of year?	Yes X	No (If	no, explain in Re	marks.)	
Are Vegetation, Soil	, or Hydro	ology	significantly distu	urbed?	Are "Normal C	ircumstances" pr	esent? Yes X	No
Are Vegetation, Soil	, or Hydro	ology	naturally problen	natic?	(If needed, exp	olain any answers	s in Remarks.)	
SUMMARY OF FINDING	3S – Attacl	h site n	nap showing sa	mpling po	int location	s, transects,	important featu	res, etc.
Hydrophytic Vegetation Prese			NoX		npled Area	.,		
Hydric Soil Present?			NoX	within a W		Yes		
Wetland Hydrology Present? Remarks: (Explain alternative				If yes, opti	onal Wetland S	ite ID: Upland PN	Л-51,52	
HYDROLOGY								
Wetland Hydrology Indicato	ors:				S	econdary Indicate	ors (minimum of two	required)
Primary Indicators (minimum	of one is requi	red; ched	ck all that apply)			_ Surface Soil C	cracks (B6)	
Surface Water (A1)			Water-Stained Leav		_	_ Drainage Patt		
X High Water Table (A2)			Aquatic Fauna (B13		_	_ Moss Trim Lin	, ,	
Saturation (A3)			Marl Deposits (B15)		_	-	/ater Table (C2)	
Water Marks (B1) Sediment Deposits (B2)			Hydrogen Sulfide OOxidized Rhizosphe		Poots (C3)	Crayfish Burro	ible on Aerial Imager	n/ (Ca)
Orift Deposits (B3)			Presence of Reduce		1,0003 (03)		essed Plants (D1)	y (C3)
Algal Mat or Crust (B4)			Recent Iron Reduct		oils (C6)	_ Geomorphic F		
Iron Deposits (B5)			Thin Muck Surface		. , _	Shallow Aquita	` '	
Inundation Visible on Aer	ial Imagery (B	7)	Other (Explain in Re	emarks)		_ Microtopograp	hic Relief (D4)	
Sparsely Vegetated Cond	cave Surface (B8)				_ FAC-Neutral 1	est (D5)	
Field Observations:								
Surface Water Present?			_ Depth (inches):	_				
Water Table Present?			_ Depth (inches):	5	NA 41 111		• · · · · · · · · · · · · · · · · · · ·	
Saturation Present? (includes capillary fringe)	Yes^_	No	_ Depth (inches):	2	Wetland Hyd	drology Present	? Yes <u>X</u> No	·
Describe Recorded Data (stre	am gauge, mo	onitoring	well, aerial photos, pr	revious inspec	ctions), if availa	ble:		
Remarks:								
Tromano.								

2	Time Stratum Plot size: 30	/EGETATION - Use scientific names of plants				Sampling Point: Upland PM-51,52
That Are OBL, FACW, or FAC: 0	1	<u>Tree Stratum</u> (Plot size:)				
Species Across All Stratus	3.					
That Are OBL, FACW, or FAC: 0 (A A A A A A A A A A	That Are OBL, FACW, or FAC:					
Prevalence Index worksheet: Total % Cover of:	Prevalence Index worksheet: Total % Cover of: Multiply by:					
Total Cover of Multiply by:	Total % Cover of					Providence to decrease to the co
Sapling/Shrub Stratum (Plot size: 15 10 Yes FACU FACU FACU Species 0 x 1 = 0 FACU Species 0 x 2 = 0 FACU Species 0 x 3 = 0 FACU Species 0 x 3 = 0 FACU Species 0 x 5 = 0 TACU Species 0 x 5 =		_				
Sapiling/Shrub Stratum (Plot size:15 15 New Bracultiflora 10 Yes FACU FACU species 0 X 2 = 0 0 FACU species 145 X 4 = 580 Mode	Sapiling/Shrub Stratum (Plot size: 15 10 Yes FACU FAC species				ver	·
1. Rubus allegheniensis	1. Rubus allegheniensis	Sapling/Shrub Stratum (Plot size: 15)		-		FACW species0 x 2 =0
20 Yes FACU 3	20 Yes FACU 30		10	Yes	FACU	FAC species x 3 = 0
Section Sect	3.	Rosa multiflora	20	Yes	FACU	X 4 =
4	4					145
Prevalence Index = B/A = 4	5 Prevalence Index = B/A = 4 Hydrophytic Vegetation Indicators:					Column Totals:(A)(B)
Hydrophytic Vegetation Indicators: Total Cover	6.					Prevalence Index = B/A = 4
7	7					Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:5) 1	Herb Stratum (Plot size: 5)					
Herb Stratum (Plot size:5) 1. Solidago canadensis	Herb Stratum (Plot size:5) 1. Solidago canadensis				vor	2 - Dominance Test is >50%
1. Solidago canadensis 70 Yes FACU 2. Anthoxanthum odoratum 45 Yes FACU 3.	1. Solidago canadensis 70 Yes FACU 2. Anthoxanthum odoratum 45 Yes FACU 3.	Herb Stratum (Plot size: 5)		_ = 10181 00	VCI	3 - Prevalence Index is ≤3.0 ¹
3.	3.	0.11.1	70	Yes	FACU	·
be present, unless disturbed or problematic. Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diame at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No X	be present, unless disturbed or problematic. Tree – Woody plants also, in C, 6 cm) or more in diamete at present plants. Be disturbed or problematic. Tree – Woody plants also, in C, 6 cm) or more in diamete at present plants. Be disturbed or problematic. Tree – Woody plants also, in C, 6 cm) or more in diamete at present plants. Be disturbed or problematic. Tree – Woody plants also, in C, 6 cm) or more in diamete at present plants. Be disturbed or problematic. Tree – Woody plants also, in C, 6 cm) or more in diamete at present plants. Be disturbed or present plants. Be disturbed or present plants. Tree – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Woody vines – All woody vines greater than 3.28 ft in height. Woody vines – All woody vines greater than 3.28 ft in height. Be disturbed or present plants. Tree – Woody plants less than 3 in. DBH and greater than or qual to 3.28 ft (1 m) tall. Woody vines – All woody vines present plants. The problematic plants are plants. The problematic plants are plants. The pr	2. Anthoxanthum odoratum	45	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
5	5					
Tree – Woody plants 3 in. (7.6 cm) or more in diame at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No X	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No X					Definitions of Vegetation Strata
7	7					
9. and greater than or equal to 3.28 ft (1 m) tall. 10. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. 115 = Total Cover Woody Vine Stratum (Plot size: 30) 1	9					
10	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height. Woody Vine Stratum (Plot size:					
11	11					
12	12	11				
Woody Vine Stratum (Plot size:	Woody Vine Stratum (Plot size:	12			_	, ,
1	1		115	= Total Co	ver	
2	2	Woody Vine Stratum (Plot size: 30)				
2	2	1				
3 Present? Yes No X 4 = Total Cover	3					
= Total Cover	= Total Cover	3				
		4				
Remarks: (Include photo numbers here or on a separate sheet.)	Remarks: (Include photo numbers here or on a separate sheet.)			= Total Co	ver	
		Remarks: (Include photo numbers here or on a separate	sheet.)			
		Remarks: (Include photo numbers here or on a separate	sheet.)			

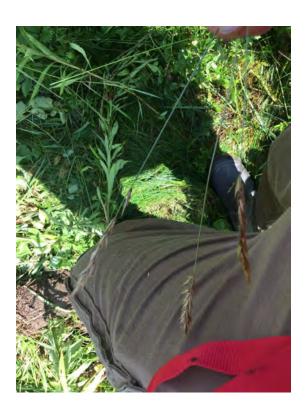
SOIL Sampling Point: Upland PM-51,52

Silty loam Silty		Matrix		Redox Fea	atures 1	. 2	.			
Silty loam Silty loam	inches)	Color (moist)	%	Color (moist)	<u>lype</u>	Loc	Texture		Remarks	
	0 - 6	10YR 3/2	100							
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Piedmont Floodplain Soils (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149E) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Pork Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No X	5 18	10YR 4/3	100				Silty loam			
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Piedmont Floodplain Soils (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149E) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Pork Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No X	-									
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Piedmont Floodplain Soils (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149E) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Pork Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No X	-									
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Piedmont Floodplain Soils (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149E) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Pork Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No X	-									
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Piedmont Floodplain Soils (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149E) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Pork Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No X										
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Piedmont Floodplain Soils (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149E) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Pork Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No X										
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Other (Explain in Remarks) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No _X	-									
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strictive Layer (if observed): Type: No _ X		iace (57) (LKK K, iv						•	,	
Type: Hydric Soil Present? Yes No _X	_ Dark Sur				oresent, unless	disturbed	or problematic			
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	Dark Surfactors of estrictive L	hydrophytic vegetat		etland hydrology must be p						
	Dark Surfactions of estrictive L	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of estrictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of estrictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of estrictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of strictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No <u>X</u>
	Dark Surfactors of Strictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of strictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of strictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of Strictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of Strictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of estrictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	_ Dark Surn ndicators of estrictive L Type:	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of estrictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
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	Dark Surfactors of estrictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of estrictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X
	Dark Surfactors of estrictive L Type: Depth (inc	hydrophytic vegetat ayer (if observed):		etland hydrology must be p			Hydric Soil	Present?	Yes	No X









Other herb

Investigator(s): MJA Section, Township, Range: N/A Landform (hillslope, terrace, etc.): Gulch or Gully Local relief (concave, convex, none): Concave Slope (%): 2 Subregion (LRR or MLRA): LRR Lat: 41.52741925 Long: -81.3242141 Datum: WGS 1984 Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes NWI classification: N/A Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology in naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No If yes, optional Wetland? Yes X No If yes, optional Wetland Site ID: Wetland PM-52 Remarks: (Explain alternative procedures here or in a separate report.) Wetland crossed by ATV access road. Drains into stream.	Project/Site: Leroy Center-Mayfield 138 kV Transmission Line Projec City/Co	ounty: Geauga County	Sampling Date: 07/12/2021
Section, Township, Range: NA Section, Township, Range: NA Landform (fillelope, terrace, etc.): Gulch or Gully			
Landform (hillslope, terrace, etc.); Culch or Gully			
Subregion (LRR or MLRA): LRR R Lat. 41.52741925 Long: 91.3242141 Datum: WGS 1984 Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes NWI classification: NA NA NA Communication of the steep state typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophylic Vegetation Present? Yes X No			Slope (%): ²
Soil Map Unit Name: MgB: Mahoning sill toam, 2 to 6 percent slopes			
Are VegetationSoil or Hydrology significantly disturbed?	Soil Map Unit Name: MgB: Mahoning silt loam, 2 to 6 percent slopes	NWI classific	cation: N/A
Are Vegetation, Soil, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?	Are climatic / hydrologic conditions on the site typical for this time of year? Ye	es X No (If no, explain in R	Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?	Are Vegetation, Soil, or Hydrology significantly disturb	ped? Are "Normal Circumstances" p	oresent? Yes X No
Hydrophytic Vegetation Present? Yes X No Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) X Surface Water (A1) Water-Stained Leaves (B9) X Drainage Patterns (B10) Moss Trim Lines (B16) X Saturation (A3) Marl Deposits (B13) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Prind Poposits (B3) Presence of Reduced Iron (C4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Water Marks (B1) Depth (inches): Surface Water Present? Yes X No Depth (inches): Surface Water Present? Yes X No Depth (inches): Saturation Present? Yes X No Depth (inches): Surface Water Present? Yes X No Depth (inches): Wetland Hydrology Present? Yes X No Depth (inches): Prescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Hydric Soil Present? Yes X No If yes, optional Wetland? Yes X No If yes, optional Wetland Site ID: Wetland PM-52 Remarks: (Explain alternative procedures here or in a separate report.) Wetland crossed by ATV access road. Drains into stream. HYDROLOGY Wetland Hydrology Indicators: Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Yes X Drainage Patterns (B10) X Surface Water (A1) Water-Stained Leaves (B9) X Drainage Patterns (B10) X High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16) X Saturation (A3) Marl Deposits (B15) 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 (C9) 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) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes X No Depth (inches): 2 Water Table Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Depth (inches): 1 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	SUMMARY OF FINDINGS – Attach site map showing sam	pling point locations, transects	, important features, etc.
Wetland crossed by ATV access road. Drains into stream. Wetland crossed by ATV access road. Drains into stream. Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required: check all that apply) Surface Soil Cracks (B6) Surface Soil Cracks	Hydric Soil Present? Yes X No	within a Wetland? Yes X	
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) X Drainage Patterns (B10) X High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16) X Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidizzed Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) 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) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Depth (inches): 0 Wetland Hydrolo			
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) X Surface Water (A1) Water-Stained Leaves (B9) X Drainage Patterns (B10) X High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16) X Saturation (A3) Marl Deposits (B15) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidizzed Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) 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) Secondary Indicators (Minimum of the End of the Stress of Plants (D1) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Dept			
Primary Indicators (minimum of one is required; check all that apply) X Surface Water (A1) Water-Stained Leaves (B9) X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Water Marks (B1) Marl Deposits (B15) Dry-Season Water Table (C2) Crayfish Burrows (C8) 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 Soil Cracks (B6) X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) X Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes X No Depth (inches): 2 Water Table Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Control (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	HYDROLOGY		
Primary Indicators (minimum of one is required; check all that apply) X Surface Water (A1) Water-Stained Leaves (B9) X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Iron Deposits (B5) Inudation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Soil Cracks (B6) X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Shallow Aquitard (D3) Inudation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes X No Depth (inches): 2 Water Table Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Concludes Concave Surface (B4) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Indicators:	Secondary Indica	ators (minimum of two required)
XSurface Water (A1)Water-Stained Leaves (B9)XDrainage Patterns (B10)XHigh Water Table (A2)Aquatic Fauna (B13)Moss Trim Lines (B16)XSaturation (A3)Marl Deposits (B15)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 (C9)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)XGeomorphic Position (D2)Inon Deposits (B5)Thin Muck Surface (C7)Shallow Aquitard (D3)Inundation Visible on Aerial Imagery (B7)Other (Explain in Remarks)Microtopographic Relief (D4)Sparsely Vegetated Concave Surface (B8)FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes X No Depth (inches): 2 Water Table Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0Wetland Hydrology Present? Yes X No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
X High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16) X Saturation (A3) Marl Deposits (B15) 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 (C9) 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) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes X No Depth (inches): 2 Water Table Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
X Saturation (A3) Marl Deposits (B15) 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 (C9) 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) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? YesX No Depth (inches): 2 Water Table Present? YesX No Depth (inches): 2 Saturation Present? YesX No Depth (inches): 0 Wetland Hydrology Present? YesX No Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Water Marks (B1)			
Drift Deposits (B3)		or (C1) Crayfish Bur	rows (C8)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present?	Sediment Deposits (B2) Oxidized Rhizosphere	es on Living Roots (C3) Saturation V	isible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Factorial Test (D5) Surface Water Present?	Drift Deposits (B3) Presence of Reduced	Iron (C4) Stunted or S	tressed Plants (D1)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Microtopographic Relief (D4) Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Surface Water Present?			Position (D2)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes X No Depth (inches): 2 Water Table Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Output (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Iron Deposits (B5) Thin Muck Surface (C	(7) Shallow Aqu	itard (D3)
Field Observations: Surface Water Present? Yes X No Depth (inches): 2 Water Table Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Inundation Visible on Aerial Imagery (B7) Other (Explain in Rem	narks) Microtopogra	aphic Relief (D4)
Surface Water Present? Yes X No Depth (inches): 2 Water Table Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Sparsely Vegetated Concave Surface (B8)	FAC-Neutral	Test (D5)
Water Table Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Field Observations:		
Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		2	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
	(includes capillary fringe)		nt? Yes X No
Remarks:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	vious inspections), if available:	
Remarks:			
	Remarks:		
·			

EGETATION – Use scientific names of plants	•			Sampling Point: Wetland PM-5
Tree Stratum (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 1 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Cov	er	OBL species13 x 1 =13
Sapling/Shrub Stratum (Plot size: 15)				FACW species $\frac{73}{5}$ x 2 = $\frac{146}{5}$
1 Apocynum cannabinum	5	Yes	FAC	FAC species
2				X 4 =
3				UPL species $0 \times 5 = 0$ Column Totals: $106 \times 6 \times 6 \times 100$
1 5				Prevalence Index = B/A = 2.2075471698
5				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
-		= Total Cov		X 2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		- Total Cov	5 1	$X = 3$ - Prevalence Index is $\leq 3.0^1$
1Phalaris arundinacea	70	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Juncus effusus	10	<u>No</u>	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carex vulpinoidea	3	No	OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Solidago canadensis	15	No	FACU	be present, unless disturbed or problematic.
5Eupatorium perfoliatum	3	No	FACW	Definitions of Vegetation Strata:
5				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
3				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of
11				size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in height.
14.		= Total Cov		neight.
Woody Vine Stratum (Plot size:30)		- rotal cov	.	
1				Hydrophytic
				Trydrophytio
2				Vegetation
1				
2				Vegetation

SOIL Sampling Point: Wetland PM-52

Profile Desc	ription: (Describe t	o the dept	h needed to docur	ment the i	ndicator o	or confirm	n the absence	of indicators.)
Depth	Matrix			x Features	<u> </u>	. 2		
(inches) 0 - 8	Color (moist) 10YR 3/2	<u>%</u> 100	Color (moist)	<u> </u>	Type ¹	Loc ²	Texture Silty loam	Remarks
						-		
8 - 18	2.5Y 5/2	80	10YR 5/6	20	Concer	M	Silty clay loam	Some sand
-								
			-					
-								
-								
-								
						-		
-								
-								
-								
1 _T C. C.			Dadwaad Matrix M	C Maalaad			21	DI Dana Lining M Matrix
Hydric Soil I	oncentration, D=Depl ndicators:	etion, Rivi=	Reduced Matrix, Mi	S=IVIasked	Sand Gra	iins.		r PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	w Surface	(S8) (LRR	R.		Muck (A10) (LRR K, L, MLRA 149B)
	ipedon (A2)	•	MLRA 149B		() (,		Prairie Redox (A16) (LRR K, L, R)
Black His			Thin Dark Surfa					Mucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)	-	Loamy Mucky N			L)		Surface (S7) (LRR K, L, M)
	l Layers (A5) I Below Dark Surface	. (Λ11)	Loamy GleyedX Depleted Matrix)		-	alue Below Surface (S8) (LRR K, L) Park Surface (S9) (LRR K, L)
-	rk Surface (A12)	(A11)	Redox Dark Su					anganese Masses (F12) (LRR K, L, R)
	lucky Mineral (S1)	•	Depleted Dark	, ,	7)			ont Floodplain Soils (F19) (MLRA 149B)
-	leyed Matrix (S4)		Redox Depress	sions (F8)				Spodic (TA6) (MLRA 144A, 145, 149B)
-	edox (S5)							arent Material (F21)
	Matrix (S6)	U D A 440D	`					Shallow Dark Surface (TF12) (Explain in Remarks)
Dark Sur	face (S7) (LRR R, M	ILKA 149D)				Other	(Explain in Remarks)
³ Indicators of	hydrophytic vegetati	ion and we	land hydrology mus	st be prese	nt, unless	disturbed	or problemation	D.
	ayer (if observed):		, ,,,					
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes X No No
Remarks:								



Soil



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Project/Site: Leroy Center-Mayfield 138 kV	Transmission Line Projec City/C	County: Geauga County	Sampling Date:_07/13/2021
Applicant/Owner: FirstEnergy		The state of the s	Sampling Point: Wetland PM-53
Investigator(s): MJA	Section		· -
Landform (hillslope, terrace, etc.): Terrace			Slope (%): ³
Subregion (LRR or MLRA): LRR R Soil Map Unit Name: MgB: Mahoning silt lo			
Are climatic / hydrologic conditions on the s	ite typical for this time of year? Y	es X No (If no, explai	n in Remarks.)
Are Vegetation, Soil, or Hyd	Irology significantly distur	bed? Are "Normal Circumstan	ces" present? Yes X No
Are Vegetation, Soil, or Hyd	Irology naturally problema	atic? (If needed, explain any a	answers in Remarks.)
SUMMARY OF FINDINGS – Attac	ch site map showing san	npling point locations, trans	ects, important features, etc.
	YesX	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: Wetland	
Remarks: (Explain alternative procedures		If yes, optional Wetland Site ID: We	Maria i W 33
HYDROLOGY			
		Sacandary	Indicators (minimum of two required)
Wetland Hydrology Indicators:	uired; abook all that apply)		
Primary Indicators (minimum of one is req			e Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leave		ge Patterns (B10)
High Water Table (A2) Saturation (A3)	Aquatic Fauna (B13) Marl Deposits (B15)		rim Lines (B16) ason Water Table (C2)
Water Marks (B1)	Man Deposits (B15) Hydrogen Sulfide Od		h Burrows (C8)
Sediment Deposits (B2)	X Oxidized Rhizospher		tion Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced		d or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction		orphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (0	· , —	v Aquitard (D3)
Inundation Visible on Aerial Imagery (· —	ppographic Relief (D4)
Sparsely Vegetated Concave Surface			eutral Test (D5)
Field Observations:	, (-0,		
Surface Water Present? Yes	No X Depth (inches):		
	No X Depth (inches):		
	No X Depth (inches):	Wetland Hydrology P	resent? Yes X No No
Describe Recorded Data (stream gauge, r	monitoring well, aerial photos, pre	evious inspections), if available:	
Remarks:			
1.6.116.116.			

EGETATION – Use scientific names of plants				Sampling Point: Wetland PM-5
<u>Tree Stratum</u> (Plot size:) 1)		Dominant Species?		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
2 3				Total Number of Dominant Species Across All Strata: 3 (B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC:1 (A/B)
6				Prevalence Index worksheet:
7		-		Total % Cover of: Multiply by:
		= Total Cov	er	OBL species $0 \times 1 = 0$
Sapling/Shrub Stratum (Plot size: 15)				racvi species x z =
1. Cornus racemosa	3	Yes	FAC	FAC species 8 x 3 = 24 FACU species 0 x 4 = 0
2. Frangula alnus	5	Yes	<u>FAC</u>	UPL species 0
3				Column Totals: 103 (A) 214 (B)
4 5				Prevalence Index = B/A = 2.0776699029
3				Hydrophytic Vegetation Indicators:
7				X 1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	er	X 2 - Dominance Test is >50%
Herb Stratum (Plot size: 5				X 3 - Prevalence Index is ≤3.0 ¹
1. Phalaris arundinacea			FACW	4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2. Impatiens capensis	5	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3 4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
7 3				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				Woody vines – All woody vines greater than 3.28 ft in
12				height.
	95	= Total Cov	er	
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
2				Vegetation
				Present? Yes X No
3				
3 4		= Total Cov		

SOIL Sampling Point: Wetland PM-53

Depth _	Matrix			x Features	T , 1	12	Taut	Dama dia
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0 - 18	10YR 3/2	97	7.5YR 4/6	3	Concer	PL_	Silty loam	
-								
-								
						-		
	· -							
<u>-</u>								
-								
-								
	<u> </u>		·			-		
	 -							
<u>-</u>								
Type: C=Con	centration, D=Deple	tion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil In	dicators:						Indicators	for Problematic Hydric Soils ³ :
Histosol (A			Polyvalue Belov		S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B)
Histic Epip Black Hist	pedon (A2)		MLRA 149B) Thin Dark Surfa		DD D MI	DA 1/0R		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky N					Surface (S7) (LRR K, L, M)
	_ayers (A5)		Loamy Gleyed I		•	,		lue Below Surface (S8) (LRR K, L)
	Below Dark Surface	(A11)	Depleted Matrix					ark Surface (S9) (LRR K, L)
	k Surface (A12) cky Mineral (S1)		X Redox Dark Su Depleted Dark S		7)			anganese Masses (F12) (LRR K, L, R) ont Floodplain Soils (F19) (MLRA 149B)
	eyed Matrix (S4)		Redox Depress)			Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Re				(* -)				arent Material (F21)
Stripped M								hallow Dark Surface (TF12)
Dark Surfa	ace (S7) (LRR R, ML	.RA 149I	B)				Other	(Explain in Remarks)
Indicators of h	ydrophytic vegetatic	on and w	etland hydrology mus	t be preser	nt, unless	disturbed	or problematic	2.
	yer (if observed):		, 0,	•				
Type:								
Depth (inch	es):						Hydric Soil	Present? Yes X No No
Remarks:							- I	





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Project/Site: Leroy Center-Mayfield 138 kV Transi	mission Line Projec City/County: Geau	uga County	Sampling Date: 07/13/2021
Applicant/Owner: FirstEnergy			Sampling Point: Upland PM-53
Investigator(s): MJA	Section, Township		
Landform (hillslope, terrace, etc.): Terrace			Slope (%): ²
Subregion (LRR or MLRA): LRR R			
Soil Map Unit Name: MgB: Mahoning silt loam, 2 to	to 6 percent slopes	NWI classific	eation:_N/A
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes X	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach sit	e map showing sampling poi	nt locations, transects	, important features, etc.
1	No X Is the Sam within a W	-	No
	No X If yes, option	nal Wetland Site ID: Upland F	PM-53
HYDROLOGY			
Wetland Hydrology Indicators:			tors (minimum of two required)
Primary Indicators (minimum of one is required; of		Surface Soil	
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Pa	
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Li	
Saturation (A3)	Marl Deposits (B15)	•	Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Bur	` ,
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres on LivingPresence of Reduced Iron (C4)		sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled So		tressed Plants (D1) Position (D2)
/ Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aqui	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopogra	
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral	
Field Observations:		<u> </u>	
Surface Water Present? Yes No _	X Depth (inches):		
	X Depth (inches):		
Saturation Present? Yes No _ (includes capillary fringe)	X Depth (inches):	Wetland Hydrology Preser	nt? Yes NoX
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspec	tions), if available:	
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1,			·	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata:4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.5 (A/B)
6				Prevalence Index worksheet:
7		-		Total % Cover of: Multiply by:
		= Total Cov		OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species35
1. Rubus allegheniensis	15	Yes	FACU	FAC species 20 x 3 = 60
2. Frangula alnus			FAC	FACU species95 x 4 =380
Fraxinus pennsylvanica			FACW	UPL species x 5 = 0
		·		Column Totals:150 (A)510 (B)
4				Prevalence Index = B/A = 3.4
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	/or	2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		_ Total 001	7 C1	3 - Prevalence Index is ≤3.0 ¹
1. Solidago canadensis	55	Yes	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Phalaris arundinacea		Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Agrostis perennans		No	FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Phleum pratense			FACU	be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
7				Sapling/shrub – Woody plants less than 3 in. DBH
				and greater than or equal to 3.28 ft (1 m) tall.
9				Herb – All herbaceous (non-woody) plants, regardless of
10				size, and woody plants less than 3.28 ft tall.
11			- ——	Woody vines – All woody vines greater than 3.28 ft in
12				height.
00	110	= Total Cov	/er	
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
2				Vegetation
3				Present? Yes No X
4		-		
	-	= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Sampling Point: Upland PM-53

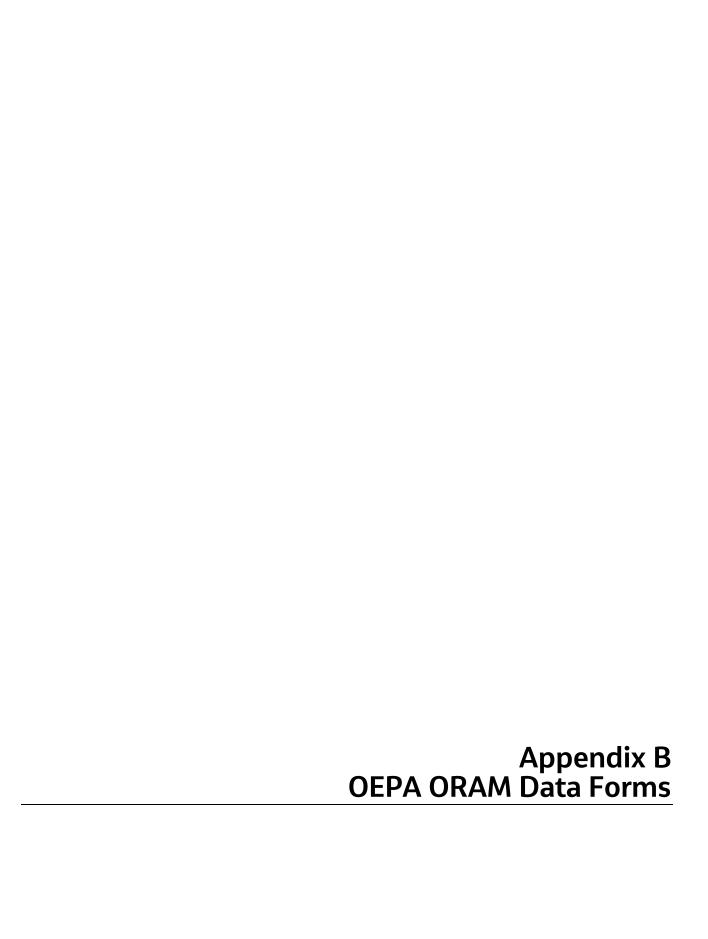
SOIL Sampling Point: Upland PM-53

Profile Description: (Describe to the de			or or confirm	the absence	of indicators.)
Depth Matrix		ox Features	1 12	T	Demodus
(inches) Color (moist) %	Color (moist)	% Type	Loc ²	<u>Texture</u>	Remarks
0 - 18 10YR 3/2 100				Silty loam	
-					
-					
				-	·
-					
-					
	· 			-	·
-					
-					
				-	·
-					
-					
17 00 17 00 17			<u> </u>	21	
¹ Type: C=Concentration, D=Depletion, RN Hydric Soil Indicators :	/I=Reduced Matrix, M	S=Masked Sand	Grains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Relo	w Surface (S8) (L	DD D		fuck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B		ixix ix,		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)		ace (S9) (LRR R,	MLRA 149B		flucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)		Mineral (F1) (LRF			urface (S7) (LRR K, L, M)
Stratified Layers (A5)	Loamy Gleyed			-	lue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)	Depleted Matri				ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Su	, ,			anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Depleted Dark Redox Depress				ont Floodplain Soils (F19) (MLRA 149B) Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)	Redox Depress	310113 (1 0)			arent Material (F21)
Stripped Matrix (S6)					hallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149) B)				Explain in Remarks)
³ Indicators of hydrophytic vegetation and w	etland hydrology mu	st be present, unl	ess disturbed	or problemation	<u>. </u>
Restrictive Layer (if observed):					
Type:	=				
Depth (inches):	=			Hydric Soil	Present? Yes NoX
Remarks:					





Soil



Site: V	Vetlan	d PM-01	Rater(s): MJA		Date: 2021-08-09
2	2	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 p 25 to <50 acres (10.1 to -10 to <25 acres (4 to <10 do <10	core. (ss) <20.2ha) (5 pts) .1ha) (4 pts) na) (3 pts) .1.2ha) (2pts) <0.12ha) (1 pt)		
7	9	Metric 2. Upland b	uffers and surroun	iding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width WIDE. Buffers average 9 X MEDIUM. Buffers average 9 NARROW. Buffers average 9 VERY NARROW. Buffers average 9 VERY LOW. Buffers average 9 VERY LOW. 2nd growth 100 x 100 year 100 ye	Select only one and assign score 50m (164ft) or more around wetland ge 25m to <50m (82 to <164ft) aroung 10m to <25m (32ft to <82ft) aroung aye 10m to <25m (32ft to <82ft) aroung we	e. Do not double check. d perimeter (7) und wetland perimeter (4) round wetland perimeter (1) etland perimeter (0) nd average. wildlife area, etc. (7) th forest. (5) onservation tillage, new fallo	
6	15	Metric 3. Hydrolog	V.		
max 30 pts.	subtotal	3a. Sources of Water. Score all th High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent sui Perennial surface water (3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6i) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrological depth.	face water (3) lake or stream) (5) only one and assign score.	Part of wetland/u Part of riparian or Bd. Duration inundation/sate Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
6	21	None or none apparent (*) Recovered (7) X Recovering (3) Recent or no recovery (1	Check all disturbances observed ditch tile dike weir stormwater input	ved point source (non x filling/grading road bed/RR trac dredging other_	, and the second second
max 20 pts.	subtotal	Metric 4. Habitat A 4a. Substrate disturbance. Score		lopment.	
		None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2))		
		Poor (1) 4c. Habitat alteration. Score one c	r double check and average.		
SI	21	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1	mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging X farming nutrient enrichme	ttic bed removal

Site: Wetland PM-01	Rater(s): MJA		Date : 2021-08-09
21			
subtotal first page			
0 21 Metric 5. Special We	etlands.		
max 10 pts. subtotal Check all that apply and score as indic			
Bog (10)			
Fen (10)			
Old growth forest (10) Mature forested wetland (5)			
Lake Erie coastal/tributary w	etland-unrestricted hyd	rology (10)	
Lake Erie coastal/tributary w		ogy (5)	
Lake Plain Sand Prairies (Oa Relict Wet Prairies (10)	ak Openings) (10)		
Known occurrence state/fede	eral threatened or enda	ngered species (10)	
Significant migratory songbir			
Category 1 Wetland. See Q	uestion 1 Qualitative Ra	ating (-10)	
0 21 Metric 6. Plant comi	munities inte	arenarsian microta	nogranhy
inotitio of Triant Collin	•	Community Cover Scale	pograpily.
max 20 pts. subtotal 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.	0 vegetation c	Absent or comprises <0.1ha (0.24	171 acres) contiguous area
0 Aquatic bed	1	Present and either comprises small	
1 Emergent		vegetation and is of moderate of	
0 Shrub 0 Forest	2	significant part but is of low qua Present and either comprises sign	
0 Mudflats	_	vegetation and is of moderate of	
Open water		part and is of high quality	
0 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 De	escription of Vegetation Quality	
Moderately high(4) Moderate (3)	low	Low spp diversity and/or predomined disturbance tolerant native specific sp	
Moderately low (2)	mod	Native spp are dominant component	
Low (1)		although nonnative and/or distu	<u> </u>
X None (0)	_	can also be present, and specie	•
6c. Coverage of invasive plants. Refe to Table 1 ORAM long form for list. Ac		moderately high, but generally withreatened or endangered spp	w/o presence or rare
or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
Extensive >75% cover (-5)		and/or disturbance tolerant nation	
Moderate 25-75% cover (-3) X Sparse 5-25% cover (-1)		absent, and high spp diversity a the presence of rare, threatened	
Nearly absent <5% cover (0)		the presence of fare, uncaterior	a, or cridarigored opp
Absent (1)		Open Water Class Quality	
6d. Microtopography. Score all present using 0 to 3 scale.	<u>0</u>	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)	eroe)
0 Vegetated hummucks/tussu		Moderate 1 to <4ha (2.47 to 9.88	
O Coarse woody debris >15cm		High 4ha (9.88 acres) or more	,
0 Standing dead >25cm (10in)			
0 Amphibian breeding pools	<u>Microtopogi</u> 0	Absent	
	1	Present very small amounts or if	more common
		of marginal quality	
	2	Present in moderate amounts, bu	_
	3	quality or in small amounts of h Present in moderate or greater ar	
		and of highest quality	
21 GRAND TOTAL (max 100 pts)			

Site: Wetlar	d PM-02	Rater(s): MJA	Date: 20)21-08-05
0 0	Metric 1. Wetland A	area (size).		
max 6 pts. subtotal	Select one size class and assign scc >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to 10 to <25 acres (4 to <10.1 to <10</th <th>ore.) 20.2ha) (5 pts) (ha) (4 pts) a) (3 pts) .2ha) (2pts) c0.12ha) (1 pt)</th> <th></th> <th></th>	ore.) 20.2ha) (5 pts) (ha) (4 pts) a) (3 pts) .2ha) (2pts) c0.12ha) (1 pt)		
4 4	Metric 2. Upland bu	Iffers and surround	ing land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of X LOW. Old field (>10 years MODERATELY HIGH. Re	Select only one and assign score. Dom (164ft) or more around wetland per 25m to <50m (82 to <164ft) around per 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetland	oo not double check. erimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. llife area, etc. (7) orest. (5) ervation tillage, new fallow field. (3)	
6 10	Metric 3. Hydrology	<i>1</i> .		
max 30 pts. subtotal	3a. Sources of Water. Score all tha 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 × <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog	t apply. 3b. ace water (3) ke or stream) (5) nly one and assign score. 3d. (2) ic regime. Score one or double checked.		est), complex (1) or (1) one or dbl check d/saturated (4) (3)
7 17	Recovered (7) X Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (nonstormwater) filling/grading road bed/RR track dredging x other	
max 20 pts. subtotal	Metric 4. Habitat Al 4a. Substrate disturbance. Score or		pment.	
	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)			
	x Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or None or none apparent (9) Recovered (6) x Recovering (3) Recent or no recovery (1)		shrub/sapling removal herbaceous/aquatic bed remova sedimentation	al
17		selective cutting woody debris removal toxic pollutants	dredging X farming nutrient enrichment	

Site: W	/etlan	d PM-02	Rater(s): MJA		Date: 2021-08-05
	17 ototal first pa	age			
0	17	Metric 5. Special W	/etlands.		
max 10 pts.	subtotal	Check all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	dicated. wetland-unrestricted hydro wetland-restricted hydro Oak Openings) (10) dederal threatened or endabird/water fowl habitat or	angered species (10) usage (10)	
2	19	Metric 6. Plant con	nmunities, int	erspersion, microto	opography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communitie	•	Community Cover Scale	
•		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
		O Aquatic bed	1	Present and either comprises sm	all part of wetland's
		1 Emergent		vegetation and is of moderate of	
		0 Shrub 0 Forest	2	significant part but is of low qua Present and either comprises sign	
		0 Mudflats	2	vegetation and is of moderate of	
		0 Open water		part and is of high quality	dailty of comprises a small
		0 Other	3	Present and comprises significan	t part, or more, of wetland's
		6b. horizontal (plan view) Interspers		vegetation and is of high quality	
		Select only one.			
		High (5)	Narrative Do	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predomi	nance of nonnative or
		Moderate (3)		disturbance tolerant native spec	cies
		Moderately low (2)	mod	Native spp are dominant compon	ent of the vegetation,
		Low (1)		although nonnative and/or distu	rbance tolerant native spp
		X None (0)		can also be present, and specie	es diversity moderate to
		6c. Coverage of invasive plants. Re		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 species	
		Extensive >75% cover (-5)		and/or disturbance tolerant nation	
		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	` '		
		X Absent (1)		Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	2700)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 ac	
		0 Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	acres)
		O Coarse woody debris >150 O Standing dead >25cm (10	` '	High 4ha (9.88 acres) or more	
			•	ranhy Cayar Saala	
		0 Amphibian breeding pools	<u>wicrotopog</u> 0	raphy Cover Scale Absent	
			1	Present very small amounts or if	more common
			ı	-	IIIOI & COIIIIIIOII
			2	of marginal quality Present in moderate amounts, bu	t not of highest
			۷	quality or in small amounts of h	_
			3	Present in moderate or greater ar	
			J	and of highest quality	nounto
19	CDAL	ID TOTAL (max 100 pts)		and or mynest quality	
1 ' 🗸	GNAI	ID TOTAL (IIIAX TUU PIS)	1		

Site: V	Vetlan	d PM-03		Rater(s): MJA		Date: 2021-08-05
0	0	Motrio 1	Watland A	roo (cizo)		
			Wetland A	` '		
max 6 pts.	subtotal	>50 ad 25 to < 10 to < 3 to < 0.3 to 0.1 to	class and assign scorers (>20.2ha) (6 pts) (50 acres (10.1 to <20 (25 acres (4 to <10.1 lo acres (1.2 to <4ha) <3 acres (0.12 to <1.2 <0.3 acres (0.04 to <0 cres (0.04ha) (0 pts)	0.2ha) (5 pts) na) (4 pts) (3 pts) 2ha) (2pts)		
3	3	Metric 2.	Upland bu	ffers and surrou	nding land use.	
max 14 pts.	subtotal	WIDE. MEDIL NARR X VERY 2b. Intensity of 9 X LOW. MODE	Buffers average 50r JM. Buffers average OW. Buffers average NARROW. Buffers a surrounding land use. LOW. 2nd growth or Old field (>10 years) RATELY HIGH. Res	select only one and assign sco m (164ft) or more around wetla 25m to <50m (82 to <164ft) are a 10m to <25m (32ft to <82ft) a average <10m (<32ft) around w Select one or double check a older forest, prairie, savannah , shrubland, young second gro idential, fenced pasture, park, en pasture, row cropping, mini	nd perimeter (7) cound wetland perimeter (4) around wetland perimeter (1) vetland perimeter (0) and average. , wildlife area, etc. (7) wth forest. (5) conservation tillage, new fallo	
10	13	Metric 3.	Hydrology			
max 30 pts.	subtotal	3a. Sources of V High p Other X Precip Seaso Pereni 3c. Maximum w >0.7 (2 0.4 to X <0.4m 3e. Modification	Vater. Score all that H groundwater (5) groundwater (3) itation (1) nal/Intermittent surfaction at the surface water (lakater depth. Select on (27.6in) (3) 0.7m (15.7 to 27.6in) (<15.7in) (1) s to natural hydrologic	apply. ce water (3) ce or stream) (5) ly one and assign score. (2) c regime. Score one or double	Part of wetland/up Part of riparian or 3d. Duration inundation/sate Semi- to permane Regularly inundat Seasonally inund X Seasonally satura check and average.	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
7	20	X Recov Recov Recen	or none apparent (12) ered (7) ering (3) t or no recovery (1) Habitat Alt	Check all disturbances obserditch ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR trac dredging x other	· l
max 20 pts.	subtotal			e or double check and average	•	
•		X Recov Recov Recen 4b. Habitat deve Very 9 Good Moder Fair (3) Poor t x Poor (or none apparent (4) ered (3) ering (2) t or no recovery (1) elopment. Select only ent (7) ood (6) (5) attely good (4)) o fair (2) 1)	one and assign score.		
			or none apparent (9) ered (6)	Check all disturbances obse	erved x shrub/sapling rem	noval
-	20	X Recov Recen	erea (6) ering (3) t or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: V	/etlan	d PM-03	Rater(s): MJA		Date: 2021-08-05
	20 btotal first pa	age			
0	20	Metric 5. Special W	/etlands.		
max 10 pts.	subtotal	Check all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	dicated. wetland-unrestricted hydwetland-restricted hydrologak Openings) (10) dederal threatened or endabird/water fowl habitat or	angered species (10) usage (10)	
-4	16	Metric 6. Plant con	nmunities, int	erspersion, microto	opography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communitie	•	Community Cover Scale	
·		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
		O Aquatic bed 1 Emergent	1	Present and either comprises small vegetation and is of moderate of	all part of wetland's
		0 Shrub		significant part but is of low qua	
		0 Forest	2	Present and either comprises sign	
		0 Mudflats		vegetation and is of moderate of	
		0 Open water		part and is of high quality	
		0 Other	3	Present and comprises significan	t part, or more, of wetland's
		6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	
		Select only one.			
		High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predomin	nance of nonnative or
		Moderate (3)		disturbance tolerant native spec	cies
		Moderately low (2)	mod	Native spp are dominant compon-	ent of the vegetation,
		Low (1)		although nonnative and/or distu	rbance tolerant native spp
		X None (0)		can also be present, and specie	es diversity moderate to
		6c. Coverage of invasive plants. Re	efer	moderately high, but generally v	
		to Table 1 ORAM long form for list.		threatened or endangered spp	
		or deduct points for coverage	high	A predominance of native species	
		X 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)		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	
		0 Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	acres)
		O Coarse woody debris >150	` '	High 4ha (9.88 acres) or more	
		0 Standing dead >25cm (10			
		0 Amphibian breeding pools		raphy Cover Scale	
			0	Absent	
			1	Present very small amounts or if	more common
				of marginal quality	dent of bink and
			2	Present in moderate amounts, bu	_
				quality or in small amounts of h	
			3	Present in moderate or greater ar	nounts
16	0041	ID TOTAL / 400 - 1)		and of highest quality	
IIO	GKAN	ID TOTAL (max 100 pts)			

Site: Wetlar	nd PM-04	Rater(s): MJA	Date: 2021-0	J8-05
0 0	Metric 1. Wetland A	Area (size).		
max 6 pts. subtotal	Select one size class and assign scc	ore.) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		
4 4	Metric 2. Upland bu	Iffers and surroundi	ng land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of X HOW. Old field (>10 years MODERATELY HIGH. Re	Select only one and assign score. Dom (164ft) or more around wetland pee 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetlan	o not double check. rrimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) prest. (5) ervation tillage, new fallow field. (3)	
6 10	Metric 3. Hydrology	/ .		
max 30 pts. subtotal	3a. Sources of Water. Score all tha High pH groundwater (5) Other groundwater (3) X 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) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog None or none apparent (12	t apply. ace water (3) like or stream) (5) nly one and assign score. 3d. (2) Check all disturbances observed		mplex (1) r dbl check ated (4)
6 16	Recovered (7) X Recovering (3) Recent or no recovery (1) Motric 4 Habitat A	ditch tile dike weir stormwater input	point source (nonstormwater) x filling/grading x road bed/RR track dredging other	
max 20 pts. subtotal	4a. Substrate disturbance. Score of None or none apparent (4)	ne or double check and average.	pinent.	
	Recovered (3) Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4)			
	Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)		shrub/sapling removal herbaceous/aquatic bed removal sedimentation	
16]	selective cutting woody debris removal toxic pollutants	dredging X farming nutrient enrichment	

Rater(s): MJA	Date: 2021-08-05
y wetland-unrestricted hydrology (y wetland-restricted hydrology (5) (Oak Openings) (10) federal threatened or endangered gbird/water fowl habitat or usage (species (10) 10)
nmunities, intersp	ersion, microtopography.
1 Prese veg	nt or comprises <0.1ha (0.2471 acres) contiguous area nt and either comprises small part of wetland's etation and is of moderate quality, or comprises a
2 Prese veg part	ificant part but is of low quality nt and either comprises significant part of wetland's etation and is of moderate quality or comprises a small and is of high quality
	nt and comprises significant part, or more, of wetland's etation and is of high quality
N 5	
	pp diversity and/or predominance of nonnative or
	urbance tolerant native species
mod Native alth can defer mod	e spp are dominant component of the vegetation, bugh nonnative and/or disturbance tolerant native spp also be present, and species diversity moderate to derately high, but generally w/o presence of rare
	atened or endangered spp dominance of native species, with nonnative spp
5) and (-3) abs	or disturbance tolerant native spp absent or virtually ent, and high spp diversity and often, but not always, presence of rare, threatened, or endangered spp
Mudflat and Open \	
	nt <0.1ha (0.247 acres)
	.1 to <1ha (0.247 to 2.47 acres) rate 1 to <4ha (2.47 to 9.88 acres)
	tha (9.88 acres) or more
Oin) dbh	
of m	nt very small amounts or if more common parginal quality
qua	nt in moderate amounts, but not of highest lity or in small amounts of highest quality
and	nt in moderate or greater amounts of highest quality
	Netlands. (5) y wetland-unrestricted hydrology ('y wetland-restricted hydrology (5) (Oak Openings) (10) federal threatened or endangered gbird/water fowl habitat or usage ('e e Question 1 Qualitative Rating (-1) mmunities, intersp ties. Vegetation Communities. 1 Prese Vegetation Communities. 2 Prese Vegetation Communities. Narrative Description low Low sociation althory althory althory for (0) Mudflat and Open Models for (0) Mudflat and Open Models for (0) Mudflat and Open Models for (6) Microtopography Communities Abserved A

Site: V	Vetlan	d PM-05		Rater(s): IMJA		Date: 2021-08-05
1	1	Metric 1.	Wetland A	rea (size).		
max 6 pts.	subtotal	Select one size cla	ass and assign scores (>20.2ha) (6 pts) 0 acres (10.1 to <20 5 acres (4 to <10.1h acres (1.2 to <4ha) 8 acres (0.12 to <1.2 to <1.3 acres (0.04 to <0 es (0.04ha) (0 pts)	e. 0.2ha) (5 pts) na) (4 pts) (3 pts) tha) (2pts)		
4	5	Metric 2.	Upland but	fers and surrou	nding land use.	
max 14 pts.	subtotal	WIDE. IMEDIUM X NARRO VERY N 2b. Intensity of su VERY L X LOW. C MODER	Buffers average 50n M. Buffers average 2 W. Buffers average 3 ARROW. Buffers a rrounding land use. OW. 2nd growth or old field (>10 years), ATELY HIGH. Res	elect only one and assign scorn (164ft) or more around wetlar 25m to <50m (82 to <164ft) around to <25m (32ft to <82ft) a verage <10m (<32ft) around w Select one or double check a older forest, prairie, savannah shrubland, young second growdential, fenced pasture, park, den pasture, row cropping, minim	nd perimeter (7) bund wetland perimeter (4) buround wetland perimeter (1) etland perimeter (0) nd average. wildlife area, etc. (7) buth forest. (5) conservation tillage, new fallo	
5	10	Metric 3.	Hydrology.			
max 30 pts.	subtotal	3a. Sources of Williams High pH Other growth Other growth Other growth Seasona Perennia 3c. Maximum wate Source 10.4 to 0. X < 0.4 m (4 do 0.4 to 0.4	ater. Score all that a groundwater (5) oundwater (3) tition (1) al/Intermittent surface al surface water (lake er depth. Select onle.6in) (3) 7m (15.7 to 27.6in) at 5.7in) (1)	e water (3) e or stream) (5) y one and assign score. (2) regime. Score one or double	Part of wetland/u Part of riparian of satisfication inundation/satisfication inundation/satisfication Semi- to permand Regularly inundation Seasonally inundation X Seasonally saturation	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)
4	14	Recover Recover X Recent of	ing (3) or no recovery (1)	Check all disturbances obse	point source (non x filling/grading road bed/RR trac dredging other_	,
max 20 pts.	subtotal			eration and Develor or double check and average		
,		None or Recover Recover X Recent of Excellen Very good (5) Moderat Fair (3) X Poor to 1 Poor (1)	none apparent (4) ed (3) ing (2) or no recovery (1) pment. Select only t (7) od (6) ely good (4) fair (2)	one and assign score. ouble check and average.		
SI	14	Recover Recover X Recent of		Check all disturbances obsemowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling ren herbaceous/aqua sedimentation dredging X farming nutrient enrichme	ttic bed removal

Site: We	etlan	d PM-05	Rater(s): MJA		Date: 2021-08-05
	14 otal first pa	age			
0	14	Metric 5. Special W	etlands.		
	subtotal	Check all that apply and score as income Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory songle Category 1 Wetland. See	icated. wetland-unrestricted hydro wetland-restricted hydro Oak Openings) (10) deral threatened or enda oird/water fowl habitat or	angered species (10) usage (10)	
1 1	15	Metric 6. Plant com	nmunities, int	erspersion, microto	opography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communitie	s. <u>Vegetation</u>	Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
		Aquatic bed	1	Present and either comprises sm	all part of wetland's
		1 Emergent		vegetation and is of moderate of	quality, or comprises a
		0 Shrub		significant part but is of low qua	
		0 Forest	2	Present and either comprises sig	
		0 Mudflats		vegetation and is of moderate of	quality or comprises a small
		Open water		part and is of high quality	t mant an arrange of continued and
		O Other_	_ 3	Present and comprises significan	
		6b. horizontal (plan view) Interspers	on.	vegetation and is of high quality	/
		Select only one.	Norrativa D	accription of Vagatation Quality	
		High (5) Moderately high(4)	low	Escription of Vegetation Quality Low spp diversity and/or predomi	nance of nonnative or
		Moderate (3)	IOW	disturbance tolerant native spec	
		Moderately low (2)	mod	Native spp are dominant compon	
		x Low (1)	mou	although nonnative and/or distu	_
		None (0)		can also be present, and specie	• • • • • • • • • • • • • • • • • • • •
		6c. Coverage of invasive plants. Re	fer	moderately high, but generally	•
		to Table 1 ORAM long form for list.	Add	threatened or endangered spp	
		or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant nati	ve spp absent or virtually
		Moderate 25-75% cover (-	3)	absent, and high spp diversity a	and often, but not always,
		X Sparse 5-25% cover (-1)		the presence of rare, threatene	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	
		Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	acres)
		O Coarse woody debris >150	` '	High 4ha (9.88 acres) or more	
		Standing dead >25cm (10iAmphibian breeding pools		ranhy Cayar Saala	
		0 Amphibian breeding pools		raphy Cover Scale Absent	
			0	Present very small amounts or if	more common
			I	of marginal quality	more common
			2	Present in moderate amounts, bu	ut not of highest
			2	quality or in small amounts of h	_
			3	Present in moderate or greater a	
				and of highest quality	nounc
15 d	SRAN	ND TOTAL (max 100 pts)		1 and or mignoot quanty	

Site: V	Vetlan	d PM-06	Rater(s): MJA		Date: 2021-08-05
2	2	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 pr 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4l x	core. ts) <20.2ha) (5 pts) 1.1ha) (4 pts) na) (3 pts) 1.2ha) (2pts) 1.40.12ha) (1 pt)		
4	6	Metric 2. Upland b	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average & MEDIUM. Buffers average & NARROW. Buffers average & VERY NARROW. Buffers average & VERY NARROW. Buffers average & VERY LOW. 2nd growth A LOW. Old field (>10 year MODERATELY HIGH. R	Select only one and assign score. 50m (164ft) or more around wetland ge 25m to <50m (82 to <164ft) around age 10m to <25m (32ft to <82ft) around seaverage <10m (<32ft) around wetlate. Select one or double check and or older forest, prairie, savannah, wirs), shrubland, young second growth desidential, fenced pasture, park, coropen pasture, row cropping, mining,	Do not double check. perimeter (7) nd wetland perimeter (4) und wetland perimeter (1) and perimeter (0) I average. ildlife area, etc. (7) n forest. (5) nservation tillage, new fallo	
4	10	Metric 3. Hydrolog	у.		
max 30 pts.	subtotal	3a. Sources of Water. Score all th High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent sur Perennial surface water (3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6id) X <0.4m (<15.7in) (1)	face water (3) lake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
3	13	None or none apparent (** Recovered (7) Recovering (3) X Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non x filling/grading x road bed/RR trac dredging other	, and the second
max 20 pts.	subtotal	4a. Substrate disturbance. Score	Alteration and Develone or double check and average.	opment.	
		None or none apparent (4) Recovered (3) Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3))		
		Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one of	or double check and average		
q	13	None or none apparent (S Recovered (6) Recovering (3) X Recent or no recovery (1)	Check all disturbances observed mowing grazing	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: W	etlan'	d PM-06	Rater(s): MJA		Date: 2021-08-05
	13	age			
0	13	Metric 5. Special W	etlands.		
max 10 pts.	subtotal	Check all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (0 Relict Wet Prairies (10) Known occurrence state/fe Significant migratory songt Category 1 Wetland. See	cated. wetland-unrestricted hydwetland-restricted hydrol Dak Openings) (10) deral threatened or enda ird/water fowl habitat or	ogy (5) ingered species (10) usage (10)	
-4	9	Metric 6. Plant com	munities, into	erspersion, microto	opography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communitie	S. <u>Vegetation</u> (Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	171 acres) contiguous area
		O Aquatic bed	1	Present and either comprises small	all part of wetland's
		1 Emergent		vegetation and is of moderate of	
		0 Shrub		significant part but is of low qua	
		0 Forest	2	Present and either comprises sign	
		0 Mudflats		vegetation and is of moderate of	juality or comprises a small
		O Open water		part and is of high quality	t nort or more of watlands
		Other6b. horizontal (plan view) Interspersi	_ 3	Present and comprises significan vegetation and is of high quality	
		Select only one.	JII.	vegetation and is of high quality	·
		High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predomin	nance of nonnative or
		Moderate (3)	1044	disturbance tolerant native spec	
		Moderately low (2)	mod	Native spp are dominant component	
		Low (1)		although nonnative and/or distu	_
		X None (0)		can also be present, and specie	
		6c. Coverage of invasive plants. Re	er	moderately high, but generally v	w/o presence of rare
		to Table 1 ORAM long form for list. A	\dd	threatened or endangered spp	
		or deduct points for coverage	high	A predominance of native species	
		X Extensive >75% cover (-5)		and/or disturbance tolerant nativ	
		Moderate 25-75% cover (-3	3)	absent, and high spp diversity a	
		Sparse 5-25% cover (-1)		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)	orog)
		Score all present using 0 to 3 scale. O Vegetated hummucks/tuss		Low 0.1 to <1ha (0.247 to 2.47 ac Moderate 1 to <4ha (2.47 to 9.88	
		0 Coarse woody debris >15c		High 4ha (9.88 acres) or more	acres)
		Standing dead >25cm (10ii)		Triigit 4tta (3.00 acres) of there	
		Amphibian breeding pools		raphy Cover Scale	
		Lo Ib	0	Absent	
			1	Present very small amounts or if	more common
				of marginal quality	
			2	Present in moderate amounts, bu	t not of highest
				quality or in small amounts of h	=
			3	Present in moderate or greater ar	
				and of highest quality	
9	GRAN	ID TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-07	Rater(s): MJA		Date: 2021-08-05
2	2	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 p	core. ts) <20.2ha) (5 pts) 1.1ha) (4 pts) ha) (3 pts) 1.2ha) (2pts) 1 <0.12ha) (1 pt)		
1	3	Metric 2. Upland b	uffers and surroun	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width WIDE. Buffers average of MEDIUM. Buffers average of NARROW. Buffers of Surrounding land us of NARROW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. Research	Select only one and assign score. 50m (164ft) or more around wetland ge 25m to <50m (82 to <164ft) around age 10m to <25m (32ft to <82ft) around see. Select one or double check and or older forest, prairie, savannah, wrs), shrubland, young second growth tesidential, fenced pasture, park, co open pasture, row cropping, mining	Do not double check. perimeter (7) nd wetland perimeter (4) bund wetland perimeter (1) land perimeter (0) d average. vildlife area, etc. (7) n forest. (5) nservation tillage, new fallo	
4	7	Metric 3. Hydrolog	y.		
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent sure Perennial surface water (3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6 x <0.4m (<15.7in) (1)	face water (3) lake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
3	10	None or none apparent (Recovered (7) Recovering (3) X Recent or no recovery (1	Check all disturbances observed ditch tile dike weir stormwater input	ed point source (non filling/grading x road bed/RR trac dredging x other	, and the second
max 20 pts.	subtotal	4a. Substrate disturbance. Score		opment.	
		None or none apparent ()		
		Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one of	or double check and average		
q	10	None or none apparent (9) Recovered (6) Recovering (3) X Recent or no recovery (1)	Check all disturbances observed mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging x farming nutrient enrichme	tic bed removal

Site: Wetland PM-07		Rater(s): MJA		Date: 2021-08-05
subtota	al first page			
0 1	0 Metric 5. Special W	etlands.		
	Check all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory songt Category 1 Wetland. See	icated.) wetland-unrestricted hydro wetland-restricted hydro Dak Openings) (10) deral threatened or enda bird/water fowl habitat or	angered species (10) usage (10)	
-4 6	Metric 6. Plant com	munities, int	erspersion, microto	opography.
max 20 pts. si	ubtotal 6a. Wetland Vegetation Communitie	-	Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	
	0 Aquatic bed	1	Present and either comprises sm	
	1 Emergent 0 Shrub		vegetation and is of moderate of significant part but is of low qua	i
	0 Shrub 0 Forest	2	Present and either comprises sig	-
	0 Mudflats		vegetation and is of moderate of	
	Open water		part and is of high quality	
	O Other	_ 3	Present and comprises significan	
	6b. horizontal (plan view) Interspersi	on.	vegetation and is of high quality	1
	Select only one. High (5)	Narrative Do	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomi	nance of nonnative or
	Moderate (3)		disturbance tolerant native spe-	
	Moderately low (2)	mod	Native spp are dominant compon	_
	Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
	X None (0) 6c. Coverage of invasive plants. Re	fer	can also be present, and species moderately high, but generally	-
	to Table 1 ORAM long form for list. A		threatened or endangered spp	
	or deduct points for coverage	high	A predominance of native specie	
	X Extensive >75% cover (-5)	.,	and/or disturbance tolerant nati	
	Moderate 25-75% cover (-3	3)	absent, and high spp diversity a	
	Sparse 5-25% cover (-1) Nearly absent <5% cover (0)	the presence of rare, threatene	a, or endangered spp
	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	
	Vegetated hummucks/tussCoarse woody debris >15c		Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	acres)
	o Standing dead >25cm (10ii	` '	Triigit 4tta (9.00 acres) of filore	
	Amphibian breeding pools		raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
		2	of marginal quality Present in moderate amounts, but	it not of highest
		۷	quality or in small amounts of h	_
		3	Present in moderate or greater a	
			and of highest quality	
6 g	RAND TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-08	Rater(s): MJA		Date: 2021-08-04
3	3	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign some scale >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10.	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
8	11	Metric 2. Upland bu	uffers and surrounc	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5 X MEDIUM. Buffers averag NARROW. Buffers avera VERY NARROW. Buffers 2b. Intensity of surrounding land us VERY LOW. 2nd growth X LOW. Old field (>10 years X MODERATELY HIGH. Re	Select only one and assign score. Om (164ft) or more around wetland pee 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) around severage <10m (<32ft) around wetland	Do not double check. perimeter (7) d wetland perimeter (4) und wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	
6	17	Metric 3. Hydrology	V.		
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surf Perennial surface water (i) 3c. Maximum water depth. Select (1) 3c. Maximum water depth. Select (2) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrological properties of the second s	ace water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
[_	22	None or none apparent (1 Recovered (7) X Recovering (3) Recent or no recovery (1)	Check all disturbances observe ditch tile dike weir stormwater input	point source (non x filling/grading x road bed/RR track dredging x other_Power line street	k
5 max 20 pts.	22 subtotal	Metric 4. Habitat A 4a. Substrate disturbance. Score o		opment.	
max ec per		None or none apparent (4 Recovered (3) Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1))		
		4c. Habitat alteration. Score one or		-1	
SI	22	None or none apparent (9 Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observe mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-08		Rater(s): MJA		Date: 2021-08-04
22 subtotal first page				
0 22	Metric 5. Special W	letlands		
	Check all that apply and score as inc			
max 10 pts. subtotal C	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	5) wetland-unrestricted hyd wetland-restricted hydrol Oak Openings) (10) ederal threatened or enda bird/water fowl habitat or	ogy (5) ingered species (10) usage (10)	
-4 18 ₁	Metric 6. Plant con	nmunities into	erspersion microto	nogranhy
	Sa. Wetland Vegetation Communitie	•	Community Cover Scale	pograpny.
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
	0 Aquatic bed	1	Present and either comprises sm	
	1 Emergent		vegetation and is of moderate of	
	0 Shrub0 Forest	2	significant part but is of low qua	
	0 Forest 0 Mudflats	2	Present and either comprises sig vegetation and is of moderate of	
	Open water		part and is of high quality	daily or complicate a circuit
	0 Other	3	Present and comprises significan	t part, or more, of wetland's
	6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	1
S	Select only one.	Norrativa Da	ecorintian of Vagatation Quality	
	High (5) 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	_
	Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
6	X None (0) Co. Coverage of invasive plants. Re	afor	can also be present, and species moderately high, but generally was a second control of the can be can be can also be present, and species and species are can also be present, and species are can also be present.	•
	o Table 1 ORAM long form for list.		threatened or endangered spp	
0	or deduct points for coverage	high	A predominance of native species	
	x Extensive >75% cover (-5)		and/or disturbance tolerant nati	
	Moderate 25-75% cover (-	3)	absent, and high spp diversity a	
	Sparse 5-25% cover (-1) Nearly absent <5% cover	(0)	the presence of rare, threatener	u, or endangered spp
	Absent (1)	` '	Open Water Class Quality	
	d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
S	Score all present using 0 to 3 scale.	sucks 2	Low 0.1 to <1ha (0.247 to 2.47 ac	
	Vegetated hummucks/tussCoarse woody debris >150		Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	acres)
	0 Standing dead >25cm (10	` '	Tringir ma (cross across) or more	
	0 Amphibian breeding pools	Microtopog	raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
		2	of marginal quality Present in moderate amounts, but	t not of highest
		-	quality or in small amounts of h	_
		3	Present in moderate or greater ar	
10			and of highest quality	
18 GRAND	TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-09	Rater(s): MJA		Date: 2021-08-04
3	3	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign scc >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. x 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to < <1.2 to <10.	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		
7	10	Metric 2. Upland bu	uffers and surroun	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 50 X 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 X MODERATELY HIGH. Re	Select only one and assign score. Om (164ft) or more around wetland a 25m to <50m (82 to <164ft) arou ge 10m to <25m (32ft to <82ft) arou a average <10m (<32ft) around wet	Do not double check. d perimeter (7) und wetland perimeter (4) bund wetland perimeter (1) tland perimeter (0) d average. wildlife area, etc. (7) th forest. (5) boservation tillage, new fallo	
11	21	Metric 3. Hydrology	V.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surful Perennial surface water (18 3c. Maximum water depth. Select of 50.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrology	ace water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or d. Duration inundation/satu Semi- to permane X Regularly inundat Seasonally inundat X Seasonally satura	in (1) lake and other human use (1) lake and other human use (1) land (e.g. forest), complex (1) lupland corridor (1) luration. Score one or dbl check. lently inundated/saturated (4) led/saturated (3)
7	28	None or none apparent (12 X Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non filling/grading x road bed/RR track dredging other	
max 20 pts.	subtotal	Metric 4. Habitat A 4a. Substrate disturbance. Score o		lopment.	
		None or none apparent (4) X 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) X Poor (1) 4c. Habitat alteration. Score one or	lly one and assign score.		
si	28 ubtotal this pa	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-09 Rate	r(s): MJA		Date: 2021-08-04
28 subtotal first page			
0 28 Metric 5. Special Wetlan	nds.		
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 wetland	-unrestricted hyd	drology (10)	
Lake Erie coastal/tributary wetland		ology (5)	
Lake Plain Sand Prairies (Oak Ope Relict Wet Prairies (10)	:nings) (10)		
Known occurrence state/federal thr		• , ,	
Significant migratory songbird/wate Category 1 Wetland. See Question		• , ,	
	T I Quantative i	calling (10)	
-4 24 Metric 6. Plant commur	nities, int	erspersion, microto	pography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	
Score all present using 0 to 3 scale. O Aquatic bed	<u>0</u>	Absent or comprises <0.1ha (0.24 Present and either comprises small	
1 Emergent	'	vegetation and is of moderate q	
0 Shrub		significant part but is of low qua	
0 Forest	2	Present and either comprises sign	
0 Mudflats 0 Open water		vegetation and is of moderate q part and is of high quality	uality or comprises a small
0 Other	3	Present and comprises significant	t part, or more, of wetland's
6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	
Select only one. High (5)	Narrative D	escription of Vegetation Quality	
Moderately high(4)	low	Low spp diversity and/or predomin	nance of nonnative or
Moderate (3)		disturbance tolerant native spec	
Moderately low (2) Low (1)	mod	Native spp are dominant compone although nonnative and/or distu	<u> </u>
X None (0)		can also be present, and specie	· ·
6c. Coverage of invasive plants. Refer		moderately high, but generally v	v/o presence of rare
to Table 1 ORAM long form for list. Add or deduct points for coverage	high	threatened or endangered spp A predominance of native species	with nonnative can
X Extensive >75% cover (-5)	riigir	and/or disturbance tolerant nativ	
Moderate 25-75% cover (-3)		absent, and high spp diversity a	ind often, but not always,
Sparse 5-25% cover (-1)		the presence of rare, threatened	d, or endangered spp
Nearly absent <5% cover (0) Absent (1)	Mudflat and	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	
0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	acres)
Odarse woody deshis > 13cm (dhi)		Trigit Tria (5.00 acres) of more	
0 Amphibian breeding pools		raphy Cover Scale	
	0	Absent Present very small amounts or if I	more common
	I	of marginal quality	HOLE COHIHIOH
	2	Present in moderate amounts, bu	t not of highest
		quality or in small amounts of hi	
	3	Present in moderate or greater ar and of highest quality	nounts
GRAND TOTAL (max 100 pts)		and or highest quality	

Site: V	Vetlan	d PM-10	Rater(s): MJA		Date: 2021-08-04
2	2	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 pt 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4h × 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
8	10	Metric 2. Upland b	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5 X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth X LOW. Old field (>10 year X MODERATELY HIGH. R	Select only one and assign score. Om (164ft) or more around wetland e 25m to <50m (82 to <164ft) aroun ge 10m to <25m (32ft to <82ft) arous s average <10m (<32ft) around wetla	Do not double check. perimeter (7) Ind wetland perimeter (4) Ind wetland perimeter (1) Ind perimeter (0) Ind average. Idlife area, etc. (7) In forest. (5) Inservation tillage, new fallo	
7	17	Metric 3. Hydrolog		construction. (1)	
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent suri Perennial surface water (1) 3c. Maximum water depth. Select	at apply. 3b ace water (3) ake or stream) (5) 3d	Part of wetland/up Part of riparian or Duration inundation/sate	
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolo None or none apparent (1 Recovered (7) X Recovering (3) Recent or no recovery (1)	n) (2) gic regime. Score one or double ch	X Regularly inundat Seasonally inund X Seasonally saturated and average.	ted/saturated (3) ated (2) ated in upper 30cm (12in) (1) astormwater)
6	23	Metric 4. Habitat A	weir stormwater input	dredging other	
max 20 pts.	subtotal	4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) X Recovering (2)	ne or double check and average.	оршеш.	
		Recent or no recovery (1) 4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one o			
Ç	23	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)		shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	ttic bed removal

Site: W	'etlan	d PM-10	Rater(s): MJA		Date: 2021-08-04
subt	23 total first pa	age			
0 /	23	Metric 5. Special W	letlands.		
max 10 pts.	subtotal	Metric 5. Special W Check all that apply and score as inc Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory song	dicated. wetland-unrestricted hydwetland-restricted hydrologak Openings) (10) dederal threatened or endabird/water fowl habitat or	angered species (10) usage (10)	
	4.0	Category 1 Wetland. See	Question 1 Qualitative R	ating (-10)	
-4	19	Metric 6. Plant con	•	•	opography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities Score all present using 0 to 3 scale.	es. <u>Vegetation (</u> 0	Community Cover Scale Absent or comprises <0.1ha (0.2)	471 acres) contiguous area
		O Aquatic bed	1	Present and either comprises sm	
		1 Emergent		vegetation and is of moderate	
		0 Shrub		significant part but is of low qua	
		0 Forest 0 Mudflats	2	Present and either comprises sig	
		0 Mudflats 0 Open water		vegetation and is of moderate part and is of high quality	quality of comprises a small
		0 Other	_ 3	Present and comprises significar	nt part, or more, of wetland's
		6b. horizontal (plan view) Interspers	ion.	vegetation and is of high qualit	У
		Select only one. High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predom	inance of nonnative or
		Moderate (3)		disturbance tolerant native spe	cies
		Moderately low (2)	mod	Native spp are dominant compor	
		Low (1) X None (0)		although nonnative and/or distu- 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.	Add	threatened or endangered spp	•
		or deduct points for coverage	high	A predominance of native specie	• • • • • • • • • • • • • • • • • • • •
		X Extensive >75% cover (-5) Moderate 25-75% cover (-		and/or disturbance tolerant nat absent, and high spp diversity	
		Sparse 5-25% cover (-1)	3)	the presence of rare, threatene	
		Nearly absent <5% cover	(0)	· · · · · · · · · · · · · · · · · · ·	, , , , , , , , , , , , , , , , , , , ,
		Absent (1)		Open Water Class Quality	
		6d. Microtopography. Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 a	cres)
		Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	
		O Coarse woody debris >150		High 4ha (9.88 acres) or more	,
		0 Standing dead >25cm (10			
		0 Amphibian breeding pools		Absent	
			<u> </u>	Present very small amounts or if	more common
			•	of marginal quality	- >
			2	Present in moderate amounts, be	=
				quality or in small amounts of h	
			3	Present in moderate or greater a and of highest quality	mounts
19	GRAN	ND TOTAL (max 100 pts)		, , , , , , , , , , , , , , , , , , ,	

Site: V	Vetlan	d Pl	<u>√-11</u>	Rater(s): MJA		Date: 2021-08-02
0	0	Me	tric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	4	25 to one size class and assign scc	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		
3	3	Me	tric 2. Upland bu	uffers and surroun	ding land use.	
max 14 pts.	subtotal	2a. C	Calculate average buffer width. WIDE. Buffers average 5 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers ntensity of surrounding land use	Select only one and assign score. Om (164ft) or more around wetland a 25m to <50m (82 to <164ft) aroung to 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetler. Select one or double check and	Do not double check. perimeter (7) nd wetland perimeter (4) und wetland perimeter (1) and perimeter (0) d average.	
	_	, <u> </u>	LOW. Old field (>10 years X MODERATELY HIGH. Re HIGH. Urban, industrial, o	or older forest, prairie, savannah, w s), shrubland, young second growth ssidential, fenced pasture, park, co open pasture, row cropping, mining	n forest. (5) nservation tillage, new fallo	ow field. (3)
11.5	14.5	Me	tric 3. Hydrology	y .		
max 30 pts.	subtotal	3a. S	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) × Precipitation (1) Seasonal/Intermittent surfi	it apply. 3t	Part of wetland/up	
		-	Perennial surface water (la Maximum water depth. Select of >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in × <0.4m (<15.7in) (1)	only one and assign score.	Semi- to permane Regularly inundat X Seasonally inund X Seasonally satura	
		3e. N	Modifications to natural hydrolog None or none apparent (1: x Recovered (7) Recovering (3) Recent or no recovery (1)	check all disturbances observ Check all disturbances observ ditch tile dike weir stormwater input		·
12	26.5	Me	etric 4. Habitat A	Iteration and Devel	opment.	
max 20 pts.	subtotal	4a. S	Substrate disturbance. Score o None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)	ne or double check and average.		
		7	Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1)			
c	26.5]	Habitat alteration. Score one or None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)		x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-11		Rater(s): MJA	Date: 2021-08-02	
26.5	nge			
0 26.5	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 (5 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Relict Wet Prairies (10)	wetland-unrestricted hydro wetland-restricted hydro Oak Openings) (10)	logy (5)	
	Known occurrence state/fe Significant migratory song	bird/water fowl habitat or	usage (10)	
	Category 1 Wetland. See	Question 1 Qualitative R	Pating (-10)	
6 32.5	Metric 6. Plant con	-	•	opography.
max 20 pts. subtotal	6a. Wetland Vegetation Communitie	es. <u>Vegetation</u>	Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	
	Aquatic bed	1	Present and either comprises sm	
	2 Emergent		vegetation and is of moderate of	
	1 Shrub 0 Forest	2	significant part but is of low qua Present and either comprises sign	
	<u> </u>	2	vegetation and is of moderate of	
	<u>⊢</u> , ,		part and is of high quality	quality of comprises a small
		3	Present and comprises significan	t part or more of wotland's
	O Other			
	6b. horizontal (plan view) Interspers	1011.	vegetation and is of high quality	'
	Select only one.	Norretive D	accrimition of Variation Avality	
	High (5)		escription of Vegetation Quality	nonce of nonnetive or
	Moderately high(4)	low	Low spp diversity and/or predomi	
	Moderately law (2)	mod	disturbance tolerant native spec	
	Moderately low (2)	mod	Native spp are dominant compon	_
	X Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
	None (0)	.for	can also be present, and specie	•
	6c. Coverage of invasive plants. Re		moderately high, but generally with threatened or and angular and annual states.	
	to Table 1 ORAM long form for list. or deduct points for coverage	high	threatened or endangered spp A predominance of native species	
	Extensive >75% cover (-5)	-	and/or disturbance tolerant native	
	Moderate 25-75% cover (-5)		absent, and high spp diversity a	
	Sparse 5-25% cover (-1)	3)	the presence of rare, threatened	
	Nearly absent <5% cover	(0)	the presence of fare, threatener	d, or endangered spp
	X 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		Moderate 1 to <4ha (2.47 to 9.88	
	0 Coarse woody debris >150		High 4ha (9.88 acres) or more	, doi:03)
	0 Standing dead >25cm (10)		Trigit ma (0.00 acros) of more	
	1 Amphibian breeding pools		raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
		•	of marginal quality	
		2	Present in moderate amounts, but	t not of highest
		-	quality or in small amounts of h	_
		3	Present in moderate or greater ar	
			and of highest quality	
32.5 GRAN	ID TOTAL (max 100 pts)			

Site: Wetland PM-12		d PM-12	Rater(s): MJA		Date: 2021-08-06
1	1	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 p 25 to <50 acres (10.1 to 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04 to <0.1 acres (0.04ha) (0 pt	core. ts) <20.2ha) (5 pts) 0.1ha) (4 pts) ha) (3 pts) <1.2ha) (2pts) 0 <0.12ha) (1 pt)		
4	5	Metric 2. Upland b	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width WIDE. Buffers average MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. Old field (>10 year MODERATELY HIGH. First	Select only one and assign score. 50m (164ft) or more around wetland ge 25m to <50m (82 to <164ft) arour age 10m to <25m (32ft to <82ft) arous average <10m (<32ft) around wetlese. Select one or double check and or older forest, prairie, savannah, wrs), shrubland, young second growth desidential, fenced pasture, park, colopen pasture, row cropping, mining	Do not double check. perimeter (7) nd wetland perimeter (4) hund wetland perimeter (1) land perimeter (0) d average. vildlife area, etc. (7) n forest. (5) nservation tillage, new fallo	
10	15	Metric 3. Hydrolog	ıy.		
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent sur Perennial surface water (3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6 X <0.4m (<15.7in) (1)	rface water (3) (lake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
			ditch tile	neck and average.	stormwater)
7	22	Metric 4. Habitat <i>A</i>	Alteration and Devel	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score None or none apparent (Recovered (3) Recovering (2) Recent or no recovery (1 4b. Habitat development. Select of Excellent (7)	4)		
		Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one of			
Ç!	22	None or none apparent (Recovered (6) Recovering (3) Recent or no recovery (1	mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-12	Rater(s): MJA		Date: 2021-08-06
22 subtotal first page 0 22 Metric 5. Special We	otlands		
monito di oposiai il			
max 10 pts. subtotal Check all that apply and score as indices all that apply apply all that apply apply apply all that apply apply apply all that apply app	vetland-unrestricted hydro vetland-restricted hydro rak Openings) (10) leral threatened or enda rd/water fowl habitat or	angered species (10) usage (10)	
-2 20 Metric 6. Plant com	munities int	arenarsian microta	nnaranhy
mound of maint dom	-	•	pograpity.
max 20 pts. subtotal 6a. Wetland Vegetation Communities Score all present using 0 to 3 scale.	vegetation 0	Community Cover Scale Absent or comprises < 0.1ha (0.24)	171 acres) contiguous area
O Aquatic bed	1	Present and either comprises sm	
1 Emergent	·	vegetation and is of moderate of	·
0 Shrub		significant part but is of low qua	
0 Forest	2	Present and either comprises sign	
0 Mudflats		vegetation and is of moderate of	
0 Open water		part and is of high quality	
0 Other	_ 3	Present and comprises significan	
6b. horizontal (plan view) Interspersion	n.	vegetation and is of high quality	1
Select only one.			
High (5)		escription of Vegetation Quality	
Moderately high(4)	low	Low spp diversity and/or predomi	
Moderate (3)	mad	disturbance tolerant native spec	
Moderately low (2) Low (1)	mod	Native spp are dominant compon although nonnative and/or distu	_
X None (0)		can also be present, and specie	· · ·
6c. Coverage of invasive plants. Refe	er	moderately high, but generally	•
to Table 1 ORAM long form for list. A		threatened or endangered spp	e presentes et laie
or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
Extensive >75% cover (-5)	ŭ	and/or disturbance tolerant nation	
X Moderate 25-75% cover (-3))	absent, and high spp diversity a	
Sparse 5-25% cover (-1)		the presence of rare, threatened	d, or endangered spp
Nearly absent <5% cover (0	•		
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	
Vegetated hummucks/tussu Coarse weedy debrie > 15 or		Moderate 1 to <4ha (2.47 to 9.88	acres)
0 Coarse woody debris >15cn 0 Standing dead >25cm (10in	` '	High 4ha (9.88 acres) or more	
0 Standing dead >25cm (10in of the control of the c		raphy Cover Scale	
U Amphilbian breeding pools	<u> </u>	Absent	
	1	Present very small amounts or if	more common
	•	of marginal quality	
	2	Present in moderate amounts, but	t not of highest
		quality or in small amounts of h	_
	3	Present in moderate or greater ar	
		and of highest quality	
20 GRAND TOTAL (max 100 pts)			<u></u>

Site: Wetland PM-13		d PM-13	Rater(s): MJA		Date: 2021-08-06
1	1	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 pt 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4+ 0.3 to <3 acres (0.12 to < x	ore. s) :20.2ha) (5 pts) .1ha) (4 pts) na) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
11	12	Metric 2. Upland b	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. X WIDE. Buffers average 5 MEDIUM. Buffers average 5 NARROW. Buffers average 5 VERY NARROW. Buffers average 5 VERY LOW. 2nd growth 1 X LOW. Old field (>10 year 1) X MODERATELY HIGH. R	Select only one and assign score. 50m (164ft) or more around wetland the 25m to <50m (82 to <164ft) around the 10m to <25m (32ft to <82ft) around severage <10m (<32ft) around wetland the severage <10m (<32ft) around wetland wetland the severage <10m (<32ft) around wetland we	Do not double check. perimeter (7) nd wetland perimeter (4) und wetland perimeter (1) land perimeter (0) d average. vildlife area, etc. (7) n forest. (5) nservation tillage, new fallo	
6	18	Metric 3. Hydrolog	y.		
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) × Precipitation (1) Seasonal/Intermittent sur Perennial surface water (1) 3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6i) × <0.4m (<15.7in) (1) 3e. Modifications to natural hydrological properties of the pr	face water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
4	22	None or none apparent (1 Recovered (7) X Recovering (3) Recent or no recovery (1) Motric 4 Hobitot A	ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR trac dredging × other	, and the second second
max 20 pts.	subtotal	Metric 4. Habitat A 4a. Substrate disturbance. Score of	one or double check and average.	opment.	
		None or none apparent (4 Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3)	,		
		Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one o	r double check and average.		
q	22	None or none apparent (S) Recovered (6) Recovering (3) X Recent or no recovery (1)	Check all disturbances observed mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	ttic bed removal

Site: Wetland PM-13	Rater(s): MJA	Date: 2021-08-06
22 subtotal first page		
0 22 Metric 5. Special	Wetlands.	
max 10 pts. subtotal Check all that apply and score as		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetlan Lake Erie coastal/tribut Lake Erie coastal/tribut Lake Plain Sand Prairie Relict Wet Prairies (10) Known occurrence stat Significant migratory so	d (5) ary wetland-unrestricted hydrology (10) ary wetland-restricted hydrology (5) es (Oak Openings) (10)	
4 26 Metric 6. Plant co	ammunities interenersion n	nicrotopography
	ommunities, interspersion, n	. •
max 20 pts. subtotal 6a. Wetland Vegetation Commun Score all present using 0 to 3 sca		.le <0.1ha (0.2471 acres) contiguous area
Q Aquatic bed		mprises small part of wetland's
1 Emergent		moderate quality, or comprises a
0 Shrub	significant part but is	
0 Forest		mprises significant part of wetland's
0 Mudflats		moderate quality or comprises a small
0 Open water 0 Other	part and is of high q 3 Present and comprise	es significant part, or more, of wetland's
6b. horizontal (plan view) Intersp		
Select only one.		J
High (5)	Narrative Description of Vegetatio	
Moderately high(4)		/or predominance of nonnative or
Moderate (3) Moderately low (2)	disturbance tolerant mod Native spp are domina	ant component of the vegetation,
Low (1)	· ·	and/or disturbance tolerant native spp
X None (0)	_	, and species diversity moderate to
6c. Coverage of invasive plants.		t generally w/o presence of rare
to Table 1 ORAM long form for lis		
or deduct points for coverage	,	ative species, with nonnative spp
Extensive >75% cover Moderate 25-75% cover	` '	tolerant native spp absent or virtually p diversity and often, but not always,
Sparse 5-25% cover (-	, ,	e, threatened, or endangered spp
Nearly absent <5% cov	•	
X Absent (1)	Mudflat and Open Water Class Qu	
6d. Microtopography.	0 Absent <0.1ha (0.247	
Score all present using 0 to 3 sca		·
2 Coarse woody debris >		
0 Standing dead >25cm	` '	
0 Amphibian breeding po		
	0 Absent	
		nounts or if more common
	of marginal quality Present in moderate a	amounts, but not of highest
		mounts of highest quality
	3 Present in moderate of	
26	and of highest qualit	ty
26 GRAND TOTAL (max 100 pt	ts)	

Site: Wetland PM-14		d PM-14	Rater(s): MJA		Date: 2021-08-05
3	3	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 pt 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. X	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
8	11	Metric 2. Upland b	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5 X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth X LOW. Old field (>10 year X MODERATELY HIGH. R.	Select only one and assign score. Om (164ft) or more around wetland e 25m to <50m (82 to <164ft) aroun ge 10m to <25m (32ft to <82ft) arous s average <10m (<32ft) around wetla	Do not double check. perimeter (7) Id wetland perimeter (4) und wetland perimeter (1) and perimeter (0) average. Iddlife area, etc. (7) forest. (5) nservation tillage, new fallo	
12	23	Metric 3. Hydrolog	٧.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surful Perennial surface water (I) 3c. Maximum water depth. Select (1) >0.7 (27.6in) (3)	ace water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane X Regularly inundation	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
		0.4 to 0.7m (15.7 to 27.6ii x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolo None or none apparent (1	gic regime. Score one or double ch	eck and average.	ated in upper 30cm (12in) (1)
		x Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non filling/grading x road bed/RR trac dredging x other	, and the second second
7	30	Metric 4. Habitat A	Iteration and Devel	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score of None or none apparent (4 X Recovered (3) Recovering (2) Recent or no recovery (1))		
		4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one o			
q	30	None or none apparent (9 Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-14	Rater(s): MJA	Date: 2021-08-05
30		
subtotal first page		
0 30 Metric 5. Specia	l Wetlands.	
max 10 pts. subtotal Check all that apply and score	as indicated.	
Bog (10)		
Fen (10) Old growth forest (10)	
Mature forested wetla		
	utary wetland-unrestricted hydrology (10)	
	utary wetland-restricted hydrology (5)	
Relict Wet Prairies (1	ries (Oak Openings) (10) 0)	
	ate/federal threatened or endangered species (10)	
	songbird/water fowl habitat or usage (10)	
Category 1 Wetland.	See Question 1 Qualitative Rating (-10)	
-4 26 Metric 6. Plant c	ammunities interchersion n	niorotopography
mount of indine	communities, interspersion, n	
max 20 pts. subtotal 6a. Wetland Vegetation Comm Score all present using 0 to 3 s		(0.1ha (0.2471 acres) contiguous area
O Aquatic bed		mprises small part of wetland's
1 Emergent		moderate quality, or comprises a
0 Shrub	significant part but is	
0 Forest 0 Mudflats		mprises significant part of wetland's moderate quality or comprises a small
0 Open water	part and is of high qu	
0 Other		s significant part, or more, of wetland's
6b. horizontal (plan view) Inters	spersion. vegetation and is of	high quality
Select only one. High (5)	Narrative Description of Vegetation	n Quality
Moderately high(4)		or predominance of nonnative or
Moderate (3)	disturbance tolerant	•
Moderately low (2) Low (1)		ant component of the vegetation, and/or disturbance tolerant native spp
X None (0)	_	, and species diversity moderate to
6c. Coverage of invasive plants	s. Refer moderately high, but	t generally w/o presence of rare
to Table 1 ORAM long form for		
or deduct points for coverage X Extensive >75% cove	- I ·	ative species, with nonnative spp olerant native spp absent or virtually
Moderate 25-75% co		p diversity and often, but not always,
Sparse 5-25% cover		, threatened, or endangered spp
Nearly absent <5% c	• •	ality.
Absent (1) 6d. Microtopography.	Mudflat and Open Water Class Qui 0 Absent <0.1ha (0.247	
Score all present using 0 to 3 s	<u>`</u>	
0 Vegetated hummuck		
O Coarse woody debris	` '	or more
0 Standing dead >25cn 0 Amphibian breeding		
[o],F5.23 51004lg	0 Absent	
		nounts or if more common
	of marginal quality 2 Present in moderate a	amounts, but not of highest
		amounts, but not of highest mounts of highest quality
	3 Present in moderate o	
20	and of highest qualit	;y
26 GRAND TOTAL (max 100 $_{ m I}$	ots)	

Site: Wetland PM-15			Rater(s): MJA		Date : 2021-08-02
1	1	Metric 1. Wetland A	Aroa (sizo)		
<u> </u>	<u> </u>		• •		
max 6 pts.	subtotal	Select one size class and assign sc >50 acres (>20.2ha) (6 pt 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to < x 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
4	5	Metric 2. Upland b	uffers and surroun	ding land use.	
max 14 pts.	subtotal	MEDIUM. Buffers averag X NARROW. Buffers averag VERY NARROW. Buffers 2b. Intensity of surrounding land us VERY LOW. 2nd growth LOW. Old field (>10 year X MODERATELY HIGH. Re	0m (164ft) or more around wetland e 25m to <50m (82 to <164ft) arou ge 10m to <25m (32ft to <82ft) aro s average <10m (<32ft) around wet	d perimeter (7) and wetland perimeter (4) bund wetland perimeter (1) tland perimeter (0) d average. wildlife area, etc. (7) th forest. (5) boservation tillage, new fallo	
15	20	Metric 3. Hydrolog	y.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfill Perennial surface water (I) 3c. Maximum water depth. Select (1) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolo	ace water (3) ake or stream) (5) only one and assign score. a) (2) gic regime. Score one or double contains a second sec	Part of wetland/up Part of riparian or d. Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura heck and average.	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
9	29	None or none apparent (1) Recovered (7) Recovering (3) Recent or no recovery (1) Metric 4. Habitat A	ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR track dredging other	,
max 20 pts.	subtotal	4a. Substrate disturbance. Score of		юринени.	
•		None or none apparent (4 Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one of	nly one and assign score.		
	29	None or none apparent (9 x Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal
01	ubtotal this na	-	'		

Site: Wetland PM-15		Rater(s): MJA		Date: 2021-08-02
29 subtotal firs				
0 29	Metric 5. Special W	letlands		
	mount of openiar r			
max 10 pts. subtot	Check all that apply and score as inc Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	wetland-unrestricted hyd wetland-restricted hydrol Oak Openings) (10) ederal threatened or enda bird/water fowl habitat or	angered species (10) usage (10)	
0 29	Motric C. Dlant con		ovenevelen mievet	- w - awa w b : <i>r</i>
		•	•	opograpny.
max 20 pts. subtot	6a. Wetland Vegetation Communities Score all present using 0 to 3 scale.	es. <u>Vegetation (</u> 0	Community Cover Scale Absent or comprises <0.1ha (0.2)	471 acros) contiguous area
	O Aquatic bed	1	Present and either comprises sm	
	1 Emergent		vegetation and is of moderate of	
	1 Shrub		significant part but is of low qua	
	0 Forest	2	Present and either comprises sig	
	0 Mudflats		vegetation and is of moderate of	quality or comprises a small
	Open water		part and is of high quality	t want an manne of watle walls
	Other6b. horizontal (plan view) Interspers	3 ion.	Present and comprises significan vegetation and is of high quality	
	Select only one.			
	High (5)	Narrative De	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomi	
	Moderate (3)		disturbance tolerant native spec	
	Moderately low (2)	mod	Native spp are dominant compon	•
	X Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
	None (0) 6c. Coverage of invasive plants. Re	ofor	can also be present, and species moderately high, but generally	
	to Table 1 ORAM long form for list.		threatened or endangered spp	wo presence or rare
	or deduct points for coverage	high	A predominance of native specie	s, with nonnative spp
	Extensive >75% cover (-5)	_	and/or disturbance tolerant nati	
	X Moderate 25-75% cover (-	3)	absent, and high spp diversity a	and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatene	d, or endangered spp
	Nearly absent <5% cover			
	Absent (1)		Open Water Class Quality	
	6d. Microtopography. Score all present using 0 to 3 scale.	<u> </u>	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)	cres)
	Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	
	0 Coarse woody debris >150		High 4ha (9.88 acres) or more	<u> </u>
	0 Standing dead >25cm (10i		,	
	0 Amphibian breeding pools		raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
			of marginal quality	description of
		2	Present in moderate amounts, bu	=
		3	quality or in small amounts of h	
			Present in moderate or greater at and of highest quality	mounts
29 GR	AND TOTAL (max 100 pts)		and or highlost quality	

Site: Wetland PM-16		d PM-16	Rater(s): MJA		Date: 2021-08-02
2	2	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign scr >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h × 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
4	6	Metric 2. Upland bu	uffers and surround	ling land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5 MEDIUM. Buffers averag X NARROW. Buffers avera VERY NARROW. Buffers 2b. Intensity of surrounding land us VERY LOW. 2nd growth LOW. Old field (>10 years X MODERATELY HIGH. Re	Select only one and assign score. If Om (164ft) or more around wetland pee 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) arous average <10m (<32ft) around wetla	Do not double check. berimeter (7) d wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	
6	12	Metric 3. Hydrology		(-)	
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surf Perennial surface water (li 3c. Maximum water depth. Select (1) >0.7 (27.6in) (3)	ace water (3) ake or stream) (5) 3b.	Part of wetland/up Part of riparian or Duration inundation/sate	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4)
		0.4 to 0.7m (15.7 to 27.6in x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrology None or none apparent (1 Recovered (7) x Recovering (3) Recent or no recovery (1)	gic regime. Score one or double che	Seasonally inund X Seasonally satura eck and average.	ated (2) ated in upper 30cm (12in) (1) stormwater)
7	19	 Metric 4. Habitat A	Iteration and Develo	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score o None or none apparent (4 Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5)	ne or double check and average.)	•	
		Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or None or none apparent (9 Recovered (6) X Recovering (3)	Check all disturbances observed x mowing grazing	x shrub/sapling rem herbaceous/aqua	
SI	19	Recent or no recovery (1)	clearcutting selective cutting woody debris removal toxic pollutants	sedimentation dredging farming nutrient enrichme	nt

Site: Wetland PM-16	ater(s): MJA		Date: 2021-08-02
19			
subtotal first page			
0 19 Metric 5. Special Wet	lands.		
max 10 pts. subtotal Check all that apply and score as indicat			
Bog (10)			
Fen (10)			
Old growth forest (10) Mature forested wetland (5)			
Lake Erie coastal/tributary wet	land-unrestricted hyd	łrology (10)	
Lake Erie coastal/tributary wet	-	logy (5)	
Lake Plain Sand Prairies (Oak Relict Wet Prairies (10)	Openings) (10)		
Known occurrence state/federa	al threatened or enda	angered species (10)	
Significant migratory songbird/			
Category 1 Wetland. See Que	estion 1 Qualitative R	.ating (-10)	
-4 15 Metric 6. Plant comm	unities int	erspersion microto	nnaranhy
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	pograpny.
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	171 acres) contiguous area
0 Aquatic bed	1	Present and either comprises small	
1 Emergent 0 Shrub		vegetation and is of moderate q significant part but is of low qua	
0 Forest	2	Present and either comprises sign	
0 Mudflats		vegetation and is of moderate q	uality or comprises a small
Other	3	part and is of high quality Present and comprises significant	t nort or more of wetlendle
0 Other6b. horizontal (plan view) Interspersion.	3	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)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
x None (0) 6c. Coverage of invasive plants. Refer		can also be present, and specie moderately high, but generally was	•
to Table 1 ORAM long form for list. Add		threatened or endangered spp	W/O produite of faire
or deduct points for coverage	high	A predominance of native species	· · ·
X Extensive >75% cover (-5) Moderate 25-75% cover (-3)		and/or disturbance tolerant native absent, and high spp diversity a	
Sparse 5-25% cover (-3)		the presence of rare, threatened	
Nearly absent <5% cover (0)			
Absent (1)		Open Water Class Quality	
6d. Microtopography. Score all present using 0 to 3 scale.	<u> </u>	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)	cres)
0 Vegetated hummucks/tussuck		Moderate 1 to <4ha (2.47 to 9.88	<u> </u>
O Coarse woody debris >15cm (6		High 4ha (9.88 acres) or more	
O Standing dead >25cm (10in) do Amphibian breeding pools		raphy Cover Scale	
Tamphibian precuing pools	<u>містотород</u> 0	Absent	
	1	Present very small amounts or if	more common
	2	of marginal quality	t not of highest
	2	Present in moderate amounts, bu quality or in small amounts of hi	_
	3	Present in moderate or greater ar	
15 ORANG TOTAL (and of highest quality	
15 GRAND TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-17	Rater(s): MJA		Date: 2021-08-02
1	1	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so	core. ts) <20.2ha) (5 pts) 1.1ha) (4 pts) na) (3 pts) 1.2ha) (2pts) 1.40.12ha) (1 pt)		
4	5	Metric 2. Upland b	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average superage superage. MEDIUM. Buffers average superage. NARROW. Buffers average. VERY NARROW. Buffers average. VERY LOW. Buffers average. VERY LOW. 2nd growth. LOW. Old field (>10 yean. MODERATELY HIGH. R	Select only one and assign score. 50m (164ft) or more around wetland ge 25m to <50m (82 to <164ft) around age 10m to <25m (32ft to <82ft) around wetlase. Select one or double check and or older forest, prairie, savannah, wirs), shrubland, young second growth desidential, fenced pasture, park, coropen pasture, row cropping, mining,	Do not double check. perimeter (7) nd wetland perimeter (4) und wetland perimeter (1) and perimeter (0) d average. viidlife area, etc. (7) n forest. (5) nservation tillage, new fallo	
10	15	Metric 3. Hydrolog	٧.		
max 30 pts.	subtotal	3a. Sources of Water. Score all th High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent sur Perennial surface water (3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6i	face water (3) lake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
		X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolo None or none apparent (** Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile	neck and average.	, and the second
7	22	Metric 4. Habitat A	Alteration and Devel	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select of Excellent (7) Very good (6)	one or double check and average. 4)		
		Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one of the second se		ed	
cı	22	Recovered (6) X Recovering (3) Recent or no recovery (1)	mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetla	and PM-17	Rater(s): MJA		Date: 2021-08-02
22 subtotal fire	<u></u>			
0 22	Metric 5. Special V	Vetlands.		
max 10 pts. subtot	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/f	dicated. 5) / wetland-unrestricted hydro / wetland-restricted hydrolo	ngered species (10) Isage (10)	
-4 18	Metric 6. Plant con	nmunities, inte	erspersion, microto	pography.
max 20 pts. subtot	-	•	community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	171 acres) contiguous area
	o Aquatic bed	1	Present and either comprises sma	all part of wetland's
	1 Emergent		vegetation and is of moderate q	
	0 Shrub	2	significant part but is of low qua	
	ForestMudflats	2	Present and either comprises sign vegetation and is of moderate q	
	0 Mudflats 0 Open water		part and is of high quality	dailty of comprises a small
	0 Other	3	Present and comprises significant	t part, or more, of wetland's
	6b. horizontal (plan view) Interspers		vegetation and is of high quality	
	Select only one.			
	High (5)	Narrative Des	scription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomin	
	Moderate (3)		disturbance tolerant native spec	
	Moderately low (2)	mod	Native spp are dominant compone	_
	Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
	X None (0) 6c. Coverage of invasive plants. R	ofor	can also be present, and specie	•
	to Table 1 ORAM long form for list.		moderately high, but generally we threatened or endangered spp	
	or deduct points for coverage		A predominance of native species	
	X Extensive >75% cover (-5	_	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	(0)		
	Absent (1)	Mudflat and (Open Water Class Quality	
	6d. Microtopography.		Absent <0.1ha (0.247 acres)	<u> </u>
	Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 ac	
	0 Vegetated hummucks/tus		Moderate 1 to <4ha (2.47 to 9.88	acres)
	O Coarse woody debris >15	` '	High 4ha (9.88 acres) or more	
	O Standing dead >25cm (10		amby Cayor Saala	
	Amphibian breeding pools		aphy Cover Scale	
		<u>0</u>	Absent Present very small amounts or if r	more common
		'	of marginal quality	HOLE COHHIUH
		2	Present in moderate amounts, bu	t not of highest
		_	quality or in small amounts of hi	_
		3	Present in moderate or greater an	
4.0			and of highest quality	
18 GR <i>i</i>	AND TOTAL (max 100 pts	<u> </u>		

Site: V	Vetlan	d PM-18	Rater(s): MJA		Date: 2021-07-14
2	2	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign scr >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h × 0.3 to <3 acres (0.12 to <′ 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
5	7	Metric 2. Upland bu	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5 MEDIUM. Buffers averag X NARROW. Buffers avera VERY NARROW. Buffers 2b. Intensity of surrounding land us VERY LOW. 2nd growth X LOW. Old field (>10 years X MODERATELY HIGH. Re	Select only one and assign score. Om (164ft) or more around wetland e 25m to <50m (82 to <164ft) arour ge 10m to <25m (32ft to <82ft) aro s average <10m (<32ft) around wetl	Do not double check. perimeter (7) nd wetland perimeter (4) und wetland perimeter (1) land perimeter (0) d average. vildlife area, etc. (7) n forest. (5) nservation tillage, new fallo	
6.5	13.5	Metric 3. Hydrolog	V.		
max 30 pts.	subtotal	3a. Sources of Water. Score all tha High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surf Perennial surface water (la	at apply. 3b	Part of wetland/up Part of riparian or	
		3c. Maximum water depth. Select of >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in × <0.4m (<15.7in) (1) 3e. Modifications to natural hydrological parts of the select of	only one and assign score.	Semi- to permane Regularly inundat X Seasonally inunda X Seasonally satura	ently inundated/saturated (4) ted/saturated (3)
		None or none apparent (1 Recovered (7) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR track dredging other_	, and the second
5	18.5	Metric 4. Habitat A	Iteration and Devel	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score o None or none apparent (4 Recovered (3) Recovering (2) Recent or no recovery (1)	ne or double check and average.	•	
		4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or			
	18.5	None or none apparent (9 Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming	tic bed removal
SI	ubtotal this pa	ne.	toxic pollutants	nutrient enrichme	nt

Site: Wetland PM-18		Rater(s): MJA		Date: 2021-07-14
18.5	age			
0 18.5	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 (5) Lake Erie coastal/tributary	dicated. 5) wetland-unrestricted hyd	- · ·	
2 405	Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory songl Category 1 Wetland. See	Oak Openings) (10) deral threatened or enda bird/water fowl habitat or Question 1 Qualitative R	angered species (10) usage (10) ating (-10)	
-2 16.5	Metric 6. Plant con	•	•	opography.
max 20 pts. subtotal	6a. Wetland Vegetation Communitie		Community Cover Scale	474 \ ('
	Score all present using 0 to 3 scale. O Aquatic bed	0	Absent or comprises <0.1ha (0.24	
	Aquatic bedEmergent	ı	Present and either comprises sm vegetation and is of moderate of	
	0 Shrub		significant part but is of low qua	
	0 Forest	2	Present and either comprises sign	
	0 Mudflats	_	vegetation and is of moderate of	
	Open water		part and is of high quality	jaam, or comprised a ciman
	0 Other	3	Present and comprises significan	t part, or more, of wetland's
	6b. horizontal (plan view) Interspers		vegetation and is of high quality	
	Select only one.		vogotation and to or might quanty	
	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	
	Low (1)	mod	although nonnative and/or distu	_
	X None (0)		can also be present, and specie	• • • • • • • • • • • • • • • • • • • •
	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 species	
	Extensive >75% cover (-5)	-	and/or disturbance tolerant nati	ve spp absent or virtually
	X Moderate 25-75% cover (-	3)	absent, and high spp diversity a	and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened	d, or endangered spp
	Nearly absent <5% cover	(0)		
	Absent (1)	Mudflat and	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)
	0 Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	acres)
	O Coarse woody debris >150		High 4ha (9.88 acres) or more	
	0 Standing dead >25cm (10i	n) dbh		
	0 Amphibian breeding pools	Microtopog	raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
			of marginal quality	
		2	Present in moderate amounts, but	_
			quality or in small amounts of h	
		3	Present in moderate or greater ar	nounts
105			and of highest quality	
TO.5 GRAN	ND TOTAL (max 100 pts)	1		

Site: v	vetian	a PM-19	Rater(s): IVIJA		Date: 2021-08-03
1	1	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign scores (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10.3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to <7 x 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
11	12	Metric 2. Upland bu	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. X WIDE. Buffers average 5 MEDIUM. Buffers averag NARROW. Buffers avera		Do not double check. perimeter (7) d wetland perimeter (4) und wetland perimeter (1)	
		2b. Intensity of surrounding land us VERY LOW. 2nd growth X LOW. Old field (>10 years X MODERATELY HIGH. Re		average. ildlife area, etc. (7) forest. (5) nservation tillage, new fallo	ow field. (3)
19.5	31.5	Metric 3. Hydrology	٧.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) X Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surf Perennial surface water (la	ace water (3)	Part of wetland/up Part of riparian or	
		3c. Maximum water depth. Select of >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in × <0.4m (<15.7in) (1) 3e. Modifications to natural hydrological forms of the control of th	only one and assign score.	Semi- to permane X Regularly inundat X Seasonally inundat Seasonally satura	ently inundated/saturated (4) ted/saturated (3)
		None or none apparent (1 Recovered (7) Recovering (3) Recent or no recovery (1)			,
7	38.5	Metric 4. Habitat A	Iteration and Devel	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score o None or none apparent (4 Recovered (3) Recovering (2) Recent or no recovery (1)	ne or double check and average.		
		4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1)			
ci	38.5	4c. Habitat alteration. Score one of None or none apparent (9 Recovered (6) X Recovering (3) Recent or no recovery (1)		x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-19		Rater(s): MJA		Date: 2021-08-03
38.5	_			
0 38.5	 Metric 5. Special W	letlands.		
max 10 pts. subtotal	Check all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song	dicated. wetland-unrestricted hydro wetland-restricted hydro Oak Openings) (10) ederal threatened or endabird/water fowl habitat or	angered species (10) usage (10)	
	Category 1 Wetland. See	Question 1 Qualitative R	ating (-10)	
3 41.5		-	•	ppography.
max 20 pts. subtotal	6a. Wetland Vegetation Communitie		Community Cover Scale	171 cores) contiguous cros
	Score all present using 0 to 3 scale. O Aquatic bed	0	Absent or comprises <0.1ha (0.24) Present and either comprises sm	
	Aquatic bedEmergent	ı	vegetation and is of moderate of	
	0 Shrub		significant part but is of low qua	
	0 Forest	2	Present and either comprises sign	
	0 Mudflats		vegetation and is of moderate of	
	0 Open water		part and is of high quality	,, , ,
	0 Other	_ 3	Present and comprises significan	t part, or more, of wetland's
	6b. horizontal (plan view) Interspers	ion	vegetation and is of high quality	
	Select only one.			
	High (5)	Narrative De	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	=
	Low (1)		although nonnative and/or distu	
	X None (0)		can also be present, and specie	•
	6c. Coverage of invasive plants. Re		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 species	
	Extensive >75% cover (-5) Moderate 25-75% cover (-		and/or disturbance tolerant nati absent, and high spp diversity a	
	Sparse 5-25% cover (-1)	3)	the presence of rare, threatened	
	Nearly absent <5% cover	(0)	the presence of fare, threatener	a, or endangered spp
	x Absent (1)	` '	l 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)
	0 Vegetated hummucks/tuss	sucks 2	Moderate 1 to <4ha (2.47 to 9.88	acres)
	0 Coarse woody debris >150	cm (6in) 3	High 4ha (9.88 acres) or more	
	0 Standing dead >25cm (10	n) dbh		
	0 Amphibian breeding pools	Microtopog	raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
			of marginal quality	
		2	Present in moderate amounts, but	_
			quality or in small amounts of h	
		3	Present in moderate or greater ar	nounts
11 5			and of highest quality	
41.5 GRAI	ND TOTAL (max 100 pts)			

ORAM v. 5.0 Field Form Quantitative Rating					
Site: Wetland PM-20	Rater(s): MJA	Date: 2021-08-03			
	_				

1	1	Metric 1. Wetland Area (size).
max 6 pts.	subtotal	Select one size class and assign score.
12	13	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 check. X WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average. X VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)
19	32	Metric 3. Hydrology.
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) X Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X Other groundwater (5) Between stream/lake and other human use (1) X Part of riparian or upland corridor (1) 3d. Duration inundation/saturation. Score one or dbl check semi-to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) X Seasonally saturated in upper 30cm (12in) (1)
		3e. Modifications to natural hydrologic regime. Score one or double check and average. X
10	42	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) X Poor (1) 4c. Habitat alteration. Score one or double check and average.
si	42	None or none apparent (9) X Recovered (6) Recovering (3) Recent or no recovery (1) Recent or no recovery (1)

Site: W	/etlan	d PM-20	Rater(s): MJA		Date: 2021-08-03
	42 stotal first pa	age			
0	42	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 (5 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	dicated. 5) wetland-unrestricted hydrologologologologologologologologologolo	angered species (10) usage (10)	
2	44	Metric 6. Plant con	nmunities, int	erspersion, microto	opography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communitie	es. <u>Vegetation</u>	Community Cover Scale	
		Score all present using 0 to 3 scale. O Aquatic bed Emergent	0	Absent or comprises <0.1ha (0.2- Present and either comprises sm vegetation and is of moderate of	all part of wetland's quality, or comprises a
		0 Shrub 0 Forest 0 Mudflats 0 Open water	2	significant part but is of low qua Present and either comprises sig vegetation and is of moderate of part and is of high quality	nificant part of wetland's
		O Other 6b. horizontal (plan view) Interspers	3	Present and comprises significan vegetation and is of high quality	
		Select only one.		vogotation and is of high quality	
		High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predomi disturbance tolerant native spec	cies
		Moderately low (2) Low (1) X None (0)	mod	Native spp are dominant compon although nonnative and/or distu can also be present, and specie	rbance tolerant native spp
		6c. Coverage of invasive plants. Reto Table 1 ORAM long form for list.		moderately high, but generally threatened or endangered spp	
		or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-1) Sparse 5-25% cover (-1)		A predominance of native species and/or disturbance tolerant nati absent, and high spp diversity a the presence of rare, threatene	ve spp absent or virtually and often, but not always,
		Nearly absent <5% cover	(0)	the presence of fare, infeatence	a, or chaangered opp
		X Absent (1)	Mudflat and	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	
		0 Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	3 acres)
		O Coarse woody debris >150	, ,	High 4ha (9.88 acres) or more	
		O Standing dead >25cm (10	•		
		 Amphibian breeding pools 		raphy Cover Scale	
			<u>0</u> 1	Absent Present very small amounts or if	more common
			2	of marginal quality Present in moderate amounts, but	_
			3	quality or in small amounts of h Present in moderate or greater as	
				and of highest quality	
44	GRAN	ID TOTAL (max 100 pts)			

ORAM v. 5.0 Field Form Quantitative Rating					
Site: Wetland PM-21	Rater(s): MJA	Date: 2021-08-03			

		•
0	0	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) x
14	14	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 check. X WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average. X VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)
16	30	Metric 3. Hydrology.
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check 3c. Maximum water depth. Select only one and assign score. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X < 0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average. X
		weir dredging stormwater input other
10	40	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) X Poor (1) 4c. Habitat alteration. Score one or double check and average.
	40	None or none apparent (9) X Recovered (6) Recovering (3) Recent or no recovery (1) Check all disturbances observed mowing grazing herbaceous/aquatic bed removal clearcutting x selective cutting woody debris removal farming nutrient enrichment

subtotal this page

Site: Wetland PM-21 Rate	er(s): MJA		Date: 2021-08-03
40 subtotal first page			
0 40 Metric 5. Special Wetla	ands.		
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 Lake Plain Sand Prairies (Oak O Relict Wet Prairies (10) Known occurrence state/federal t Significant migratory songbird/wa Category 1 Wetland. See Questi	nd-unrestricted hy nd-restricted hydro penings) (10) hreatened or end tter fowl habitat or	angered species (10)	
4 44 Metric 6. Plant commu	ınities, int	terspersion, microto	opography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24) Present and either comprises sm	
0 Aquatic bed 1 Emergent	'	vegetation and is of moderate of	
1 Shrub		significant part but is of low qua	•
0 Forest	2	Present and either comprises sig	nificant part of wetland's
0 Mudflats		vegetation and is of moderate of	quality or comprises a small
O Open water		part and is of high quality	t nort or more of watlandla
0 Other 6b. horizontal (plan view) Interspersion.	3	Present and comprises significan vegetation and is of high quality	
Select only one.			
High (5)		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 compon	
Low (1)		although nonnative and/or distu	<u> </u>
X None (0)		can also be present, and specie	-
6c. Coverage of invasive plants. Refer		moderately high, but generally	w/o presence of rare
to Table 1 ORAM long form for list. Add or deduct points for coverage	high	threatened or endangered spp A predominance of native species	s with nonnative enn
Extensive >75% cover (-5)	iligii	and/or disturbance tolerant nati	
Moderate 25-75% cover (-3)		absent, and high spp diversity a	
Sparse 5-25% cover (-1)		the presence of rare, threatene	d, or endangered spp
Nearly absent <5% cover (0) X Absent (1)	Mudflat and	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/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88	3 acres)
1 Coarse woody debris >15cm (6in o Standing dead >25cm (10in) dbh		High 4ha (9.88 acres) or more	
o Amphibian breeding pools		graphy Cover Scale	
<u></u>	0	Absent	
	1	Present very small amounts or if	more common
	2	of marginal quality Present in moderate amounts, bu	ut not of highest
	2	quality or in small amounts of h	_
	3	Present in moderate or greater ar	
		and of highest quality	
44 GRAND TOTAL (max 100 pts)			

Site: Wetland PM-22				Rater(s): MJA		Date: 2021-08-03
0	0	Metri	ic 1. Wetland A	rea (size)		
max 6 pts.	subtotal	Select on	ne size class and assign score >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1h 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 <0.1 acres (0.04ha) (0 pts)	e. 0.2ha) (5 pts) na) (4 pts) (3 pts) 2ha) (2pts)		
8	8	Metri	ic 2. Upland but	ffers and surrour	nding land use.	
max 14 pts.	subtotal	2a. Calcu X 2b. Inten:	ulate average buffer width. S WIDE. Buffers average 50n MEDIUM. Buffers average 2 NARROW. Buffers average VERY NARROW. Buffers a sity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years), MODERATELY HIGH. Resi	select only one and assign score in (164ft) or more around wetlan 25m to <50m (82 to <164ft) arou is 10m to <25m (32ft to <82ft) arou iverage <10m (<32ft) around we iverage <10m (system in the company of the company of the company is select one or double check arounder forest, prairie, savannah, is shrubland, young second grow idential, fenced pasture, park, cen pasture, row cropping, minin	e. Do not double check. d perimeter (7) und wetland perimeter (4) round wetland perimeter (1) etland perimeter (0) nd average. wildlife area, etc. (7) th forest. (5) conservation tillage, new fallo	
10.5	18.5	Metri	ic 3. Hydrology.			
max 30 pts.	subtotal	3a. Source X 3c. Maxim	roes of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfac Perennial surface water (lak imum water depth. Select onl >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	se water (3) e or stream) (5) ly one and assign score.	Part of wetland/up Part of riparian or 3d. Duration inundation/satu Semi- to permane Regularly inundat X Seasonally inundat	in (1) lake and other human use (1) cland (e.g. forest), complex (1) cupland corridor (1) curation. Score one or dbl check. ently inundated/saturated (4) led/saturated (3) ated (2)
		3e. Modif	<pre><0.4m (<15.7in) (1) ifications to natural hydrologic None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)</pre>	Check all disturbances obser ditch tile dike weir stormwater input	check and average.	
7	25.5	Metri	ic 4. Habitat Alt	eration and Deve	elopment.	
max 20 pts.	subtotal	4a. Subs X 4b. Habit	strate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) itat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) itat alteration. Score one or d	e or double check and average. one and assign score.		
S)	25.5	х	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances obsermowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aquar sedimentation dredging farming nutrient enrichme	tic bed removal

Rater(s): MJA Site: Wetland PM-22 Date: 2021-08-03 25.5 subtotal first page 25.5 Metric 5. Special Wetlands. Check all that apply and score as indicated. max 10 pts. subtotal Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** subtotal Absent or comprises <0.1ha (0.2471 acres) contiguous area Score all present using 0 to 3 scale. 0 Aquatic bed Present and either comprises small part of wetland's Emergent vegetation and is of moderate quality, or comprises a Shrub significant part but is of low quality 2 Present and either comprises significant part of wetland's Forest Mudflats vegetation and is of moderate quality or comprises a small Open water part and is of high quality Other_ 3 Present and comprises significant part, or more, of wetland's 6b. horizontal (plan view) Interspersion. vegetation and is of high quality Select only one. High (5) Narrative Description of Vegetation Quality Moderately high(4) Low spp diversity and/or predominance of nonnative or Moderate (3) disturbance tolerant native species Moderately low (2) mod Native spp are dominant component of the vegetation, Low (1) 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 list. Add threatened or endangered spp or deduct points for coverage A predominance of native species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually Extensive >75% cover (-5) Moderate 25-75% cover (-3) absent, and high spp diversity and often, but not always, Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0) Absent (1) **Mudflat and Open Water Class Quality** 6d. Microtopography. 0 Absent < 0.1ha (0.247 acres) Score all present using 0 to 3 scale. Low 0.1 to <1ha (0.247 to 2.47 acres) Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2.47 to 9.88 acres) Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest 2 quality or in small amounts of highest quality 3 Present in moderate or greater amounts and of highest quality 27.5 GRAND TOTAL (max 100 pts)

Site: Wetland PM-23		d PM-23	Rater(s): MJA		Date: 2021-08-03
2	2	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 p 25 to <50 acres (10.1 to 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4 x 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pt	core. ts) <20.2ha) (5 pts) .1ha) (4 pts) na) (3 pts) :1.2ha) (2pts) v <0.12ha) (1 pt)		
8	10	Metric 2. Upland b	uffers and surrour	nding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width WIDE. Buffers average ! X MEDIUM. Buffers average ! NARROW. Buffers average ! VERY NARROW. Buffers average ! VERY LOW. Did field (>10 yea X MODERATELY HIGH. R	Select only one and assign scor 50m (164ft) or more around wetlar ge 25m to <50m (82 to <164ft) aro age 10m to <25m (32ft to <82ft) a s average <10m (<32ft) around we	e. Do not double check. nd perimeter (7) bund wetland perimeter (4) around wetland perimeter (1) etland perimeter (0) and average. , wildlife area, etc. (7) wth forest. (5) conservation tillage, new fallo	
10	20	Metric 3. Hydrolog	V.		
max 30 pts.	subtotal	3a. Sources of Water. Score all th High pH groundwater (5) Other groundwater (3) × Precipitation (1) Seasonal/Intermittent sur Perennial surface water (3c. Maximum water depth. Select	at apply. face water (3) lake or stream) (5)	Part of wetland/up Part of riparian or 3d. Duration inundation/satu	
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) × <0.4m (<15.7in) (1) 3e. Modifications to natural hydrology None or none apparent (17)	ogic regime. Score one or double Check all disturbances obse	Regularly inundat Seasonally inundat X Seasonally satura check and average.	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 x other	, and the second second
/	27	Metric 4. Habitat A		-	
max 20 pts.	subtotal	4a. Substrate disturbance. Score None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select of Excellent (7) Very good (6)	4)		
		Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one of			
ci	27	None or none apparent (Street Recovered (6) X Recovering (3) Recent or no recovery (1	x mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	ttic bed removal

Site: Wetland PM-23	Rater(s): MJA	Date: 2021-08-03
27		
subtotal first page		
0 27 Metric 5. Sp	pecial Wetlands.	
max 10 pts. subtotal Check all that apply ar	nd score as indicated.	
Bog (10)		
Fen (10) Old growth for	orest (10)	
	sted wetland (5)	
	pastal/tributary wetland-unrestricted hydrology (10)	
	pastal/tributary wetland-restricted hydrology (5) Sand Prairies (Oak Openings) (10)	
Relict Wet P		
	rrence state/federal threatened or endangered species (10)	
	nigratory songbird/water fowl habitat or usage (10)	
Category	Wetland. See Question 1 Qualitative Rating (-10)	
-1 26 Metric 6. PI	ant communities, interspersion,	microtopography
max 20 pts. subtotal 6a. Wetland Vegetation	•	
Score all present using		s <0.1ha (0.2471 acres) contiguous area
0 Aquatic bed	· · · · · · · · · · · · · · · · · · ·	comprises small part of wetland's
1 Emergent		of moderate quality, or comprises a
1 Shrub 0 Forest	significant part but 2 Present and either c	t is of low quality comprises significant part of wetland's
0 Mudflats		of moderate quality or comprises a small
0 Open water	part and is of high	quality
0 Other_		ses significant part, or more, of wetland's
6b. horizontal (plan vie Select only one.	ew) Interspersion. vegetation and is o	or night quality
High (5)	Narrative Description of Vegetati	ion Quality
Moderately h	- · · · · · · · · · · · · · · · · · · ·	nd/or predominance of nonnative or
Moderate (3)	·	int native species inant component of the vegetation,
Low (1)	· · · · · · · · · · · · · · · · · · ·	e and/or disturbance tolerant native spp
None (0)	· · · · · · · · · · · · · · · · · · ·	nt, and species diversity moderate to
6c. Coverage of invas	•	but generally w/o presence of rare
to Table 1 ORAM long or deduct points for co		native species, with nonnative spp
·	· ·	e tolerant native spp absent or virtually
Moderate 25	5-75% cover (-3) absent, and high s	spp diversity and often, but not always,
		are, threatened, or endangered spp
Absent (1)	nt <5% cover (0) Mudflat and Open Water Class Q	Quality
6d. Microtopography.	0 Absent <0.1ha (0.24	
Score all present using		<u> </u>
	ummucks/tussucks 2 Moderate 1 to <4ha dy debris >15cm (6in) 3 High 4ha (9.88 acres	a (2.47 to 9.88 acres)
	ad >25cm (10in) dbh	s) or more
	preeding pools Microtopography Cover Scale	
	0 Absent	
	1 Present very small a of marginal quality	amounts or if more common
	<u> </u>	e amounts, but not of highest
	quality or in small	amounts of highest quality
		e or greater amounts
26 GRAND TOTAL (max	and of highest qua	ality
LO IGUARD IOTAL (Max	ι του hra)	

Site: V	vetlan	d PM-24	Rater(s): MJA		Date: 2021-08-03
1	1	Metric 1. Wetland	Aroa (sizo)		
			• •		
max 6 pts.	subtotal	Select one size class and assign sc	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
8	9	Metric 2. Upland b	uffers and surroun	ding land use.	
max 14 pts.	subtotal	x MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth X LOW. Old field (>10 year X MODERATELY HIGH. R.	Om (164ft) or more around wetland e 25m to <50m (82 to <164ft) arou ge 10m to <25m (32ft to <82ft) arou s average <10m (<32ft) around we	d perimeter (7) und wetland perimeter (4) cound wetland perimeter (1) utland perimeter (0) ad average. wildlife area, etc. (7) th forest. (5) conservation tillage, new fallo	ow field. (3)
4	13	Metric 3. Hydrolog	y.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfunction Perennial surface water (I) 3c. Maximum water depth. Select (1) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrological productions.	ace water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Bd. Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	in (1) lake and other human use (1) cland (e.g. forest), complex (1) cupland corridor (1) curation. Score one or dbl check. ently inundated/saturated (4) red/saturated (3)
3	16	None or none apparent (1 Recovered (7) Recovering (3) X Recent or no recovery (1) Matric 4 Habitat A	ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR track dredging x otherElectric transr	k
		Metric 4. Habitat A		nopment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one o) nly one and assign score.		
	16	None or none apparent (9 Recovered (6) Recovering (3) X Recent or no recovery (1)	x mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetl	and PM-24	Rater(s): MJA	Date: 2021-08-03	
16 subtotal f				
0 16	Metric 5. Special W	letlands		
max 10 pts. subt				
max to pis. Subt	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory songl Category 1 Wetland. See	wetland-unrestricted hyd wetland-restricted hydro Oak Openings) (10) deral threatened or enda bird/water fowl habitat or	angered species (10) usage (10)	
0 16	Metric 6. Plant com	nmunities. int	erspersion, microto	opography.
max 20 pts. subt		-	Community Cover Scale	- p - g p - · y -
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	471 acres) contiguous area
	0 Aquatic bed	1	Present and either comprises sm	
	1 Emergent		vegetation and is of moderate of	i •
	0 Shrub 0 Forest	2	significant part but is of low qua Present and either comprises sig	
	0 Nudflats	2	vegetation and is of moderate of	
	Open water		part and is of high quality	
	0 Other	3	Present and comprises significan	nt part, or more, of wetland's
	6b. horizontal (plan view) Interspersi	on.	vegetation and is of high quality	У
	Select only one. High (5)	Narrative D	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomi	inance of nonnative or
	Moderate (3)		disturbance tolerant native spe	
	Moderately low (2)	mod	Native spp are dominant compon	=
	Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
	X None (0) 6c. Coverage of invasive plants. Re	for	can also be present, and specie 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 nati	
	Moderate 25-75% cover (-3 X Sparse 5-25% cover (-1)	3)	absent, and high spp diversity a	
	X Sparse 5-25% cover (-1) Nearly absent <5% cover (0)	the presence of rare, threatene	u, or endangered spp
	Absent (1)	•	Open Water Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 scale.	ucks <u>1</u>	Low 0.1 to <1ha (0.247 to 2.47 a)	
	Vegetated hummucks/tussCoarse woody debris >150		Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	dies)
	0 Standing dead >25cm (10i	` '	Trigit ma (elec acies) el mele	
	0 Amphibian breeding pools		raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
		2	of marginal quality Present in moderate amounts, but	ut not of highest
		-	quality or in small amounts of h	_
		3	Present in moderate or greater a	
16			and of highest quality	
16 gr	AND TOTAL (max 100 pts)			

Site: Wetland PM-25		d PM-25	Rater(s): MJA		Date: 2021-08-03	
1	1	Metric 1. Wetland	Δrea (size)			
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 p 25 to <50 acres (10.1 to 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04 to <0.1 acres (0.04ha) (0 pt	core. ts) <20.2ha) (5 pts) 0.1ha) (4 pts) ha) (3 pts) <1.2ha) (2pts) 0 <0.12ha) (1 pt)			
11	12	Metric 2. Upland b	uffers and surroun	ding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width X WIDE. Buffers average MEDIUM. Buffers avera NARROW. Buffers avera VERY NARROW. Buffer 2b. Intensity of surrounding land u VERY LOW. 2nd growth X LOW. Old field (>10 yea X MODERATELY HIGH. F	. Select only one and assign score 50m (164ft) or more around wetland ge 25m to <50m (82 to <164ft) arou age 10m to <25m (32ft to <82ft) ard saverage <10m (<32ft) around we	e. Do not double check. d perimeter (7) und wetland perimeter (4) ound wetland perimeter (1) tland perimeter (0) d average. wildlife area, etc. (7) th forest. (5) onservation tillage, new fallo		
11.5	23.5	Metric 3. Hydrolog		, , , , , , , , , , , , , , , , , , , ,		
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent su	nat apply. 3 rface water (3)	Part of wetland/up X Part of riparian or	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1)	
		3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6 × <0.4m (<15.7in) (1) 3e. Modifications to natural hydrole	only one and assign score. in) (2)	Semi- to permane Regularly inundat X Seasonally inunda X Seasonally satura		
		None or none apparent (X Recovered (7) Recovering (3) Recent or no recovery (1	ditch tile	point source (non filling/grading x road bed/RR track dredging other_	, and the second	
11	34.5	Metric 4. Habitat <i>A</i>	Alteration and Deve	lopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score None or none apparent (Recovered (3) Recovering (2) Recent or no recovery (1	one or double check and average. 4)	•		
		4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)	only one and assign score.			
SI	34.5	4c. Habitat alteration. Score one of None or none apparent (X Recovered (6) Recovering (3) Recent or no recovery (1	9) Check all disturbances observed mowing grazing	ved X shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal	

Site: Wetlan	d PM-25	Rater(s): MJA	Date: 2021-08-03	
34.5	age			
0 34.5	Metric 5. Special W	letlands.		
max 10 pts. subtotal	Check all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary	dicated.	drology (10)	
	Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	Oak Openings) (10) ederal threatened or endabird/water fowl habitat or	angered species (10) usage (10)	
-2 32.5	Metric 6. Plant con	•	•	opography.
max 20 pts. subtotal	6a. Wetland Vegetation Communitie		Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	, ,
	O Aquatic bed	1	Present and either comprises small	
	1 Emergent		vegetation and is of moderate q	
	0 Shrub		significant part but is of low qua	
	0 Forest	2	Present and either comprises sign	
	0 Mudflats		vegetation and is of moderate q	luality or comprises a small
	Open water		part and is of high quality	
	0 Other	_ 3	Present and comprises significant	
	6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	1
	Select only one.			
	High (5)	Narrative Do	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomin	nance of nonnative or
	Moderate (3)		disturbance tolerant native spec	cies
	Moderately low (2)	mod	Native spp are dominant compone	ent of the vegetation,
	Low (1)		although nonnative and/or distu	rbance tolerant native spp
	X None (0)		can also be present, and specie	es diversity moderate to
	6c. Coverage of invasive plants. Re	efer	moderately high, but generally v	w/o presence of rare
	to Table 1 ORAM long form for list.	Add	threatened or endangered spp	
	or deduct points for coverage	high	A predominance of native species	
	Extensive >75% cover (-5)		and/or disturbance tolerant nativ	ve spp absent or virtually
	X Moderate 25-75% cover (-	3)	absent, and high spp diversity a	and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened	d, or endangered spp
	Nearly absent <5% cover	(0)		
	Absent (1)	Mudflat and	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)
	0 Vegetated hummucks/tuss	sucks 2	Moderate 1 to <4ha (2.47 to 9.88	acres)
	0 Coarse woody debris >150		High 4ha (9.88 acres) or more	
	0 Standing dead >25cm (10	n) dbh		
	0 Amphibian breeding pools	Microtopog	raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
			of marginal quality	
		2	Present in moderate amounts, bu	t not of highest
		-	quality or in small amounts of hi	_
		3	Present in moderate or greater ar	
			and of highest quality	
32.5 GRAN	ND TOTAL (max 100 pts)			

Site: Wetland PM-26			26	Rater(s): MJA		Date: 2021-08-03
0	0	Metri	ic 1. Wetland A	area (size).		
max 6 pts.	subtotal	-1	ne 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 0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)	re.) 20.2ha) (5 pts) ha) (4 pts) a) (3 pts) .2ha) (2pts) :0.12ha) (1 pt)		
11	11	 Metri	ic 2. Upland bu	iffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calc X 2b. Inter x	wlate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers nsity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Re	Select only one and assign score. Im (164ft) or more around wetland to 25m to <50m (82 to <164ft) around to 164ft) around to 25m (32ft to <82ft) around wetland average <10m (<32ft) around wetland to 36ft to each arolder forest, prairie, savannah, with a sidential, fenced pasture, park, corpen pasture, row cropping, mining,	Do not double check. perimeter (7) Id wetland perimeter (4) und wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) nservation tillage, new fallo	
9	20] Metri	ic 3. Hydrology	<i>1</i> _		
max 30 pts.	subtotal	-1	rces of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa	apply. 3b	Part of wetland/up Part of riparian or	in (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1)
		X	Perennial surface water (la imum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	nly one and assign score.	Semi- to permane Regularly inundat Seasonally inund X Seasonally satura	
		X	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input		·
6	26] Metr	ic 4. Habitat Al	teration and Devel	opment.	
max 20 pts.	subtotal			ne or double check and average.	•	
		X	itat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) itat alteration. Score one or			
s	26	X	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)		x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	ttic bed removal

Site: V	Vetlan	d PM-26	Rater(s): MJA		Date: 2021-08-03
su	26	age			
lo l	26	Metric 5. Special V	/etlands		
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 (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	5) wetland-unrestricted hydrowetland-restricted hydrowetland-restricted hydrowetland (10) Oak Openings) (10) ederal threatened or endabird/water fowl habitat or	angered species (10) usage (10)	
-2	24	Motric G. Dlant con	amunitiaa int	aranarajan miarat	an a arran bu
		Metric 6. Plant con		•	opograpny.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities Score all present using 0 to 3 scale.	es. <u>Vegetation</u> 0	Community Cover Scale Absent or comprises <0.1ha (0.24)	171 acres) contiguous area
		O Aquatic bed	1	Present and either comprises sm	, ,
		1 Emergent		vegetation and is of moderate of	
		0 Shrub		significant part but is of low qua	
		0 Forest	2	Present and either comprises sig	
		0 Mudflats0 Open water		vegetation and is of moderate of part and is of high quality	quality of comprises a small
		0 Other	_ 3	Present and comprises significan	t part, or more, of wetland's
		6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	1
		Select only one.	Nametica D	and the second s	
		High (5) Moderately high(4)	low	escription of Vegetation Quality 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	•
		Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
		X None (0) 6c. Coverage of invasive plants. Re	efer	can also be present, and species moderately high, but generally	•
		to Table 1 ORAM long form for list.		threatened or endangered spp	in a processor of fair
		or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
		Extensive >75% cover (-5		and/or disturbance tolerant nati	
		X Moderate 25-75% cover (-1) Sparse 5-25% cover (-1)	3)	absent, and high spp diversity a the presence of rare, threatener	•
		Nearly absent <5% cover	(0)	the presence of rare, threatener	u, or endangered spp
		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	
		Vegetated hummucks/tusCoarse woody debris >15		Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	acres)
		o Standing dead >25cm (10	` '	ga (e.ee ae.ee) eee	
		0 Amphibian breeding pools	Microtopog	raphy Cover Scale	
			0	Absent	
			1	Present very small amounts or if	more common
			2	of marginal quality Present in moderate amounts, bu	t not of highest
			_	quality or in small amounts of h	_
			3	Present in moderate or greater ar	
24				and of highest quality	
24	GRAN	ND TOTAL (max 100 pts)			

Site: v	vetian	a PIVI-27	Rater(s): IVIJA		Date : 2021-08-04
0	0	Metric 1. Wetland A	rea (size).		
max 6 pts.	subtotal	Select one size class and assign scor >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 < x <0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
4	4	Metric 2. Upland bu	ffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. S WIDE. Buffers average 50 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth of LOW. Old field (>10 years) X MODERATELY HIGH. Res	Select only one and assign score. m (164ft) or more around wetland 25m to <50m (82 to <164ft) aroun e 10m to <25m (32ft to <82ft) arou average <10m (<32ft) around wetla	Do not double check. perimeter (7) d wetland perimeter (4) und wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	
6	10	Metric 3. Hydrology			
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfar Perennial surface water (lab 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologi None or none apparent (12)	apply. 3b ce water (3) (e or stream) (5) 3d (ly one and assign score. (2) c regime. Score one or double ch	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inund X Seasonally satura eck and average.	in (1) lake and other human use (1) cland (e.g. forest), complex (1) cupland corridor (1) curation. Score one or dbl check. ently inundated/saturated (4) red/saturated (3)
7	17	Recovered (7) X Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non filling/grading x road bed/RR trac dredging other	,
max 20 pts.	subtotal	Metric 4. Habitat Alf 4a. Substrate disturbance. Score on		opment.	
		None or none apparent (4) X 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) X Poor (1) 4c. Habitat alteration. Score one or content of the content of th	one and assign score.		
	17	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed X	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-27		Rater(s): MJA		Date: 2021-08-04	
	17	age			
0	17	Metric 5. Special V	/etlands.		
max 10 pts.	subtotal	Check all that apply and score as in 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) Known occurrence state/fr Significant migratory song Category 1 Wetland. See	dicated. wetland-unrestricted hydrowetland-restricted hydrowetland-restricted hydrowetland (10) dederal threatened or endabird/water fowl habitat or	angered species (10) usage (10)	
2	19	Metric 6. Plant con	nmunities, int	erspersion, microto	ppography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communiti		Community Cover Scale	- 1 · 3 · 1 ·)
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
		0 Aquatic bed1 Emergent	1	Present and either comprises small vegetation and is of moderate of	
		0 Shrub		significant part but is of low qua	
		0 Forest	2	Present and either comprises sign	
		0 Mudflats		vegetation and is of moderate of	juality or comprises a small
		Open water		part and is of high quality	to and an one of continue dis-
		O Other	3	Present and comprises significan	
		6b. horizontal (plan view) Interspers Select only one.	ion.	vegetation and is of high quality	'
		High (5)	Narrativo D	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predoming	nance of nonnative or
		Moderate (3)	1011	disturbance tolerant native spec	
		Moderately low (2)	mod	Native spp are dominant component	
		Low (1)		although nonnative and/or distu	_
		X None (0)		can also be present, and specie	• • •
		6c. Coverage of invasive plants. Re	efer	moderately high, but generally v	w/o presence of rare
		to Table 1 ORAM long form for list.	Add	threatened or endangered spp	
		or deduct points for coverage	high	A predominance of native species	
		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)		the presence of rare, threatened	d, or endangered spp
		Nearly absent <5% cover	• •		
		X Absent (1)		Open Water Class Quality	
		6d. Microtopography.	<u> </u>	Absent <0.1ha (0.247 acres)	orog)
		Score all present using 0 to 3 scale. Vegetated hummucks/tus		Low 0.1 to <1ha (0.247 to 2.47 ac	
		——————————————————————————————————————		Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	acres)
		0 Coarse woody debris >15	` '	Trigit 4tta (9.00 acres) of thore	
		Amphibian breeding pools	•	raphy Cover Scale	
		o ranging pools	0	Absent	
			1	Present very small amounts or if	more common
			•	of marginal quality	-
			2	Present in moderate amounts, bu	t not of highest
				quality or in small amounts of h	_
			3	Present in moderate or greater ar	
40				and of highest quality	
19	GRAN	ID TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-28	Rater(s): MJA	Rater(s): MJA	
1	1	Motric 1 Wotland	d Aroa (sizo)		
<u>'</u>	<u> </u>	Metric 1. Wetland	•		
max 6 pts.	subtotal	Select one size class and assign >50 acres (>20.2ha) (0 25 to <50 acres (10.1 10 to <25 acres (4 to < 3 to <10 acres (1.2 to 0.3 to <3 acres (0.12 to x 0.1 to <0.3 acres (0.04 <0.1 acres (0.04ha) (0	6 pts) to <20.2ha) (5 pts) <10.1ha) (4 pts) <4ha) (3 pts) o <1.2ha) (2pts) I to <0.12ha) (1 pt)		
5	6	Metric 2. Upland	buffers and surrou	nding land use.	
max 14 pts.	subtotal	WIDE. Buffers average MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd grow X LOW. Old field (>10 y X MODERATELY HIGH	of th. Select only one and assign scotle 50m (164ft) or more around wetlated a rage 25m to <50m (82 to <164ft) are reage 10m to <25m (32ft to <82ft) are reage 10m to <25m (32ft to <82ft) around with use. Select one or double check a with or older forest, prairie, savannah rears), shrubland, young second grokesidential, fenced pasture, park, al, open pasture, row cropping, mini	and perimeter (7) ound wetland perimeter (4) around wetland perimeter (1) vetland perimeter (0) and average. a, wildlife area, etc. (7) wth forest. (5) conservation tillage, new fallo	ow field. (3)
21	27	Metric 3. Hydrolo	ogy.		
max 30 pts.	subtotal	3a. Sources of Water. Score al High pH groundwater X Other groundwater (3) X Precipitation (1) Seasonal/Intermittent Perennial surface wate 3c. Maximum water depth. Selection (27.6in) (3) 0.4 to 0.7m (15.7 to 2) X <0.4m (<15.7in) (1)	that apply. (5) surface water (3) er (lake or stream) (5) ect only one and assign score. (7.6in) (2) cologic regime. Score one or double	Part of wetland/up Part of riparian or 3d. Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat Seasonally satura e check and average.	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
8	35	Recovered (7) Recovering (3) Recent or no recovery Metric 4. Habitat	ditch tile dike weir stormwater input Alteration and Dev	point source (non filling/grading road bed/RR track dredging other	,
max 20 pts.	subtotal	4a. Substrate disturbance. Sco	re one or double check and average	•	
		None or none apparer X Recovered (3) Recovering (2) Recent or no recovery 4b. Habitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score on	(1) t only one and assign score.		
		None or none apparer Recovered (6)	t (9) Check all disturbances observation	erved x shrub/sapling rem	noval
	35	X Recovering (3) Recent or no recovery	grazing clearcutting selective cutting woody debris removal toxic pollutants	herbaceous/aqua sedimentation dredging farming nutrient enrichme	

Site: Wetland PM-2	Rate	r(s): MJA		Date: 2021-08-04
35 subtotal first page				
0 35 _{Metri}	c 5. Special Wetla	nds.		
max 10 pts. subtotal Check all	that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5)		dra la mu (4 0)	
	Lake Erie coastal/tributary wetland Lake Erie coastal/tributary wetland Lake Plain Sand Prairies (Oak Op Relict Wet Prairies (10) Known occurrence state/federal th Significant migratory songbird/wat Category 1 Wetland. See Questic	d-restricted hydro enings) (10) nreatened or enda er fowl habitat or	angered species (10) usage (10)	
2 37 Metri	c 6. Plant commu	nities. int	erspersion, microto	opography.
	and Vegetation Communities.	•	Community Cover Scale	- 1 3 1 1-
	present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	471 acres) contiguous area
0	Aquatic bed	1	Present and either comprises sm	all part of wetland's
	Emergent		vegetation and is of moderate of	
	Shrub		significant part but is of low qua	
	Forest Mudflats	2	Present and either comprises sig	
<u> </u>	Open water		vegetation and is of moderate of part and is of high quality	quality of comprises a small
	Other	3	Present and comprises significant	nt part, or more, of wetland's
	ontal (plan view) Interspersion.	_	vegetation and is of high quality	
Select onl	y one.			
	High (5)	Narrative D	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomi	
	Moderate (3)	mod	disturbance tolerant native spec	
	Moderately low (2) Low (1)	mod	Native spp are dominant compon although nonnative and/or distu	
	None (0)		can also be present, and specie	• • • • • • • • • • • • • • • • • • • •
	rage of invasive plants. Refer		moderately high, but generally	
to Table 1	ORAM long form for list. Add		threatened or endangered spp	•
or deduct	points for coverage	high	A predominance of native specie	
	Extensive >75% cover (-5)		and/or disturbance tolerant nati	
	Moderate 25-75% cover (-3)		absent, and high spp diversity a	
	Sparse 5-25% cover (-1)		the presence of rare, threatene	d, or endangered spp
	Nearly absent <5% cover (0) Absent (1)	Mudflat and	d Open Water Class Quality	
<u> </u>	topography.	0	Absent <0.1ha (0.247 acres)	
	present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 ac	cres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88	
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	,
	Standing dead >25cm (10in) dbh			
0	Amphibian breeding pools	Microtopog	raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
		2	of marginal quality Present in moderate amounts, but	It not of highest
		2	quality or in small amounts of h	_
		3	Present in moderate or greater a	
		Ü	and of highest quality	
37 GRAND TOT	AL (max 100 pts)		, , , ,	

Site: Wetland PM-29		Rater(s): MJA		Date: 2021-08-04	
2	2	Metric 1. Wetla	nd Area (size).		
max 6 pts.	subtotal	Select one size class and ass >50 acres (>20.2ha 25 to <50 acres (10 10 to <25 acres (4 to 3 to <10 acres (1.2) × 0.3 to <3 acres (0.1)	sign score. (a) (6 pts) (b) (1 to <20.2ha) (5 pts) (c) <10.1ha) (4 pts) (c) <4ha) (3 pts) (c) (2 to <1.2ha) (2pts) (c) (2 to <0.12ha) (1 pt)		
8	10	Metric 2. Uplan	d buffers and surroเ	unding land use.	
max 14 pts.	subtotal	WIDE. Buffers ave X MEDIUM. Buffers ave NARROW. Buffers VERY NARROW. 2b. Intensity of surrounding la VERY LOW. 2nd g X LOW. Old field (>1 X MODERATELY HIC	width. Select only one and assign so rage 50m (164ft) or more around wetle average 25m to <50m (82 to <164ft) a average 10m to <25m (32ft to <82ft) Buffers average <10m (<32ft) around and use. Select one or double check prowth or older forest, prairie, savanna 0 years), shrubland, young second great. Residential, fenced pasture, park strial, open pasture, row cropping, mire	land perimeter (7) around wetland perimeter (4)) around wetland perimeter (1) wetland perimeter (0) and average. ah, wildlife area, etc. (7) rowth forest. (5) c, conservation tillage, new fallo	ow field. (3)
24	34	Metric 3. Hydro	logy.		
max 30 pts.	subtotal	3a. Sources of Water. Score X High pH groundwate Other groundwater X Precipitation (1) Seasonal/Intermitte Perennial surface w	e all that apply. er (5) (3) ont surface water (3) vater (lake or stream) (5) Select only one and assign score.	Part of wetland/up Part of riparian or 3d. Duration inundation/sati	in (1) lake and other human use (1) lake and other human use (1) land (e.g. forest), complex (1) lupland corridor (1) luration. Score one or dbl check. lently inundated/saturated (4) led/saturated (3)
		× <0.4m (<15.7in) (1)	ydrologic regime. Score one or double rent (12) Check all disturbances obsequence ditch	le check and average.	,
14	48] Metric 4. Habita	at Alteration and Dev	velopment.	
max 20 pts.	subtotal		core one or double check and averagrent (4)	•	
		4b. Habitat development. Se Excellent (7) Very good (6) X Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	elect only one and assign score.		
	48	None or none appa X Recovered (6) Recovering (3) Recent or no recove	mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging	tic bed removal

Site: Wetland PM-29	Rater(s): MJA	Date: 2021-08-04
48		
subtotal first page		
0 48 Metric 5. Special	Wetlands.	
max 10 pts. subtotal Check all that apply and score as	indicated.	
Bog (10)		
Fen (10) Old growth forest (10)		
Mature forested wetland	(5)	
	ary wetland-unrestricted hydrology (10)	
	ry wetland-restricted hydrology (5)	
Lake Plain Sand Prairies	s (Oak Openings) (10)	
Relict Wet Prairies (10) Known occurrence state	/federal threatened or endangered species (10)	
	ngbird/water fowl habitat or usage (10)	
Category 1 Wetland. Se	ee Question 1 Qualitative Rating (-10)	
2 51		
3 51 Metric 6. Plant co	mmunities, interspersion,	microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Commun		
Score all present using 0 to 3 scal		es <0.1ha (0.2471 acres) contiguous area
0 Aquatic bed 2 Emergent		comprises small part of wetland's of moderate quality, or comprises a
0 Shrub	significant part bu	
0 Forest	2 Present and either of	comprises significant part of wetland's
0 Mudflats		of moderate quality or comprises a small
0 Open water 0 Other	part and is of high 3 Present and compri	n quality ises significant part, or more, of wetland's
6b. horizontal (plan view) Interspe		
Select only one.		
High (5)	Narrative Description of Vegetat	
Moderately high(4) Moderate (3)	low Low spp diversity an disturbance tolera	nd/or predominance of nonnative or
Moderately low (2)		inant component of the vegetation,
Low (1)	· · ·	ve and/or disturbance tolerant native spp
X None (0)	•	ent, and species diversity moderate to
6c. Coverage of invasive plants.		but generally w/o presence of rare
to Table 1 ORAM long form for list or deduct points for coverage		native species, with nonnative spp
Extensive >75% cover (• •	e tolerant native spp absent or virtually
Moderate 25-75% cover	•	spp diversity and often, but not always,
X Sparse 5-25% cover (-1		are, threatened, or endangered spp
Nearly absent <5% cover Absent (1)	er (∪) Mudflat and Open Water Class 0	Quality
6d. Microtopography.	0 Absent <0.1ha (0.2	
Score all present using 0 to 3 scal	e. 1 Low 0.1 to <1ha (0.2	247 to 2.47 acres)
0 Vegetated hummucks/tu		a (2.47 to 9.88 acres)
0 Coarse woody debris >1 0 Standing dead >25cm (` '	s) or more
0 Standing dead >25cm (·	
	0 Absent	
	-	amounts or if more common
	of marginal quality Present in moderate	
		e amounts, but not of highest amounts of highest quality
		e or greater amounts
F4	and of highest qua	
51 GRAND TOTAL (max 100 pt	s)	

er human use (1) prest), complex (1) idor (1) re one or dbl check. ed/saturated (4) d (3) r 30cm (12in) (1)
oval
i

Site: Wetland PM-30 Ra	ter(s): MJA		Date: 2021-08-04
25 subtotal first page			
0 25 Metric 5. Special Wet	lands		
max 10 pts. subtotal Check all that apply and score as indicate			
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetla Lake Plain Sand Prairies (Oak of Relict Wet Prairies (10) Known occurrence state/federa Significant migratory songbird/w Category 1 Wetland. See Ques	and-unrestricted hydro and-restricted hydro Openings) (10) Il threatened or enda water fowl habitat or	angered species (10)	
2 27 Metric 6. Plant comm	unities int	erenersion microto	nography
		Community Cover Scale	opograpny.
max 20 pts. subtotal 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.	vegetation 0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
0 Aquatic bed	1	Present and either comprises sm	all part of wetland's
1 Emergent		vegetation and is of moderate of	
0 Shrub 0 Forest	2	significant part but is of low qua Present and either comprises sig	
0 Mudflats		vegetation and is of moderate of	
Open water		part and is of high quality	
0 Other Other 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 disturbance tolerant native spec	
Moderately low (2)	mod	Native spp are dominant compon	
Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
X 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	w/o presence or rare
or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
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	
Nearly absent <5% cover (0)	-	the presence of rare, threatene	u, or endangered spp
X Absent (1)	Mudflat and	d Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale. O Vegetated hummucks/tussucks	<u>1</u>	Low 0.1 to <1ha (0.247 to 2.47 ac Moderate 1 to <4ha (2.47 to 9.88	
0 Vegetated Hummucks/tussucks 0 Coarse woody debris >15cm (6		High 4ha (9.88 acres) or more	dies)
0 Standing dead >25cm (10in) db	,		
0 Amphibian breeding pools		raphy Cover Scale	
	0	Absent Present very small amounts or if	more common
	ı	of marginal quality	more common
	2	Present in moderate amounts, bu	it not of highest
		quality or in small amounts of h	ighest quality
	3	Present in moderate or greater ar	mounts
27 GRAND TOTAL (max 100 pts)		and of highest quality	

Site: V	Vetlan	d PM-31	Rater(s): MJA		Date: 2021-07-15
1	1	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 pr 25 to <50 acres (10.1 to - 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <41 0.3 to <3 acres (0.12 to < x 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pt	core. (ss) <20.2ha) (5 pts) (.1ha) (4 pts) (na) (3 pts) (.1.2ha) (2pts) (-0.12ha) (1 pt)		
11	12	Metric 2. Upland b	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. X WIDE. Buffers average of MEDIUM. Buffers average of NARROW. Buffers average of VERY NARROW. Buffers average of Surrounding land us of VERY LOW. 2nd growth	Select only one and assign score. 50m (164ft) or more around wetland per 25m to <50m (82 to <164ft) around age 10m to <25m (32ft to <82ft) around severage <10m (<32ft) around wetlase. Select one or double check and or older forest, prairie, savannah, wirs), shrubland, young second growth	Do not double check. perimeter (7) d wetland perimeter (4) und wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7)	
			esidential, fenced pasture, park, con open pasture, row cropping, mining,		ow field. (3)
16.5	28.5	Metric 3. Hydrolog	V		
max 30 pts.	subtotal	3a. Sources of Water. Score all th X High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent sur	at apply. 3b.	Part of wetland/up	
		3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6i x <0.4m (<15.7in) (1)	lake or stream) (5) 3d. only one and assign score.	Duration inundation/satu X Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	uration. Score one or dbl checkently inundated/saturated (4) ed/saturated (3)
		None or none apparent (* X Recovered (7) Recovering (3) Recent or no recovery (1)	ditch x tile		,
14	42.5	Metric 4. Habitat A	Iteration and Develo	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score (X) X None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)	one or double check and average.		
		4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) X Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	nly one and assign score.		
	40.5	4c. Habitat alteration. Score one of None or none apparent (9 X Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observe mowing grazing clearcutting selective cutting	x shrub/sapling rem herbaceous/aquat sedimentation dredging	
SI.	42.5	l	woody debris removal toxic pollutants	farming nutrient enrichme	nt

Site: Wetland PM-31	Rater(s): MJA	D	ate: 2021-07-15
42.5 subtotal first page			
0 42.5 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 Relict Wet Prairies (10) Known occurrence state/f Significant migratory song	5) y wetland-unrestricted hydrolo y wetland-restricted hydrolog	y (5) ered species (10) age (10)	
1 43.5 Metric 6 Plant con	nmunities inter	spersion, microtop	ography
max 20 pts. subtotal 6a. Wetland Vegetation Communiti		mmunity Cover Scale	ograpity.
Score all present using 0 to 3 scale.	. O A	bsent or comprises <0.1ha (0.2471	
0 Aquatic bed	1 F	Present and either comprises small p	
1 Emergent 0 Shrub		vegetation and is of moderate quali significant part but is of low quality	ty, or comprises a
0 Forest	2 F	Present and either comprises signific	ant part of wetland's
0 Mudflats		vegetation and is of moderate quali	ty or comprises a small
Open water		part and is of high quality	
0 Other6b. horizontal (plan view) Interspers		Present and comprises significant pa vegetation and is of high quality	rt, or more, or wetland's
Select only one.		· · · · · · · · · · · · · · · · · · ·	
High (5)		ription of Vegetation Quality	
Moderately high(4) Moderate (3)	low L	ow spp diversity and/or predominandisturbance tolerant native species	ce of nonnative or
X Moderately low (2)	mod N	lative spp are dominant component	of the vegetation.
Low (1)		although nonnative and/or disturbal	•
None (0)		can also be present, and species d	•
6c. Coverage of invasive plants. R to Table 1 ORAM long form for list.		moderately high, but generally w/o threatened or endangered spp	presence of rare
or deduct points for coverage		predominance of native species, w	ith nonnative spp
Extensive >75% cover (-5	•	and/or disturbance tolerant native s	
X Moderate 25-75% cover (-3)	absent, and high spp diversity and	· ·
Sparse 5-25% cover (-1) Nearly absent <5% cover	(0)	the presence of rare, threatened, or	r endangered spp
Absent (1)		oen Water Class Quality	
6d. Microtopography.		bsent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.		ow 0.1 to <1ha (0.247 to 2.47 acres	
0 Vegetated hummucks/tus 0 Coarse woody debris >15		Moderate 1 to <4ha (2.47 to 9.88 acr High 4ha (9.88 acres) or more	es)
0 Standing dead >25cm (10	- (-)	ngr. ma (e.ee aeree) e. mere	
1 Amphibian breeding pools		hy Cover Scale	
		bsent	o common
	1 F	resent very small amounts or if mor of marginal quality	e common
	2 F	Present in moderate amounts, but no	t of highest
		quality or in small amounts of higher	est quality
		Present in moderate or greater amou	nts
43.5 GRAND TOTAL (max 100 pts)	and of highest quality	

-07-15
nan use (1) complex (1)) or dbl check urated (4) (12in) (1)
•

Site: V	Vetlan	d PM-32	Rater(s): MJA		Date: 2021-07-15
sı	29 ubtotal first p	age			
0	29	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 Relict Wet Prairies (10) Known occurrence state/f Significant migratory song Category 1 Wetland. See	5) y wetland-unrestricted hydro y wetland-restricted hydro (Oak Openings) (10) ederal threatened or enda bird/water fowl habitat or	angered species (10) usage (10)	
-4	25	Metric 6. Plant con	nmunities int	arenarsion microto	onography
max 20 pts.	subtotal	6a. Wetland Vegetation Communiti	•	Community Cover Scale	opograpny.
max 20 pto.	oubtotui	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	471 acres) contiguous area
		0 Aquatic bed	1	Present and either comprises sm	
		1 Emergent 0 Shrub		vegetation and is of moderate of significant part but is of low qua	
		0 Shrub 0 Forest	2	Present and either comprises sig	
		0 Mudflats		vegetation and is of moderate of	
		0 Open water		part and is of high quality	
		Other6b. horizontal (plan view) Interspers	3	Present and comprises significan vegetation and is of high quality	
		Select only one.		vegetation and is or night quality	/
		High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predomi disturbance tolerant native spe	
		Moderately low (2)	mod	Native spp are dominant compon	•
		Low (1)		although nonnative and/or distu	• • • • • • • • • • • • • • • • • • • •
		X None (0) 6c. Coverage of invasive plants. R	efer	can also be present, and specie 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	
		X Extensive >75% cover (-5 Moderate 25-75% cover (-5		and/or disturbance tolerant nati	
		Sparse 5-25% cover (-1)	.3)	absent, and high spp diversity a the presence of rare, threatene	
		Nearly absent <5% cover	(0)		,
		Absent (1)		Open Water Class Quality	
		6d. Microtopography.Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)	cres)
		Vegetated hummucks/tus		Moderate 1 to <4ha (2.47 to 9.88	
		0 Coarse woody debris >15		High 4ha (9.88 acres) or more	
		0 Standing dead >25cm (10			<u> </u>
		0 Amphibian breeding pools		raphy Cover Scale	
			<u> </u>	Absent Present very small amounts or if	more common
			·	of marginal quality	
			2	Present in moderate amounts, bu	_
			3	quality or in small amounts of h	
	1		3	Present in moderate or greater at and of highest quality	HIUUHIIS
25	GRAN	ND TOTAL (max 100 pts			

Site: Wetland	3 PM-33	Rater(s): MJA		Date : 2021-07-15
0 0	Metric 1. Wetland A	rea (size).		
	Select one size class and assign sco	re. 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
7 7	Metric 2. Upland bu	ffers and surround	ing land use.	
max 14 pts. subtotal	2a. Calculate average buffer width. S WIDE. Buffers average 50 X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth o X LOW. Old field (>10 years) MODERATELY HIGH. Res	Select only one and assign score. E m (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) arour average <10m (<32ft) around wetlar	Oo not double check. erimeter (7) wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) erverage. dlife area, etc. (7) ervation tillage, new fallo	w field. (3)
10 17	Metric 3. Hydrology	' .		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (lal 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1)	apply. 3b. ce water (3) ke or stream) (5) ally one and assign score. (2)	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundate Seasonally inundate X Seasonally satura	n (1) ake and other human use (1) land (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check intly inundated/saturated (4) ed/saturated (3)
	3e. Modifications to natural hydrologi None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)			·
	Metric 4. Habitat Al		pment.	
	 4a. Substrate disturbance. Score on None or none apparent (4) x 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) 	•		
	X Poor (1) 4c. Habitat alteration. Score one or (2)			
24	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed x mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aquat sedimentation dredging farming nutrient enrichmer	ic bed removal

Description Press	Site: Wetland PM-33	ater(s): MJA		Date: 2021-07-15
Check all that apply and score as indicated. Bog (10) For (10) Old growth forest (10) Mature forested wetland (5) Lake Eric coasstal/tributary wetland-unrestricted hydrology (10) Lake Eric coasstal/tributary wetland-unrestricted hydrology (10) Lake Plain Sand Prairies (Qak Openings) (10) Relict Wet Prairies (10) Relict Wet Prairies (10) Relict Wet Prairies (20k Openings) (10) Relict Wet Prairies (10) Relict Wet Prairies (10) Relict Wet Prairies (20k Openings) (10) Relict Wet Prairies (10) Relict Wet Prairies (20k Openings) (10) Relict Wet Prairies	subtotal first page			
Bog (10) Fen (10) Old growth frorest (10) Mature forested wetland (5) Lake Eric coastal/tributary wetland-unrestricted hydrology (10) Lake Pielan Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Relict Wet Prairies (10) Relict Wet Prairies (10) Significant migratory songbird/water fow habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) Significant migratory songbird/water fow habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) Acceptable of the Communities, interspersion, microtopography. Wetric 6. Plant communities, interspersion, microtopography. Wetric 6. Plant communities, interspersion, microtopography. Wegetation Community Cover Scale	motrio di opodiai tro			
### Subtotal 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale. O	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wet Lake Erie coastal/tributary wet Lake Plain Sand Prairies (Oak Relict Wet Prairies (10) Known occurrence state/feder: Significant migratory songbird/	land-unrestricted hy land-restricted hydro Openings) (10) al threatened or end water fowl habitat or	angered species (10)	
### Subtotal 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale. O	0 24 Metric 6 Plant comm	unities in	tarenarsian microta	nography
Score all present using 0 to 3 scale. O Aquatic bed 1 Emergent 1 Emergent 2 Oshrub 2 Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality 2 Present and either comprises significant part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality 2 Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a significant part but is of low quality 2 Present and comprises significant part, or more, of wetland's vegetation and is of high quality 3 Present and comprises significant part, or more, of wetland's vegetation and is of high quality 2 Present and comprises significant part, or more, of wetland's vegetation and is of high quality 2 Present and comprises significant part, or more, of wetland's vegetation and is of high quality 2 Present and comprises significant part, or more, of wetland's vegetation and is of high quality 2 Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality 2 Present and either comprises significant part of wetland's vegetation and is of high quality 2 Present and either comprises small part of wetland's vegetation and is of moderate quality or comprises a significant part but is of low quality 2 Present and either comprises significant part of wetland's vegetation and is of high quality. A present and either comprises significant part of wetland's vegetation and is of high quality or comprises a significant part but is of low quality or omprises of moderate quality or comprises a significant part but is of low quality or comprises a significant part but is of low quality or comprises and part and is of high quality or comprises and part and is of high quality. A present and either comprises vegetation and is of high quality or comprises and part and is of high quality or comprises and part and is of high qu	motilo di l'iditi donini		•	pograpity.
Day and the propriets of the present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality or comprises a significant part but is of low quality or comprises a significant part but is of low quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a significant part but is of low quality or present and is of moderate quality or comprises a significant part but is of low quality or present and is of moderate quality or comprises a significant part but is of low quality or present and is of moderate quality or comprises as significant part but is of low quality or present and is of moderate quality or comprises as significant part but is of low quality or present and is of moderate quality or comprises as significant part but is of low quality or present and is of moderate quality or comprises as significant part but is of low quality or moderate and is of moderate quality or comprises as mall part but is of low quality or moderate quality or comprises as significant part but is of low quality or present and is of high quality or present and is of moderate quality or comprises as mall part but is of low quality or present and is of high quality or present and is of high quality or present and is of high quality or present and comprises significant part by expetation and is of high quality or present and comprises as mall part but is of low quality or present and event and or disturbance tolerant native species diversity moderate and all though nonative and or disturbance tolerant native species d	•			471 acros) contiguous area
Emergent Shrub Shrub Shrub O Forest O Shrub O Forest O Mudflats O Open water O Other				, ,
Shrub Significant part but is of low quality Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of high quality			-	
Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality			=	
Vegetation and is of moderate quality or comprises a small part and is of high quality		2		
O Other	0 Mudflats			
Select only one. Vegetation and is of high quality	0 Open water			
Select only one. High (5) Moderately high(4) Moderately low (2) Low (1) X None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) X Sparse 5-257% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. O Vegetated hummucks/tussucks		3		
High (5) Moderately high(4) Moderately low (2) Low (1) X None (0) Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. O Vegetated hummucks/fussucks 0 Carse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 0 Amphibian breeding pools Moderately high(4) Low yp diversity and/or predominance of nonnative or disturbance tolerant native species also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native spp acan also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native spp acan also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance tolerant native spp and subsentity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance tolerant native spp and subsentity species with ronnative spp and/or disturbance tolerant native spp and subsentity species with ronnative spp and/or disturbance of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native			vegetation and is of high quality	1
Moderately high(4) Moderately content (3) Moderately low (2) Low (1) X None (0) Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp and/or disturbance tolerant native spp as threatened or endangered spp and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp and/or disturbance tolerant native spp and series of moderate of native species, with nonnative spp and/or disturbance tolerant native spp and series of moderate or endangered spp and/or disturbance tolerant native spp and of the native spp and of the vegetation, although nonnative and/or disturbance tolerant native spp and series by presence of rare threatened or endangered spp and/or disturbance tolerant native spp and/or disturbance tolerant native spp and of the native spp and/or disturbance tolerant native spp and/or disturbance tolerant native spp and/or disturbance tolerant native spp and/or disturbance toler				
Moderate (3) Moderately low (2) Low (1) X None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-5) Moderate 25-75% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 0 Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality 3 Present in moderate amounts and/or disturbance tolerant native spp as lathough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native spocies. Midflat and Open Water Class Quality 0 Absent <0.1ha (0.247 acres) 2 Moderate 1 to <4ha (2.47 to 2.47 acres) 3 High 4ha (9.88 acres) or more Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts or highest quality 3 Present in moderate or greater amounts and/or disturbance tolerant native spp absent or virtually although nonative spp and/or disturbance tolerant native spp and/or disturbance tolerant nati				nance of nannative or
Moderately low (2) Low (1) X None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-7) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 0 Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 1 Present very small amounts or if more common of marginal quality 2 Present in moderate or greater amounts and of highest quality 3 Present in moderate or greater amounts although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderate of endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native spp analso be present, and species diversity moderate to moderate to moderate to moderate to moderate to moderate to moderate of native species, with nonnative spp and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderate or presence of rare threatened or endangered spp and/or disturbance tolerant native spp analso be present, and species diversity moderate to moderate to moderate to moderate to moderate to moderate to moderate or presence of rare threatened or endangered spp and/or disturbance tolerant native spp analso be present, and species diversity moderate to moderate to moderate to moderate to moderate to moderate to moderate or presence of rare threatened or endangered spp and/or disturbance tolerant native spp and/or disturbance of native species, with nonnative spp and		IOW		
Low (1) X None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) X Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. O Vegetated hummucks/tussucks O Coarse woody debris >15cm (6in) O Standing dead >25cm (10in) dbh O Amphibian breeding pools Microtopography Cover Scale O Absent O Rampinian breeding pools Microtopography Cover Scale O Absent O Present very small amounts or if more common of marginal quality Present in moderate a mounts, but not of highest quality Present in moderate or greater amounts Although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance to frate threatened or endangered spp high A predominance of native species, with nonnative spp and/or disturbance tolerant native species, with nonnative spp and/or disturbance tolerant native species, with nonnative species, with nonnative species, with nonative species, with no		mod		
x None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) X Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 0 Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality 3 Present in moderate or greater amounts and of highest quality 2 Present in moderate amounts of highest quality 3 Present in moderate or greater amounts and of highest quality				•
6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) X Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 0 Amphibian breeding pools Microtopography Cover Scale Microtopography Cover Scale Microtopography Cover Scale Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality 3 Present in moderate or greater amounts and of highest quality	the control of the co		_	
or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) X Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 0 Amphibian breeding pools Microtopography Cover Scale 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality 3 Present in moderate or greater amounts and of highest quality				-
Extensive >75% cover (-5) Moderate 25-75% cover (-3) X Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.	to Table 1 ORAM long form for list. Add		threatened or endangered spp	
Moderate 25-75% cover (-3) X Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. O Vegetated hummucks/tussucks O Coarse woody debris >15cm (6in) O Standing dead >25cm (10in) dbh O Amphibian breeding pools Microtopography Cover Scale O Absent O O O Absent O O O Absent O O O Absent O	or deduct points for coverage	high	· ·	
X Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1)	` '			
Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. O Vegetated hummucks/tussucks O Coarse woody debris >15cm (6in) O Standing dead >25cm (10in) dbh O Amphibian breeding pools O Absent O Absent				
Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. O Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale O Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality or in small amounts of highest quality Present in moderate or greater amounts and of highest quality	• • • • • • • • • • • • • • • • • • • •		the presence of rare, threatene	d, or endangered spp
6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale O Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality Present in moderate or greater amounts and of highest quality Present in moderate or greater amounts and of highest quality	· · · · · · · · · · · · · · · ·	Mudflat an	d Open Water Class Quality	
Score all present using 0 to 3 scale. O Vegetated hummucks/tussucks O Coarse woody debris >15cm (6in) O Standing dead >25cm (10in) dbh O Amphibian breeding pools O Absent O A	` ` '			
Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale O Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality or in small amounts of highest quality Present in moderate or greater amounts and of highest quality			`` '	cres)
Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale O 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		s 2		
Amphibian breeding pools Microtopography Cover Scale			High 4ha (9.88 acres) or more	<u> </u>
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	0 Standing dead >25cm (10in) d	bh		
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	0 Amphibian breeding pools	Microtopog	graphy Cover Scale	
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				
Present in moderate amounts, but not of highest quality or in small amounts of highest quality Present in moderate or greater amounts and of highest quality		1		more common
quality or in small amounts of highest quality 3 Present in moderate or greater amounts and of highest quality			ŭ ,	the state of little to the
Present in moderate or greater amounts and of highest quality		2		_
and of highest quality				
		3	_	HOURIS
24 GRAND TOTAL (max 100 pts)	24 GRAND TOTAL (max 100 pts)		and or highest quality	

Site: V	Vetlan	d PM-34	Rater(s): MJA		Date: 2021-07-14
U	0	Metric 1. Wetland A	` '		
max 6 pts.	subtotal	Select one size class and assign scores (>20.2ha) (6 pts 25 to <50 acres (10.1 to <10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		
11	11	Metric 2. Upland bu	uffers and surroun	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. X WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of X LOW. Old field (>10 years X MODERATELY HIGH. Re	Select only one and assign score om (164ft) or more around wetland 25m to <50m (82 to <164ft) arouge 10m to <25m (32ft to <82ft) araverage <10m (<32ft) around we	e. Do not double check. d perimeter (7) und wetland perimeter (4) ound wetland perimeter (1) tland perimeter (0) d average. wildlife area, etc. (7) th forest. (5) onservation tillage, new fallo	
16	27	Metric 3. Hydrology	<i>I</i> .		
max 30 pts.	subtotal	3a. Sources of Water. Score all tha High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfax Perennial surface water (la 3c. Maximum water depth. Select of the select o	ace water (3) ake or stream) (5) anly one and assign score.	Part of wetland/up Part of riparian or Bd. Duration inundation/satu X Semi- to permane Regularly inundat Seasonally inundat Seasonally satura	in (1) lake and other human use (1) cland (e.g. forest), complex (1) cupland corridor (1) curation. Score one or dbl check. ently inundated/saturated (4) led/saturated (3)
9	36	None or none apparent (12 Recovered (7) X Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR track x dredging other	
max 20 pts.	subtotal	Metric 4. Habitat A 4a. Substrate disturbance. Score o		lopment.	
	Salveren	None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or	ly one and assign score.		
		None or none apparent (9) Recovered (6)	mowing	shrub/sapling rem	
	36	X Recovering (3) Recent or no recovery (1)	grazing clearcutting selective cutting woody debris removal toxic pollutants	herbaceous/aqua sedimentation × dredging farming nutrient enrichme	

Site: Wetland PM-34			Rater(s): MJA		Date: 2021-07-14
	36 ubtotal first pa	age			
0	36	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 Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	dicated. 5) wetland-unrestricted hydrologologologologologologologologologolo	angered species (10) usage (10)	
7	43	Metric 6. Plant con	nmunities, int	erspersion, microto	ppography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communitie	es. <u>Vegetation</u>	Community Cover Scale	<u> </u>
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	171 acres) contiguous area
		1 Aquatic bed	1	Present and either comprises small	all part of wetland's
		1 Emergent		vegetation and is of moderate of	uality, or comprises a
		0 Shrub		significant part but is of low qua	
		0 Forest	2	Present and either comprises sign	
		0 Mudflats		vegetation and is of moderate of	uality or comprises a small
		1 Open water		part and is of high quality	
		0 Other	_ 3	Present and comprises significant	
		6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	,
		Select only one.			
		High (5)		escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predomin	
		Moderate (3)		disturbance tolerant native spec	
		Moderately low (2)	mod	Native spp are dominant component	=
		x Low (1)		although nonnative and/or distu	
		None (0)		can also be present, and specie	•
		6c. Coverage of invasive plants. Re		moderately high, but generally was	
		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 nativ	
		Moderate 25-75% cover (-	3)	absent, and high spp diversity a	
		Sparse 5-25% cover (-1)		the presence of rare, threatened	d, or endangered spp
		Nearly absent <5% cover	` '		
		X 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	
		0 Vegetated hummucks/tus		Moderate 1 to <4ha (2.47 to 9.88	acres)
		O Coarse woody debris >150		High 4ha (9.88 acres) or more	
		0 Standing dead >25cm (10			
		2 Amphibian breeding pools		raphy Cover Scale	
			0	Absent	
			1	Present very small amounts or if	more common
				of marginal quality	t and of high and
			2	Present in moderate amounts, bu	_
				quality or in small amounts of h	
-			3	Present in moderate or greater ar	nounts
1/2		ID TOTAL (* 400 1)		and of highest quality	
43	GKAN	ND TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-35	Rater(s): MJA		Date: 2021-07-14
1	1	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign scores (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 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	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
8	9	Metric 2. Upland bu	uffers and surround	ling land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5. X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth VERY LOW. 2nd growth VERY LOW. Old field (>10 years MODERATELY HIGH. Re	Select only one and assign score. Om (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) arous average <10m (<32ft) around wetla	Do not double check. Doerimeter (7) d wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	
10.5	19.5	Metric 3. Hydrology	1 1 0 0	construction. (1)	
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surf.	at apply. 3b.	Part of wetland/up	
		3c. Maximum water depth. Select of 50.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in × <0.4m (<15.7in) (1)	ake or stream) (5) 3d. only one and assign score.	Duration inundation/satu Semi- to permane Regularly inundat X Seasonally inundat	uration. Score one or dbl check ently inundated/saturated (4) red/saturated (3)
		3e. Modifications to natural hydrology None or none apparent (1: Recovered (7) Recovering (3) Recent or no recovery (1)			,
7	26.5	Metric 4. Habitat A	Iteration and Develo	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score o None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)	ne or double check and average.		
		4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or			
21	26.5	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed x mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-35		Rater(s): MJA		Date: 2021-07-14	
26.5	nge				
0 26.5	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 (5 Lake Erie coastal/tributary	wetland-unrestricted hyd			
	Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10)		ogy (5)		
	Known occurrence state/fe Significant migratory song Category 1 Wetland. See	bird/water fowl habitat or	usage (10)		
-4 22.5	Metric 6. Plant con	nmunities, int	erspersion, microto	pography.	
max 20 pts. subtotal	6a. Wetland Vegetation Communitie		Community Cover Scale	474	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	, ,	
	O Aquatic bed 1 Emergent	1	Present and either comprises small vegetation and is of moderate of	juality, or comprises a	
	0 Shrub		significant part but is of low qua		
	0 Forest	2	Present and either comprises sign		
	0 Mudflats0 Open water		vegetation and is of moderate of part and is of high quality	uality of comprises a small	
	Open water Other	3	Present and comprises significan	t part, or more, of wetland's	
	6b. horizontal (plan view) Interspers		vegetation and is of high quality		
	Select only one.	Name the D			
	High (5)		escription of Vegetation Quality	nance of nannative or	
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or predomined disturbance tolerant native specific sp		
	Moderately low (2)	mod	Native spp are dominant component		
	Low (1)		although nonnative and/or distu	<u> </u>	
	X None (0)		can also be present, and specie	es diversity moderate to	
	6c. Coverage of invasive plants. Re	efer	moderately high, but generally v	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		
	X 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) Nearly absent <5% cover	(0)	the presence of rare, threatened	a, or endangered spp	
	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		
	0 Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	acres)	
	O Coarse woody debris >150		High 4ha (9.88 acres) or more		
	0 Standing dead >25cm (10	•			
	0 Amphibian breeding pools		raphy Cover Scale		
		0	Absent	more common	
		1	Present very small amounts or if a	nore common	
		2	of marginal quality Present in moderate amounts, bu	t not of highest	
		۷	quality or in small amounts of h	_	
		3	Present in moderate or greater ar		
			and of highest quality		
22.5 GRAN	ID TOTAL (max 100 pts)		, and a grant quanty		

Site: Wetland PM-36			M-36	Rater(s): MJA	Date: 2021-07-14
0	0	Me	etric 1. Wetland	Area (size).	
max 6 pts.	subtotal		>50 acres (>20.2ha) (6 p >50 acres (>20.2ha) (6 p 25 to <50 acres (10.1 to 10 to <25 acres (4 to <1 3 to <10 acres (1.2 to <4 0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.04 t × <0.1 acres (0.04ha) (0 p	score. pts) > <20.2ha) (5 pts) 0.1ha) (4 pts) 4ha) (3 pts) <1.2ha) (2pts) to <0.12ha) (1 pt)	
5	5	lΜe	etric 2. Upland k	ouffers and surrounding	ı land use.
max 14 pts.	subtotal	2a.	Calculate average buffer width WIDE. Buffers average MEDIUM. Buffers avera X NARROW. Buffers avera VERY NARROW. Buffers avera Intensity of surrounding land u VERY LOW. 2nd growt X LOW. Old field (>10 year	h. Select only one and assign score. Do no 50m (164ft) or more around wetland perime age 25m to <50m (82 to <164ft) around wetlange 10m to <25m (32ft to <82ft) around wetlers average <10m (<32ft) around wetland peuse. Select one or double check and averath or older forest, prairie, savannah, wildlife aars), shrubland, young second growth forest	of double check. Seter (7) and perimeter (4) Setland perimeter (1) Serimeter (0) ge. area, etc. (7) 5. (5)
				Residential, fenced pasture, park, conservat I, open pasture, row cropping, mining, consti	
10.5	15.5	$]_{M_{\epsilon}}$	etric 3. Hydrolog	MV/	
max 30 pts.	subtotal	3a.	Sources of Water. Score all t High pH groundwater (5 Other groundwater (3) X Precipitation (1)	that apply. 3b. Coni	nectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1)
		3c.	Seasonal/Intermittent su Perennial surface water Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6to) x <0.4m (<15.7in) (1)	(lake or stream) (5) 3d. Dura	Part of riparian or upland corridor (1) ation inundation/saturation. Score one or dbl check Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
		3e.		ditch tile	
10	25.5] _M ,	etric / Habitat	Alteration and Developn	nent
max 20 pts.	subtotal	4a.	Substrate disturbance. Score None or none apparent Recovered (3) Recovering (2)	e one or double check and average.	
		4b.	Recent or no recovery (** Habitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)	1) only one and assign score.	
		4c.	Poor (1) Habitat alteration. Score one	or double check and average.	
	25.5]	None or none apparent X Recovered (6) Recovering (3) Recent or no recovery (1)	(9) Check all disturbances observed mowing x grazing	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

Site: Wetland PM-36		Rater(s): MJA		Date: 2021-07-14
25.5	_			
0 25.5	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 Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	dicated. 5) wetland-unrestricted hydro wetland-restricted hydro Oak Openings) (10) ederal threatened or enda bird/water fowl habitat or	angered species (10) usage (10)	
-1 24.5	Metric 6. Plant con	nmunities, int	erspersion, microto	opography.
max 20 pts. subtotal	6a. Wetland Vegetation Communitie	<u>-</u>	Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	171 acres) contiguous area
	0 Aquatic bed	1	Present and either comprises small	, <u> </u>
	1 Emergent		vegetation and is of moderate of	
	0 Shrub		significant part but is of low qua	lity
	0 Forest	2	Present and either comprises sign	nificant part of wetland's
	0 Mudflats		vegetation and is of moderate of	uality or comprises a small
	Open water		part and is of high quality	
	0 Other	_ 3	Present and comprises significan	
	6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	
	Select only one.			
	High (5)		escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomin	
	Moderate (3)		disturbance tolerant native spec	
	Moderately low (2)	mod	Native spp are dominant compon- although nonnative and/or distu	=
	X Low (1) None (0)		J J	
	6c. Coverage of invasive plants. Re	afor	can also be present, and species moderately high, but generally was	•
	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 nativ	
	X Moderate 25-75% cover (-		absent, and high spp diversity a	
	Sparse 5-25% cover (-1)	,	the presence of rare, threatened	
	Nearly absent <5% cover	(0)		
	Absent (1)	Mudflat and	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	res)
	0 Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	acres)
	O Coarse woody debris >150		High 4ha (9.88 acres) or more	
	0 Standing dead >25cm (10	,		
	0 Amphibian breeding pools		raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	nore common
			of marginal quality	t not of high sot
		2	Present in moderate amounts, bu	_
			quality or in small amounts of h	
		3	Present in moderate or greater ar	nounts
1245 004	ND TOTAL (max 100 pts)		and of highest quality	
Z 4 . J GKAI	וטו טו (max 100 pts)			

Site: V	/vetlan	d F	'M-3 <i>1</i>	Rater(s): MJA		Date: 2021-07-14
0	0	l _M	etric 1. Wetland A	rea (size).		
max 6 pts.	subtotal	4	ect one size class and assign scol >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 < x <0.1 acres (0.04ha) (0 pts)	re. 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
4	4	lм	etric 2. Upland bu	ffers and surround	ing land use.	
max 14 pts.	subtotal	2a.	Calculate average buffer width. S WIDE. Buffers average 50 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers s Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years) X MODERATELY HIGH. Res	Select only one and assign score. If m (164ft) or more around wetland por 25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) arourd average <10m (<32ft) around wetlar select one or double check and a rolder forest, prairie, savannah, wild share should be should b	Do not double check. erimeter (7) I wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	ow field. (3)
15	19] M	etric 3. Hydrology	'.		
max 30 pts.	subtotal	3a. 3c.	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (lal Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) Modifications to natural hydrologic	apply. 3b. ce water (3) ke or stream) (5) 3d. nly one and assign score. (2) c regime. Score one or double che	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inund: X Seasonally satura ck and average.	in (1) lake and other human use (1) cland (e.g. forest), complex (1) cupland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) red/saturated (3)
7	26	1	X None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR track dredging other	,
max 20 pts.	subtotal		etric 4. Habitat Al Substrate disturbance. Score on	teration and Develor e or double check and average.	opment.	
			None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3)	•		
		4c.	Poor to fair (2) X Poor (1) Habitat alteration. Score one or (2)	double check and average		
	26	10.	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed x mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal
61	ubtotal this n	900		LONG Polidianio	natherit chilofille	

Site: V	Vetlan	d PM-37	Rater(s): MJA		Date: 2021-07-14
	26	age			
0	26	Metric 5. Special V	letlands.		
max 10 pts.	subtotal	Check all that apply and score as in Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (in Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (in Relict Wet Prairies (in 10) Known occurrence state/fit Significant migratory song Category 1 Wetland. See	dicated. wetland-unrestricted hydrologologologologologologologologologolo	angered species (10) usage (10)	
2	28	Metric 6. Plant con	nmunities, int	erspersion, microto	opography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communiti	•	Community Cover Scale	- p - g. s.py.
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	471 acres) contiguous area
		O Aquatic bed 1 Emergent O Shrub	1	Present and either comprises sm vegetation and is of moderate of significant part but is of low qua	quality, or comprises a
		0 Forest 0 Mudflats	2	Present and either comprises sig vegetation and is of moderate of	nificant part of wetland's
		Open water Other 6b. horizontal (plan view) Interspers	3 ion.	part and is of high quality Present and comprises significar vegetation and is of high quality	
		Select only one.			
		High (5) Moderately high(4) Moderate (3)	Narrative De low	Low spp diversity and/or predominative spe	
		Moderately low (2) Low (1) X None (0) 6c. Coverage of invasive plants. Roto Table 1 ORAM long form for list.		Native spp are dominant compor although nonnative and/or distu can also be present, and speci- moderately high, but generally	ent of the vegetation, urbance tolerant native spp es diversity moderate to w/o presence of rare
		or deduct points for coverage Extensive >75% cover (-5 Moderate 25-75% cover (-	high)	threatened or endangered spp A predominance of native specie and/or disturbance tolerant nati absent, and high spp diversity a	s, with nonnative spp ve spp absent or virtually and often, but not always,
		Sparse 5-25% cover (-1) Nearly absent <5% cover	(0)	the presence of rare, threatene	a, or endangered spp
		X Absent (1)		Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	0.00
		Score all present using 0 to 3 scale. Vegetated hummucks/tus	sucks 2	Low 0.1 to <1ha (0.247 to 2.47 a) Moderate 1 to <4ha (2.47 to 9.88	
		O Coarse woody debris >15		High 4ha (9.88 acres) or more	, (0.100)
		0 Standing dead >25cm (10			
		0 Amphibian breeding pools		raphy Cover Scale	
			<u>0</u>	Absent Present very small amounts or if	more common
				of marginal quality	
			2	Present in moderate amounts, but quality or in small amounts of h	ighest quality
			3	Present in moderate or greater a and of highest quality	mounts
28	GRAN	ID TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-38	Rater(s): MJA		Date: 2021-07-13
1	1	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign scores (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to <1 x 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts 0.04ha)	ore. (5) (20.2ha) (5 pts) (1ha) (4 pts) (a) (3 pts) (.2ha) (2pts) (-0.12ha) (1 pt)		
5	6	Metric 2. Upland bu	uffers and surround	ling land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of X LOW. Old field (>10 years X MODERATELY HIGH. Re	Select only one and assign score. If Dm (164ft) or more around wetland p to 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetland	Do not double check. berimeter (7) d wetland perimeter (4) ind wetland perimeter (1) ind perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	
15	21	Metric 3. Hydrology	/ .		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) X Seasonal/Intermittent surfice Perennial surface water (18 3c. Maximum water depth. Select of 50.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrology	ace water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane X Regularly inundat Seasonally inundat Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
12	33	None or none apparent (1: X Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non filling/grading x road bed/RR track dredging other	, and the second second
max 20 pts.	subtotal	Metric 4. Habitat A 4a. Substrate disturbance. Score o	ne or double check and average.	opment.	
		None or none apparent (4) X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2)			
		Poor (1) 4c. Habitat alteration. Score one or	double check and average.		
SI	33	None or none apparent (9) X Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: V	Vetlan	d PM-38	Rater(s): MJA		Date: 2021-07-13
sul	33 btotal first pa	age			
0	33	Metric 5. Special W	letlands.		
max 10 pts.	subtotal	Check all that apply and score as inc			
indx to pic.	Substituti	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (9) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	5) wetland-unrestricted hyd wetland-restricted hydrol Oak Openings) (10) ederal threatened or enda bird/water fowl habitat or	ogy (5) ingered species (10) usage (10)	
l 1	34	Metric 6. Plant con	amunities inte	arenareian microto	nography
		6a. Wetland Vegetation Communitie	-	Community Cover Scale	opograpity.
max 20 pts.	subtotal	Score all present using 0 to 3 scale.	vegetation o	Absent or comprises <0.1ha (0.2	471 acres) contiguous area
		0 Aquatic bed	1	Present and either comprises sm	
		1 Emergent		vegetation and is of moderate of	
		0 Shrub 0 Forest	2	significant part but is of low qua Present and either comprises sig	
		0 Forest 0 Mudflats	2	vegetation and is of moderate of	
		0 Open water		part and is of high quality	, , ,
		O Other	3	Present and comprises significan	
		6b. horizontal (plan view) Interspers Select only one.	ion.	vegetation and is of high quality	/
		High (5)	Narrative De	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) Low (1)	mod	Native spp are dominant compon although nonnative and/or distu	•
		X None (0)		can also be present, and specie	• • • • • • • • • • • • • • • • • • • •
		6c. Coverage of invasive plants. Re		moderately high, but generally	
		to Table 1 ORAM long form for list.		threatened or endangered spp	
		or deduct points for coverage Extensive >75% cover (-5)	high	A predominance of native specie and/or disturbance tolerant nati	
		Moderate 25-75% cover (-		absent, and high spp diversity a	
		X Sparse 5-25% cover (-1)		the presence of rare, threatene	
		Nearly absent <5% cover Absent (1)	• •	Open Water Class Quality	
		6d. Microtopography.	<u>widdilat and</u> 0	Open Water Class Quality 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)
		0 Vegetated hummucks/tus		Moderate 1 to <4ha (2.47 to 9.88	3 acres)
		O Coarse woody debris >150 O Standing dead >25cm (10		High 4ha (9.88 acres) or more	
		o Standing dead >25cm (10 1 Amphibian breeding pools		raphy Cover Scale	
			0	Absent	
			1	Present very small amounts or if	more common
			2	of marginal quality Present in moderate amounts, but	It not of highest
			2	quality or in small amounts of h	_
			3	Present in moderate or greater a	
24				and of highest quality	
34	GRAN	ND TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-39	Rater(s): MJA		Date: 2021-07-13
0	0	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign sc >50 acres (>20.2ha) (6 pt 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to x <0.1 acres (0.04ha) (0 pts	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
11	11	Metric 2. Upland bu	uffers and surround	ling land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. X WIDE. Buffers average 5 MEDIUM. Buffers averag NARROW. Buffers averag VERY NARROW. Buffers 2b. Intensity of surrounding land us VERY LOW. 2nd growth X LOW. Old field (>10 year X MODERATELY HIGH. Re	Select only one and assign score. Om (164ft) or more around wetland pee 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) arous average <10m (<32ft) around wetla	Do not double check. Doerimeter (7) d wetland perimeter (4) und wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	
15	26	Metric 3. Hydrolog	v.		
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surf Perennial surface water (I) 3c. Maximum water depth. Select (2) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1)	ace water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
7	22	3e. Modifications to natural hydrology X None or none apparent (1 Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	d point source (non filling/grading road bed/RR track dredging other_	, and the second second
max 20 pts.	33	Metric 4. Habitat A 4a. Substrate disturbance. Score of	Iteration and Develo	opment.	
		None or none apparent (4 X Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1))		
		4c. Habitat alteration. Score one of None or none apparent (9		d	
q	33	Recovered (6) X Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-39	Rater(s): MJA	Date: 2021-07-13
33 subtotal first page		
0 33 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 Relict Wet Prairies (10) Known occurrence state/ff Significant migratory song	dicated. 5) y wetland-unrestricted hydrology (10) y wetland-restricted hydrology (5)	
-4 29 Metric 6. Plant cor	nmunities, interspersion, m	nicrotopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communiti	•	
Score all present using 0 to 3 scale.		0.1ha (0.2471 acres) contiguous area
1 Aquatic bed		nprises small part of wetland's
0 Emergent	vegetation and is of r	moderate quality, or comprises a
0 Shrub	significant part but is	of low quality
0 Forest	2 Present and either com	nprises significant part of wetland's
0 Mudflats	vegetation and is of r	moderate quality or comprises a small
0 Open water	part and is of high qu	· · ·
O Other		s significant part, or more, of wetland's
6b. horizontal (plan view) Interspers	sion. vegetation and is of h	nigh quality
Select only one.		
High (5)	Narrative Description of Vegetation	
Moderately high(4)		or predominance of nonnative or
Moderate (3)	disturbance tolerant i	•
Moderately low (2) Low (1)	· ·	nt component of the vegetation, and/or disturbance tolerant native spp
X None (0)		and species diversity moderate to
6c. Coverage of invasive plants. R	•	generally w/o presence of rare
to Table 1 ORAM long form for list.		
or deduct points for coverage		ive species, with nonnative spp
X Extensive >75% cover (-5	= I · · · · · · · · · · · · · · · · · ·	plerant native spp absent or virtually
Moderate 25-75% cover (diversity and often, but not always,
Sparse 5-25% cover (-1)		threatened, or endangered spp
Nearly absent <5% cover	(0)	
Absent (1)	Mudflat and Open Water Class Qua	
6d. Microtopography.	0 Absent <0.1ha (0.247	acres)
Score all present using 0 to 3 scale.		•
0 Vegetated hummucks/tus		· · · · · · · · · · · · · · · · · · ·
O Coarse woody debris >15		or more
0 Standing dead >25cm (10		
Amphibian breeding pools		
	0 Absent 1 Present very small and	ounts or if more common
	<u> </u>	ounts or if more common
	of marginal quality Present in moderate ar	mounts, but not of highest
	3 Present in moderate or	nounts of highest quality
	and of highest quality	=
29 GRAND TOTAL (max 100 pts		

Site: V	Vetlan	d PM-40	Rater(s): MJA		Date: 2021-07-14
0	0	Metric 1. Wetland A	- Area (size).		
max 6 pts.	subtotal	Select one size class and assign scores (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to x <0.1 acres (0.04ha) (0 pts	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) I.2ha) (2pts) <0.12ha) (1 pt)		
4	4	Metric 2. Upland bu	uffers and surround	ling land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years X MODERATELY HIGH. Re	Select only one and assign score. Om (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) arous average <10m (<32ft) around wetla	Do not double check. Doerimeter (7) d wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	
6	10	Metric 3. Hydrology	V.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfill Perennial surface water (18 3c. Maximum water depth. Select of 50.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1)	ace water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
4	4.4	3e. Modifications to natural hydrology None or none apparent (1: Recovered (7) X Recovering (3) Recent or no recovery (1)			, and the second
4	14	Metric 4. Habitat A		opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score of None or none apparent (4). Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1)	nly one and assign score.		
		4c. Habitat alteration. Score one or None or none apparent (9	The state of the s	d	
SI	14	Recovered (6) Recovering (3) X Recent or no recovery (1)	x mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-40		Rater(s): MJA		Date: 2021-07-14
14 subtotal first	page			
0 14	Metric 5. Special W	letlands.		
max 10 pts. subtota	= _,	dicated. wetland-unrestricted hydro wetland-restricted hydro Oak Openings) (10) dederal threatened or endabird/water fowl habitat or	angered species (10) usage (10)	
-4 10	Metric 6. Plant con	nmunities, int	erspersion, microto	pography.
max 20 pts. subtota	-	•	Community Cover Scale	11 - 3 - 1- 7
·	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	171 acres) contiguous area
	O Aquatic bed	1	Present and either comprises small	
	1 Emergent		vegetation and is of moderate of	
	0 Shrub 0 Forest	2	significant part but is of low qua Present and either comprises sign	
	0 Mudflats	2	vegetation and is of moderate of	
	Open water		part and is of high quality	dailty of comprises a small
	0 Other	3	Present and comprises significan	t part, or more, of wetland's
	6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	
	Select only one.			
	High (5)	Narrative De	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomin	
	Moderately low (2)	mod	disturbance tolerant native spec	
	Moderately low (2) Low (1)	mod	Native spp are dominant compon- although nonnative and/or distu	_
	X None (0)		can also be present, and specie	• • • • • • • • • • • • • • • • • • • •
	6c. Coverage of invasive plants. Re	efer	moderately high, but generally v	•
	to Table 1 ORAM long form for list.		threatened or endangered spp	,, o p. 0001100 o. 14.0
	or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
	X Extensive >75% cover (-5)	_	and/or disturbance tolerant nativ	ve spp absent or virtually
	Moderate 25-75% cover (-	3)	absent, and high spp diversity a	ind often, but not always,
	Sparse 5-25% cover (-1)		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	
	Vegetated hummucks/tussCoarse woody debris >150		Moderate 1 to <4ha (2.47 to 9.88	acres)
	——————————————————————————————————————	, ,	High 4ha (9.88 acres) or more	
	Standing dead >25cm (10)Amphibian breeding pools	•	raphy Cover Scale	
	7 Amphibian breeding pools	0	Absent	
		1	Present very small amounts or if	more common
		·	of marginal quality	 -
		2	Present in moderate amounts, bu	t not of highest
			quality or in small amounts of h	=
		3	Present in moderate or greater ar	
40			and of highest quality	
10 GRA	ND TOTAL (max 100 pts)			

Site: Wetland PM-41			Rater(s): MJA		Date : 2021-07-14
2	2] Metric 1. W	etland Area (size).		
max 6 pts.	subtotal	Select one size class	• •		
4	6	Metric 2. U	pland buffers and surr	ounding land use.	
max 14 pts.	subtotal	2a. Calculate average WIDE. Buff MEDIUM. E X NARROW. VERY NAR 2b. Intensity of surrou VERY LOW LOW. Old f X MODERATI	be buffer width. Select only one and assigners average 50m (164ft) or more around buffers average 25m to <50m (82 to <164 Buffers average 10m to <25m (32ft to <8 ROW. Buffers average <10m (<32ft) arounding land use. Select one or double church 2. 2nd growth or older forest, prairie, savafield (>10 years), shrubland, young secondard, industrial, open pasture, row cropping, an, industrial, open pasture, row cropping,	n score. Do not double check. wetland perimeter (7) lift) around wetland perimeter (4) 82ft) around wetland perimeter (1) und wetland perimeter (0) neck and average. annah, wildlife area, etc. (7) d growth forest. (5) park, conservation tillage, new falle	
19	25	Metric 3. Hy	vdrologv.		
max 30 pts.	subtotal	3a. Sources of Water High pH gro Other groun X Precipitation X Seasonal/In Perennial si 3c. Maximum water d >0.7 (27.6in	Score all that apply. Sundwater (5) Sudwater (3) Sudwater (3) Sudwater (3) Surface water (3) Surface water (lake or stream) (5) Surface water (lake or and assign score.	Part of wetland/u Part of riparian of 3d. Duration inundation/sat	in (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)
		X <0.4m (<15 3e. Modifications to n X None or nor Recovered Recovering	.7in) (1) atural hydrologic regime. Score one or define apparent (12) Check all disturbances (7)	X Seasonally saturated by Seasonally Seasona	ated in upper 30cm (12in) (1)
8	33	Metric 4. H	abitat Alteration and D	Development.	
max 20 pts.	subtotal	4a. Substrate disturbation None or nor X Recovered Recovering	ance. Score one or double check and ave ne apparent (4) (3) (2)	•	
		4b. Habitat developm Excellent (7 Very good (Good (5) Moderately Fair (3) X Poor to fair Poor (1)	6) good (4)	e.	
	33	X Recovering		x shrub/sapling ren herbaceous/aqua sedimentation dredging	ttic bed removal

Site: V	Vetlan	d PM-41	Rater(s): MJA		Date: 2021-07-14
sı	33	age			
0	33	Metric 5. Special W	letlands.		
max 10 pts.	subtotal	Check all that apply and score as inc			
	Sastota	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory songl Category 1 Wetland. See	wetland-unrestricted hyd wetland-restricted hydrol Oak Openings) (10) deral threatened or enda bird/water fowl habitat or	angered species (10) usage (10)	
3	36	Motric 6 Plant com	munities int	archarcian microta	onography
		Metric 6. Plant com	•	•	opograpny.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities Score all present using 0 to 3 scale.	vegetation of	Community Cover Scale Absent or comprises <0.1ha (0.2)	471 acres) contiguous area
		0 Aquatic bed	1	Present and either comprises sm	
		1 Emergent		vegetation and is of moderate	•
		0 Shrub	2	significant part but is of low qua	
		0 Forest 0 Mudflats	2	Present and either comprises sig vegetation and is of moderate of	
		0 Open water		part and is of high quality	quanty or comprises a small
		0 Other	3	Present and comprises significar	
		6b. horizontal (plan view) Interspers	on.	vegetation and is of high quality	У
		Select only one. High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predom	inance of nonnative or
		Moderate (3)		disturbance tolerant native spe	
		Moderately low (2)	mod	Native spp are dominant compor	•
		Low (1) X None (0)		although nonnative and/or distuction also be present, and speci	· · ·
		6c. Coverage of invasive plants. Re	fer	moderately high, but generally	•
		to Table 1 ORAM long form for list.		threatened or endangered spp	
		or deduct points for coverage Extensive >75% cover (-5)	high	A predominance of native specie	
		Moderate 25-75% cover (-3)		and/or disturbance tolerant nat absent, and high spp diversity	
		Sparse 5-25% cover (-1)		the presence of rare, threatene	
		Nearly absent <5% cover (•		
		X Absent (1) 6d. Microtopography.	Mudflat 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 a	cres)
		0 Vegetated hummucks/tuss		Moderate 1 to <4ha (2.47 to 9.88	
		O Coarse woody debris >150		High 4ha (9.88 acres) or more	
		Standing dead >25cm (10iAmphibian breeding pools		raphy Cover Scale	
		Amphibian breeding pools	<u>Microtopog</u> 0	Absent	
			1	Present very small amounts or if	more common
				of marginal quality	
			2	Present in moderate amounts, but	=
			3	quality or in small amounts of h Present in moderate or greater a	
	Ī			and of highest quality	
36	GRAN	ND TOTAL (max 100 pts)			

Site: Wetland PM-42			1-42	Rater(s): MJA		Date: 2021-07-14
0	0	Met	ric 1. Wetland A	rea (size)		
max 6 pts.	subtotal	1	one size class and assign score >50 acres (>20.2ha) (6 pts)	` '		
			25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1h	na) (4 pts)		
			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	2ha) (2pts)		
1	1	х	<0.1 acres (0.04ha) (0 pts)		_	
4	4	4	•	ffers and surround	•	
max 14 pts.	subtotal	za. Ca	WIDE. Buffers average 50n MEDIUM. Buffers average 2 NARROW. Buffers average	elect only one and assign score. n (164ft) or more around wetland 25m to <50m (82 to <164ft) arou 10m to <25m (32ft to <82ft) arou 25m (32ft to <82ft) arou	perimeter (7) nd wetland perimeter (4) ound wetland perimeter (1)	
		2b. Inte	tensity of surrounding land use.	verage <10m (<32ft) around wet Select one or double check and older forest, prairie, savannah, w	d average.	
		Х	LOW. Old field (>10 years), MODERATELY HIGH. Resi	shrubland, young second growtl idential, fenced pasture, park, co en pasture, row cropping, mining	h forest. (5) nservation tillage, new fallo	ow field. (3)
15	19	Met	ric 3. Hydrology.			
max 30 pts.	subtotal	3a. <u>So</u>	ources of Water. Score all that a	apply. 3l	b. Connectivity. Score all 1	
		Х		. (0)	Part of wetland/up	ake and other human use (1) bland (e.g. forest), complex (1)
		3c. Ma	Seasonal/Intermittent surface Perennial surface water (lak aximum water depth. Select onle	e or stream) (5) 36	d. <u>Durati</u> on inundation/satu	upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4)
		E	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)		Regularly inundat Seasonally inundat	ed/saturated (3) ated (2)
		3e. Mo	<0.4m (<15.7in) (1) odifications to natural hydrologic	regime. Score one or double cl	neck and average.	ated in upper 30cm (12in) (1)
		X	None or none apparent (12) Recovered (7) Recovering (3)	Check all disturbances observ	point source (non	stormwater)
			Recent or no recovery (1)	tile dike weir	filling/grading road bed/RR track dredging	(
	•	1		stormwater input	other	
7	26			eration and Deve	lopment.	
max 20 pts.	subtotal	4a. Su	ubstrate disturbance. Score one None or none apparent (4) Recovered (3)	e or double check and average.		
			Recovering (2) Recent or no recovery (1)			
		4b. Ha	abitat development. Select only Excellent (7) Very good (6)	one and assign score.		
			Good (5) Moderately good (4)			
			Fair (3) Poor to fair (2)			
		4c. Ha	Poor (1) abitat alteration. Score one or d			
			None or none apparent (9) Recovered (6) Recovering (3)	Check all disturbances observ x mowing grazing	ed x shrub/sapling rem herbaceous/aqua	
		ıÊ	Recent or no recovery (1)	clearcutting selective cutting	sedimentation dredging	Sou Terrioval
_	26			woody debris removal toxic pollutants	farming nutrient enrichme	nt

Site: Wetland PM-42	Rater(s): MJA	Date : 2021-07-14
26		
subtotal first page		
0 26 Metric 5. Special	l Wetlands	
max 10 pts. subtotal Check all that apply and score a		
Bog (10)	o maiotica.	
Fen (10)		
Old growth forest (10) Mature forested wetla		
	utary wetland-unrestricted hydrology (10)	
	utary wetland-restricted hydrology (5)	
	ries (Oak Openings) (10)	
Relict Wet Prairies (10	o) ate/federal threatened or endangered species (10)	
	songbird/water fowl habitat or usage (10)	
Category 1 Wetland.	See Question 1 Qualitative Rating (-10)	
-4 22 Metric 6. Plant c		
mound of mane o	ommunities, interspersion, n	
max 20 pts. subtotal 6a. Wetland Vegetation Commu		
Score all present using 0 to 3 so		c0.1ha (0.2471 acres) contiguous area mprises small part of wetland's
1 Emergent		moderate quality, or comprises a
0 Shrub	significant part but is	
0 Forest 0 Mudflats		nprises significant part of wetland's moderate quality or comprises a small
0 Mudflats 0 Open water	part and is of high qu	
0 Other		s significant part, or more, of wetland's
6b. horizontal (plan view) Inters	persion. vegetation and is of	high quality
Select only one. High (5)	Narrative Description of Vegetation	n Quality
Moderately high(4)		or predominance of nonnative or
Moderate (3)	disturbance tolerant	•
Moderately low (2) Low (1)	· ·	ant component of the vegetation, and/or disturbance tolerant native spp
X None (0)		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 I		
or deduct points for coverage X Extensive >75% cove		tive species, with nonnative spp plerant native spp absent or virtually
Moderate 25-75% cov		o diversity and often, but not always,
Sparse 5-25% cover (-1) the presence of rare	, threatened, or endangered spp
Nearly absent <5% co	• •	-1:4.
Absent (1) 6d. Microtopography.	Mudflat and Open Water Class Quadrate 0 Absent <0.1ha (0.247	
Score all present using 0 to 3 so		, , , , , , , , , , , , , , , , , , ,
0 Vegetated hummucks		
0 Coarse woody debris 0 Standing dead >25cm	` '	or more
0 Standing dead >25cm 0 Amphibian breeding p		
	0 Absent	
	■	ounts or if more common
	of marginal quality Present in moderate a	mounts, but not of highest
		nounts of highest quality
	3 Present in moderate o	r greater amounts
22 00 410 70741 / / / / / / / / / / / / / / / / / / /	and of highest qualit	У
22 GRAND TOTAL (max 100 p	ots)	

Site: Wetland PM-43			Rater(s): MJA		Date: 2021-07-14
1	1	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign s >50 acres (>20.2ha) (6 p 25 to <50 acres (10.1 to 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4 0.3 to <3 acres (0.12 to < x 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pt)	core. ts) <20.2ha) (5 pts) 0.1ha) (4 pts) ha) (3 pts) c1.2ha) (2pts) 0 <0.12ha) (1 pt)		
4	5	Metric 2. Upland b	uffers and surround	ing land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width WIDE. Buffers average MEDIUM. Buffers avera X NARROW. Buffers avera VERY NARROW. Buffer	Select only one and assign score. I 50m (164ft) or more around wetland p ge 25m to <50m (82 to <164ft) around age 10m to <25m (32ft to <82ft) around s average <10m (<32ft) around wetla se. Select one or double check and	Do not double check. perimeter (7) d wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0)	
		VERY LOW. 2nd growth LOW. Old field (>10 yea X MODERATELY HIGH. F HIGH. Urban, industrial,	or older forest, prairie, savannah, wil rs), shrubland, young second growth Residential, fenced pasture, park, con- open pasture, row cropping, mining,	dlife area, etc. (7) forest. (5) servation tillage, new fallo	ow field. (3)
15.5	20.5	Metric 3. Hydrolog	ıy.		
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) X Seasonal/Intermittent sure Perennial surface water (3) 3c. Maximum water depth. Select	face water (3) lake or stream) (5) 3d.	Part of wetland/up Part of riparian or Duration inundation/satu	
		None or none apparent (X Recovered (7) Recovering (3)	ogic regime. Score one or double che Check all disturbances observed ditch tile	d point source (nons filling/grading	ated (2) ated in upper 30cm (12in) (1) stormwater)
11	34.5	Recent or no recovery (1	weir stormwater input	road bed/RR track dredging X other	
max 20 pts.	subtotal	Metric 4. Habitat A 4a. Substrate disturbance. Score	Alteration and Develo	opment.	
		None or none apparent (X Recovered (3) Recovering (2) Recent or no recovery (1 4b. Habitat development. Select of Excellent (7) Very good (6) X Good (5) Moderately good (4))		
		Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one of the second of		d	
Ç	34.5	X Recovered (6) Recovering (3) Recent or no recovery (1	mowing grazing	x shrub/sapling rem herbaceous/aquat sedimentation dredging farming nutrient enrichmen	tic bed removal

Site: Wetland PM-43	Rater(s): MJA	Date: 2021-07-14
34.5 subtotal first page		
0 34.5 Metric 5. Special	Wetlands.	
max 10 pts. subtotal Check all that apply and score a Bog (10) Fen (10) Old growth forest (10)	s indicated.	
Lake Erie coastal/tribu Lake Plain Sand Prairi Relict Wet Prairies (10	tary wetland-unrestricted hydrology (10) tary wetland-restricted hydrology (5) es (Oak Openings) (10)	
Significant migratory s	ongbird/water fowl habitat or usage (10) See Question 1 Qualitative Rating (-10)	
2 27.5	ommunities, interspersion, m	nicrotopography.
max 20 pts. subtotal 6a. Wetland Vegetation Commu	•	
Score all present using 0 to 3 sc		0.1ha (0.2471 acres) contiguous area
0 Aquatic bed		nprises small part of wetland's
1 Emergent	=	moderate quality, or comprises a
0 Shrub 0 Forest	significant part but is Present and either con	nprises significant part of wetland's
0 Nudflats		moderate quality or comprises a small
0 Open water	part and is of high qu	
0 Other	3 Present and comprises	s significant part, or more, of wetland's
6b. horizontal (plan view) Inters	persion. vegetation and is of l	nigh quality
Select only one.		
High (5)	Narrative Description of Vegetation	
Moderately high(4)		or predominance of nonnative or
X Moderate (3) Moderately low (2)	disturbance tolerant mod Native spp are domina	nt component of the vegetation,
Low (1)	· ·	and/or disturbance tolerant native spp
None (0)	_	and species diversity moderate to
6c. Coverage of invasive plants	•	generally w/o presence of rare
to Table 1 ORAM long form for li		
or deduct points for coverage	high A predominance of nat	tive species, with nonnative spp
Extensive >75% cover	· ,	plerant native spp absent or virtually
X Moderate 25-75% cov		diversity and often, but not always,
Sparse 5-25% cover (threatened, or endangered spp
Nearly absent <5% co Absent (1)	Mudflat and Open Water Class Qua	ality
6d. Microtopography.	0 Absent <0.1ha (0.247	
Score all present using 0 to 3 sc		•
0 Vegetated hummucks		·
O Coarse woody debris	>15cm (6in) 3 High 4ha (9.88 acres)	or more
0 Standing dead >25cm		<u> </u>
2 Amphibian breeding p	-	
	0 Absent	and and an it makes a series
		ounts or if more common
	of marginal quality Present in moderate a	mounts, but not of highest
		nounts of highest quality
	3 Present in moderate of	
	and of his object on a little	
37.5 GRAND TOTAL (max 100 p	ts)	

Site: Wetland PM-44			4	Rater(s): MJA		Date: 2021-07-14
1	1	Metric	1. Wetland A	rea (size)		
max 6 pts.	subtotal	Select one > 2 1 1 3 3 0 0 x 0	size class and assign scor 50 acres (>20.2ha) (6 pts) 5 to <50 acres (10.1 to <20 0 to <25 acres (4 to <10.11 to <10 acres (1.2 to <4ha) .3 to <3 acres (0.12 to <1 .1 to <0.3 acres (0.04 to <1 0.1 acres (0.04ha) (0 pts)	e. O.2ha) (5 pts) na) (4 pts) I (3 pts) 2ha) (2pts)		
4	5	Metric	2. Upland bu	ffers and surrou	nding land use.	
max 14 pts.	subtotal	2b. Intensit	VIDE. Buffers average 50r MEDIUM. Buffers average IARROW. Buffers average MERY NARROW. Buffers a Merican Surrounding land use. MERY LOW. 2nd growth or MOW. Old field (>10 years) MODERATELY HIGH. Res	Select only one and assign scorm (164ft) or more around wetlan 25m to <50m (82 to <164ft) around to <25m to <25m (32ft to <82ft) around werage <10m (<32ft) around we Select one or double check a tolder forest, prairie, savannah, shrubland, young second grovidential, fenced pasture, park, den pasture, row cropping, minim	nd perimeter (7) bund wetland perimeter (4) around wetland perimeter (1) vetland perimeter (0) and average. , wildlife area, etc. (7) wth forest. (5) conservation tillage, new fallo	ow field. (3)
14.5	19.5	Metric	3. Hydrology	<u>.</u>		
max 30 pts.	subtotal	3a. Source H	is of Water. Score all that ligh pH groundwater (5) other groundwater (3) precipitation (1) seasonal/Intermittent surface erannial surface water (law water depth. Select on 0.7 (27.6in) (3) .4 to 0.7m (15.7 to 27.6in) 0.4m (<15.7in) (1)	apply. ce water (3) se or stream) (5) ly one and assign score.	Part of wetland/up Part of riparian or 3d. Duration inundation/satu Semi- to permane X Regularly inundat X Seasonally inundat Seasonally satura	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)
8	27.5	X R	lone or none apparent (12) lecovered (7) lecovering (3) lecent or no recovery (1)	Check all disturbances obse X	point source (non- filling/grading road bed/RR track dredging other_	·
Max 20 pts.	subtotal	Metric 4a. Substra	: 4. Habitat Al tate disturbance. Score on	teration and Deve e or double check and average	elopment.	
		4b. Habitat	lone or none apparent (4) decovered (3) decovering (2) decent or no recovery (1) development. Select only decent (7) dery good (6) dood (5) doderately good (4) air (3) door to fair (2) door (1)	one and assign score.		
			alteration. Score one or olone or none apparent (9)	louble check and average. Check all disturbances obse		
	27.5	X R	Recovered (6) Recovering (3) Recent or no recovery (1)	x mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-44	Rater(s): MJA	Date: 2021-07-14
27.5 subtotal first page		
0 27.5 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 (5) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe	5) wetland-unrestricted hydrology (10) wetland-restricted hydrology (5)	
1 28.5 Metric 6. Plant con	nmunities, interspersion,	microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities	•	
Score all present using 0 to 3 scale.		s <0.1ha (0.2471 acres) contiguous area
1 Aquatic bed		comprises small part of wetland's
1 Emergent 0 Shrub	vegetation and is significant part bu	of moderate quality, or comprises a
0 Forest		comprises significant part of wetland's
0 Mudflats		of moderate quality or comprises a small
O Open water	part and is of high	
O Other		ses significant part, or more, of wetland's
6b. horizontal (plan view) Interspers Select only one.	ion. vegetation and is	or nigh quality
High (5)	Narrative Description of Vegetat	ion Quality
Moderately high(4)		nd/or predominance of nonnative or
Moderate (3)	disturbance tolera	·
Moderately low (2)		inant component of the vegetation,
Low (1) X None (0)	_	e and/or disturbance tolerant native spp nt, and species diversity moderate to
6c. Coverage of invasive plants. Re	• • • • • • • • • • • • • • • • • • •	out generally w/o presence of rare
to Table 1 ORAM long form for list.	·	
or deduct points for coverage		native species, with nonnative spp
Extensive >75% cover (-5) X Moderate 25-75% cover (-		e tolerant native spp absent or virtually spp diversity and often, but not always,
X Moderate 25-75% cover (- Sparse 5-25% cover (-1)	,	are, threatened, or endangered spp
Nearly absent <5% cover		, , , , , , , , , , , , , , , , , , ,
Absent (1)	Mudflat and Open Water Class C	
6d. Microtopography.	0 Absent <0.1ha (0.2 1 Low 0.1 to <1ha (0.2	-
Score all present using 0 to 3 scale. O Vegetated hummucks/tuss		a (2.47 to 9.88 acres)
0 Coarse woody debris >150		
0 Standing dead >25cm (10)		
2 Amphibian breeding pools		
	0 Absent	
	1 Present very small a of marginal quality	amounts or if more common
		/ e amounts, but not of highest
		amounts of highest quality
	3 Present in moderate	e or greater amounts
20 5 00 000 70 70 100 100 100	and of highest qua	ality
28.5 GRAND TOTAL (max 100 pts)		

Site: Wetland PM-45			45	Rater(s): MJA		Date : 2021-07-13
2	2	 Metri	ic 1. Wetland A	rea (size).		
max 6 pts.	subtotal	-1	ne size class and assign scol >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 < <0.1 acres (0.04ha) (0 pts)	re. 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
5	7	Metri	ic 2. Upland bu	ffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calc X 2b. Inter	culate average buffer width. S WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average very NARROW. Buffers and use. VERY LOW. 2nd growth of LOW. Old field (>10 years) MODERATELY HIGH. Res	Select only one and assign score. m (164ft) or more around wetland 25m to <50m (82 to <164ft) aroun e 10m to <25m (32ft to <82ft) aroun average <10m (<32ft) around wetla. Select one or double check and r older forest, prairie, savannah, wid, shrubland, young second growth sidential, fenced pasture, park, corpen pasture, row cropping, mining,	Do not double check. perimeter (7) d wetland perimeter (4) und wetland perimeter (1) and perimeter (0) average. ildlife area, etc. (7) forest. (5) aservation tillage, new fallo	
10	17] Metri	ic 3. Hydrology	1_		
max 30 pts.	subtotal		rces of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa	apply. 3b	Part of wetland/up	
		X	Perennial surface water (lal imum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	ke or stream) (5) 3d ally one and assign score.	Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat X Seasonally satura	uration. Score one or dbl checkently inundated/saturated (4) ted/saturated (3)
		3e. Modi	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	c regime. Score one or double ch Check all disturbances observe ditch tile dike weir stormwater input		·
6	23] Metr	ic 4. Habitat Al	teration and Devel	opment.	
max 20 pts.	subtotal			e or double check and average.	•	
		X	itat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) itat alteration. Score one or of			
q	23	X	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aqua sedimentation x dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-45	Rater(s): MJA	Date: 2021-07-13
23 subtotal first page		
0 23 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/tributar Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/ Significant migratory son	(5) y wetland-unrestricted hydrology (10) y wetland-restricted hydrology (5)	0)
-1 22 Metric 6. Plant cor	nmunities, interspersio	n, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communit	•	
Score all present using 0 to 3 scale	-	rises <0.1ha (0.2471 acres) contiguous area
0 Aquatic bed	1 Present and eith	ner comprises small part of wetland's
1 Emergent	vegetation and	d is of moderate quality, or comprises a
0 Shrub		t but is of low quality
0 Forest	2 Present and eith	ner comprises significant part of wetland's
0 Mudflats		d is of moderate quality or comprises a small
0 Open water	part and is of	
O Other		mprises significant part, or more, of wetland's
6b. horizontal (plan view) Intersper	sion. vegetation and	d is of high quality
Select only one.		
High (5)	Narrative Description of Veg	
Moderate (2)	T T	ty and/or predominance of nonnative or
Moderate (3)		plerant native species
Moderately low (2) X Low (1)		dominant component of the vegetation, native and/or disturbance tolerant native spp
X Low (1) None (0)		resent, and species diversity moderate to
6c. Coverage of invasive plants. F	·	gh, but generally w/o presence of rare
to Table 1 ORAM long form for list.		endangered spp
or deduct points for coverage		e of native species, with nonnative spp
Extensive >75% cover (-	=	ance tolerant native spp absent or virtually
X Moderate 25-75% cover		igh spp diversity and often, but not always,
Sparse 5-25% cover (-1)		of rare, threatened, or endangered spp
Nearly absent <5% cover	(0)	
Absent (1)	Mudflat and Open Water Cla	ss Quality
6d. Microtopography.	0 Absent <0.1ha	
Score all present using 0 to 3 scale		a (0.247 to 2.47 acres)
0 Vegetated hummucks/tus		<4ha (2.47 to 9.88 acres)
O Coarse woody debris >15		acres) or more
0 Standing dead >25cm (1)		
0 Amphibian breeding pool		i e
	0 Absent	and amounts or if more contract
		nall amounts or if more common
	of marginal qu	
		erate amounts, but not of highest
		mall amounts of highest quality
	and of highest	erate or greater amounts
22 GRAND TOTAL (max 100 pts	and or highest	, quanty

Site: Wetland PM-46		d PM-46	Rater(s): MJA		Date: 2021-07-13
1	1	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign scores (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to <1 x 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		
4	5	Metric 2. Upland bu	uffers and surround	ling land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5 MEDIUM. Buffers average X NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years X MODERATELY HIGH. Re	Select only one and assign score. If the control of	Do not double check. berimeter (7) d wetland perimeter (4) ind wetland perimeter (1) ind perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	
6	11	Metric 3. Hydrology	/.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfill Perennial surface water (la source water (la source) 3c. Maximum water depth. Select of \$0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrological periods.	ace water (3) ake or stream) (5) only one and assign score. a) (2) gic regime. Score one or double che	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat X Seasonally saturaeck and average.	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
6	17	None or none apparent (1: Recovered (7) X Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non filling/grading x road bed/RR track dredging other	, and the second second
max 20 pts.	subtotal	4a. Substrate disturbance. Score o		opment.	
		None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3)			
		Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or	double check and average		
SI	17	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)		shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-46	Rater(s): MJ	Rater(s): MJA	
17 subtotal first page			
0 17 Metric 5. Si	pecial Wetlands.		
max 10 pts. subtotal Check all that apply ar Bog (10) Fen (10) Old growth f Mature fores Lake Erie co Lake Plain S Relict Wet F Known occu	nd score as indicated. Forest (10) Sted wetland (5) Sted wetland (7) Sted	ndangered species (10) or usage (10)	
-1 16 Metric 6. PI	ant communities, i	nterspersion, microt	opography.
max 20 pts. subtotal 6a. Wetland Vegetation	on Communities. <u>Vegetation</u>	on Community Cover Scale	
Score all present using		Absent or comprises <0.1ha (0.2	471 acres) contiguous area
0 Aquatic bed		Present and either comprises sm	
1 Emergent		vegetation and is of moderate	quality, or comprises a
0 Shrub		significant part but is of low qua	ality
0 Forest	2	Present and either comprises sig	nificant part of wetland's
0 Mudflats		vegetation and is of moderate	quality or comprises a small
0 Open water		part and is of high quality	
0 Other	3	Present and comprises significar	
6b. horizontal (plan vi	ew) Interspersion.	vegetation and is of high qualit	у
Select only one.			
High (5)		Description of Vegetation Quality	
Moderately I	- · ·	Low spp diversity and/or predom	
Moderate (3	·	disturbance tolerant native spe	
Moderately I	low (2) mod		
Low (1)		although nonnative and/or dist	
X None (0)		can also be present, and speci	· ·
6c. Coverage of invas		moderately high, but generally	
to Table 1 ORAM long		threatened or endangered spp	
or deduct points for co	-	A predominance of native specie	
	75% cover (-5)	and/or disturbance tolerant nat	
	5-75% cover (-3)	absent, and high spp diversity	
	5% cover (-1)	the presence of rare, threatene	d, or endangered spp
	nt <5% cover (0)		
Absent (1)		and Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present using		Low 0.1 to <1ha (0.247 to 2.47 a	
	ummucks/tussucks 2	Moderate 1 to <4ha (2.47 to 9.8	acres)
	dy debris >15cm (6in) 3	High 4ha (9.88 acres) or more	
	ad >25cm (10in) dbh	O O	
1 Amphibian b		ography Cover Scale	
	0	Absent Procent york small amounts or if	more commen
	1	Present very small amounts or if	more common
		of marginal quality	ut not of highest
	2	Present in moderate amounts, b	_
		quality or in small amounts of h	
	3	Present in moderate or greater a	mounts
16 GRAND TOTAL (max	. 400 pto)	and of highest quality	
16 GRAND TOTAL (max	CTOO pts)		

Site: V	Vetlan	d PM-4/	Rater(s): MJA		Date : 2021-07-13
1	1	Matria 4 Matland A	(man (nima)		
_'	<u>'</u>	Metric 1. Wetland A	` '		
max 6 pts.	subtotal	Select one size class and assign scc) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		
11	12	Metric 2. Upland bเ	iffers and surround	ling 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 X LOW. Old field (>10 years X MODERATELY HIGH. Re	om (164ft) or more around wetland p 225m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) arou average <10m (<32ft) around wetla	perimeter (7) d wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	ow field. (3)
6	18	Metric 3. Hydrology	<i>/</i> .		
max 30 pts.	subtotal	3a. Sources of Water. Score all tha High pH groundwater (5) Other groundwater (3) X 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) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrology None or none apparent (12)	t apply. ace water (3) like or stream) (5) nly one and assign score. 3d. (2) Check all disturbances observe	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inund X Seasonally satura eck and average.	in (1) lake and other human use (1) lake and other human use (1) land (e.g. forest), complex (1) lupland corridor (1) luration. Score one or dbl check. lently inundated/saturated (4) led/saturated (3) lated (2) lated in upper 30cm (12in) (1)
6	24	Recovered (7) Recovering (3) Recent or no recovery (1) Metric 4. Habitat A	ditch tile dike weir stormwater input	point source (non filling/grading x road bed/RR trac dredging other	
max 20 pts.	subtotal	4a. Substrate disturbance. Score or		opinent.	
,		None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Recent or no recovery (1) Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or	ly one and assign score.		
	24	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observe X	d x shrub/sapling rem herbaceous/aqua sedimentation dredging farming	
01	ubtotal this pa		toxic pollutants	nutrient enrichme	nt

Site: Wetland	I PM-47	Rater(s): MJA		Date: 2021-07-13
24				
subtotal first page	2			
	5			
0 24	Metric 5. Special W	etlands.		
	Check all that apply and score as indi			
	Bog (10)			
	Fen (10)			
	Old growth forest (10) Mature forested wetland (5)			
	Lake Erie coastal/tributary		drology (10)	
	Lake Erie coastal/tributary v		logy (5)	
	Lake Plain Sand Prairies (C	Oak Openings) (10)		
	Relict Wet Prairies (10) Known occurrence state/fed	deral threatened or enda	angered species (10)	
	Significant migratory songb			
	Category 1 Wetland. See 0	Question 1 Qualitative R	ating (-10)	
-2 22	Matria C. Diant com			
	Metric 6. Plant com	•		opograpny.
	Sacre all present using 0 to 2 and a		Community Cover Scale	474 cores) contiguous ores
•	Score all present using 0 to 3 scale. O Aquatic bed	<u> </u>	Absent or comprises <0.1ha (0.2d) Present and either comprises sm	, ,
	1 Emergent		vegetation and is of moderate of	
	0 Shrub		significant part but is of low qua	
	0 Forest 0 Mudflats	2	Present and either comprises sig vegetation and is of moderate of	
	Open water		part and is of high quality	quality of comprises a small
	0 Other	_ 3	Present and comprises significan	
	6b. horizontal (plan view) Interspersio	on.	vegetation and is of high quality	1
	Select only one. 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) Low (1)	mod	Native spp are dominant compon although nonnative and/or distu	
	X None (0)		can also be present, and specie	
	oc. Coverage of invasive plants. Ref		moderately high, but generally	w/o presence of rare
	to Table 1 ORAM long form for list. A		threatened or endangered spp	a with nannative ann
C	or deduct points for coverage Extensive >75% cover (-5)	high	A predominance of native species and/or disturbance tolerant nati	
	X Moderate 25-75% cover (-3)	absent, and high spp diversity a	• • •
	Sparse 5-25% cover (-1)		the presence of rare, threatene	d, or endangered spp
	Nearly absent <5% cover (0 Absent (1)	•	I Open Water Class Quality	
6	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	
	Vegetated hummucks/tussu Coarse weedly debries 15 or		Moderate 1 to <4ha (2.47 to 9.88	3 acres)
	Coarse woody debris >15crStanding dead >25cm (10ir	` '	High 4ha (9.88 acres) or more	
	Amphibian breeding pools		raphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
		2	of marginal quality Present in moderate amounts, but	it not of highest
		<u>-</u>	quality or in small amounts of h	=
		3	Present in moderate or greater a	mounts
22 68 4 11	D TOTAL (may 400 mts)		and of highest quality	
LE GRANI	D TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-48	Rater(s): MJA		Date: 2021-07-13
1	1	Metric 1. Wetland A	Area (size).		
max 6 pts.	subtotal	Select one size class and assign scr >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to <1x 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
11	12	Metric 2. Upland bu	uffers and surround	ling land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. X WIDE. Buffers average 5 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of the company of the c	Select only one and assign score. In the control of	Do not double check. Doerimeter (7) d wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	
17	29	Metric 3. Hydrology	y.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) X Seasonal/Intermittent surficient Perennial surface water (late of the control of	ace water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane X Regularly inundat Seasonally inundat	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
		3e. Modifications to natural hydrolog None or none apparent (1: Recovered (7) Recovering (3) Recent or no recovery (1)		eck and average.	stormwater)
8	37	Metric 4. Habitat A	Iteration and Develo	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score o None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2))		
		Poor (1) 4c. Habitat alteration. Score one or			
q	37	None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-48		Rater(s): MJA	Date: 2021-07-13		
	37	age			
0	37	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 (! Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	dicated. wetland-unrestricted hydro wetland-restricted hydro Oak Openings) (10) ederal threatened or enda bird/water fowl habitat or	angered species (10) usage (10)	
0	37	Metric 6. Plant con	nmunities. int	erspersion, microto	opography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communitie	•	Community Cover Scale	· ! 9- »-Py ·
max 20 pto	oubtotai	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
		O Aquatic bed	1	Present and either comprises sm	all part of wetland's
		1 Emergent 0 Shrub		vegetation and is of moderate of	
		0 Shrub 0 Forest	2	significant part but is of low qua Present and either comprises sign	
		0 Mudflats	2	vegetation and is of moderate of	
		0 Open water		part and is of high quality	daily of complices a small
		0 Other	3	Present and comprises significan	t 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 predomi disturbance tolerant native spec	
		Moderate (3) Moderately low (2)	mod	Native spp are dominant compon	
		X Low (1)		although nonnative and/or distu	_
		None (0)		can also be present, and specie	• • • • • • • • • • • • • • • • • • • •
		6c. Coverage of invasive plants. Re	efer	moderately high, but generally	w/o presence of rare
		to Table 1 ORAM long form for list.	Add	threatened or endangered spp	
		or deduct points for coverage	high	A predominance of native species	
		Extensive >75% cover (-5)		and/or disturbance tolerant nation	
		X Moderate 25-75% cover (-	3)	absent, and high spp diversity a	
		Sparse 5-25% cover (-1)	(0)	the presence of rare, threatener	d, or endangered spp
		Nearly absent <5% cover 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)
		0 Vegetated hummucks/tus	sucks 2	Moderate 1 to <4ha (2.47 to 9.88	
		O Coarse woody debris >150		High 4ha (9.88 acres) or more	
		0 Standing dead >25cm (10	in) dbh		
		 Amphibian breeding pools 	Microtopog	raphy Cover Scale	
			0	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	
_	ī		3	Present in moderate or greater ar	nounts
37	CDAN	ND TOTAL (max 100 pts)		and of highest quality	
J J /	GRAI	ID IDIAL (IIIAX IUU PIS)	,		

Site: Wetland PM-49			Rater(s): MJA		Date : 2021-07-13
2 2	2	Metric 1. Wetland	Area (size).		
max 6 pts. s	subtotal	Select one size class and assign s >50 acres (>20.2ha) (6 p 25 to <50 acres (10.1 to 10 to <25 acres (4 to <1) 3 to <10 acres (1.2 to <4) × 0.3 to <3 acres (0.12 to <0.1 to <0.3 acres (0.04 to <0.1 acres (0.04 to)))))	core. tts) <20.2ha) (5 pts) 0.1ha) (4 pts) tha) (3 pts) <1.2ha) (2pts) 0 <0.12ha) (1 pt)		
11 1	13	Metric 2. Upland b	ouffers and surrou	nding land use.	
max 14 pts. s	subtotal	2a. Calculate average buffer width X WIDE. Buffers average MEDIUM. Buffers avera NARROW. Buffers avera VERY NARROW. Buffer	Select only one and assign sco 50m (164ft) or more around wetlage 25m to <50m (82 to <164ft) ar age 10m to <25m (32ft to <82ft) rs average <10m (<32ft) around v	ore. Do not double check. and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0)	
· · · · · ·		X LOW. Old field (>10 year X MODERATELY HIGH. I	se. Select one or double check in a crodder forest, prairie, savannal ars), shrubland, young second grokesidential, fenced pasture, park, open pasture, row cropping, min	h, wildlife area, etc. (7) owth forest. (5) , conservation tillage, new fallo	ow field. (3)
14 2	27	Metric 3. Hydrolog	Jy.		
max 30 pts. s	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) X Seasonal/Intermittent surface water	rface water (3)	Part of wetland/up Part of riparian or	
		3c. Maximum water depth. Select	only one and assign score.	Semi- to permane X Regularly inundat Seasonally inundat X Seasonally satura	ently inundated/saturated (4) ted/saturated (3)
		None or none apparent (X Recovered (7) Recovering (3) Recent or no recovery (1)	12) Check all disturbances obs		,
8 3	35	Metric 4. Habitat	Alteration and Dev	elopment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score None or none apparent (x Recovered (3) Recovering (2)	4)	э.	
		Recent or no recovery (1 4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)	only one and assign score.		
		4c. Habitat alteration. Score one None or none apparent (erved	
[3	35	Recovered (6) X Recovering (3) Recent or no recovery (1	x mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging	ttic bed removal

Site: W	etlan'	d PM-	49	Rater(s	s): MJA		Date: 2021-07-13
subi	35 total first pa	age					
0	35	l Metr	ic 5. Special W	Vetland	ds.		
max 10 pts.	subtotal		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 (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	dicated. wetland-un wetland-ree Oak Openir ederal threa bird/water fo	restricted hydro stricted hydro ngs) (10) tened or enda owl habitat or	angered species (10) usage (10)	
0	35	Metr	ic 6. Plant con	nmunit	ties, int	erspersion, microt	opography.
max 20 pts.	subtotal	6a. Wet	and Vegetation Communitie	es.	Vegetation	Community Cover Scale	
			present using 0 to 3 scale.		0	Absent or comprises <0.1ha (0.2	471 acres) contiguous area
		0	Aquatic bed		1	Present and either comprises sm	
		1	Emergent			vegetation and is of moderate	quality, or comprises a
		0	Shrub			significant part but is of low qua	•
		0	Forest		2	Present and either comprises sig	nificant part of wetland's
		0	Mudflats			vegetation and is of moderate	quality or comprises a small
		0	Open water			part and is of high quality	
		0	Other	.	3	Present and comprises significar	
			zontal (plan view) Interspers	sion.		vegetation and is of high quality	У
		Select or	1				
			High (5)			escription of Vegetation Quality	
			Moderately high(4)		low	Low spp diversity and/or predom	
			Moderate (3)			disturbance tolerant native spe	
		· ·	Moderately low (2) Low (1)		mod	Native spp are dominant compor although nonnative and/or distu	•
		^	None (0)			can also be present, and speci	· · ·
		6c Cove	erage of invasive plants. Re	efer		moderately high, but generally	•
			1 ORAM long form for list.			threatened or endangered spp	
			t points for coverage	7100	high	A predominance of native specie	
		J. 45445	Extensive >75% cover (-5))	9	and/or disturbance tolerant nati	
		Х	Moderate 25-75% cover (-			absent, and high spp diversity	
			Sparse 5-25% cover (-1)	,		the presence of rare, threatene	
			Nearly absent <5% cover	(0)			
			Absent (1)		Mudflat and	d Open Water Class Quality	
		6d. Micr	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/tus	sucks	2	Moderate 1 to <4ha (2.47 to 9.88	3 acres)
		0	Coarse woody debris >150	cm (6in)	3	High 4ha (9.88 acres) or more	
		0	Standing dead >25cm (10				
		1	Amphibian breeding pools	;		raphy Cover Scale	
					0	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	
					3	Present in moderate or greater a	mounts
25						and of highest quality	
35	GRAN	ID TO	TAL (max 100 pts))			

Site: V	Vetlan	d PM-50	Rater(s): MJA		Date: 2021-07-13
2	2	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 pt 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4h × 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	ore. s) :20.2ha) (5 pts) .1ha) (4 pts) aa) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
8	10	Metric 2. Upland b	uffers and surroun	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5 X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth X LOW. Old field (>10 year X MODERATELY HIGH. R	Select only one and assign score fom (164ft) or more around wetland to 25m to <50m (82 to <164ft) arouge 10m to <25m (32ft to <82ft) are saverage <10m (<32ft) around we	e. Do not double check. d perimeter (7) und wetland perimeter (4) ound wetland perimeter (1) ttland perimeter (0) ad average. wildlife area, etc. (7) th forest. (5) onservation tillage, new fallo	
14	24	Metric 3. Hydrolog	V.		
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) X Precipitation (1) X Seasonal/Intermittent sur Perennial surface water (I) 3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1)	face water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or Bd. Duration inundation/sate Semi- to permane X Regularly inundat Seasonally inundat	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl checl ently inundated/saturated (4) ted/saturated (3)
		3e. Modifications to natural hydrolo None or none apparent (1 Recovered (7) Recovering (3) Recent or no recovery (1)	2) Check all disturbances observed ditch tile	check and average.	stormwater)
7	31	Metric 4. Habitat A	Iteration and Deve	lopment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)	nly one and assign score.		
SI	31	4c. Habitat alteration. Score one o None or none apparent (9 Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

r(s): MJA		Date: 2021-07-13
nds.		
d-unrestricted hvo	drology (10)	
•	÷ , ,	
enings) (10)		
reatened or end:	engered species (10)	
		_
nities, int	erspersion, microto	opography.
	·	, ,
'		
	significant part but is of low qua	llity
2		
		quality or comprises a small
3		t part, or more, of wetland's
	vegetation and is of high quality	
	-	nance of nonnative or
1000	disturbance tolerant native spec	
mod	Native spp are dominant compon	
	although nonnative and/or distu	
	·	•
	, , ,	in procence of fare
high	A predominance of native species	· · · · · · · · · · · · · · · · · · ·
	= 11	
		, , , , , , , , , , , , , , , , , , ,
	· · · · · · · · · · · · · · · · · · ·	eroe)
2	·	
3	High 4ha (9.88 acres) or more	
		<u></u>
1		more common
	of marginal quality	
2	Present in moderate amounts, bu	=
- 2		
3	_	nounto
	nds. d-unrestricted hydrodenings) (10) reatened or endager fowl habitat or on 1 Qualitative R Nities, int Vegetation 0 1 2 3 Narrative D low mod high Mudflat and 0 1 2 3 Microtopog 0 1	Inds. Identification of the presence of native species and/or disturbance tolerant native species and/or distu

Site: V	Vetlan	d PM-51	Rater(s): MJA		Date: 2021-07-13
0	0	Metric 1. Wetland A	rea (size)		
max 6 pts.	subtotal	Select one size class and assign sco >50 acres (>20.2ha) (6 pts	re.		
		25 to <50 acres (320.2na) (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 < x <0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
8	8	Metric 2. Upland bu	ffers and surround	ling land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 50 X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth o X MODERATELY HIGH. Re	Select only one and assign score. If m (164ft) or more around wetland p 25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetland to the second wetland wetland to the second wetland	Do not double check. serimeter (7) d wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	
6	14	Metric 3. Hydrology	'.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X 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) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog	apply. 3b. ce water (3) ke or stream) (5) 3d. nly one and assign score. (2) c regime. Score one or double che	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat X Seasonally saturaeck and average.	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
6	20	None or none apparent (12 Recovered (7) X Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non filling/grading x road bed/RR track dredging other	,
max 20 pts.	subtotal	Metric 4. Habitat Al 4a. Substrate disturbance. Score or		opment.	
		None or none apparent (4) Recovered (3) X 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) X Poor (1) 4c. Habitat alteration. Score one or	· · · · · · · · · · · · · · · · · · ·		
	20	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed x mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal
0.0	ubtotal this na	•	toras ponsitarito		· · ·

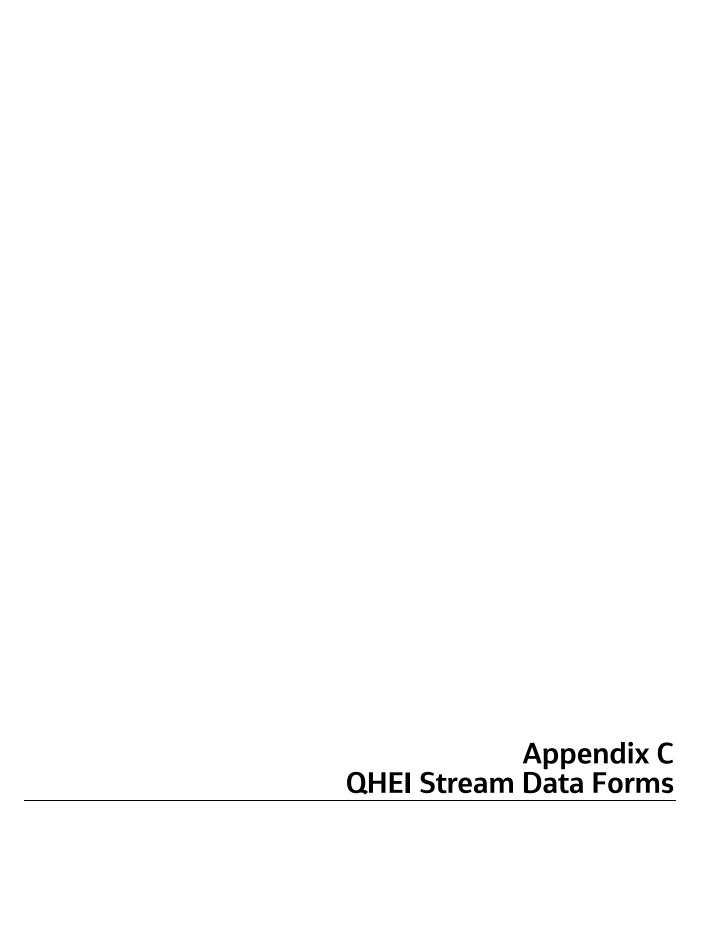
Site: Wetland PM-51		Rater(s): MJA	Rater(s): MJA		
subtota	20 al first pa	ge			
0 2	20	Metric 5. Special W	/etlands.		
	ubtotal	Check all that apply and score as inc Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (! Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	dicated. 5) wetland-unrestricted hydwetland-restricted hydrol Oak Openings) (10) ederal threatened or endabird/water fowl habitat or	ogy (5) ingered species (10) usage (10)	
-4 1	6	Metric 6. Plant con	nmunities, int	erspersion, microto	pography.
max 20 pts. si	ubtotal	6a. Wetland Vegetation Communition	•	Community Cover Scale	,
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	171 acres) contiguous area
		0 Aquatic bed	1	Present and either comprises small	
		1 Emergent		vegetation and is of moderate of	
		0 Shrub		significant part but is of low qua	lity
		0 Forest	2	Present and either comprises sign	
		0 Mudflats		vegetation and is of moderate of	uality or comprises a small
		0 Open water		part and is of high quality	
		0 Other	3	Present and comprises significant	
		6b. horizontal (plan view) Interspers	ion.	vegetation and is of high quality	r
		Select only one.	N 4 5		
		High (5)		escription of Vegetation Quality	
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predomined disturbance tolerant native specific sp	
		Moderately low (2)	mod	Native spp are dominant component	
		Low (1)	mou	although nonnative and/or distu	=
		X None (0)		can also be present, and specie	
		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 species	s, with nonnative spp
		X Extensive >75% cover (-5))	and/or disturbance tolerant nativ	ve spp absent or virtually
		Moderate 25-75% cover (-	3)	absent, and high spp diversity a	ind often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened	d, or endangered spp
		Nearly absent <5% cover	• •		
		Absent (1)	Mudflat and	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	
		0 Vegetated hummucks/tus		Moderate 1 to <4ha (2.47 to 9.88	acres)
		O Coarse woody debris >150	` '	High 4ha (9.88 acres) or more	
		O Standing dead >25cm (10		ranhy Cayar Saala	
		Amphibian breeding pools	<u>wicrotopog</u> 0	raphy Cover Scale Absent	
			1	Present very small amounts or if	more common
			1	of marginal quality	noro commun
			2	Present in moderate amounts, bu	t not of highest
			4	quality or in small amounts of h	=
			3	Present in moderate or greater ar	
			Ŭ	and of highest quality	
16 g	RAN	D TOTAL (max 100 pts)			

Site: V	Vetlan	d PM-52	Rater(s): MJA		Date: 2021-07-12
1	1	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign so	ore. s) :20.2ha) (5 pts) 1ha) (4 pts) :a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
8	9	Metric 2. Upland b	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. WIDE. Buffers average 5 X MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth X LOW. Old field (>10 year X MODERATELY HIGH. R.	Select only one and assign score. 0m (164ft) or more around wetland e 25m to <50m (82 to <164ft) arour ge 10m to <25m (32ft to <82ft) aro s average <10m (<32ft) around wetl	Do not double check. perimeter (7) nd wetland perimeter (4) hund wetland perimeter (1) land perimeter (0) d average. vildlife area, etc. (7) n forest. (5) nservation tillage, new fallo	
11.5	20.5	Metric 3. Hydrolog		Construction: (1)	
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surf	at apply. 3b	Part of wetland/up	
		Perennial surface water (I 3c. Maximum water depth. Select of solution >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (1) x <0.4m (<15.7in) (1)	ake or stream) (5) 3conly one and assign score.	d. Duration inundation/satu Semi- to permane Regularly inundat X Seasonally inundat X Seasonally satura	uration. Score one or dbl check ently inundated/saturated (4) ded/saturated (3)
		3e. Modifications to natural hydrolo None or none apparent (1 Recovered (7) Recovering (3) Recent or no recovery (1)			, and the second second
8	28.5	Metric 4. Habitat A	Iteration and Devel	opment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score of None or none apparent (4 X Recovered (3) Recovering (2) Recent or no recovery (1)	one or double check and average.	•	
		4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one o			
SI	28.5	None or none apparent (9 Recovered (6) X Recovering (3) Recent or no recovery (1)	x mowing grazing	x shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-52	Rater(s): MJA	Date: 2021-07-12
28.5		
0 28.5 Metric 5. Special V	Vetlands.	
max 10 pts. subtotal Check all that apply and score as in		
Lake Erie coastal/tributary Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/t Significant migratory song	y wetland-unrestricted hydrology (10) y wetland-restricted hydrology (5)	
-2 26.5 Metric 6. Plant cor	nmunities, interspersion, ı	microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communit	•	
Score all present using 0 to 3 scale		<0.1ha (0.2471 acres) contiguous area
0 Aquatic bed 1 Emergent		omprises small part of wetland's
0 Shrub	significant part but	f moderate quality, or comprises a is of low quality
0 Forest		omprises significant part of wetland's
0 Mudflats	vegetation and is o	f moderate quality or comprises a small
O Open water	part and is of high	
0 Other6b. horizontal (plan view) Intersper	-	es significant part, or more, of wetland's
Select only one.	vegetation and is o	Triigit quality
High (5)	Narrative Description of Vegetation	on Quality
Moderately high(4)	• · · · · · · · · · · · · · · · · · · ·	d/or predominance of nonnative or
Moderate (3)	disturbance toleran	· · · · · · · · · · · · · · · · · · ·
Moderately low (2) Low (1)		nant component of the vegetation, and/or disturbance tolerant native spp
X None (0)	_	t, and species diversity moderate to
6c. Coverage of invasive plants. R		ut generally w/o presence of rare
to Table 1 ORAM long form for list.		
or deduct points for coverage Extensive >75% cover (-5	- I	ative species, with nonnative spp tolerant native spp absent or virtually
X Moderate 25-75% cover (,	op diversity and often, but not always,
Sparse 5-25% cover (-1)	· ·	e, threatened, or endangered spp
Nearly absent <5% cover	• •	
Absent (1)	Mudflat and Open Water Class Quality Absent <0.1ha (0.24	
6d. Microtopography. Score all present using 0 to 3 scale	,	
0 Vegetated hummucks/tus		
0 Coarse woody debris >15		
0 Standing dead >25cm (10		
0 Amphibian breeding pool	Microtopography Cover Scale 0 Absent	
		mounts or if more common
	of marginal quality	
	2 Present in moderate	amounts, but not of highest
		amounts of highest quality
	3 Present in moderate and of highest qual	-
26.5 GRAND TOTAL (max 100 pts	and or nignest qual	nty

Site: V	Vetlan	d PM-53	Rater(s): MJA		Date : 2021-07-13
1	1	<u></u>			
ı	ı	Metric 1. Wetland A			
max 6 pts.	subtotal	Select one size class and assign social selections >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to <7 x 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts 0.04ha) (0 pts 0.04ha) (0 pts 0.04ha)	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		
11	12	Metric 2. Upland bu	uffers and surroun	ding land use.	
max 14 pts.	subtotal	MEDIUM. Buffers averag NARROW. Buffers averag VERY NARROW. Buffers 2b. Intensity of surrounding land us VERY LOW. 2nd growth X LOW. Old field (>10 years X MODERATELY HIGH. Re	Om (164ft) or more around wetland e 25m to <50m (82 to <164ft) arou ge 10m to <25m (32ft to <82ft) aro average <10m (<32ft) around wet	I perimeter (7) nd wetland perimeter (4) bund wetland perimeter (1) land perimeter (0) d average. vildlife area, etc. (7) h forest. (5) enservation tillage, new fallo	
15	27	Metric 3. Hydrolog	v.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surfice water (is perennial surface water (is so. Maximum water depth. Select (is perennial) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1)	ace water (3) ake or stream) (5) only one and assign score.	Part of wetland/up Part of riparian or d. Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
		3e. Modifications to natural hydrolog X None or none apparent (1 Recovered (7) Recovering (3) Recent or no recovery (1)		heck and average.	stormwater)
7	34	Metric 4. Habitat A		lopment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score of None or none apparent (4 × Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) × Poor (1) 4c. Habitat alteration. Score one or	lly one and assign score.		
	34	None or none apparent (9 Recovered (6) X Recovering (3) Recent or no recovery (1)	Check all disturbances observ x mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	sed X shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

Site: Wetland PM-53	Rater(s): MJA	Date: 2021-07-13
34 subtotal first page		
0 34 Metric 5. Special V	Wetlands.	
max 10 pts. subtotal Check all that apply and score as i Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributa Lake Erie coastal/tributa Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state, Significant migratory son	ndicated. (5) ry wetland-unrestricted hydrology (10) ry wetland-restricted hydrology (5)	
-4 30 Metric 6. Plant co	mmunities, interspersion, m	icrotopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communi	•	. • • •
Score all present using 0 to 3 scale		0.1ha (0.2471 acres) contiguous area
0 Aquatic bed		prises small part of wetland's
1 Emergent	vegetation and is of m	noderate quality, or comprises a
0 Shrub	significant part but is	of low quality
0 Forest	2 Present and either com	prises significant part of wetland's
0 Mudflats	vegetation and is of m	noderate quality or comprises a small
0 Open water	part and is of high qua	•
0 Other		significant part, or more, of wetland's
6b. horizontal (plan view) Interspe	rsion. vegetation and is of h	igh quality
Select only one.		-
High (5)	Narrative Description of Vegetation	
Moderately high(4) Moderate (3)	■ ************************************	r predominance of nonnative or
Moderately low (2)	disturbance tolerant n mod Native spp are dominar	nt component of the vegetation,
Low (1)		nd/or disturbance tolerant native spp
X None (0)	_	and species diversity moderate to
6c. Coverage of invasive plants. F	•	generally w/o presence of rare
to Table 1 ORAM long form for list.		
or deduct points for coverage		ve species, with nonnative spp
X Extensive >75% cover (-	- · · · · · · · · · · · · · · · · · · ·	lerant native spp absent or virtually
Moderate 25-75% cover		diversity and often, but not always,
Sparse 5-25% cover (-1)		threatened, or endangered spp
Nearly absent <5% cove	r (0)	
Absent (1)	Mudflat and Open Water Class Qual	
6d. Microtopography.	0 Absent <0.1ha (0.247 a	acres)
Score all present using 0 to 3 scale		·
0 Vegetated hummucks/tu	,	· · · · · · · · · · · · · · · · · · ·
O Coarse woody debris >1		or more
0 Standing dead >25cm (1		
0 Amphibian breeding poo		_
	0 Absent 1 Present very small amo	nunts or if more common
	■ · · · · · · · · · · · · · · · · · · ·	ounts or if more common
	of marginal quality 2 Present in moderate am	nounts, but not of highest
		=
	3 Present in moderate or	ounts of highest quality
	and of highest quality	=
30 GRAND TOTAL (max 100 pts		





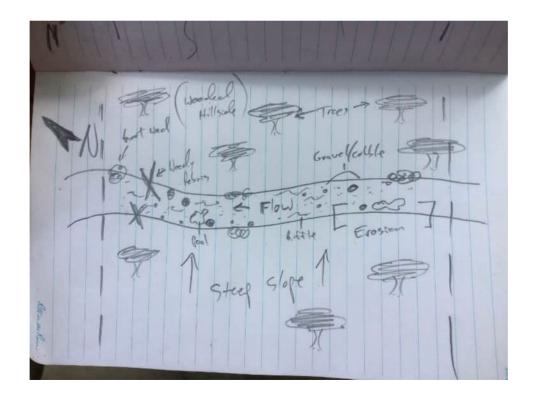
Qualitative Habitat Evaluation Index and Use Assessment Field Sheet



Stream & Location: Stream PM-01	Leroy Center-Mayfield 138 kV Transmission Line Project RM: 18.3	<i>Date:</i> 8/3/21
S-MJA-080321-01	Scorers Full Name & Affiliation: MJA	Jacobs
	STORET #: Lat./ Long.: 41.55874	Office verified Nocation
1] SUBSTRATE Check ONLY Two subsectimate % or note ever	strate TYPE BOXES; ery type present Check ONE (Or 2 & average)
BEST TYPES POOL RIFFLE	OTHER TYPES POOL RIFFLE ORIGIN	UALITY
==		AVY [-2] DERATE [-1] Substrate
X ☐ COBBLE [8] 10 45 [8]	□ MUCK [2] □ WETLANDS [0] SILI ☑ NO	RMAL [0]
□ □ SAND [6] 40 10	☐ ARTIFICIAL [0] ☐ SANDSTONE [0] CODEA ☐ EX	EE [1] 17.5 TENSIVE [-2]
BEDROCK [5] 0 5		PRMAL [0] Maximum 20
NUMBER OF BEST TYPES: 4 on Comments	less [0] SHALE [-1] NO	NE [1] 20
Comments	☐ COAL FINES [-2]	
2] ///STREAM COVER Indicate prese	nce 0 to 3: 0 -Absent; 1 -Very small amounts or if more common of marginal	AMOUNT
quality: 3-Highest quality in moderate or gre	erate amounts, but not of highest quality or in small amounts of highest eater amounts (e.g., very large boulders in deep or fast water, large Check C	NE (Or 2 & average)
diameter log that is stable, well developed 1 UNDERCUT BANKS [1]		NSIVE >75% [11] ERATE 25-75% [7]
1 OVERHANGING VEGETATION [1]	1 ROOTWADS [1] 0 AQUATIC MACROPHYTES [1] SPAR	SE 5-<25% [3]
1 SHALLOWS (IN SLOW WATER) [1] 1 ROOTMATS [1]	1 BOULDERS [1] 1 LOGS OR WOODY DEBRIS [1] □ NEAR	LY ABSENT <5% [1] Cover
Comments		Maximum 14
	1017	20
3] CHANNEL MORPHOLOGY Chec SINUOSITY DEVELOPMENT	k ONE in each category (0r2 & average) CHANNELIZATION STABILITY	
☐ HIGH [4] ☐ EXCELLENT [7]		
 ✓ MODERATE [3] ✓ GOOD [5] ✓ LOW [2] ✓ FAIR [3] 	☐ RECOVERED [4] ☐ MODERATE [2] ☐ LOW [1]	
☐ NONE [1] ☐ POOR [1]	RECENT OR NO RECOVERY [1]	Channel 15 5
Comments		Maximum 15.5
4] BANK EROSION AND RIPARIA	AN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average	
EDOCION L K	RIAN WIDTH LR FLOOD PLAIN QUALITY R	
L K M MIDE >		VATION TILLAGE [1] OR INDUSTRIAL [0]
□ ☑ MODERATE [2] □ □ NARRO	W 5-10m [2]	CONSTRUCTION [0]
	indicate prodein	
Comments		Maximum 9
5] POOL / GLIDE AND RIFFLE / R	DUN OUALITY	10
-	NNEL WIDTH CURRENT VELOCITY Recre	eation Potential
		mary Contact
☐ 0.7-<1m [4] ☐ POOL WIDTI	H = RIFFLE WIDTH [1] VERY FAST [1] INTERSTITIAL [-1] (circle or	ondary Contact × ue and comment on back)
	H < RIFFLE WIDTH [0] ☐ FAST [1] ☐ INTERMITTENT [-2] ☐ MODERATE [1] ☐ EDDIES [1]	Pool/
☐ < 0.2m [0]	Indicate for reach - pools and riffles.	Current 4
Comments		Maximum 12
	Best areas must be large enough to support a population Check ONE (Or 2 & average).	□NO RIFFLE [metric=0]
of riffle-obligate species: RIFFLE DEPTH RUN D	Shock One (of 2 d avorago).	
	> 50cm [2]	
I BEST AREAS < 5cm ■ The state of the st	I < 50cm [1] MOD. STABLE (e.g., Large Gravel) [1] UNSTABLE (e.g., Fine Gravel, Sand) [0] MODERAT	TE [0] Riffle
[metric=0] Comments	□ EXTENSIV	TE [-1] Run 2
6] GRADIENT (56.3 ft/mi) TVEF	RY LOW - LOW [2-4] %POOL · 15 %GLIDE · 40	8
DRAINAGE AREA D MO	DERATE [6-10]	
(4 2 m;2) X HIG	H - VERY HIGH [10-6]	

,	ED REACH ALL that apply	Comment RE: Reach consistency/I	s reach typical of steam?, Recreation	on/ Observed - Inferred, Other/	Sampling observations, Concerns, Ac	cess directions, etc.
METHOD BOAT WADE L. LINE OTHER DISTANCE	STAGE 1st-sample pass- 2nd HIGH UP NORMAL LOW DRY					
	CLARITY 1stsample pass 2nd < 20 cm □ 20-<40 cm □ 40-70 cm □ > 70 cm/ CTB □ SECCHI DEPTH	☐ INVASIVE MACROPHYTES ☐ EXCESS TURBIDITY ☐ DISCOLORATION ☐ FOAM / SCUM	DJ MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG - SUCCESSION - OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS	Circle some & COMMENT	EJISSUES WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs - CONSTRUCTION - SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON	F] MEASUREMENT. x width 35 x depth max. depth 18 x bankfull width 45 bankfull x depth
CANOP	EN $\frac{\%}{2}$ cm $\frac{CJ}{RECRL}$	☐ NUISANCE ODOR ☐ SLUDGE DEPOSITS ☐ CSOs/SSOs/OUTFALLS	MOVING - BEDLOAD - STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE		WASH H20 / TILE / H20 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	W/D ratio bankfull max. depth floodprone x ² width entrench. ratio Legacy Tree:

Stream Drawing: Stream PM-01







Upstream Downstream



Substrate



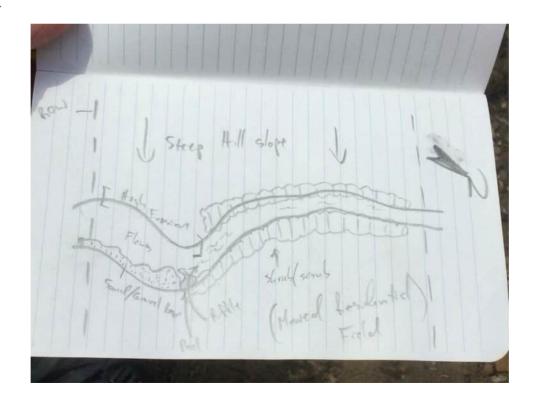
Qualitative Habitat Evaluation Index and Use Assessment Field Sheet



Stream & Location: Stream PM-07	Leroy Center-Mayfield 138 kV Transmission Line Project	<i>RM:</i> 0.5 <i>Date:</i> 7/14/21
S-MJA-071421-01	Scorers Full Name & Affiliation:	MJA Jacobs
	TORET #: Lat./ Long.: 41.54213	1 -81.29743 Office verified location ×
1] SUBSTRATE Check ONLY Two subst estimate % or note ever	rate TYPE BOXES; v type present Check C	ONE (Or 2 & average)
BEST TYPES □ BLDR /SLABS [10] □ □ □ BOULDER [9] □ □ □ □ □ COBBLE [8] 5 40 □ □ GRAVEL [7] 5 50 □	OTHER TYPES POOL RIFFLE CRIGIN HARDPAN [4] LIMESTONE [1] DETRITUS [3] TILLS [1] MUCK [2] WETLANDS [0] SILT [2] 20 HARDPAN [0] ARTIFICIAL [0] SANDSTONE [0] (Score natural substrates; ignore RIP/RAP [0] more [2] sludge from point-sources) LACUSTURINE [0]	SILT HEAVY [-2] SILT MODERATE [-1] SUbstrate NORMAL [0] FREE [1] EXTENSIVE [-2] WINDDERATE [-1]
quality; 2-Mode quality; 3-Highest quality in moderate or gre diameter log that is stable, well developed re	ce 0 to 3: 0 -Absent; 1 -Very small amounts or if more commorate amounts, but not of highest quality or in small amounts after amounts (e.g., very large boulders in deep or fast water obtwad in deep / fast water, or deep, well-defined, functional open of the problem of the	Check ONE (<i>Or 2 & average</i>)
3] CHANNEL MORPHOLOGY Check		
SINUOSITY HIGH [4] MODERATE [3] LOW [2] NONE [1] Comments DEVELOPMENT GOOD [5] FAIR [3] POOR [1]	CHANNELIZATION STABILITY NONE [6]	Channel Maximum 20
	V ZONE Check ONE in each category for EACH BANK (C	or 2 per bank & average)
RIPAR RIPAR RIPAR RIPAR RIPAR RIPAR NONE / LITTLE [3]	AN WIDTH Om [4] TE 10-50m [3] FOREST, SWAMP [3] SHRUB OR OLD FIELD [2] SROW < 5m [1] FENCED PASTURE [1]	TY CONSERVATION TILLAGE [1] URBAN OR INDUSTRIAL [0] Indicate predominant land use(s) past 100m riparian. Pinarian
Comments		Maximum 10
Check ONE (<i>ONLY!</i>) Check ONE (DNE (D	VIN QUALITY NEL WIDTH E (Or 2 & average) > RIFFLE WIDTH [2] = RIFFLE WIDTH [1] < RIFFLE WIDTH [0] TORRENTIAL [-1] SLOW [1] VERY FAST [1] INTERSITI FAST [1] INTERMIT MODERATE [1] EDDIES [1] Indicate for reach - pools and ri	TIAL [-1] TENT [-2] Primary Contact Secondary Contact (circle one and comment on back) Pool/
of riffle-obligate species: RIFFLE DEPTH RUN DE ■ BEST AREAS > 10cm [2] ■ MAXIMUM	Best areas must be large enough to support Check ONE (Or 2 & average). EPTH RIFFLE / RUN SUBSTRATE RIF > 50cm [2] STABLE (e.g., Cobble, Boulder) [2] < 50cm [1] MOD. STABLE (e.g., Large Gravel) [1] UNSTABLE (e.g., Fine Gravel, Sand) [0]	a population NO RIFFLE [metric=0]
DRAINAGE AREA	7 LOW - LOW [2-4]	%GLIDE: 20 Gradient 8 Maximum 10

,	ED REACH ALL that apply	Comment RE: Reach consistency/I	s reach typical of steam?, Recreation	on/ Observed - Inferred, Other/	Sampling observations, Concerns, Ac	cess directions, etc.
METHOD BOAT WADE L. LINE OTHER DISTANCE	STAGE 1st -sample pass- 2nd HIGH UP NORMAL LOW DRY					
	CLARITY 1stsample pass 2nd < 20 cm □ 20-<40 cm □ 40-70 cm □ > 70 cm/ CTB □ SECCHI DEPTH	☐ INVASIVE MACROPHYTES ☐ EXCESS TURBIDITY ☐ DISCOLORATION ☐ FOAM / SCUM	DJ MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG - SUCCESSION - OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS	Circle some & COMMENT	ETISSUES WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs - CONSTRUCTION - SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON	F] MEASUREMENT. x width 20 x depth max. depth 20 x bankfull width 30 bankfull x depth
CANOP	EN $\frac{\%}{2}$ cm $\frac{CJ}{RECRL}$	☐ NUISANCE ODOR ☐ SLUDGE DEPOSITS ☐ CSOs/SSOs/OUTFALLS	MOVING - BEDLOAD - STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE		WASH H20 / TILE / H20 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	W/D ratio bankfull max. depth floodprone x ² width entrench. ratio Legacy Tree:

Stream Drawing: Stream PM-07



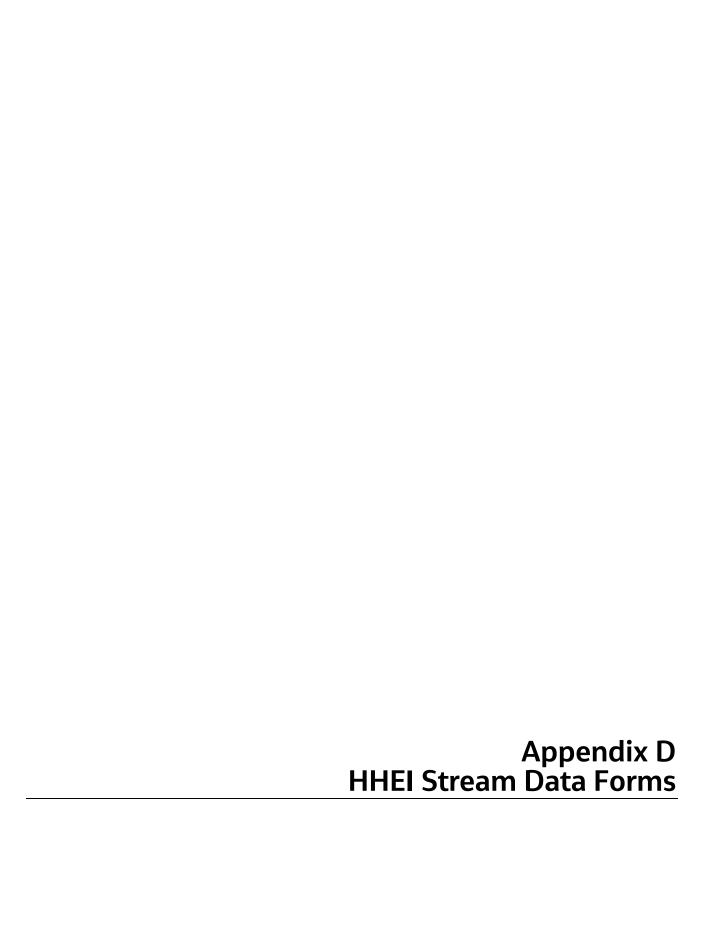




Upstream Downstream



Substrate



Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)

57

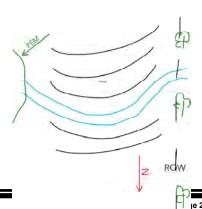
Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	
	r-Mayfield 138 kV Transmission Line Project	
	RIVER CODE DRAINAGE AREA (mi²) 0.002	
	7 LONG <u>-81.27721</u> RIVER MILE	
DATE 08/03/2021 SCORER MJA COMM	ENTS Intermittent. Recently dredged	
NOTE: Complete All Items On This Form - Refer to "H	leadwater Habitat Evaluation Index Field Manual" for Instruction	ons
STREAM CHANNEL MODIFICATIONS: NONE / NATU	RAL CHANNEL RECOVERED RECOVERING RECENT OR NO REC	OVERY
(Max of 32). Add total number of significant substrate TYPE	TYPE	
Maximum Pool Depth (<i>Measure the <u>maximum</u> pool</i> time of evaluation. Avoid plunge pools from road culv.		Depth
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	5 cm - 10 cm [15 pts]	_
> 22.5 - 30 cm [35 pts] X > 10 - 22.5 cm [25 pts]	< 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts]	5
COMMENTS	MAXIMUM POOL DEPTH (inches):	
3. BANK FULL WIDTH (Measured as the average of 3	MAXIMUM POOL DEPTH (Inches):	nkfull
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	B - 4 measurements) (Check <i>ONLY</i> one box):	idth
3. BANK FULL WIDTH (Measured as the average of 3	B - 4 measurements) (Check <i>ONLY</i> one box):	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	B - 4 measurements) (Check <i>ONLY</i> one box):	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info	B - 4 measurements) (Check <i>ONLY</i> one box):	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info	B - 4 measurements) (Check ONLY one box):	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info	B - 4 measurements) (Check <i>ONLY</i> one box):	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info RIPARIAN ZONE AND FLOODPLAIN QUALI RIPARIAN WIDTH L R (Per Bank) L R	B - 4 measurements) (Check ONLY one box):	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info RIPARIAN ZONE AND FLOODPLAIN QUALI RIPARIAN WIDTH L R (Per Bank) L R X X Wide > 10m Ma	Bar A measurements) (Check ONLY one box):	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info RIPARIAN ZONE AND FLOODPLAIN QUALI RIPARIAN WIDTH L R (Per Bank) L R X X Wide > 10m Ma Moderate 5-10m X X Im Narrow < 5m Re	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): TY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ CODPLAIN QUALITY (Most Predominant per Bank) L R ature Forest, Wetland mature Forest, Shrub or Old Field mature Forest, Shrub or Old Field mature Forest, New Field Open Pasture, Row Crop	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info RIPARIAN ZONE AND FLOODPLAIN QUALI RIPARIAN WIDTH L R (Per Bank) L R X X Wide > 10m Ma Moderate 5-10m X X Im Narrow < 5m Re	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): TY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ CODPLAIN QUALITY (Most Predominant per Bank) L R ature Forest, Wetland mature Forest, Shrub or Old Field mature Forest, Shrub or Old Field Dopen Pasture, Row Crop	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info RIPARIAN ZONE AND FLOODPLAIN QUALI RIPARIAN WIDTH L R (Per Bank) L R X X Wide > 10m	Bar A measurements) (Check ONLY one box):	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info RIPARIAN ZONE AND FLOODPLAIN QUALI RIPARIAN WIDTH L R (Per Bank) L R X X Wide > 10m	B - 4 measurements) (Check ONLY one box):	idth x=30
3. BANK FULL WIDTH (Measured as the average of 3	B - 4 measurements) (Check ONLY one box):	idth x=30

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
☐ WWH Name:	Distance from Evaluated Stream
□ CWH Name: East Branch Chagrin River	Distance from Evaluated Stream 0.08 mile
	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Chesterland	NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Geauga	Township/City: Munson Township
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipita	tion: 8/2/21 Quantity: 0.07
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): No Canopy (% open): 6	0
Were samples collected for water chemistry? (Y/N): No	Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg/	l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{Ye}	S If not, explain:
Additional comments/description of pollution impacts:	
	L OBSERVATIONS
,	observations below)
Fish Observed? (Y/N) No Species observed (if known)	:
Frogs or Tadpoles Observed? (Y/N) No Species observed	ed (if known):
Salamanders Observed? (Y/N) $\underline{\mbox{No}}$ Species observed (if	known):
Aquatic Macroinvertebrates Observed? (Y/N) $\underline{\text{No}}$ Specie	s observed (if known):
Comments Regarding Biology:	

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location





May 2020 Revision





Substrate Downstream



Upstream

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3

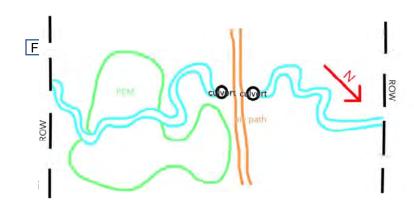
49

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	+9
STE NAME/EGGATION	enter-Mayfield 138 kV Transmission Line Project	25
	RIVER CODE DRAINAGE AREA (mi²) 0.08	
	55469 LONG -81.28099 RIVER MILE	
	OMMENTS Intermittent, seep fed, disturbed. Possible that channel would not exist without recent of	
NOTE: Complete All Items On This Form - Refer	to "Headwater Habitat Evaluation Index Field Manual" for Inst	ructions
STREAM CHANNEL MODIFICATIONS: NONE /	NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO	O RECOVERY
	present). Check ONLY two predominant substrate TYPE boxes. strate types found (Max of 8). Final metric score is sum of boxes A & B TYPE SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts]	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 50 SCORE OF TWO MOST PREDOMINATE SUBSTRATE	(A) TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 4	A + B
2. Maximum Pool Depth (Measure the maximum time of evaluation. Avoid plunge pools from road > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	pool depth within the 61 meter (200 feet) evaluation reach at the culverts or storm water pipes) (Check ONLY one box): 5 cm - 10 cm [15 pts] < 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts]	Pool Depth Max = 30
COMMENTS	MAXIMUM POOL DEPTH (inches): 8	
	MAXIMUM POOL DEPTH (Inches):	Rankfull
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	e of 3 - 4 measurements) (Check <i>ONLY</i> one box):	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average	e of 3 - 4 measurements) (Check <i>ONLY</i> one box): 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width Max=30
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	e of 3 - 4 measurements) (Check <i>ONLY</i> one box):	Width
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	e of 3 - 4 measurements) (Check <i>ONLY</i> one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	e of 3 - 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	e of 3 - 4 measurements) (Check <i>ONLY</i> one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	e of 3 - 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	e of 3 - 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	e of 3 - 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	e of 3 - 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average	e of 3 - 4 measurements) (Check ONLY one box):	Width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
☐ WWH Name:	Distance from Evaluated Stream
	Distance from Evaluated Stream 0.43 mile
☐ EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING	THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Chesterland	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Geauga	Township/City: Munson Township
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipite	ation: 8/2/21 Quantity: 0.07
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): No Canopy (% open):	90
Were samples collected for water chemistry? (Y/N): No	Lab Sample # or ID (attach results):
Field Measures: Temp (°C) Dissolved Oxygen (mg	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) $\underline{\underline{Y}}$	<u>es</u> If not, explain:
Additional comments/description of pollution impacts:	
	AL OBSERVATIONS I observations below)
Fish Observed? (Y/N) \underline{Yes} Species observed (if known	n):
	ved (if known):
Salamanders Observed? (Y/N) No Species observed (if	f known):
Aquatic Macroinvertebrates Observed? (Y/N) No Specie	es observed (if known):
Comments Regarding Biology:	

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location





Upstream



Substrate



Downstream

Z hi	10
Ohio Environ	

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)

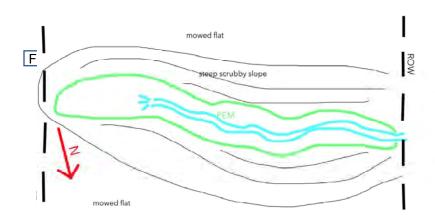
2	1
J	ı

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	<u></u>
SITE NAME/LOCATION Stream PM-04 Leroy Center	-Mayfield 138 kV Transmission Line Project	
	RIVER CODE DRAINAGE AREA (mi²) 0.016	
	2 LONG <u>-81.28405</u> RIVER MILE	
DATE 08/04/2021 SCORER MJA COMM	ENTS Estimated perennial, QHEI performed. Banks disturbed	
NOTE: Complete All Items On This Form - Refer to "H	leadwater Habitat Evaluation Index Field Manual" for Instruc	ctions
CTDEAM CHANNEL MODIFICATIONS:		
STREAM CHANNEL MODIFICATIONS: UNONE/NATU	RAL CHANNEL RECOVERED RECOVERING RECENT OR NO F	RECOVERY
(Max of 32). Add total number of significant substrate TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pts] COBBLE (65-256 mm)[12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock [12 pts] 5 COBBLE (65-256 mm)[12 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock	TYPE PERCENT 80	HHEI Metric Points Substrate Max = 40 11
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPE	S: 1 IOIAL NUMBER OF SUBSTRATE TYPES:	
time of evaluation. Avoid plunge pools from road culve > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]	erts or storm water pipes) (Check ONLY one box): X 5 cm - 10 cm [15 pts] < 5 cm [5pts]	Dol Depth Max = 30
> 10 - 22.5 cm [25 pts]	NO WATER OR MOIST CHANNEL [0pts]	. ~
	3 5	
COMMENTS		
3. BANK FULL WIDTH (Measured as the average of 3	- 4 measurements) (Check ONLY one box):	Bankfull Width
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	- 4 measurements) (Check ONLY one box): - 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Bankfull Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts]	- 4 measurements) (Check ONLY one box): - 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	- 4 measurements) (Check ONLY one box): - 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	- 4 measurements) (Check <i>ONLY</i> one box): □ > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] □ ≤ 1.0 m (≤ 3' 3") [5 pts]	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info	- 4 measurements) (Check <i>ONLY</i> one box): □ > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] □ ≤ 1.0 m (≤ 3' 3") [5 pts] AVERAGE BANKFULL WIDTH (feet):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info RIPARIAN ZONE AND FLOODPLAIN QUALL	-4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info RIPARIAN ZONE AND FLOODPLAIN QUALITY L R (Per Bank) L R	- 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This info RIPARIAN ZONE AND FLOODPLAIN QUALIT RIPARIAN WIDTH FLOOPPLAIN QUALIT L R (Per Bank) L R X	-4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	- 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	-4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	- 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	- 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	- 4 measurements) (Check ONLY one box):	Width Max=30
3. BANK FULL WIDTH (Measured as the average of 3 > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	- 4 measurements) (Check ONLY one box):	Width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
☐ WWH Name:	Distance from Evaluated Stream
	Distance from Evaluated Stream 0.36 mile
☐ EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING T	HE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Chesterland	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Geauga	Township/City: Munson Township
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipita	tion: 8/2/21 Quantity: 0.07
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): No Canopy (% open): 1	5
Were samples collected for water chemistry? (Y/N): No	Lab Sample # or ID (attach results):
Field Measures:Temp (°C) Dissolved Oxygen (mg/	I) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{Ye}	S If not, explain:
Additional comments/description of pollution impacts:	
BIOLOGICA	L OBSERVATIONS
`	observations below)
Fish Observed? (Y/N) No Species observed (if known)	:
Frogs or Tadpoles Observed? (Y/N) No Species observ	ed (if known):
Salamanders Observed? (Y/N) No Species observed (if	known):
	s observed (if known):
Comments Regarding Biology:	
- Commence : regarding Diology.	

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location





Upstream



Substrate



Downstream

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)

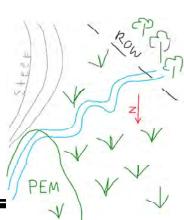
SITE NAME/LOCATION Stream PM-05 Le	eroy Center-Mayfield 138 kV Transmission Line Project	
SITE NUMBER S-MJA-080421-01 RIVER BASIN 04110	0003 RIVER CODE DRAINAGE AREA (mi²) 0.100	
	AT <u>41.55113</u> LONG <u>-81.28489</u> RIVER MILE	
DATE SCORER	COMMENTS Culverted, recent earth movement	
NOTE: Complete All Items On This Form - R	Refer to "Headwater Habitat Evaluation Index Field Manual" for Instru	ctions
STREAM CHANNEL MODIFICATIONS:	ONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO	RECOVERY
	INCOME OF WARRED IN REGISTER TO THE MEDICAL OF THE	REGOVER
	CENT TYPE PERCENT 20	HHEI Metric Points Substrate Max = 40
Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 45 SCORE OF TWO MOST PREDOMINATE SUBSTR		A + B
2. Maximum Pool Depth (<i>Measure the max</i> time of evaluation. Avoid plunge pools from		ool Depth
> 30 centimeters [20 pts]	5 cm - 10 cm [15 pts]	Max = 30
> 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	< 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts]	25
COMMENTS	MAXIMUM POOL DEPTH (inches):	
3. BANK FULL WIDTH (Measured as the av	verage of 3 - 4 measurements) (Check ONLY one box):	Bankfull
> 4.0 meters (> 13') [30 nts]	> 1 0 m - 1 5 m (> 3' 3" - 4' 8")[15 nts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	 > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] 	Max=30
		Max=30
> 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]		
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	X ≤ 1.0 m (≤ 3' 3") [5 pts] AVERAGE BANKFULL WIDTH (feet): This information <u>must</u> also be completed	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPLA	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): This information must also be completed AIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPLA RIPARIAN WIDTH	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): This information must also be completed AIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ FLOODPLAIN QUALITY (Most Predominant per Bank)	Max=30
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): This information must also be completed AIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R Mature Forest, Wetland Mature Forest, Wetland With the property of the propert	5
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): This information must also be completed AIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R Mature Forest, Wetland Mature Forest, Wetland Urban or Industrial	5
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): This information must also be completed AIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Field Urban or Industrial Residential, Park, New Field Open Pasture, Row Crop Fenced Pasture	5
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	AVERAGE BANKFULL WIDTH (feet): This information must also be completed AIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ FLOODPLAIN QUALITY (Most Predominant per Bank) L R	5
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS RIPARIAN ZONE AND FLOODPLA RIPARIAN WIDTH (Per Bank) X Wide > 10m Moderate 5-10m Narrow < 5m None COMMENTS FLOW REGIME (At Time of Evalua) Stream Flowing Subsurface flow with isolated pools (COMMENTS SINUOSITY (Number of bends per None 1	AVERAGE BANKFULL WIDTH (feet): This information must also be completed AIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ FLOODPLAIN QUALITY (Most Predominant per Bank) L R	5
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	AVERAGE BANKFULL WIDTH (feet): This information must also be completed AIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★ FLOODPLAIN QUALITY (Most Predominant per Bank) L R L R Mature Forest, Wetland Mature Forest, Shrub or Old Field Mesidential, Park, New Field Penced Pasture Moist Channel, isolated pools, no flow (intermittent) (interstitial) Moist Channel, no water (ephemeral) Calo Den Pasture, Row Crop Moist Channel, no water (ephemeral)	5 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
☐ WWH Name:	Distance from Evaluated Stream
M CWILNESS Fact Branch Chagrin Pivor	Distance from Evaluated Stream 0.35 mile
☐ EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENT	IRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Chesterland NRC	S Soil Map Page: NRCS Soil Map Stream Order:
County: Geauga Towns	hip/City: Munson Township
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Yes Date of last precipitation: _8	2/2/21 Quantity: 0.07
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): No Canopy (% open): 85	
Were samples collected for water chemistry? (Y/N): No	ab Sample # or ID (attach results):
Field Measures:Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) Yes If n	ot, explain:
Additional comments/description of pollution impacts:	
BIOLOGICAL OBS (Record all observa	
Fish Observed? (Y/N) No Species observed (if known):	,
Frogs or Tadpoles Observed? (Y/N) NO Species observed (if k	
Salamanders Observed? (Y/N) No Species observed (if known)	!
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed	
Comments Regarding Biology:	

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location





May 2020 Revision



Upstream



Substrate



Downstream

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)

35

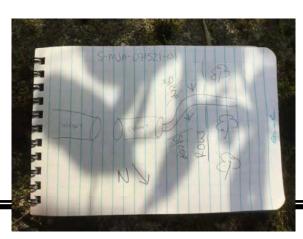
Protection Agency HHEI Score (sum of metrics 1+2+3)	33
SITE NAME/LOCATION Stream PM-06 Leroy Center-Mayfield 138 kV Transmission Line Project SITE NUMBER S-MJA-071521-01 RIVER BASIN 04110003 RIVER CODE DRAINAGE AREA (mi²) LENGTH OF STREAM REACH (ft) 45 LAT 41.54773 LONG -81.28914 RIVER MILE DATE 07/15/2021 SCORER MJA COMMENTS Culverted NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Items Comp	estructions
1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B TYPE BLDR SLABS [16 pts] BOULDER (>256 mm)[16 pts] BEDROCK [16 pts]	HHEI Metric Points Substrate Max = 40 15
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts]	Pool Depth Max = 30 15 Bankfull Width
> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	Max=30
> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS AVERAGE BANKFULL WIDTH (feet):	5
> 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS AVERAGE BANKFULL WIDTH (feet): 2 This information <u>must</u> also be completed	5
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream RIPARIAN WIDTH (Per Bank) L R X X Wide >10m	5 Crop
This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstrean RIPARIAN WIDTH FLOODPLAIN QUALITY (Most Predominant per Bank) L R (Per Bank) L R X X Wide >10m	5 Crop

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score (If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)	
□ WWH Name: Distance from Evaluated Stream	
☐ CWH Name: East Branch Chagrin River Distance from Evaluated Stream 0	
☐ EWH Name: Distance from Evaluated Stream _	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCA	TION.
USGS Quadrangle Name: Chesterland NRCS Soil Map Page: NRCS Soil Map Stream C	order:
County: Geauga Township/City: Munson Township	
MISCELLANEOUS	
Base Flow Conditions? (Y/N): No Date of last precipitation: 7/13/21 Quantity: 1.11	
Photo-documentation Notes:	
ElevatedTurbidity?(Y/N): No Canopy (% open): 80	
Were samples collected for water chemistry? (Y/N): No Lab Sample # or ID (attach results):	_
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) Yes If not, explain:	
Additional comments/description of pollution impacts:	
BIOLOGICAL OBSERVATIONS (Record all observations below)	
Fish Observed? (Y/N) No Species observed (if known):	
Frogs or Tadpoles Observed? (Y/N) No Species observed (if known):	
Salamanders Observed? (Y/N) No Species observed (if known):	
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed (if known):	
Comments Regarding Biology:	

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location









Downstream Upstream



Substrate

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)

Ohio Environmental Protection Agency	HHEI Score (sum of metrics 1+2+3)	
SITE NAME/LOCATION Stream PM-08 Leroy C	enter-Mayfield 138 kV Transmission Line Project	
SITE NUMBER S-MJA-071421-02 RIVER BASIN 04110003	RIVER CODE DRAINAGE AREA (mi²) $\frac{0.0}{100}$	001
LENGTH OF STREAM REACH (ft) 48 LAT 41.	541168956000035 LONG <u>-81.29946585399995</u> RIVER MILE	
DATE <u>07/14/2021</u> SCORER <u>MJA</u> CO	OMMENTS Ephemeral channel connecting wetland swales. Culvert and Char	nelization
NOTE: Complete All Items On This Form - Refer to	to "Headwater Habitat Evaluation Index Field Manual" for Inst	tructions
STREAM CHANNEL MODIFICATIONS: NONE /	NATURAL CHANNEL X RECOVERED RECOVERING RECENT OR N	IO RECOVERY
(Max of 32). Add total number of significant subs TYPE	present). Check ONLY two predominant substrate TYPE boxes. trate types found (Max of 8). Final metric score is sum of boxes A & B TYPE SILT [3 pt] SI	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock 0 SCORE OF TWO MOST PREDOMINATE SUBSTRATE 1	(A) 12 TOTAL NUMBER OF SUBSTRATE TYPES: 2	A + B
2. Maximum Pool Depth (Measure the maximum time of evaluation. Avoid plunge pools from road > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts]	pool depth within the 61 meter (200 feet) evaluation reach at the culverts or storm water pipes) (Check ONLY one box): 5 cm - 10 cm [15 pts] < 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts]	Pool Depth Max = 30
COMMENTS	MAXIMUM POOL DEPTH (inches):	
COMMENTS	MAXIMUM POOL DEPTH (inches): 1 e of 3 - 4 measurements) (Check <i>ONLY</i> one box):	Bankfull
3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	e of 3 - 4 measurements) (Check <i>ONLY</i> one box):	Width
COMMENTS 3. BANK FULL WIDTH (Measured as the average	e of 3 - 4 measurements) (Check ONLY one box):	Width Max=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]	e of 3 - 4 measurements) (Check <i>ONLY</i> one box):	Width
COMMENTS 3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	waximum POOL DEPTH (inches): a of 3 - 4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] X ≤ 1.0 m (≤ 3' 3") [5 pts] AVERAGE BANKFULL WIDTH (feet): information must also be completed	Width Max=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts]	waximum POOL DEPTH (inches): a of 3 - 4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] X ≤ 1.0 m (≤ 3' 3") [5 pts] AVERAGE BANKFULL WIDTH (feet): a information must also be completed UALITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★	Width Max=30
COMMENTS SANK FULL WIDTH (Measured as the average > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	waximum POOL DEPTH (inches): a of 3 - 4 measurements) (Check ONLY one box): > 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] X ≤ 1.0 m (≤ 3' 3") [5 pts] AVERAGE BANKFULL WIDTH (feet): information must also be completed	Width Max=30
COMMENTS	AVERAGE BANKFULL WIDTH (feet): AVERAGE BANKFULL WIDTH (feet): 1.5	Width Max=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average	## AXIMOM POOL DEPTH (Inches): ## of 3 - 4 measurements) (Check ONLY one box):	Width Max=30
COMMENTS 3. BANK FULL WIDTH (Measured as the average series of the seri	## AXIMOM POOL DEPTH (Inches): ## of 3 - 4 measurements) (Check ONLY one box):	width Max=30 5

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
☐ WWH Name:	Distance from Evaluated Stream
	Distance from Evaluated Stream 0.63 mile
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE <u>EN</u>	TIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Chesterland NRC	S Soil Map Page:NRCS Soil Map Stream Order:
County: Geauga Town	ship/City: Chester Township
MISCELLANEOUS	
Base Flow Conditions? (Y/N): No Date of last precipitation:	07/13/2021 Quantity: 1.11
Photo-documentation Notes:	
ElevatedTurbidity?(Y/N): No Canopy (% open): 0	
Were samples collected for water chemistry? (Y/N): No	ab Sample # or ID (attach results):
Field Measures:Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) \underline{Yes} If I	oot, explain:
Additional comments/description of pollution impacts:	
BIOLOGICAL OBS	
(Record all observa	•
Fish Observed? (Y/N) No Species observed (if known):	
Frogs or Tadpoles Observed? (Y/N) No Species observed (if H	nown):
Salamanders Observed? (Y/N) No Species observed (if known):
Aquatic Macroinvertebrates Observed? (Y/N) No Species observed	rved (if known):
Comments Regarding Biology:	
	·

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location







Downstream Substrate



Upstream

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3

25

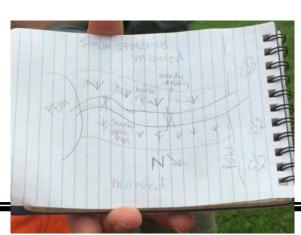
Protection Agency HHEI Score (sum of metrics 1+2+3)	25
SITE NAME/LOCATION Stream PM-09 Leroy Center-Mayfield 138 kV Transmission Line Project SITE NUMBER S-MJA-071421-03 RIVER BASIN 04110003 RIVER CODE DRAINAGE AREA (mi²) LENGTH OF STREAM REACH (ft) 145 LAT 41.54072 LONG -81.30130 RIVER MILE DATE 07/14/2021 SCORER MJA COMMENTS Ephemeral NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for ISTREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OF THE PROPERTY OF TH	nstructions
1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B TYPE PERCENT SILT [3 pt] BLDR SLABS [16 pts] BEDROCK [16 pts] BEDROCK [16 pts] COBBLE (65-256 mm)[12 pts] GRAVEL (2-64 mm) [9 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock O(A) SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES:	HHEI Metric Points Substrate Max = 40 5
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): > 30 centimeters [20 pts]	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box): > 4.0 meters (> 13') [30 pts]	Bankfull Width Max=30
This information <u>must</u> also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ★ NOTE: River Left (L) and Right (R) as looking downstreal RIPARIAN WIDTH (Per Bank) L R L R L R Wide >10m Mature Forest, Wetland Conservation Tillage Moderate 5-10m Mature Forest, Shrub or Old Field Urban or Industrial Narrow <5m Residential, Park, New Field Open Pasture, Row None Fenced Pasture Mining or Construction COMMENTS	e / Crop
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing	iittent)
□ None □ 1.0 □ 2.0 □ 3.0 □ 0.5 □ 1.5 □ 2.5 □ >3	

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	e (If Yes, Attach Completed QHEI form)
DOWNSTREAM DESIGNATED USE(S)	
☐ WWH Name:	Distance from Evaluated Stream
	Distance from Evaluated Stream 0.85 mile
LI EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING	THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.
USGS Quadrangle Name: Chesterland	NRCS Soil Map Page:NRCS Soil Map Stream Order:
County: Geauga	Township/City: Chester Township
MISCELLANEOUS	
Base Flow Conditions? (Y/N): No Date of last precipit	ation: <u>7/13/21</u> Quantity: <u>1.11</u>
Photo-documentation Notes:	
Elevated Turbidity? (Y/N): No Canopy (% open):	90
Were samples collected for water chemistry? (Y/N): No	Lab Sample # or ID (attach results):
Field Measures:Temp (°C) Dissolved Oxygen (mg	g/l) pH (S.U.) Conductivity (umhos/cm)
Is the sampling reach representative of the stream (Y/N) $\underline{\underline{Y}}$	es If not, explain:
Additional comments/description of pollution impacts:	
BIOLOGICA	AL OBSERVATIONS
(Record al	l observations below)
Fish Observed? (Y/N) No Species observed (if known	n):
	ved (if known):
Salamanders Observed? (Y/N) No Species observed (i	f known):
Aquatic Macroinvertebrates Observed? (Y/N) No Specie	es observed (if known):
Comments Regarding Biology:	

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location







Upstream Downstream



Substrate

Headwater Habitat Evaluation Index Field Form HHEI Score (sum of metrics 1+2+3)

38
J O

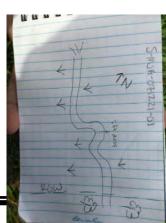
	HHEI Score (sum of metrics 1+2+3)	
SITE NAME/LOCATION Stream PM-10 Leroy Center	er-Mayfield 138 kV Transmission Line Project	
	RIVER CODE DRAINAGE AREA (mi²)	35
LENGTH OF STREAM REACH (ft) 155 LAT 41.527	34 LONG <u>-81.32371</u> RIVER MILE	
DATE 07/12/2021 SCORER MJA COMI	MENTS Concrete conveyance	
NOTE: Complete All Items On This Form - Refer to "	'Headwater Habitat Evaluation Index Field Manual" for Inst	ructions
STREAM CHANNEL MODIFICATIONS: NONE / NAT	TURAL CHANNEL X RECOVERED RECOVERING RECENT OR N	O RECOVERY
(Max of 32). Add total number of significant substrate TYPE BLDR SLABS [16 pts] BOULDER (>256 mm) [16 pts] BEDROCK [16 pts] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] SAND (<2 mm) [6 pts] Total of Percentages of	esent). Check ONLY two predominant substrate TYPE boxes. e types found (Max of 8). Final metric score is sum of boxes A & B TYPE SILT [3 pt] LEAF PACK/WOODY DEBRIS [3 pts] FINE DETRITUS [3 pts] CLAY or HARDPAN [0 pt] MUCK [0 pts] ARTIFICIAL [3 pts]	HHEI Metric Points Substrate Max = 40
Bldr Slabs, Boulder, Cobble, Bedrock 10 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYP	(A) (B) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	A + B
2. Maximum Pool Depth (Measure the maximum potime of evaluation. Avoid plunge pools from road cul 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS Recent precipitation	vol depth within the 61 meter (200 feet) evaluation reach at the verts or storm water pipes) (Check ONLY one box): 5 cm - 10 cm [15 pts] < 5 cm [5pts] NO WATER OR MOIST CHANNEL [0pts] MAXIMUM POOL DEPTH (inches):	Pool Depth Max = 30
2 DANK EIII I WIDTH (Magazina) on the assessment		Bankfull
3. BANK FULL WIDTH (Measured as the average of	3 - 4 measurements) (Check ONLY one box):	Dalikiuli
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts]		
> 4.0 meters (> 13') [30 pts]	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This inf	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This inf RIPARIAN ZONE AND FLOODPLAIN QUAL	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts] ≤ 1.0 m (≤ 3' 3")[5 pts] AVERAGE BANKFULL WIDTH (feet): 3 formation must also be completed LITY ★ NOTE: River Left (L) and Right (R) as looking downstream ★	Width Max=30
> 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7"- 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS This inf RIPARIAN ZONE AND FLOODPLAIN QUAL RIPARIAN WIDTH FI L R	> 1.0 m - 1.5 m (> 3' 3" - 4' 8")[15 pts]	Width Max=30
	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30
	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	Width Max=30

QHEI PERFORMED? ☐ Yes ☒ No QHEI Score	(If Yes, Attach Completed QHEI form)	
DOWNSTREAM DESIGNATED USE(S)		
☐ WWH Name:	Distance from Evaluated Stream	
□ CWH Name: East Branch Chagrin River	Distance from Evaluated Stream	1.67 miles
☐ EWH Name:	Distance from Evaluated Stream	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING 1	THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOC	CATION.
USGS Quadrangle Name: Chesterland	NRCS Soil Map Page:NRCS Soil Map Stream	Order:
County: Geauga	Township/City: City of Chesterland	
MISCELLANEOUS		
Base Flow Conditions? (Y/N): No Date of last precipitation	Ation: 7/12/21 Quantity: 0.8	
Photo-documentation Notes:		
Elevated Turbidity? (Y/N): No Canopy (% open):	90	
Were samples collected for water chemistry? (Y/N): No	Lab Sample # or ID (attach results):	
Field Measures: Temp (°C) Dissolved Oxygen (mg	/I) pH (S.U.) Conductivity (umhos/cr	m)
Is the sampling reach representative of the stream (Y/N) Ye	es_ If not, explain:	
Additional comments/description of pollution impacts:		
	AL OBSERVATIONS observations below)	
Fish Observed? (Y/N) No Species observed (if known)):	
Frogs or Tadpoles Observed? (Y/N) No Species observ		
Salamanders Observed? (Y/N) $\underline{\text{No}}$ Species observed (if	known):	
Aquatic Macroinvertebrates Observed? (Y/N) No Specie	es observed (if known):	
Comments Regarding Biology:		

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location





age 2 May 2020 Revision



Downstream



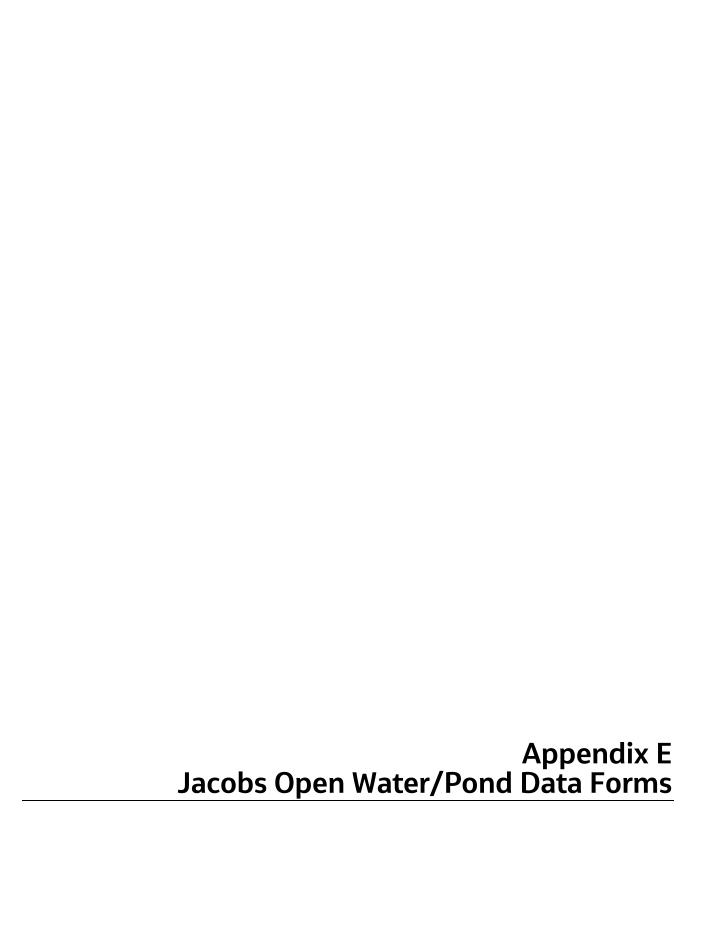
Upstream



Substrate



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POND DATA SHEET

FEATURE ID Pond PM-01 ASSOCIATED FEATURES:			
Survey Type: Wetland and waterbodies delineation			
DATE: 08/05/2021	CLIENT/PROJECT NAME: F	FirstEnergy	Leroy Center-Mayfield 138 kV Transmission Line Proje
INVESTIGATORS: MJA		R оите:	
STATE/COUNTY: OH Geau	ga		Is this a Mapped NWI Feature?: yes PEM1C
	V	WATERBODY CH	IARACTERISTICS
WATERBODY TYPE:	Pond		
AVG. DEPTH:	3 ft		
AVG. WIDTH (WATER SURFACE):	50 ft		
APPROXIMATE SIZE:	0.7 acre		
		QUALITATIVE	ATTRIBUTES
AVERAGE WATER APPEARANCE:	Mostly clear		
PRIMARY SUBSTRATE (IF OBSERVED):	Not observed		
POTENTIAL HABITAT FOR:	Observed frogs, dragonflies		
SURROUNDING LAND USE:	Ag, immature forest		
WETLAND FRINGE (IF PRESENT):	PEM		
COMMENTS			

 Site Photos
 Pond PM-01
 P-MJA-080521-01





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POND DATA SHEET

FEATURE ID Pond PM-02 ASSOCIATED F			FEATURES:
Survey Type: Wetland and waterbodies delineation			
DATE: 08/04/2021	CLIENT/PROJECT NAME: FirstEnergy Leroy Center-Mayfield 138 kV Transmission Line		Leroy Center-Mayfield 138 kV Transmission Line Project
Investigators: MJA		ROUTE:	
STATE/COUNTY: OH Geau	ga		IS THIS A MAPPED NWI FEATURE?: YES PUBGX
	\	WATERBODY CH	HARACTERISTICS
WATERBODY TYPE:	Man-made pond		
AVG. DEPTH:	>18 in		
AVG. WIDTH (WATER SURFACE):	40 ft		
APPROXIMATE SIZE:	0.1 acre		
		QUALITATIVE	ATTRIBUTES
AVERAGE WATER APPEARANCE:	Murky brown. Algae	along fringes.	
PRIMARY SUBSTRATE (IF OBSERVED):	Not visible		
POTENTIAL HABITAT FOR:	Amphibians		
SURROUNDING LAND USE:	Residential		
WETLAND FRINGE (IF PRESENT):	PEM		
COMMENTS			

 Site Photos
 Pond PM-02
 P-MJA-080421-02





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POND DATA SHEET

FEATURE ID Pond PM-03		ASSOCIATED	FEATURES:	
Survey Type: Wetland and waterbodies delineation				
DATE: 08/02/2021	CLIENT/PROJECT NAME: FirstEnergy		Leroy Center-Mayfield 138	kV Transmission Line Project
Investigators: MJA		ROUTE:		
STATE/COUNTY: OH Geau	ga		IS THIS A MAPPED NWI FEATURE?: YES	PUBGx
	V	NATERBODY CH	HARACTERISTICS	
WATERBODY TYPE:	Pond			
AVG. DEPTH:	Unknown			
Avg. Width (Water Surface):	100 ft			
APPROXIMATE SIZE:	0.8 acre			
		QUALITATIVE	ATTRIBUTES	
AVERAGE WATER APPEARANCE:	Cloudy green			
PRIMARY SUBSTRATE (IF OBSERVED):	NA			
POTENTIAL HABITAT FOR:	Amphibians, insects			
SURROUNDING LAND USE:	Mowed lawn			
WETLAND FRINGE (IF PRESENT):	PSS			
COMMENTS				
Observed dragonflies, frogs				

 Site Photos
 Pond PM-03
 P-MJA-080221-01





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POND DATA SHEET

			-
FEATURE ID Pond PM-04 ASSOCIATED FEATURES:			
Survey Type: Wetland and waterbodies delineation			
DATE: 08/03/2021	CLIENT/PROJECT NAME: FirstEnergy Leroy Center-Mayfield 138 kV Transmission Lin		Leroy Center-Mayfield 138 kV Transmission Line Project
Investigators: MJA		ROUTE:	
STATE/COUNTY: OH Geau	ga		Is this a Mapped NWI Feature?: yes PUBG
	V	VATERBODY CH	HARACTERISTICS
WATERBODY TYPE:	Man made pond		
AVG. DEPTH:	>18 in		
AVG. WIDTH (WATER SURFACE):	120 ft		
APPROXIMATE SIZE:	0.4 acre		
		QUALITATIVE	ATTRIBUTES
AVERAGE WATER APPEARANCE:	Murky, high algae and duckweed		
PRIMARY SUBSTRATE (IF OBSERVED):	Silt, sand, and detritus		
POTENTIAL HABITAT FOR:	Amphibians		
Maintained power line easement and woods			
WETLAND FRINGE (IF PRESENT):	N/A		
COMMENTS			

 Site Photos
 Pond PM-04
 P-MJA-080321-01





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POND DATA SHEET

FEATURE ID Pond PM-05 ASSOCIATED FEATURES:			
Survey Type: Wetland and waterbodies delineation			
DATE: 08/04/2021	CLIENT/PROJECT NAME: F	irstEnergy	Leroy Center-Mayfield 138 kV Transmission Line Project
INVESTIGATORS: MJA		ROUTE:	
STATE/COUNTY: OH Geau	ga		IS THIS A MAPPED NWI FEATURE?: YES PUBGX
	V	VATERBODY C	HARACTERISTICS
WATERBODY TYPE:	Pond		
AVG. DEPTH:	4 ft estimated		
AVG. WIDTH (WATER SURFACE):	240 ft		
APPROXIMATE SIZE:	2.1 acres		
		QUALITATIVE	ATTRIBUTES
AVERAGE WATER APPEARANCE:	Almost clear		
PRIMARY SUBSTRATE (IF OBSERVED):	Silt/muck		
POTENTIAL HABITAT FOR:	Observed dragonflies, damselflies, snails, frogs, fish, ducks		
SURROUNDING LAND USE:	Old field, new field		
WETLAND FRINGE (IF PRESENT):	WETLAND FRINGE (IF PRESENT): NA; typha and phragmites below OHWM		
COMMENTS			

 Site Photos
 Pond PM-05
 P-MJA-080421-01





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POND DATA SHEET

FEATURE ID Pond PM-06 ASSOCIATED FE			FEATURES:
Survey Type: Wetland and waterbodies delineation			
DATE: 07/12/2021	CLIENT/PROJECT NAME: FirstEnergy Leroy Center-Mayfield 138 kV Transmission Line Project		
Investigators: MJA		ROUTE:	
STATE/COUNTY: OH Geauga			IS THIS A MAPPED NWI FEATURE?: NO
WATERBODY CHARACTERISTICS			
WATERBODY TYPE:	Pond		
AVG. DEPTH:	36 inches		
Avg. Width (Water Surface):	15 ft		
APPROXIMATE SIZE:	0.01 acre		
QUALITATIVE ATTRIBUTES			
AVERAGE WATER APPEARANCE:	Murky brown with algae		
PRIMARY SUBSTRATE (IF OBSERVED):	Silt		
POTENTIAL HABITAT FOR:	Amphibians (bull frogs observed)		
SURROUNDING LAND USE:	Residential, maintained power line easement		
WETLAND FRINGE (IF PRESENT):	None - cattails observed in water		
COMMENTS			

Site Photos Pond PM-06 P-MJA-071221-01





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