

**CONSTRUCTION NOTICE
FOR THE
MUDDY CREEK EMERGENT POLE REPLACEMENTS PROJECT**

**Duke Energy Ohio, Inc.
OPSB Case No. 22-746-EL-BNR**

**Submitted to:
The Ohio Power Siting Board
Pursuant to OAC 4906-06-05**

**Submitted by:
Duke Energy Ohio, Inc.**

August 2022



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Construction Notice

This Construction Notice has been prepared by Duke Energy Ohio, Inc. (hereafter “Duke Energy Ohio”) in accordance with Ohio Administrative Code (OAC) Section 4906-6-05 for the expedited review of the Muddy Creek Emergent Pole Replacements Project (Project). The following sections correspond to the administrative code sections for the requirements of a Construction Notice.

4906-6-5(B) GENERAL INFORMATION

4906-6-05(B)(1) Project Description

The name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Construction Notice.

Name of Project:

Duke Energy Ohio Muddy Creek Emergent Pole Replacements Project (Project)

Reference Numbers:

OPSB Filing Number: The Project has been assigned Ohio Power Siting Board (OPSB) Case Number 22-746-EL-BNR.

PJM Number: This Project is not a PJM supplemental project.

2022 LTFR: This Project was not included in the 2021 or 2022 LTFRs due to the emergency nature of the Project.

Circuit Reference: This Project relates to Transmission Circuit F6885, a 138-kV transmission line.

Brief Description of the Project:

The Project involves the emergency replacement of seven wood pole structures with new steel poles due to severe risk of line failure on the F6885 138 kV circuit in Green Township, Hamilton County, Ohio. The emergency nature of the project is triggered by woodpecker damage observed on 3-pole wooden direct embed structures crossing Muddy Creek and earthwork by a residential developer around a single direct embed wooden structure. Because of observed damage, Duke Energy Ohio proposes to replace one 3-pole wood direct embed structure with an engineered steel H-frame foundation structure and relocate the same pole 75-ft to the southeast and also where the placement will be “within the Duke Energy Ohio ROW” etc.]; replace another 3-pole wooden direct embed structure with an engineered steel monopole structure with foundation; remove a single wooden direct embed structure; replace 4 wooden direct embed single structures with direct embed steel monopole structures; replace and relocate a direct embed wooden structure by 108-ft to the northwest with a direct embed steel monopole structure; and add a steel monopole for additional line support. In addition to this jurisdictional pole replacement work comprising the Project, Duke Energy Ohio will reconductor approximately 2,200 feet of the existing transmission line crossing Muddy Creek to support the above-detailed revisions.

Engineering constraints and current standards will result in shifts of the existing structure locations up to 108 feet, and height increases of up to 50 feet. One new steel pole will also be added. The Project, including new steel poles, work areas, and access roads, will remain within the existing Duke Energy Ohio right-of-way, and there will be no increase to the horizontal width of current wire configuration. No ground disturbance will occur between the two structures of the line creating the approximately 2,200-foot span of the Muddy Creek Valley, but the span will be reconducted with new wire of the same size and specifications.

The Project meets the requirements for a Construction Notice, as set forth in Appendix A to OAC Rule 4906-1-01:

- (2) Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled conductors, adding structures to an existing transmission line, or replacing structures with a different type of structure, for a distance of:*
(a) Two miles or less.

4906-6-05(B)(2) Statement of Need

If the proposed project is an electric power transmission line or gas or natural gas transmission line, a statement explaining the need for the proposed facility.

Duke Energy Ohio performs routine and consistent inspections and maintenance of existing transmission line assets and right of way (ROW) within its system. The current 3-pole wooden direct embed structures spanning approximately 2,200-ft over Muddy Creek on the F6885 138 kV circuit in Green Township, Hamilton County, Ohio have severe damage from woodpeckers. A third structure, a direct embed wooden monopole to the southeast, has been compromised by excavation associated with a residential development. This damage has left the existing wood pole on an elevated cone of exposed soil. Engineering specifications require the replacements of four other existing wood monopole structures with direct embed steel monopoles, the removal of a direct embed wooden structure, and the addition of one new steel monopole structure. Replacing these wood pole structures with new steel pole structures will alleviate a critical emergency situation and lessen or eliminate entirely a significant risk to the reliability of the local community's electricity.

4906-6-05(B)(3) Project Location

The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the project area.

The location of the Project is depicted in Attachment A – Figures. Figure 1 depicts the general Project vicinity on a USGS quadrangle topographic map. Figure 2 depicts the planned location of the Project structures along the F6885 138 kV transmission circuit.

4906-6-05(B)(4) Alternatives Considered

The applicant shall describe the alternatives considered and reasons why the proposed location or route is best suited for the proposed facility. The discussion shall include, but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

The Project alleviates an emergency situation along the existing F6885 138 kV circuit. The condition of certain wood pole structures, especially on both sides of a 2,200-foot span, are compromised. The risk of line failure is severe. The Project will occur entirely within existing right-of-way. No additional long-term impacts to adjacent properties are anticipated as a result of the Project. Therefore, the currently proposed configuration is the only reasonable alternative available and no other alternatives were considered.

4906-6-05(B)(5) Public Information Program

The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

The Project is located entirely within Duke Energy Ohio right-of-way. Any impacted property owner(s) will be notified prior to construction activities. Further information on the ongoing status of this Project and other Duke Energy Projects can be found at the following website:

www.duke-energy.com/muddy-creek.

4906-6-05(B)(6) Construction Schedule

The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.

Construction to alleviate the potential emergency failure of F6885 is scheduled to begin as soon as this Construction Notice is approved. The Project is anticipated to be completed and back in service within two weeks following the start of construction.

4906-6-05(B)(7) Area Map

The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.

Attachment A – Figures, depicts the general location of the Project. Figure 1 depicts the general Project vicinity on a USGS quadrangle topographic map. Figure 2 depicts the planned new transmission structure locations on an aerial photograph.

4906-6-05(B)(8) Property Agreements

The applicant shall provide a list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained.

The Project crosses 23 parcels. Four of these parcels are within the span of the Muddy Creek Valley. No ground disturbance or vehicular access is proposed on these four parcels. The entire Project is within

existing right-of-way. No new right-of-way is necessary for the Project. A list of properties required for the Project is provided in the table below.

Property Parcel Number	Agreement Type	Easement/ Option Obtained (Yes/No)
055002600010*	Existing ROW	Yes
055002600011*	Existing ROW	Yes
055002600019	Existing ROW	Yes
055002600020*	Existing ROW	Yes
055002600021*	Existing ROW	Yes
055002600382	Existing ROW	Yes
055002600412	Existing ROW	Yes
055002600413	Existing ROW	Yes
055002600415	Existing ROW	Yes
055002600416	Existing ROW	Yes
055002600417	Existing ROW	Yes
055002600550	Existing ROW	Yes
055002600551	Existing ROW	Yes
055002600552	Existing ROW	Yes
055002600553	Existing ROW	Yes
055002600554	Existing ROW	Yes
055002600555	Existing ROW	Yes
055002600556	Existing ROW	Yes

* Muddy Creek Valley span parcel only. No ground disturbance or vehicular access planned.

4906-6-05(B)(9) Technical Features

The applicant shall describe the following information regarding the technical features of the project:

Duke Energy Ohio proposes the emergency replacement of seven wood pole transmission structures on the F6885 138 kV circuit. The technical features are shown in Figure 2.

4906-6-05(B)(9)(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

Voltage: 138-kV

Structure Type: (1) Engineered steel H-frame foundation relocation (relocating 75ft southeast and replacing existing wooden 3-pole direct embed Muddy Creek crossing structure)
 (1) Engineered steel monopole foundation replacement structure (Replacing wooden 3-pole direct embed Muddy Creek crossing structure)
 (1) Direct embed steel monopole relocation (relocation 108ft to the northwest and replacing direct embed wooden monopole)

	(4) Direct embed steel monopole replacement structures (replacing direct embed wooden monopoles)
	(1) New direct embed steel monopole structure
	(1) Removal of direct embed wooden monopole
Conductors:	954 ACSR 45X7
Static Wire:	3/8" steel and 7#8 Alumoweld
Insulators:	138-kV glass and polymer insulators
ROW:	No new easements are required for this project.

4906-6-05(B)(9)(b) Electric and Magnetic Fields

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

While there are multiple residences within 100 feet of the 2,200-ft span of reconductoring work, the conductor is either being transferred or will comprise like-for-like replacement. As such, the reconductoring work is not within the Project scope, and no Electromagnetic Field assessment is required for the consideration of the Project scope.

4906-6-05(B)(9)(c) Project Cost

The estimated capital cost of the project.

The estimated capital cost of the Project is \$2,378,831. This estimate includes installation of the new transmission structures and necessary equipment.

4906-6-05(B)(10) Social and Economic Impacts

The applicant shall describe the social and ecological impacts of the project:

4906-6-05(B)(10)(a) Land Use Characteristics

Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

The Project is located in Green Township, Hamilton County, Ohio. The proposed structure installations will occur entirely within existing easements adjacent to residential properties. No changes in land use are proposed.

4906-6-05(B)(10)(b) Agricultural Land Information

Provide the acreage and a general description of all agricultural land, and, separately, all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.

The Project is in a suburban area adjacent to residential properties. None of this area is used for agricultural purposes. No Agricultural District Land parcels were identified at or adjacent to the Project. There will be no anticipated impacts to agricultural land as a result of the Project.

4906-6-05(B)(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant's investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

A review of the Ohio Historic Preservation Office (OHPO) Online Mapping System indicated no known archaeological resources within the area of proposed ground disturbance. Potential aboveground resources mapped within 0.5 mile of the Project work areas included seven Ohio Historic Inventory (OHI) buildings and one Determination of Eligibility. None of these facilities were identified on the National Register of Historic Places (NRHP) or mapped within the APE. The Determination of Eligibility site, Warsaw Cleves Bridge (1036141), is related to a historic bridge. It was identified as potentially eligible on the NRHP, but was replaced as part of an Ohio Department of Transportation project. Eroded, previously disturbed soils, and steep slopes were mapped and confirmed along the Project area. Disturbed soils were confirmed at each wood pole structure replacement location. Further, timber or composite mats over geotextile fabric will be utilized to reduce ground disturbance along access roads and at work areas. Grading will be limited to small areas near structure installation locations where steep slopes would otherwise create safety issues. A Project Summary Form and corresponding report were submitted to OHPO requesting concurrence that no historic properties will be affected. OHPO provided concurrence on August 11, 2022. A copy of the concurrence is provided in Attachment B.

4906-6-05(B)(10)(d) Local, State, and Federal Agency Correspondence

Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

No federal or state agencies are anticipated to have jurisdiction over the Project. No local permits are expected to be necessary.

4906-6-05(B)(10)(e) Threatened, Endangered, and Rare Species

Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website lists the Project area within the range of the Indiana bat (*Myotis sodalis*; federally endangered), northern long-eared bat (*Myotis septentrionalis*; federally threatened) and Monarch butterfly (*Danaus plexippus*; federal candidate).

Coordination with the Ohio Department of Natural Resources (ODNR) was initiated in an effort to identify the Project's potential effect on any federally or state listed Endangered, Threatened and Rare (ETR) species or critical habitat. A response from ODNR has not been received to date. However, typical responses from ODNR in Hamilton County indicate that the little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*), state endangered species, also have ranges within the vicinity of the project. If any trees of more than three inches diameter breast height (DBH) are to be removed, tree removal must take place between 1 October and 31 March.

The Project area is situated within existing right-of-way. Tree clearing beyond side cutting and other typical right-of-way maintenance clearing does not appear necessary for the project. ODNR typically recommends a desktop habitat assessment to determine if a potential bat hibernaculum is present within the project area. Based on desktop review of mining areas and karst topography provided by ODNR, only one potential karst point is situated within 0.5 mile of the Project. This potential karst point is located approximately 600 feet west of the northernmost wood pole to be replaced. Based on the unverified point and distance, the potential to impact a bat hibernaculum appears low. Impacts to bat species are not anticipated.

ODNR comments regarding ETR species on other recent projects in Hamilton County have also identified several indigenous aquatic mussel and fish species, four bird species, Kirtland's snake, and cave salamander. No streams were observed in the Project area, therefore no aquatic species would be present. Habitat for the other species was also not observed. Due to access being mostly matting, limited needs within the existing Duke Energy Ohio ROW, and no habitat for ETR species found within the Project area, no impacts to ETR species are anticipated. A copy of ODNR's coordination response will be provided to OPSB upon receipt.

4906-6-05(B)(10)(f) Areas of Ecological Concern

Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

As a part of the investigation, V3 Companies conducted an investigation for areas of ecological concern within existing right-of-way in the areas of proposed construction. Two erosional drainage features are

within existing right-of-way. These features did not exhibit an ordinary high water mark (OHWM) or established bed and bank. Vegetation typical of wetlands was observed around the erosional drainage feature along the southeastern portion of the Project area. However, sampled soils were not hydric and hydrology indicators of a wetland were not present. Erosion controls and best practices will be utilized to protect the erosional features. No wetlands, streams, or other areas of ecological concern were identified. V3 Companies' field investigation can be found in Attachment C – Natural Resource Assessment. A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) revealed that no portion of the Project Area lies within a 100-year floodplain and/or floodway. The Public Areas Database of the United States (PADUS) was also reviewed to locate potentially ecologically sensitive properties in the Project vicinity. No such properties were identified within one mile of the Project. Based on the field investigation and review of publicly available data, impacts to areas of ecological concern are not anticipated.

4906-6-05(B)(10)(g) Unusual Conditions

Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of Duke Energy Ohio's knowledge, no unusual conditions exist that would result in environmental, social, health, or safety impacts. Construction and operation of the proposed Project will meet all applicable safety standards established by the Occupational Safety and Health Administration and will be in accordance with the requirements specified in the latest revision of the National Electric Code as adopted by the Public Utilities Commission of Ohio.

4906-6-07 SERVICE AND PUBLIC DISTRIBUTION OF ACCELERATED CERTIFICATE APPLICATIONS

Serve a copy of the application on the chief executive officer of each municipal corporation, county, township, and the head of each public agency charged with the duty of protecting the environment or of planning land use in the area in which any portion of such facility is to be located. Hard copies shall be made available upon request.

Place a copy of the application or place a notice of the availability of such application in the main public library of each political subdivision as referenced in division (B) of section 4906.06 of the Revised Code. If a notice is provided, that notice shall state that an electronic or paper copy of the application is available from the applicant (with instructions as to how to obtain an electronic or paper copy), available for inspection at the applicant's main office, available for inspection at the board's main office, and available at any other sites at which the applicant will maintain a copy of the application.

Maintain on its website information as to how to request an electronic or paper copy of the application. Upon request for a paper copy of the application, the applicant shall supply the copy within five business days and at no more than cost.

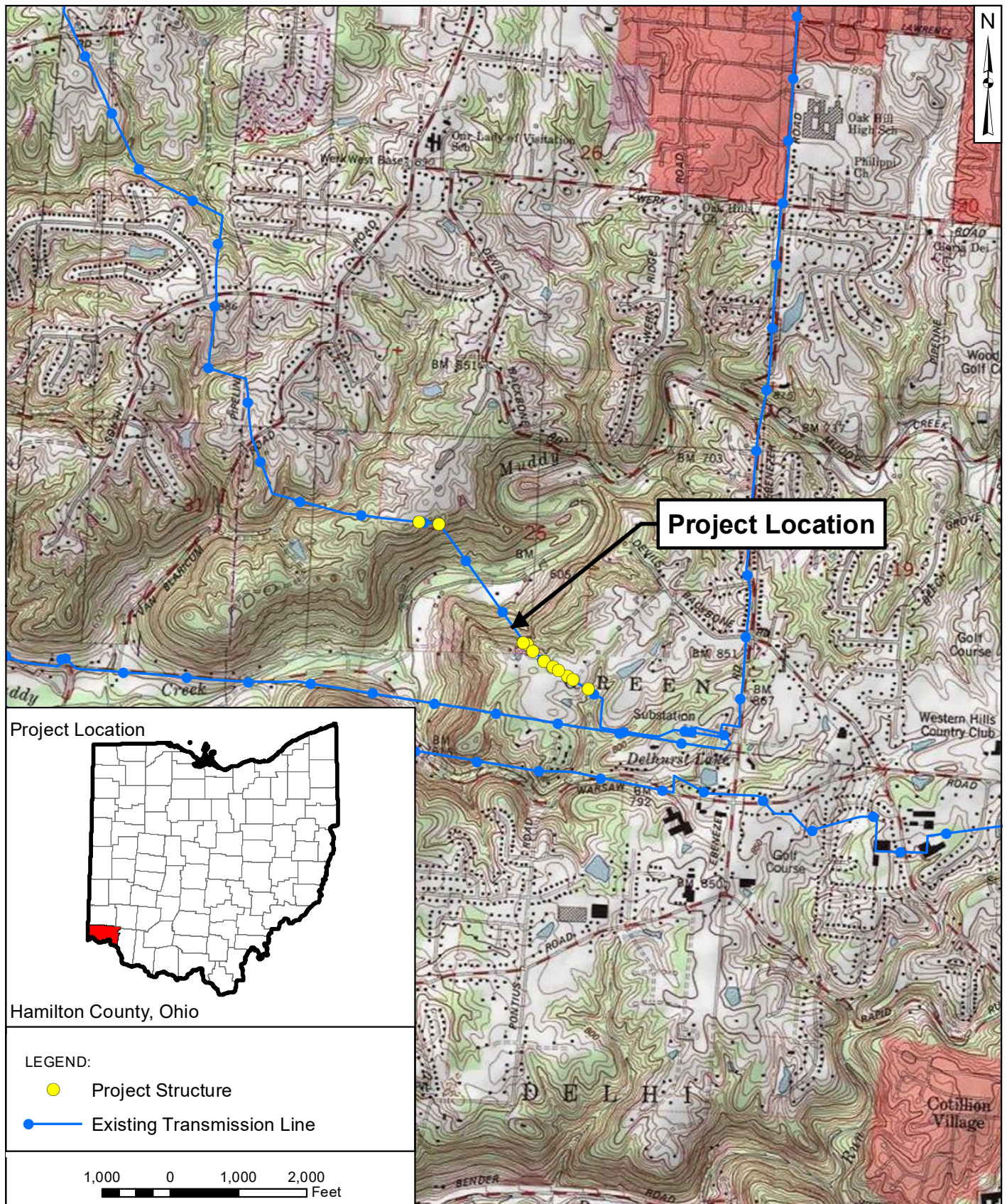
Proof of compliance with this rule shall be filed with the board within seven days of filing the accelerated application.

A link to a copy of the Construction Notice has been sent to the appropriate public officials for Hamilton County and Green Township. Additionally, a link has been sent to the Cincinnati & Hamilton County Public Library – Green Township Branch.

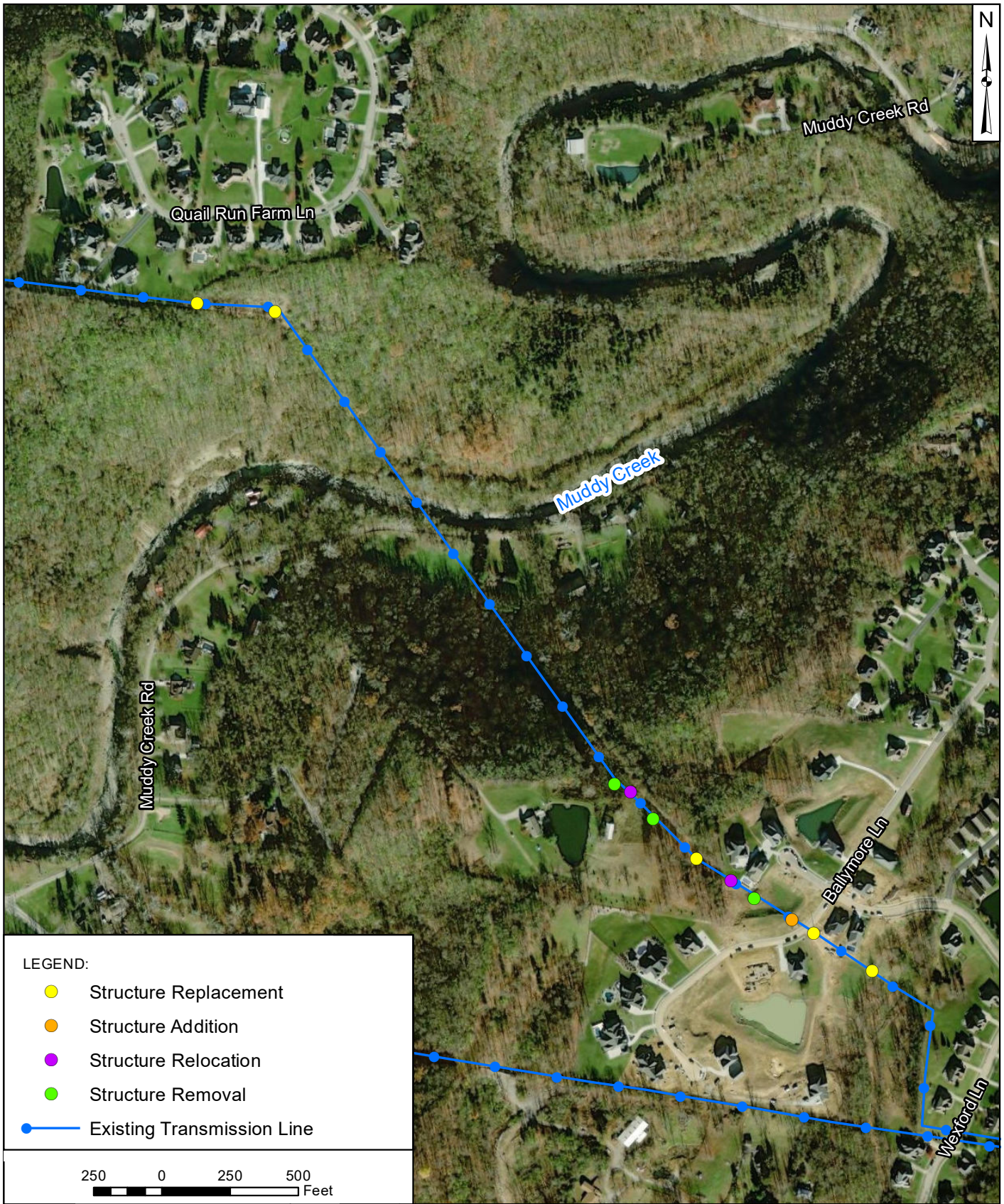
Duke Energy Ohio will maintain a copy of this Application on its website at: www.duke-energy.com/muddy-creek.

Duke Energy Ohio will file proof of compliance on the docket within 7 days of filing this application.

ATTACHMENT A – FIGURES




 <p>312 Walnut Street Suite 1600 Cincinnati, Ohio 45202 513-800-3622 phone www.v3co.com</p> <p>Visio, Vertere, Virtute... "The Vision To Transform with Excellence"</p>	<p>PROJECT NO.: 20568.038</p>	 <p>CLIENT: DUKE ENERGY</p>	<p>TITLE: PROJECT LOCATION</p>	
	<p>CREATED BY: ARG</p>			
	<p>DATE: 08/09/2022</p>	<p>BASE LAYER: ESRI USA Topo Maps 2013</p>	<p>SITE: Muddy Creek Transmission Lines Replacement Project Hamilton County, Ohio</p>	<p>FIGURE: 1</p>
	<p>SCALE: See Scale Bar</p>			



LEGEND:

- Structure Replacement
- Structure Addition
- Structure Relocation
- Structure Removal
- Existing Transmission Line

250 0 250 500
Feet

 <p>312 Walnut Street Suite 1600 Cincinnati, Ohio 45202 513-800-3622 phone www.v3co.com</p> <p>Visio, Vertere, Virtute... "The Vision To Transform with Excellence"</p>	PROJECT NO.: 20568.038	 <p>CLIENT: DUKE ENERGY</p>	TITLE: PROJECT LAYOUT	
	CREATED BY: ARG			
	DATE: 08/09/2022		SITE: Muddy Creek Transmission Lines Replacement Project Hamilton County, Ohio	FIGURE: 2
	SCALE: See Scale Bar			

ATTACHMENT B – CULTURAL RESOURCES CONCURRENCE



In reply refer to
2022-HAM-55525

August 11, 2022

Aaron Geckle
V3 Companies
312 Walnut Street, Suite 1600
Cincinnati, Ohio 45202

Dear Mr. Geckle:

RE: Duke Energy F6885 Emergency Wood Pole Replacement, Green Township, Hamilton County, Ohio

This is in response to the receipt of correspondence, on August 8, 2022, regarding the proposed transmission pole replacements in Hamilton County, Ohio. The comments of the Ohio Historic Preservation Office are submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended.

Based on the information submitted, it is my opinion that the proposed undertaking will have no effect on properties listed in or eligible for listing in the National Register of Historic Places. No further coordination is required unless the project changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted as per 36 CFR 800.13.

Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs. If you have any questions, please contact me at (614) 298-2000, or by email at nyoung@ohiohistory.org. Please note the Ohio SHPO now accepts electronic-only submissions for state and/or federal review under Section 106 and ORC 149.53. Please send your submissions to section106@ohiohistory.org. We have also updated our [Survey Report Submission Standards](#).

Sincerely,

A handwritten signature in blue ink that reads "Nathan J. Young".

Nathan J. Young, Project Reviews Manager
Resource Protection and Review

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org

ATTACHMENT C – NATURAL RESOURCES ASSESSMENT

F6885 EMERGENCY WOOD POLE REPLACEMENTS NATURAL RESOURCE ASSESSMENT



PROJECT SITE:

F6885 Circuit
Green Township, Hamilton County, Ohio

PREPARED FOR:

Duke Energy
315 Main Street
Cincinnati, Ohio 45202



PREPARED BY:

V3 Companies, Ltd.
312 Walnut Street, Suite 1600
Cincinnati, Ohio 45202
(513)-800-3622



August 2022

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EXECUTIVE SUMMARY

V3 Companies, Ltd. (V3) performed a natural resource assessment (NRA) and wetland delineation for the proposed F6885 Emergency Wood Pole Replacements situated generally between Quail Run Farm Lane and Wexford Lane in Green Township, Hamilton County, Ohio (SITE), on 8 August 2022.

V3 reached the following conclusions based on review of available and reasonably ascertainable federal, state, and local resources, and a SITE inspection conducted on the date referenced above.

- No wetlands were observed within the SITE area.
- Two erosional drainage features were observed during the site reconnaissance. These features did not exhibit an Ordinary High Water Mark (OHWM) or defined bed and bank. No other streams or potential “Waters of the U.S.” were observed on-SITE.
- V3 contacted the United States Fish and Wildlife Service (USFWS) via the Information for Planning and Consultation (IPaC) website for endangered, threatened, and rare (ETR) species coordination. USFWS indicated that the SITE is situated within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). V3 also contacted the Ohio Department of Natural Resources (ODNR). A response from ODNR has not been received to date. However, typical responses from ODNR in Hamilton County indicate that the little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*), state endangered species, also have ranges within the vicinity of the project. If any trees of more than three inches DBH are to be removed, tree removal must take place between 1 October and 31 March.
- The SITE is situated within existing right-of-way. Tree clearing beyond side cutting and other typical right-of-way maintenance clearing does not appear necessary for the project. ODNR typically recommends a desktop habitat assessment to determine if a potential bat hibernaculum is present within the project area. Based on desktop review of mining areas and karst topography provided by ODNR, only one potential karst point is situated within 0.5 mile of the SITE. This potential karst point is located approximately 600 feet west of the northernmost wood pole to be replaced. Based on the unverified point and distance, the potential to impact a bat hibernaculum appears low. Impacts to bat species are not anticipated.
- ODNR comments regarding ETR species on other recent projects in Hamilton County have identified several indigenous aquatic mussel and fish species, four bird species, Kirtland’s snake, and cave salamander. No streams were observed on-SITE, therefore no aquatic species would be present. Habitat for the other species was also not observed. No impacts to ETR species are anticipated.
- A Storm Water Pollution Prevention Plan (SWP3) for the construction site is required for land disturbance activities greater than one acre. V3 understands that timber or composite matting will be utilized for the majority of access roads and work areas. Grading will be limited to areas where steep slopes require slight leveling to create a safe working environment.
- No 100-year flood zones are mapped on-SITE. Floodplain permitting is not expected to be necessary.



CHAPTER 1 INTRODUCTION

This report has been prepared solely in accordance with an agreement between Duke Energy ("CLIENT") and V3 Companies ("V3"), Ltd.

The services performed by V3 have been conducted in a manner consistent with the level of quality and skill generally exercised by members of its profession and consulting practices relating to this type of engagement.

This report is solely for the use of CLIENT and was prepared based upon an understanding of CLIENT's specific objective(s) and based upon information obtained by V3 in furtherance of CLIENT's specific objective(s). Any reliance of this report by third parties shall be at such third party's sole risk as this report may not contain, or be based upon, sufficient information for purposes of other parties, for their objectives, or for other uses. This report shall only be presented in full and may not be used to support any other objectives than those for CLIENT as set out in the report, except where written approval and consent are expressly provided by CLIENT and V3.

1.1 INTRODUCTION

The purpose of this investigation was to conduct an NRA and wetland delineation of the SITE to evaluate potential land development permitting requirements regarding natural resources. In this report, V3 provides a detailed description of the information reviewed and collected as part of the scope of work for this project. V3 summarizes the jurisdictional framework applicable to this project, provides a desktop review of relevant and publicly available documents, and details information collected during the SITE reconnaissance including a wetlands determination, an evaluation of the potential presence of other natural resources within the SITE boundary, and a discussion of endangered, threatened, and rare (ETR) species and habitat. The Conclusions section summarizes V3's findings, addresses potential areas of concern and permitting, regulatory, and other relevant issues.

The SITE is situated generally between Quail Run Farm Lane and Wexford Lane in Green Township, Hamilton County, Ohio (**Figure 1**).



CHAPTER 2 JURISDICTIONAL RESOURCES

2.1 U.S. ARMY CORPS OF ENGINEERS

Through the Clean Water Act (CWA) of 1972, Section 404, the U.S. Army Corps of Engineers (USACE) maintains authority over “Waters of the U.S.” as defined in 33 CFR §328.3. A detailed discussion of “Waters of the U.S.” can be referenced in **Section 2.1.1** of this report.

The USACE must issue a Section 404 permit before any fill or dredging activities can be conducted within a “Water of the U.S.,” including federally jurisdictional wetlands. There are three types of USACE Section 404 permits: nationwide permits (NWP), individual permits (IPs), and regional general permits (RGPs). The OEPA must also issue a Section 401 Water Quality Certification (WQC) concurrently with the Section 404 permit(s) unless certain conditions are met (**Section 2.3.1**). Section 401 WQC from the OEPA is discussed in more detail in **Section 2.3.1** of this report.

- Nationwide Permits (NWP) are for proposed stream impacts of 300 LF or less, and/or proposed wetland impacts of 0.50 acre or less. Only certain types of projects, as outlined in USACE guidance,¹ are eligible for the NWP. The NWP streamlines the permit process for smaller, repetitive, low impact projects.
- Individual Permits (IP) are for proposed stream impacts of 300 LF or more, and/or proposed wetland impacts of 0.50 acre or more. The review process for the IP may take up to one year due to the higher level of scrutiny by the regulatory agencies.
- Regional General Permits (RGP) are for projects that have minimal individual and cumulative impacts on aquatic resources, but which not qualify for the NWP. The USACE Huntington District issues four types of RGPs, three of which are issued only in West Virginia, and one of which is issued only in Ohio. The Ohio RGP is issued only for projects associated with the State of Ohio Department of Transportation (ODOT).

USACE guidelines require stream and wetland characterizations for all drainage features and wetlands proposed to be impacted. Permit applications must contain extensive detail of the proposed impact sites, the proposed mitigation sites, and information regarding the construction and monitoring of the mitigation sites.

Impacts to USACE jurisdictional wetlands or other “Waters of the U.S.” require in-kind mitigation. The USACE and the OEPA prefer the mitigation to be on-site, but may allow off-site mitigation in some cases due to constraints.

2.1.1 *Waters of the U.S.*

Executive Order 13,990² was issued 20 January 2021. This executive order directs federal agencies, including the U.S. Environmental Protection Agency (USEPA) and the USACE, to review the Navigable Waters Protection Rule (NWPR) of 2020. To comply with Executive Order 13,990, the USEPA and the USACE announced their intent to revise the definition of “Waters of the U.S.” used since the NWPR was issued.

¹ USACE, Nationwide Permits for the State of Ohio, USACE Huntington District. Public notice in reply to Public Notice No. LRH-2016-00006-OH, Huntington, WV: USACE, Huntington District, 2017. Accessed online, July 2020. Available: <https://epa.ohio.gov/Portals/35/401/2017%20Nationwide%20Permits%20for%20Ohio.pdf>

² 86 FR 7,037



On 31 August 2021, while the agencies were still developing a revised definition of “Waters of the U.S.,” the U.S. District Court for the District of Arizona issued an order to vacate the NWPR. This order was the outcome of the 2021 *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency* case.

In response to this court order, on 9 June 2021, the USEPA announced that, until further notice, it would recognize only the definition of “Waters of the U.S.” found in the pre-2015 regulatory regime. The pre-2015 regulatory regime uses the 1986 definition of “Waters of the U.S.” Under this³ definition, “Waters of the U.S.” includes:

- The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide
- Tributaries
- Lakes and ponds, and impoundments of jurisdictional waters
- Adjacent wetlands, as defined in 40 CFR § 120.2(3)(i)

The pre-2015 regulatory regime also uses guidance established in the *Rapanos/Carabell*^{4,5} U.S. Supreme Court cases. Wetlands with a “significant nexus” to a traditional navigable water, non-navigable/non-permanent tributary, and/or relatively permanent non-navigable tributary are “Waters of the U.S.” subject to federal authority. Surveyors can determine the presence of a “significant nexus” by assessing hydrological factors, especially those related to hydrologic connectivity with a tributary, or ecological factors such as aquatic habitat provision, pollution treatment, and flood storage.⁶

2.1.2 Wetlands

Wetlands offer a variety of functions and values that may include, but are not limited to, groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, and fish and wildlife habitat. Because of the perceived functions and values of wetlands, USACE developed the Wetlands Delineation Manual, (1987 Manual)⁷ to identify wetlands.

Wetlands are defined in the 1987 Manual as, “Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”² The 1987 Manual outlines the protocol for distinguishing wetland areas from “upland” areas. Wetland areas are delineated according to three primary criteria: vegetation, soil, and hydrology. An area is determined to qualify as a wetland if it meets the following “general diagnostic environmental characteristics:”

- Hydrophytic vegetation
- Hydrology
- Hydric Soil

³ 40 CFR § 120.2(1)

⁴ U.S. Supreme Court (USSC). 2006. *Rapanos v United States*, 04-1034.

⁵ USSC. 2004. *Carabell v United States Army Corps of Engineers*, 03-1700

⁶ U.S. Environmental Protection Agency (USEPA), *Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in Rapanos v. United States & Carabell v. United States*, by BH Grumbles and JP Woodley, Jr. United States: USEPA, 2008.

⁷ USACE. Waterways Experiment Station. Wetlands Research Program. “Corps of Engineers Wetlands Delineation Manual.” Vicksburg, MS: Environmental Laboratory, 1987



Hydrophytic Vegetation

The *1987 Manual* defines hydrophytic vegetation as, "...the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present..."

The USFWS and the National Wetland Plant List Panel developed the following categories to establish the relative probability of species occurring within the ranges between upland and wetland. The list was updated by USACE with cooperation with other federal agencies in 2016. The following list is the categories for plant species:

- ***Obligate Wetland Plants*** (OBL) – Probability of >99% occurrence in wetlands with a 1% probability of occurrence in upland areas.
- ***Facultative Wetland Plants*** (FACW) – Probability of 67% - 99% occurrence in wetlands with a 1% - 33% probability of occurrence in upland areas.
- ***Facultative Plants*** (FAC) - Probability of 34% - 66% occurrence in either wetlands or upland areas.
- ***Facultative Upland Plants*** (FACU) - Probability of 67% - 99% occurrence in upland areas with a 1% - 33% probability of occurrence in wetland areas.
- ***Obligate Upland Plants*** (UPL) - Probability of >99% occurrence in upland areas with a 1% probability of occurrence in wetland areas.

The hydrophytic vegetation criterion is met if greater than 50% of dominant species are FAC, FACW, or OBL.

Hydrology

Areas which are inundated or saturated to the surface for a significant time during the growing season will typically exhibit characteristics of wetland hydrology. Careful examination of the site conditions is needed to adequately identify wetland areas. The anaerobic and reducing conditions in inundated or saturated soils influence the plant community and may favor a dominance of hydrophytic species. It should be noted that the *1987 Manual* further defines the growing season and methodology for determining evidence of hydrology.

There are two types of hydrologic indicators: primary and secondary. Primary indicators of hydrology are discussed in the *1987 Manual* and include, but are not limited to, inundation, and saturation within the upper 12 inches of soil, water marks, drift lines, sediment deposits, and drainage patterns. Secondary indicators include, but are not limited to, oxidized root channels, water-stained leaves, local soil survey data, FAC-Neutral test, etc. One primary or two secondary indicators are required to meet this criterion.

Hydric Soil

"A hydric soil is formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part."⁸ All organic soils (except Folists) are considered hydric, while mineral soils must be carefully examined to qualify as hydric. There are several indicators that suggest a soil is hydric. An inspection of the soil profile to a minimum depth of

⁸ U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS). *Hydric Soils Technical Note 1. Proper Use of Hydric Soil Terminology*. Accessed January 2018. <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/use/hydric/>

⁹ U. S. Army Corps of Engineers. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)*. ERDC/EL TR-12-9. Vicksburg, MS: U.S. Army Engineer Research and Development Center



16 inches below ground surface is required in order to make this determination. The soil data used is the horizon of soil immediately below the A-horizon, or at 10 inches below the soil surface. Hydric soils may be present in an upland position; however, there may be insufficient evidence of hydrology or vegetation for the area to qualify as wetland.

2.1.3 Regional Supplement Manuals

A series of regional supplements⁹ to the 1987 manual are developed by the Army Engineer Research and Development Center (ERDC) to be more specific to regionally geographical conditions. Each supplement manual is developed to account for regional differences in climate, geology, soils, hydrology, plant and animal communities, etc. The intent of the regional supplements is to update the 1987 Manual with current information and technology rather than change the definition or manner that wetlands were delineated. The procedures for completing a wetland delineation is to use a combination of the 1987 Manual and the correct regional supplement manual.

Table 1: Summary of Replacement Sections in the 1987 Manual for the Eastern Mountains and Piedmont Region

Item	Replaced Portions of the 1987 Manual	Replacement Guidance
Hydrophytic Vegetation Indicators	Paragraph 35, all subparts, and all reference to specific indicators in Part IV.	Chapter 2
Hydric Soil Indicators	Paragraphs 44 and 45, all subparts, and all references to specific indicators in Part IV.	Chapter 3
Wetland Hydrology Indicators	Paragraph 49(b), all subparts, and all references to specific indicators in Part IV.	Chapter 4
Growing Season Definition	Glossary	Chapter 4, Growing Season; Glossary
Hydrology Standard for Highly Disturbed or Problematic Wetland Situations	Paragraph 48, including Table 5 and the accompanying User note in the online version of the Manual.	Chapter 5, Wetlands that Periodically Lack Indicators of Wetland Hydrology, Procedure item 3(f).

Regional Supplement Manuals will continue to be developed and revised electronically with the improvement of technology and procedures.

2.2 UNITED STATES FISH AND WILDLIFE SERVICE

The Endangered Species Act (ESA) of 1973 intends to conserve the habitats of federally endangered or threatened species and to assist in the recovery of species listed. The USFWS is the regulating authority for this act and works with the states to provide additional conservation measures. The USFWS¹⁰ defines two classifications of protected species, endangered and threatened. An endangered species is an organism that is in danger of extinction throughout all or a significant portion of its range. A threatened species is an organism that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals are eligible for listing.

Any activity that may incidentally harm federally threatened or endangered species is prohibited by the ESA. For proposed development areas that contain listed species, private landowners may create a Habitat Conservation Plan to minimize the impact on the listed species. This plan should include the protection of breeding, foraging, and shelter requirements for the listed species. The USFWS may then

¹⁰ U.S. Fish and Wildlife Service (USFWS). Endangered Species Program. *ESA Basics*. Arlington, VA: USFWS, 2004. Accessed January 2018. https://www.fws.gov/endangered/esa-library/pdf/ESA_basics.pdf

grant an Incidental Take Permit for the project. In the event that any person knowingly violates any provision of the Act or Permit, the person may be assessed penalties.

Projects that involve federal funding or permitting on a site where endangered or threatened species are known to occur or where significant habitat is present will require an alternatives analysis and extensive documentation of agency coordination.

2.3 OHIO ENVIRONMENTAL PROTECTION AGENCY

The OEPA is responsible for administering Section 401 of the CWA (Ohio Administrative Code [OAC] 3745-32), classifying wetlands and determining mitigation ratios in accordance with the Wetland Anti-Degradation Rule (OAC 3745-1-51 through OAC 3745-1-54), and issuing permits for impacts to isolated wetlands (Ohio Revised Code [ORC] 6111.02 through ORC 6111.029). OEPA also administers Permit No. OHC000005 as part of the NPDES permit program for stormwater runoff at construction sites.

2.3.1 Section 401 Water Quality Certification

If impacts to “Waters of the U.S.” are considered under a USACE NWP, the OEPA authorizes a Section 401 WQC if certain conditions are met. These conditions are described in the NWP guidance for the State of Ohio.¹¹ If impacts to “Waters of the U.S.” are considered under a USACE IP, then a Section 401 WQC from the OEPA is always required.

The OEPA Section 401 WQC process requires an alternatives analysis that consists of a review of off-site alternatives, a preferred on-site plan, a minimal degradation plan, and a non-degradation plan. The OEPA reviews these alternatives for biological and water quality impacts and for social and economic benefits. The OEPA may, at their discretion, choose the minimal degradation plan, so the minimal degradation plan should be a feasible, developable alternative. The review process for this type of permit may take up to one year due to the higher level of regulatory review and due to the public notice process.

As outlined in OAC 3745-1-54(D)(1), applicants for a Section 401 WQC from the OEPA must demonstrate:

- Avoidance – There must be no practicable alternative with less impact as determined through an off-site and on-site alternative analysis. For Category 3 Wetlands, the OEPA presumes that less-damaging alternatives are available unless it is clearly demonstrated that they are not.
- Minimization – Steps must be taken to minimize impacts on the wetland ecosystem. Direct and indirect impacts are considered.
- That the lowering of water quality is necessary to accommodate important social and economic development in the area in which the water body is located.
- That storm water and water quality controls will be installed in accordance with OAC 3745-1-50(D)(2).
- That the wetland is not scarce regionally or statewide, or if the wetland is scarce, that the project will cause only a short-term disturbance of water quality that will not cause long-term detrimental effects.
- Compensatory Mitigation – The designated use of the wetland must be replaced in accordance with the established mitigation ratios.

¹¹ USACE, 2017.



For projects involving impacts to Category 3 wetlands (**Section 2.3.3**), the applicant must also demonstrate a “public need.” As per OAC 3745-1-50(MM), a project has a “public need” if it is “an activity or project that provides important tangible and intangible gains to society, that satisfies the expressed or observed needs of the public where accrued benefits significantly outweigh reasonably foreseeable detriments.”

2.3.2 Ephemeral Streams in Ohio

The OEPA authorizes impacts to ephemeral streams by issuing the Ephemeral Stream and Isolated Wetland General Permit (ESIWGP). The ESIWGP has been in place since 25 June 2020. Pursuant to ORC 6111.021 and 6111.03(J)(1), the ESIWGP authorizes impacts to ephemeral streams not subject to regulation under the CWA.¹²

The ESIWGP application must include a pre-activity notice (PAN) only if proposed ephemeral stream impacts exceed 300 LF. A stream physical habitat assessment, whether by the headwater habitat evaluation index (HHEI) or qualitative habitat evaluation index (QHEI) or a similar metric, must be included in the PAN.

Compensatory mitigation is required only if proposed impacts to ephemeral streams exceed 300 LF. Mitigation ratios for impacts to ephemeral streams are dependent upon the impacted stream’s substrate type (**Table 2**).

Table 2: Mitigation Ratios for Impacts to Ephemeral Streams in Ohio

Type of Ephemeral Stream	Extent of Impacts Proposed	Pre-Activity Notification (PAN) Required	Compensatory Mitigation Required	Mitigation Ratio
Ephemeral stream with sand/silt/muck/clay dominated substrate	Less than 300 LF	No	No	N/A
	More than 300 LF	Yes	Yes	1:1
Ephemeral stream with, bedrock/boulder/cobble/gravel/sand mixed substrates	Less than 300 LF	No	No	N/A
	More than 300 LF	Yes	Yes	1.5:1

If proposed ephemeral stream impacts are temporary, the ESIWGP requires restoration to conditions resembling the pre-impact condition. The restoration must not rely on human interventions within 12 months following completion of the temporary impact.

2.3.3 Isolated Wetlands in Ohio

An OEPA permit is required for impacts to isolated wetlands in Ohio, but the type of permit required varies depending on the type of wetland and the extent of impacts proposed.

To determine the appropriate permitting requirements for impacts to isolated wetlands in Ohio, the quality of the impacted wetland(s) must be determined using the Ohio Rapid Assessment Method (ORAM). The ORAM assigns wetlands to Category 1, Category 2, or Category 3, corresponding to wetlands of low, medium, and high quality, respectively (see **Section 2.3.4** for a detailed summary of the ORAM). Once the category of the isolated wetland is determined through an ORAM, the appropriate permit may be determined using **Table 3**. Available OEPA permits include the ESIWGP, the Isolated Wetland General Permit (IWGP) Level 2, and the IWGP Level 3.

¹² OEPA, Ohio General Permit for Filling Category 1 and Category 2 Isolated Wetlands and Ephemeral Streams, OEPA.

Accessed online, July 2020. Available:

<https://epa.ohio.gov/Portals/35/401/Ephemeral%20Stream%20and%20L1%20IW%20General%20Permit.docx.pdf?ver=2020-06-26-004725-563>



Table 3: OEPA Permitting Summary

Wetland Category	Acres of Impact Proposed (acres)	Public Notice Required	Mandatory Public Hearing	Review Period	Type of Permit Required
1 or 2	0.50 or less	No	No	30 days	ESIWGP
1	0.50 or more	Yes	No	90 days	IWGP Level 2
2	0.50 to 3.00	Yes	No	180 days	IWGP Level 2
2	More than 3.00	Yes	No	180 days	IWGP Level 3
3	Any	Yes	Yes	180 days	IWGP Level 3

The OEPA requires compensatory mitigation for all impacts to isolated wetlands in Ohio. The OEPA's first preference is for mitigation at a wetland mitigation bank within the USACE district where impacts are proposed. If this is not possible, in-lieu fee mitigation through the Ohio Stream and Wetland In Lieu Fee Mitigation Program is preferred. If neither mitigation banking nor in-lieu fee mitigation are possible, off-SITE permittee-responsible mitigation is preferred.

The ratio of proposed impacts to compensatory mitigation required depends on the type of impacts and mitigation proposed (Table 4).

Table 4: Ohio Isolated Wetland Mitigation Ratios

Category of Impacted Wetland	Mitigation Banking and In-Lieu Fee Mitigation Ratio	Permittee-Responsible Mitigation Ratio			
		Category of Replacement Wetland	Permittee-Responsible On-Site Mitigation Ratio	Permittee-Responsible Off-Site Mitigation Ratio	Compensatory Mitigation Location if Off-Site
Category 1	2.0:1	Category 2 or 3	1.5:1	1.5:1	Within the USACE District
Category 2 (Non-Forested)	2.0:1	Category 2 or 3	1.5:1	2:1	Within Watershed
Category 2 (Forested)	2.5:1	Category 2 or 3	2:1	2.5:1	Within Watershed
Category 3 (Non-Forested)	2.5:1	Category 3	2:1	2.5:1	Within Watershed
Category 3 (Forested)	3.0:1	Category 3	2.5:1	3:1	Within Watershed

2.3.4 Ohio Rapid Assessment Method (ORAM)

Under the Ohio Administrative Code 3745-1-54 Wetland anti-degradation rule a "category will be assigned based on the wetland's relative functions and values, sensitivity to disturbance, rarity, and potential to be adequately compensated for by wetland mitigation." The ORAM can be used to determine the category. Once a category has been established and verified, the type of permit to be submitted and subsequent mitigation requirements will be determined as previously stated.

The categories are:

- Category I – dominated by low diversity, non-native species, minimal or degraded habitat, hydrological, and recreational functions, and is unlikely to support endangered, threatened, or rare species.

- Category II – dominated by native species of moderate quality and diversity, functional hydrologically and recreationally, unlikely to support endangered, threatened, or rare species, minimal habitat disturbance. Sometimes includes category I wetlands that are restorable.
- Category III – superior habitat, hydrological, and recreational functions, highly diversified, likely to support endangered, threatened, or rare species, minimal habitat disturbance.






The point system is intended to cover a wide range of wetland types and situations in order to give the most comprehensive description possible. Some wetlands are automatically considered Category I when they are less than 1 acre in size, hydrologically isolated, and consist principally of common reed (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), or reed canary grass (*Phalaris arundinacea*). Also, some wetlands may be considered Category III if they are found to be bogs, fens, vernal pools, or high quality mature forested wetlands. The season that the wetland is evaluated may have some effect on the scores, as well as years of drought or flooding. Reassessment or confirmation may be required if a score is near a breakpoint in the Score Calibration.

In addition to the Quantitative Rating, which uses the Scoring forms and site visit to determine category, the Narrative Rating is meant to complete the assessment through a “literature review.” The USFWS and ODNR should be contacted about the presence of endangered, threatened, and rare species, high quality wetland, or significant breeding/non-breeding bird concentration areas documented for the project area.

2.3.4 Qualitative Habitat Evaluation Index (QHEI)

The QHEI was developed by the OEPA as a rapid assessment method for streams with a drainage area greater than 1 square mile. Streams are scored in the field and classified based on substrate, habitat characteristics, channel morphology, and riparian zone quality. Streams are rated on a scale of 100 points; the score is used to assign a general narrative quality rating from very poor to excellent. The table below is excerpted from the QHEI manual¹³ and shows the correspondence between numeric and narrative scores (Table 5).

Table 5: General Narrative Ranges Assigned to QHEI Scores¹⁴

Ranges vary slightly in headwater (≤ 20 sq mi) vs. larger waters.			
Narrative Rating		QHEI Range	
		Headwaters	Larger Streams
Excellent		≥ 70	≥ 75
Good		55 to 69	60 to 74
Fair		43 to 54	45 to 59
Poor		30 to 42	30 to 44
Very Poor		< 30	< 30

2.3.5 Primary Headwater Habitat Evaluation Index (HHEI)

The primary headwater streams are quite small, less than 1.0 mi² drainage area. Many of them would not show up as blue lines on USGS 1:24,000 quadrangle maps, although almost all of them would be visible and marked on county soil maps. These streams are not often defined or assigned beneficial uses in Ohio water quality standards. The sampling methods, and concurrent biological and habitat indices now used by OEPA to classify waterways for existing water quality (e.g., IBI, ICI, QHEI) are

¹³ Ohio Environmental Protection Agency (OEPA), *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI)*, State of Ohio Environmental Protection Agency Division of Surface Water, Ecological Assessment Section. OHIO EPA Technical Bulletin EAS/2006-06-01, Groveport, Ohio: State of Ohio, 2006.

¹⁴ OEPA, *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI)*.

oriented toward larger streams. Because these "index of biotic integrity" assessment systems are watershed size dependent, they often cannot be used to identify the well-being of the native fauna that survive and reproduce in small headwater stream ecosystems.

This primary headwater stream classification methodology outlines a predictable three-tiered protocol that can be used to conduct rapid assessment of headwater stream quality. The lowest level of field effort is a relatively rapid habitat evaluation procedure known as the "Headwater Habitat Evaluation Index" (HHEI). It is based on three physical measurements that have been found to correlate well with biological measures of stream quality. Two levels of biological assessment, one at an order-family level of taxonomic identification, the second to genus species, provide flexibility in reaching a final decision on the appropriate aquatic life use designation needed to classify a primary headwater stream.

2.3.6 NPDES General Permit Authorization

If greater than one acre of ground disturbance is proposed, the project will be subject to OEPA General Permit Authorization for Stormwater Discharges Associated with Construction Activity (OEPA Permit No. OHC000005) and the U.S. Environmental Protection Agency (EPA), National Pollutant Discharge Elimination System (NPDES) permit program. A Notice of Intent (NOI) form will need to be submitted to OEPA at least 21 days prior to the start of construction.

2.4 HAMILTON COUNTY SOIL AND WATER CONSERVATION DISTRICT

The Hamilton County Stormwater District authorizes earth disturbance construction activities through issuance of an Earth Disturbance Permit (EDP). An EDP application and associate SWPPP are submitted to the Hamilton County Soil and Water Conservation District via an online portal (<https://www.Hamiltonswcd.com/earth-disturbing-permit-application.html>).

CHAPTER 3 DESKTOP REVIEW

V3 reviewed applicable, readily available, and accessible historical information for the potential presence of wetlands, “Waters of the U.S.,” and other natural resources.

3.1 PROJECT LOCATION MAP

The SITE is located generally between Quail Run Farm Lane and Wexford Lane in Green Township, Hamilton County, Ohio (**Figure 1**).

3.2 NATIONAL WETLANDS INVENTORY MAP

National Wetlands Inventory (NWI) maps were developed to meet a USFWS mandate to map the wetland and deepwater habitats of the U.S. These maps were developed using high altitude aerial photographs and USGS Quadrangle maps as a topographic base. Indicators that exhibited pre-determined wetland characteristics, visible in the photographs, were identified according to a detailed classification system. The NWI map retains some of the detail of the Quadrangle map; however, it is used primarily for demonstration of wetland areas identified by the agency. The maps are accurate to a scale of 1:24,000. In general, the NWI information requires field verification.

NWI data is shown projected over the USGS 7.5-Minute Quadrangle Map in **Figure 2**. No NWI features are mapped within the SITE area.

3.3 UNITED STATES GEOLOGICAL SURVEY 7.5-MINUTE QUADRANGLE MAP

A USGS 7.5-Minute Quadrangle map displays contour lines to portray the shape and elevation of the land surface. Quadrangle maps render the three-dimensional changes in elevation of the terrain on a two-dimensional surface. The maps usually portray both manmade and natural topographic features. Although they show lakes, rivers, various surface water drainage trends, vegetation, etc., they typically do not provide the level of detail needed for accurate evaluation of wetlands. However, the existence of these features may suggest the potential presence of wetlands.

The SITE is situated in the Addyston, Ohio-Kentucky and Burlington, Kentucky-Ohio USGS 7.5-Minute Quadrangle Maps. V3 evaluated the topography and concluded that the SITE elevation ranges from approximately 710 to 820 feet above mean sea level. No streams or other water features are mapped across the SITE area (**Figure 3**).

3.4 FLOOD INSURANCE RATE MAP

The Federal Emergency Management Agency (FEMA) was developed in 1979 to reform disaster relief and recovery, civil defense, and to prepare and mitigate for natural hazards. The Mitigation Division of FEMA manages the National Flood Insurance Program which provides guidance on how to lessen the impact of disasters on communities through flood insurance, floodplain management, and flood hazard mapping. Proper floodplain management can minimize the extent of flooding and flood damage and improve stormwater quality by reducing stormwater velocities and erosion. The one percent annual chance flood (100-year flood) boundary must be kept free of encroachment as the national standard for the program.

V3 reviewed digital Flood Insurance Rate Map (FIRM) data from the FEMA Flood Map Service Center and National Flood Hazard Zone data for Hamilton County, Ohio. No portion of the SITE is situated in an area mapped as floodway (**Figure 4**).



3.5 UNITED STATES DEPARTMENT OF AGRICULTURE SOIL SURVEY

V3 reviewed the soils mapped on-SITE in the Natural Resource Conservation Service (NRCS) digital soil survey data for Hamilton County, Ohio. This data is projected over aerial photography, illustrating distinct soil map unit boundaries, in **Figure 5**. Six soil units are classified on-SITE.

Table 6 : Soil Units On-SITE

Map Soil Symbol	Description	Hydric Soil
ArA	Ava silt loam, 0 to 3 percent slopes	No
ArC2	Ava silt loam, 8 to 15 percent slopes, eroded	No
EcE	Eden silty clay loam, 25 to 40 percent slopes	No
SwB2	Switzerland silt loam, 3 to 8 percent slopes, eroded	No
SwC2	Switzerland silt loam, 8 to 15 percent slopes, eroded	No
UbAXC	Urban land-Alfic Udarents complex, loamy substratum over bedrock, 0 to 12 percent slopes	No

No soil units mapped within the SITE area are considered hydric in Hamilton County, Ohio. Soils are considered hydric if more than 50 percent of the soil contains hydric components according to the NRCS Web Soil Survey.

3.6 ENDANGERED, THREATENED, AND RARE SPECIES EVALUATION

V3 contacted the USFWS and the ODNR to request documentation of any ETR species on-SITE. Copies of agency correspondence received to date can be referenced in **Appendix A**.

V3 contacted the USFWS via the IPaC website ETR species coordination. USFWS indicated that the SITE is situated within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*).

V3 also contacted the Ohio Department of Natural Resources (ODNR). A response from ODNR has not been received to date. However, the typical response from ODNR in Hamilton County indicates that the little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*), state endangered species, also have ranges within the vicinity of the project. If any trees of more than three inches DBH are to be removed, tree removal must take place between 1 October and 31 March. The SITE is situated within existing right-of-way.

Tree clearing beyond side cutting and other typical right-of-way maintenance clearing does not appear necessary for the project. ODNR typically recommends a desktop habitat assessment to determine if a potential bat hibernaculum is present within the project area. Based on desktop review of mining areas and karst topography provided by ODNR, only one potential karst point is situated within 0.5 mile of the SITE. This potential karst point is located approximately 600 feet west of the northernmost wood pole to be replaced. Based on the unverified point and distance, the potential to impact a bat hibernaculum appears low. Impacts to bat species are not anticipated.

Recent ODNR coordination identified the American bittern (*Botaurus lentiginosus*), a state endangered bird, the black-crowned night-heron (*Nycticorax nycticorax*), a state threatened bird, the least bittern (*Ixobrychus exilis*), a state threatened bird, and the trumpeter swan (*Cygnus buccinator*) as species with the potential to inhabit the Project area. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. Black-crowned night herons are migratory and typically found in Ohio from April 1 through December 1. They primarily forage in wetlands and other shallow aquatic habitats, and



roost in nearby small trees, saplings, shrubs, or sometimes on the ground near bodies of water and wetlands. The least bittern is a secretive marsh species that prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. Trumpeter swans prefer large marshes and lakes ranging in size from 40 to 150 acres. They like shallow wetlands one to three feet deep with a diverse mix of plenty of emergent and submergent vegetation and open water. None of this habitat for these bird species is present on-SITE. No impact to these ETR bird species is anticipated.

Several indigenous aquatic ETR species of mussels and fish are typically identified by ODNR with a range in the project vicinity. ODNR recommends no in-water work in perennial streams from 15 March through 30 June to reduce impacts to these species. No perennial streams are located within the project area. Based on the lack of perennial streams, the project is not likely to impact aquatic species.

ODNR typically identifies Kirtland's snake (*Clonophis kirtlandii*), a state threatened species, and the cave salamander (*Eurycea lucifuga*), a state endangered species, with the potential to inhabit the project area. However, based on lack of suitable habitat observed during the site reconnaissance, these species are not expected to be impacted by the project.

CHAPTER 4 SITE RECONNAISSANCE

4.1 METHODOLOGY

V3 conducted a field investigation at the SITE on 8 August 2022. During this investigation, V3 noted the presumed land use of the SITE and surrounding area and evaluated the SITE for the potential presence of wetlands, “waters of the U.S.,” and natural resources using the findings of the desktop review and field observations. Photographs were taken during the field investigation and are provided in **Appendix B**.

V3 used the Routine Determination Method (RDM) with an established baseline and transects as described in the *1987 Manual* for typical sites over five acres. V3 recorded data from data points (DP) along the transect as a function of diversity of vegetation, property size, soil types, habitat variability, and other SITE features as deemed appropriate by V3. Where evidence of a wetland was suspected, three wetland criteria were applied to determine if the area in question was representative of a wetland using the methodology set forth by USACE. More specifically, V3 visually examined and recorded the dominant vegetation, recorded soil properties such as texture and color using the Munsell Soil Color Chart (Munsell Color Chart), excavated soil pits, and evaluated the primary and secondary hydrologic indicators as discussed in **Section 2.1.2**.

If all three criteria were met, i.e. vegetation, soil properties, and hydrologic indicators, a second DP was established adjacent to the wetland DP in an area outside of the presumed wetland boundary for the purpose of delineating between the wetland and non-wetland areas. Once delineated, V3 continued the RDM to evaluate the remainder of the SITE.

4.2 SITE AND ADJACENT PROPERTY LAND USE

Land use on-SITE is dominated by existing electric transmission line right-of-way (ROW) crossing residential properties. Adjacent land use includes residences in a suburban setting.

4.3 WETLAND SUMMARY

No wetlands were identified during this investigation based upon methodology set forth in the *1987 Manual* and the *Eastern Mountains and Piedmont Regional Supplement*. One area exhibited hydrophytic vegetation. A Data Point (DP) was collected in this area (DP 1) and in an area slightly upslope (DP 2). Steep slopes generally prevent the necessary inundation required to establish a wetland as defined by the *1987 Manual* and *Eastern Mountains and Piedmont Regional Supplement*. Similar soil pits did not reveal hydric soils. Information that V3 collected at each DP on 8 August 2022 is described in the following section.

4.4 DATA POINT SUMMARY

Following is a description of the information collected at each Data Point (DP) during the 8 August 2022 field investigations. Information that was collected at each DP is summarized on the forms provided in **Appendix C**. DP placement is depicted in **Figure 6**.

DP 1

This DP was collected in the southeastern portion of the SITE. The dominant vegetation present consisted of Japanese stiltgrass (*Microstegium vimineum*, FAC), Canada goldenrod (*Solidago canadensis*, FACU), wingstem (*Verbesina alternifolia*, FACW), and orange jewelweed (*Impatiens capensis*, FACW), which met the hydrophytic vegetation criterion. However, examination of the soil profile using the Munsell Color Chart revealed a matrix color of 10YR 5/4 and 10YR 3/2 to a depth of



18 inches, which did not meet the hydric soil criterion. No evidence of hydrologic features was observed. Since all three criteria were not met, this area did not qualify as a wetland.

DP 2

This DP was collected in the southeastern portion of the SITE approximately 75 feet northwest of DP 1. The dominant vegetation present consisted of Japanese stiltgrass (FAC), Kentucky bluegrass, (*Poa pratensis*, FAC), fox sedge (*Carex vulpinoidea*, FACW), and Frank's sedge (*Carex frankii*, OBL), which met the hydrophytic vegetation criterion. Examination of the soil profile using the Munsell Color Chart revealed a matrix color of 10YR 4/4 and 10YR 5/6 to a depth of 18 inches, which did not meet the hydric soil criterion. No evidence of hydrologic features was observed. Since all three criteria were not met, this area did not qualify as a wetland.

DP 3

This DP was collected in the northwestern portion of the SITE. The dominant vegetation present consisted of red fescue (*Festuca rubra*, FACU), japanese whistlegass (*Setaria faberi*, FACU), white snakeroot (*Ageratina altissima*, FACU) and annual ragweed (*Ambrosia artemisiifolia*, FACU), which did not meet the hydrophytic vegetation criterion. Examination of the soil profile using the Munsell Color Chart revealed a matrix color of 10YR 3/2 to a depth of 18 inches, which did not meet the hydric soil criterion. No evidence of hydrologic features was observed. Since all three criteria were not met, this area did not qualify as a wetland.

4.5 DRAINAGE FEATURES, STREAMS, AND OTHER POTENTIAL "WATERS OF THE U.S."

Two erosional drainage features were identified on-SITE. These features did not exhibit a OHWM or a defined bed and bank. These features are shown on **Figure 6**. Photos of these features are provided in **Appendix B**. No other streams potential "Waters of the U.S." were observed on-SITE.

CHAPTER 5 CONCLUSIONS

On 8 August 2022, V3 performed an NRA and wetland delineation for the SITE situated in Green Township, Hamilton County, Ohio. Two erosional drainage features were identified within the SITE area.

Table 7: Aquatic Features On-SITE

Feature	Feature Type	Size (On-SITE)	Anticipated Regulatory Status
Erosional Drainage Feature 1	Erosional Drainage Feature	±66 lf	None
Erosional Drainage Feature 2	Erosional Drainage Feature	±94 lf	None

No wetlands were observed within the SITE area.

Two erosional drainage features were observed during the site reconnaissance. These features did not exhibit an OHWM or defined bed and bank. No other streams or potential “Waters of the U.S.” were observed on-SITE.

V3 contacted the United States Fish and Wildlife Service (USFWS) via the Information for Planning and Consultation (IPaC) website for endangered, threatened, and rare (ETR) species coordination. USFWS indicated that the SITE is situated within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). V3 also contacted the Ohio Department of Natural Resources (ODNR). A response from ODNR has not been received to date. However, typical responses from ODNR in Hamilton County indicate that the little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*), state endangered species, also have ranges within the vicinity of the project. If any trees of more than three inches DBH are to be removed, tree removal must take place between 1 October and 31 March. The SITE is situated within existing right-of-way.

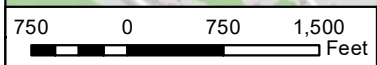
Tree clearing beyond side cutting and other typical right-of-way maintenance clearing does not appear necessary for the project. ODNR typically recommends a desktop habitat assessment to determine if a potential bat hibernaculum is present within the project area. Based on desktop review of mining areas and karst topography provided by ODNR, only one potential karst point is situated within 0.5 mile of the SITE. This potential karst point is located approximately 600 feet west of the northernmost wood pole to be replaced. Based on the unverified point and distance, the potential to impact a bat hibernaculum appears low. Impacts to bat species are not anticipated.

ODNR comments regarding ETR species on other recent projects in Hamilton County have identified several indigenous aquatic mussel and fish species, four bird species, Kirtland’s snake, and cave salamander. No streams were observed on-SITE, therefore no aquatic species would be present. Habitat for the other species was also not observed. No impacts to ETR species are anticipated.

A Storm Water Pollution Prevention Plan (SWP3) for the construction site is required for land disturbance activities greater than one acre. V3 understands that timber or composite matting will be utilized for the majority of access roads and work areas. Grading will be limited to areas where steep slopes require slight leveling to create a safe working environment, therefore a SWP3 is not expected to be required.

No 100-year flood zones are mapped on-SITE. Floodplain permitting is not expected to be necessary.



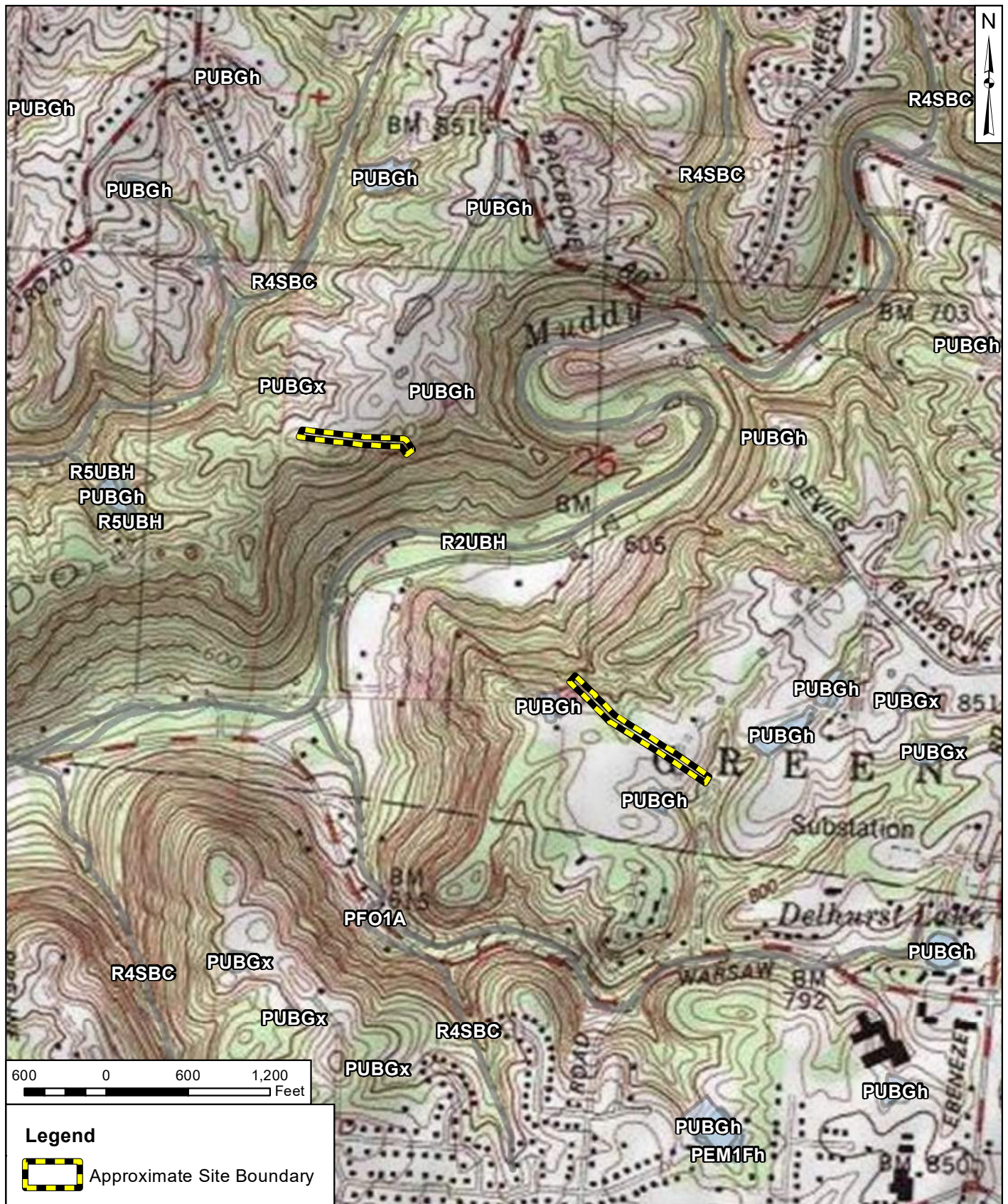




Legend

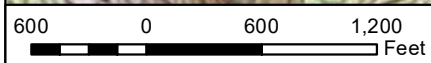
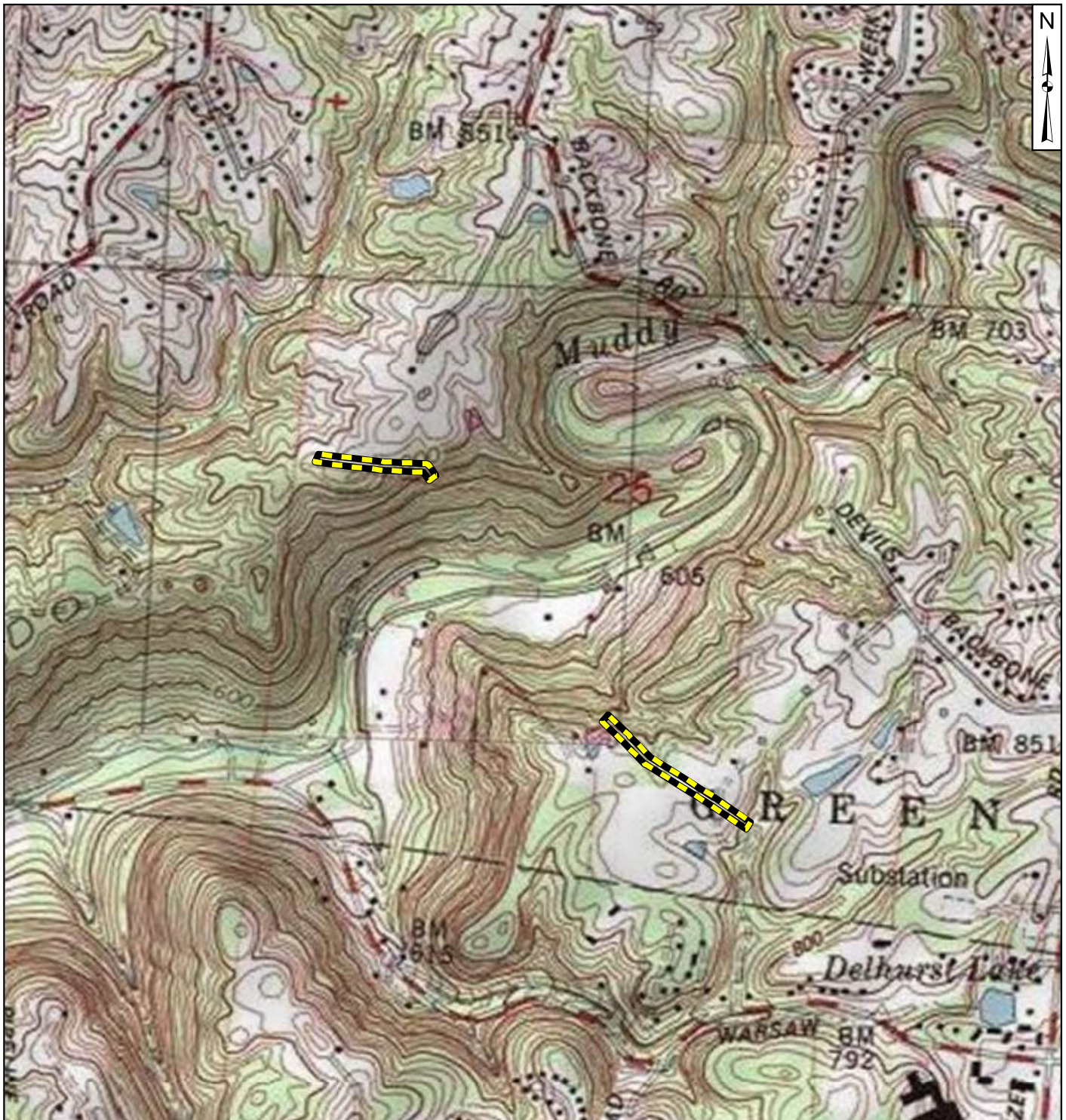


Approximate Site Boundary

 <p>312 Walnut Street Suite 1600 Cincinnati, Ohio 45202 513-800-3622 phone www.v3co.com</p> <p>Visio, Vertere, Virtute... "The Vision To Transform with Excellence"</p>	PROJECT NO.: 20568.038	 <p>CLIENT:</p>	TITLE: PROJECT LOCATION MAP	
	CREATED BY: ARG			
	DATE: 08/05/2022		SITE: F6885 Emergency Wood Pole Replacements Green Twp, Hamilton County, Ohio	FIGURE: 1
	SCALE: See Scale Bar			





 <p>312 Walnut Street Suite 1600 Cincinnati, Ohio 45202 513-800-3622 phone www.v3co.com</p> <p>Visio, Vertere, Virtute... "The Vision To Transform with Excellence"</p>	<p>PROJECT NO.: 20568.038</p>	 <p>CLIENT: DUKE ENERGY</p>	<p>TITLE: NATIONAL WETLANDS INVENTORY MAP</p>	
	<p>CREATED BY: ARG</p>			
	<p>DATE: 08/05/2022</p>	<p>BASE LAYER: USGS Topographic Map Addyston, OH-KY and Burlington, KY-OH Quadrangles</p>	<p>SITE: F6885 Emergency Wood Pole Replacements Green Twp, Hamilton County, Ohio</p>	<p>FIGURE: 2</p>
	<p>SCALE: See Scale Bar</p>			

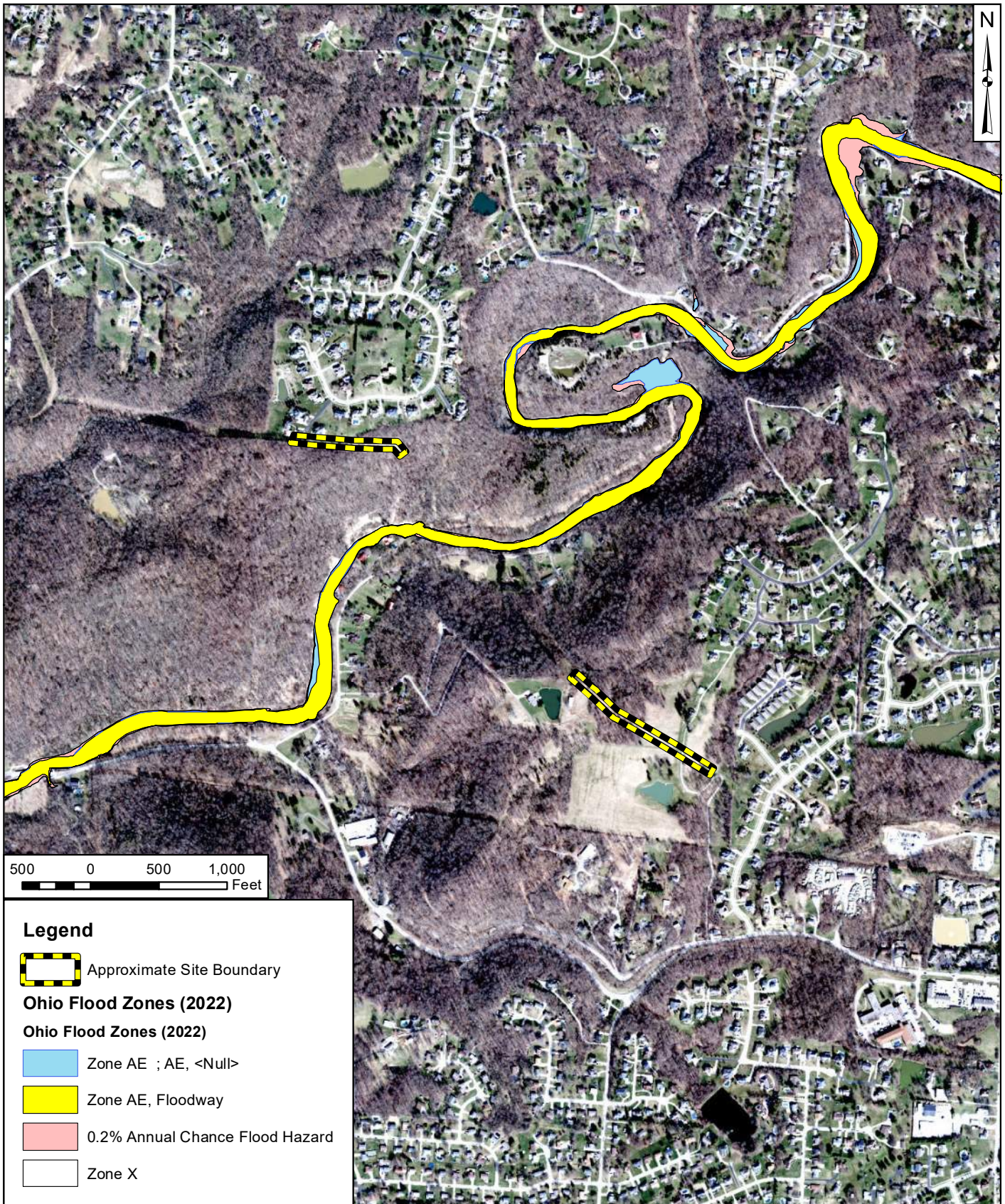


Legend



Approximate Site Boundary

 <p>312 Walnut Street Suite 1600 Cincinnati, Ohio 45202 513-800-3622 phone www.v3co.com</p> <p>Visio, Vertere, Virtute... "The Vision To Transform with Excellence"</p>	PROJECT NO.: 20568.038	 <p>CLIENT:</p>	TITLE: USGS TOPOGRAPHIC MAP	
	CREATED BY: ARG			
	DATE: 08/05/2022	BASE LAYER: USGS Topographic Map Addyston, OH-KY and Burlington, KY-OH Quadrangles	SITE: F6885 Emergency Wood Pole Replacements Green Twp, Hamilton County, Ohio	FIGURE: 3
	SCALE: See Scale Bar			



Legend



Approximate Site Boundary

Ohio Flood Zones (2022)

Ohio Flood Zones (2022)



Zone AE ; AE, <Null>



Zone AE, Floodway



0.2% Annual Chance Flood Hazard



Zone X



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Cincinnati, Ohio 45202
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PROJECT NO.:

20568.038

CREATED BY:

ARG

DATE:

08/05/2022

SCALE:

See Scale Bar

CLIENT:



BASE LAYER:

Ohio Statewide Imagery
Program (OSIP)
(2018)

TITLE:

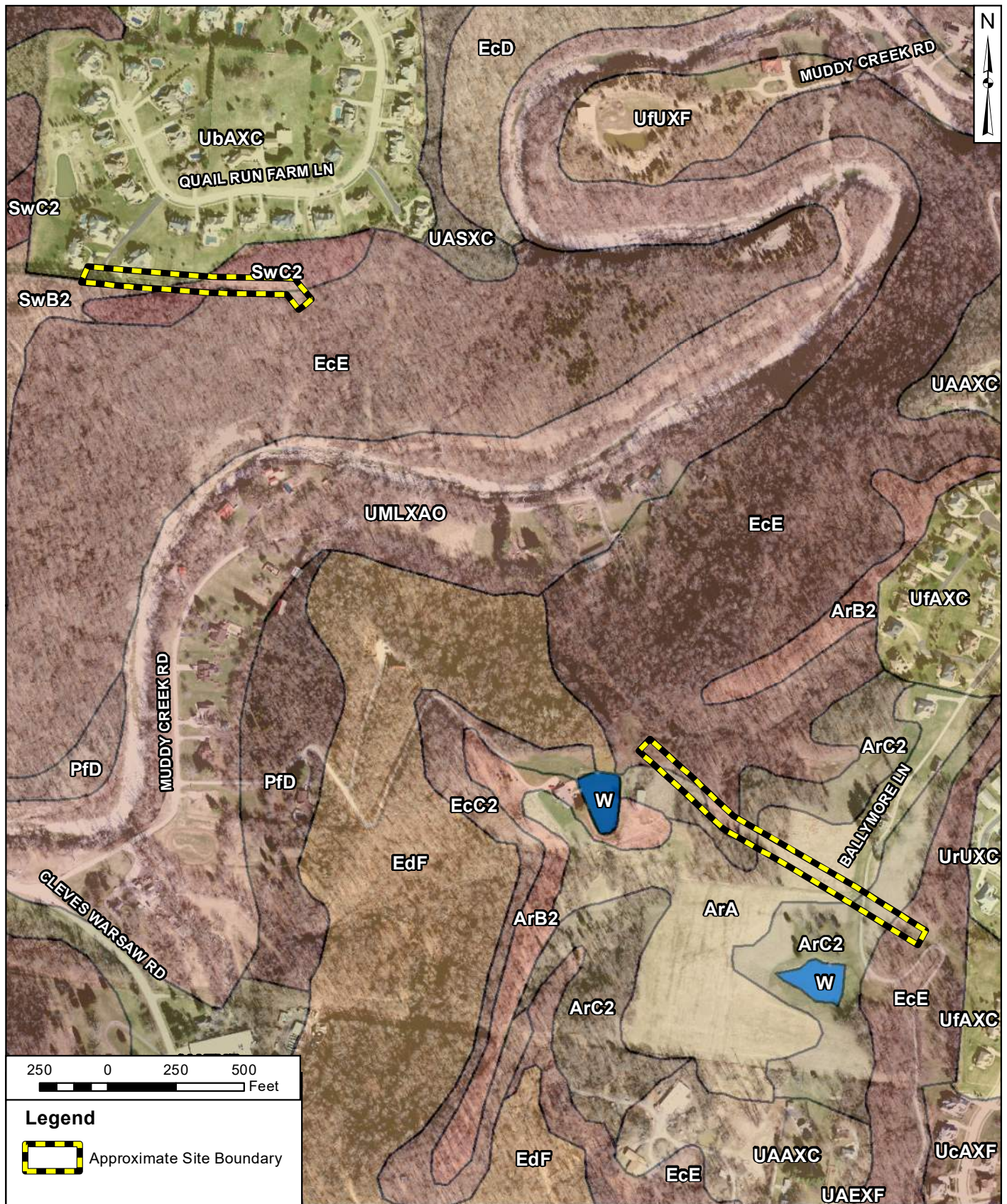
**FLOOD ZONES OF HAMILTON
COUNTY, OHIO (2020) MAP**

SITE:

F6885 Emergency
Wood Pole Replacements
Green Twp, Hamilton County, Ohio

FIGURE:

4



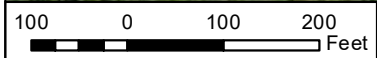
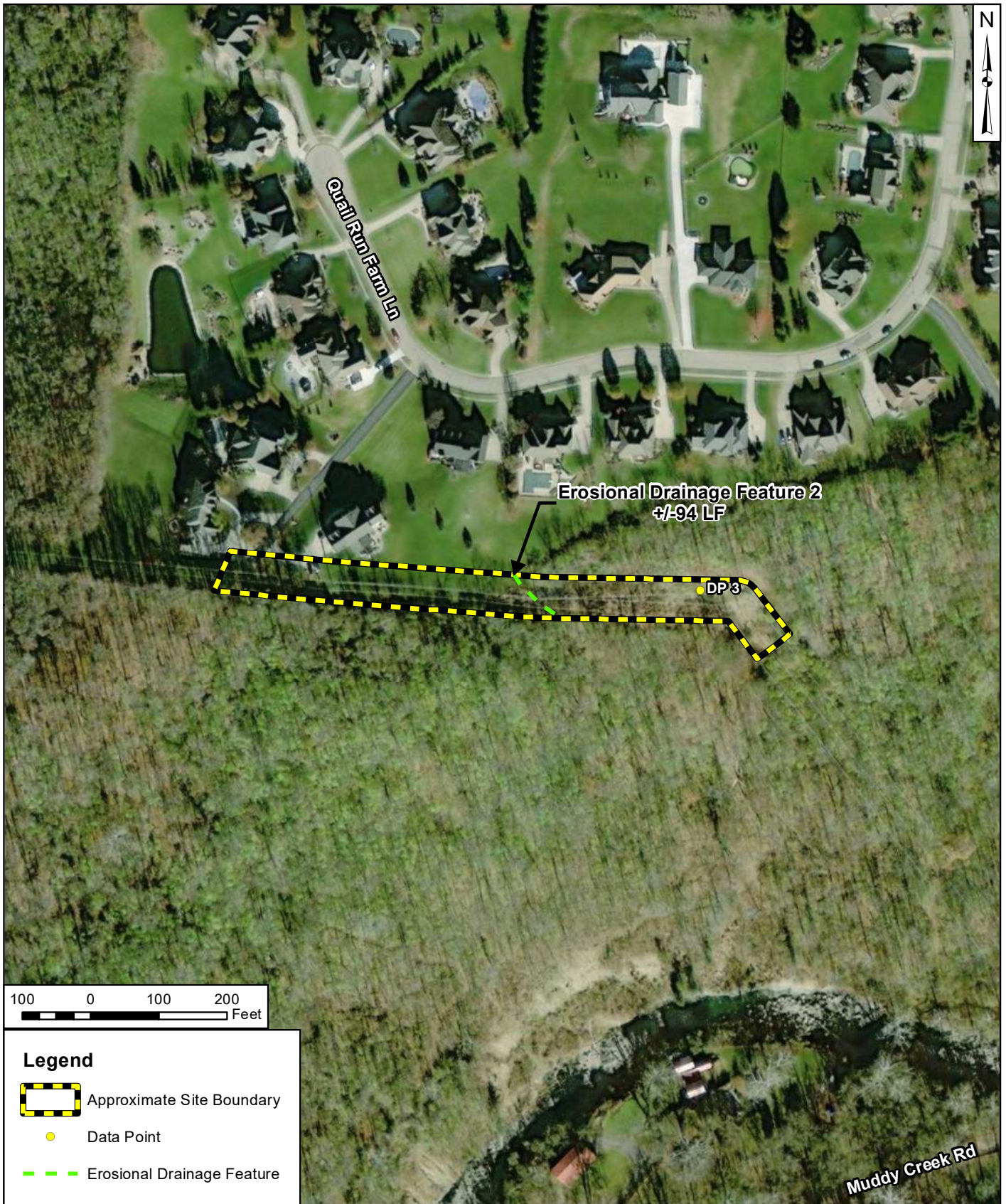
250 0 250 500
Feet

Legend



Approximate Site Boundary

 <p>312 Walnut Street Suite 1600 Cincinnati, Ohio 45202 513-800-3622 phone www.v3co.com</p> <p>Visio, Vertere, Virtute... "The Vision To Transform with Excellence"</p>	PROJECT NO.: 20568.038	 <p>CLIENT: DUKE ENERGY</p>	<p>TITLE: SOIL SURVEY OF HAMILTON COUNTY, OHIO (2020) MAP</p>	
	CREATED BY: ARG			
	DATE: 08/05/2022			
	SCALE: See Scale Bar			
<p>BASE LAYER: Ohio Statewide Imagery Program (OSIP) (2018)</p>		<p>SITE: F6885 Emergency Wood Pole Replacements Green Twp, Hamilton County, Ohio</p>	<p>FIGURE: 5</p>	



Legend



Approximate Site Boundary



Data Point



Erosional Drainage Feature



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PROJECT NO.:

20568.038

CREATED BY:

ARG

DATE:

08/10/2022

SCALE:

See Scale Bar

CLIENT:



BASE LAYER:

ESRI World Imagery
(2021)

TITLE:

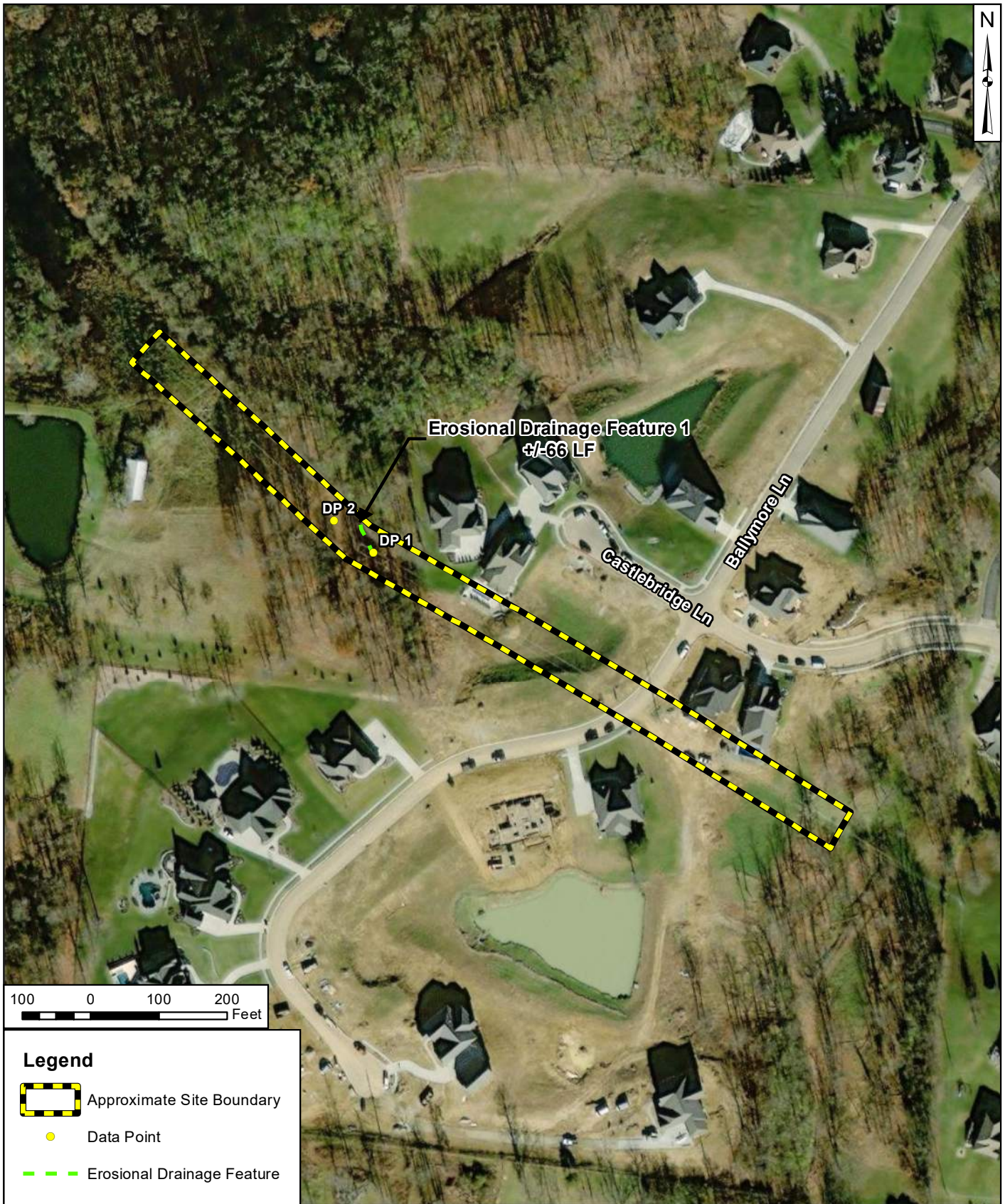
WETLAND DELINEATION MAP

SITE:

F6885 Emergency
Wood Pole Replacements
Green Twp, Hamilton County, Ohio



FIGURE:

6A



Legend

- Approximate Site Boundary
- Data Point
- Erosional Drainage Feature

 312 Walnut Street Suite 1600 Cincinnati, Ohio 45202 513-800-3622 phone www.v3co.com Visio, Vertere, Virtute... "The Vision To Transform with Excellence"	PROJECT NO.: 20568.038	CLIENT: 	TITLE: WETLAND DELINEATION MAP	
	CREATED BY: ARG			
	DATE: 08/10/2022			
	SCALE: See Scale Bar	BASE LAYER: ESRI World Imagery (2021)	SITE: F6885 Emergency Wood Pole Replacements Green Twp, Hamilton County, Ohio	FIGURE: 6B

Appendix A

ETR Species Correspondence





United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

Phone: (614) 416-8993 Fax: (614) 416-8994



In Reply Refer To:

August 03, 2022

Project Code: 2022-0070675

Project Name: V3, Duke Energy, F6885 Emergency Wood Pole Replacements Project, Hamilton County, Ohio

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

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

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

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

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

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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

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

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

(614) 416-8993

Project Summary

Project Code: 2022-0070675

Project Name: V3, Duke Energy, F6885 Emergency Wood Pole Replacements Project, Hamilton County, Ohio

Project Type: Transmission Line - Maintenance/Modification - Above Ground

Project Description: The proposed Project involves the emergency replacement of seven existing structures due to severe damage. Current engineering standards will result in one new structure to be added within the current alignment. Replacing and adding structures to an existing transmission line will require Ohio Power Siting Board (OPSB) approval. Vegetation clearing will be limited to side trimming of trees and general right-of-way management prior to construction. No in-water work is proposed.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.13017405,-84.66873609695776,14z>



Counties: Hamilton County, Ohio

Endangered Species Act Species

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

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> Incidental take of the northern long-eared bat is not prohibited at this location. Federal action agencies may conclude consultation using the streamlined process described at https://www.fws.gov/midwest/endangered/mammals/nleb/s7.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

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

IPaC User Contact Information

Agency: Ohio Power Siting Board
Name: Aaron Geckle
Address: 312 Walnut Street
Address Line 2: Suite 1600
City: Cincinnati
State: OH
Zip: 45202
Email: ageckle@v3co.com
Phone: 5138003622

Lead Agency Contact Information

Lead Agency: Ohio Power Siting Board

Appendix B

SITE Photographs



Photo: 1

Proposed access
through right-of-way
from Ballymore Lane

Direction of View:

Southeast

Date:

8 August 2022



Photo: 2

Proposed access
through right-of-way
from Ballymore Lane

Direction of View:

Northwest

Date:

8 August 2022



Photo: 3

DP 1/Erosional
Drainage Feature

Direction of View:

South

Date:

8 August 2022



Photo: 4

DP 1/Erosional
Drainage Feature 1

Direction of View:

North

Date:

8 August 2022



Photo: 5

Erosional Drainage
Feature 1

Direction of View:

South

Date:

8 August 2022



Photo: 6

Data Point 2

Direction of View:

Southeast

Date:

8 August 2022



Photo: 7

Southern project area
view of two structures
to be replaced

Direction of View:

Northwest

Date:

8 August 2022



Photo: 8

Data Point 3

Direction of View:

East

Date:

8 August 2022



Photo: 9

Data Point 3

Direction of View:

West

Date:

8 August 2022



Photo: 10

Drainage Feature 2

Direction of View:

North

Date:

8 August 2022



Photo: 11

Drainage Feature 2

Direction of View:

South

Date:

8 August 2022



Photo: 12

Proposed access from
paved street in
northern project area

Direction of View:

East

Date:

8 August 2022



Appendix C

Data Forms



Site:	F6885 Emergency Structure Replacements		City/County:	Hamilton County		Date:	8 August 2022		Data Point:	DP 1	
Client:	Duke Energy		State:	OH		Section, Township, Range: Sec 25, T 2E, R 2N					
Investigator(s):	E.Placke, A. Geckle				Landform	Local Relief Convex					
Slope (%):	30		Lat.	39.124690		Long.	-84.662222		Datum:	NAD 84	
Soil Map Unit Name:	Eden silty clay loam, 25 to 40 percent slopes							NWI Class:	N/A		
Climatic/hydrologic conditions typical for time of year?											
Vegetation N			Soil N			or Hydrology N			significantly disturbed		
Vegetation N			Soil N			or Hydrology N			naturally problematic		
Are Normal Circumstances Present? Yes x No											

Hydrophytic Vegetation Present? Yes	_____	No	<u>X</u>	Is the DP within a Wetland? Yes No X
Hydric Soil Present? Yes	_____	No	<u>X</u>	
Wetland Hydrology Present? Yes	_____	No	<u>X</u>	
Remarks:	Does not meet all wetland criteria			

Tree Stratum		Plot size: 30'	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet		
1.						Number of dominant species		
2.						that are OBL, FACW, or FAC:		
3.						Total number of dominant species across all strata:		
4.						Percent of dominant species that are OBL, FACW, or FAC:		
5.						Prevalence Index Worksheet		
						Total % cover of:		
						OBL species	0	x 1
						FACW species	25	x 2
						FAC species	45	x 3
						FACU species	18	x 4
						UPL species	0	x 5
						Total	88	257
						Prevalence Index:		
						Hydrophytic Vegetation Indicators:		
						Rapid Test for Hydrophytic Veg.		
						x	Dominance Test is >50%	
						x	Prevalence Index is <3.0*	
						Morphological Adaptations*		
						Problematic Hydrophytic Vegetation*		
						*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
						Hydrophytic Vegetation Present?		
						Yes	x	No
Shrub Stratum		Plot size: 15'						
1.								
2.								
3.								
4.								
5.								
			0	Total Cover				
Herb Stratum		Plot size: 5'						
1.	<i>Microstegium vimineum</i>		35	Y	FAC	3		
2.	<i>Solidago canadensis</i>		15	N	FACU	4		
3.	<i>Verbesina alternifolia</i>		10	N	FACW	2		
4.	<i>Impatiens capensis</i>		10	N	FACW	2		
5.	<i>Ambrosia trifida</i>		5	N	FAC	3		
6.	<i>Eupatorium serotinum</i>		5	N	FAC	3		
7.	<i>Phalaris arundinacea</i>		5	N	FACW	2		
8.	<i>Oxalis stricta</i>		3	N	FACU	4		
			88	Total Cover				
Woody Vine Stratum		Plot size: 5'						
1.								
2.								
			0	Total Cover				
Remarks:								

[illegible]

Hydric Soil Indicators:		
Histosol (A1)	Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)
Histic Epipedon (A2)	5cm Mucky Peat or Peat	Depleted Dark Surface (F7)
Black Histic (A3)	Sandy Gleyed Matrix (S4)	Redox Depressions (F8)
Hydrogen Sulfide (A4)	Sandy Redox (S5)	Indicators for Problematic Hydric Soils
Stratified Layers (A5)	Stripped Matrix (S6)	
2 cm Muck (A10)	Loamy Mucky Mineral (F1)	
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	
Thick Dark Surface (A12)	Depleted Matrix (F3)	
		Coast Prairie Redox (A16)
		Iron-Manganese Masses (F12)
		Very Shallow Dark Surface (F12)
		Other

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present?	Yes	No	X
Remarks:				

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

Field Observations:	Surface Water Present?	Yes	No	X	Depth (inches)	Hydrology Indicators Present?
	Water Table Present?	Yes	No	X	Depth (inches)	
	Saturation Present?	Yes	No	X	Depth (inches)	
						<div>Yes</div> <div>No</div> <div>X</div>

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:
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WETLAND DETERMINATION FORM-MIDWEST REGION

Site: F6885 Emergency Structure Replacements City/County: Hamilton County Date: 8 August 2022 Data Point: DP 2
 Client: Duke Energy State: OH Section, Township, Range: Sec 25, T 2E, R 2N
 Investigator(s): E. Placke, A. Geckle Landform: Local Relief Convex
 Slope (%): 25 Lat. 39.124818 Long. -84.662432 Datum: NAD 84 NWI Class: N/A
 Soil Map Unit Name: Eden silty clay loam, 25 to 40 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the DP within a Wetland? Yes No X
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Remarks: Does not meet all wetland criteria

VEGETATION

Tree Stratum	Plot size: 30'	Absolute % Cover	Dominant Species	Indicator Status	
1.					
2.					
3.					
4.					
5.					
		0	Total Cover		
Shrub Stratum	Plot size: 15'				
1.					
2.					
3.					
4.					
5.					
		0	Total Cover		
Herb Stratum	Plot size: 5'				
1. <i>Microstegium vimineum</i>		40	Y	FAC	3
2. <i>Poa pratensis</i>		15	N	FAC	3
3. <i>Carex vulpinoidea</i>		10	N	FACW	2
4. <i>Carex frankii</i>		10	N	OBL	1
5. <i>Lysimachia nummularia</i>		5	N	FACW	2
6. <i>Symphotrichum pilosum</i>		5	N	FACU	4
7. <i>Euthamia graminifolia</i>		5	N	FACW	2
8.					
		90	Total Cover		
Woody Vine Stratum	Plot size: 5'				
1.					
2.					
		0	Total Cover		
Remarks:					

Dominance Test Worksheet			
Number of dominant species that are OBL, FACW, or FAC:	1		
Total number of dominant species across all strata:	1		
Percent of dominant species that are OBL, FACW, or FAC:	100.00		
Prevalence Index Worksheet			
Total % cover of:			
OBL species	10 x 1	10	
FACW species	20 x 2	40	
FAC species	55 x 3	165	
FACU species	5 x 4	20	
UPL species	0 x 5	0	
Total	90	235	
Prevalence Index:		2.61	

Hydrophytic Vegetation Indicators:
 Rapid Test for Hydrophytic Veg.
 x Dominance Test is >50%
 x Prevalence Index is <3.0*
 Morphological Adaptations*
 Problematic Hydrophytic Vegetation*

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present?
 Yes x No

SOIL

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

Depth (inches)	Color	Matrix	%	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-3	10YR 4/4		90	10YR 5/6	10	C		M	SiL	
3-10	10YR 5/6		90	10YR 5/2	10	C		M	SiL	
10-18	10YR 5/6		100						SiL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Histosol (A1)	Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)
Histic Epipedon (A2)	5cm Mucky Peat or Peat	Depleted Dark Surface (F7)
Black Histic (A3)	Sandy Gleyed Matrix (S4)	Redox Depressions (F8)
Hydrogen Sulfide (A4)	Sandy Redox (S5)	
Stratified Layers (A5)	Stripped Matrix (S6)	Indicators for Problematic Hydric Soils
2 cm Muck (A10)	Loamy Mucky Mineral (F1)	Coast Prairie Redox (A16)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Iron-Manganese Masses (F12)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Very Shallow Dark Surface (F12)
		Other

Restrictive Layer (if observed): Type: _____	Hydric Soil Present? Yes No X
Depth (Inches): _____	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)				Secondary Indicators		
Surface Water (A1)	Water Stained Leaves (B9)			Surface Soil Cracks (B6)		
High Water Table (A2)	Aquatic Fauna (B13)			Drainage Patterns (B10)		
Saturation (A3)	True Aquatic Plants (B14)			Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)			Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots			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 Soil (C6)			Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)			FAC-Neutral Test (D5)		
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)					
Sparsely Vegetated Concave Surface (B8)	Other					
Field Observations: Surface Water Present? Yes No X	Depth (inches)			Hydrology Indicators Present?		
Water Table Present? Yes No X	Depth (inches)			Yes	No	X
Saturation Present? Yes No X	Depth (inches)					

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

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: F6885 Emergency Structure Replacements City/County: Hamilton County Date: 8 August 2022 Data Point: DP 3
 Client: Duke Energy State: OH Section, Township, Range: Sec 25, T 2E, R 2N
 Investigator(s): E. Placke, A. Geckle Landform: Local Relief Convex
 Slope (%): 10 Lat. 39.130228 Long. -84.668091 Datum: NAD 84 NWI Class: N/A
 Soil Map Unit Name: Switzerland silt loam, 8 to 15 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes	No	X	Is the DP within a Wetland? Yes No X
Hydric Soil Present? Yes	No	X	
Wetland Hydrology Present? Yes	No	X	

Remarks: Does not meet all wetland criteria

VEGETATION

Tree Stratum	Plot size: 30'	Absolute % Cover	Dominant Species	Indicator Status	
1.					
2.					
3.					
4.					
5.					
		0	Total Cover		
Shrub Stratum	Plot size: 15'				
1.	<i>Lonicera maackii</i>	10	Y	UPL	5
2.					
3.					
4.					
5.					
		10	Total Cover		
Herb Stratum	Plot size: 5'				
1.	<i>Festuca rubra</i>	20	Y	FACU	4
2.	<i>Setaria faberi</i>	20	Y	FACU	4
3.	<i>Ageratina altissima</i>	10	N	FACU	4
4.	<i>Ambrosia artemisiifolia</i>	10	N	FACU	4
5.	<i>Cirsium vulgare</i>	5	N	FACU	4
6.	<i>Lonicera maackii</i>	5	N	UPL	5
7.	<i>Galium concinnum</i>	5	N	FACU	4
8.	<i>Alliaria petiolata</i>	5	N	UPL	5
		80	Total Cover		
Woody Vine Stratum	Plot size: 5'				
1.					
2.					
		0	Total Cover		
Remarks:					

Dominance Test Worksheet			
Number of dominant species that are OBL, FACW, or FAC:	0		
Total number of dominant species across all strata:	3		
Percent of dominant species that are OBL, FACW, or FAC:	0.00		
Prevalence Index Worksheet			
Total % cover of:			
OBL species	0 x 1	0	
FACW species	0 x 2	0	
FAC species	0 x 3	0	
FACU species	70 x 4	280	
UPL species	20 x 5	100	
Total	90	380	
Prevalence Index:		4.22	
Hydrophytic Vegetation Indicators:			
Rapid Test for Hydrophytic Veg.			
Dominance Test is >50%			
Prevalence Index is <3.0*			
Morphological Adaptations*			
Problematic Hydrophytic Vegetation*			
*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
Hydrophytic Vegetation Present?			
Yes	No	X	

SOIL

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

Depth (inches)	Color	Matrix	%	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-18	10YR 3/2		100						SiL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
Histosol (A1)	Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)
Histic Epipedon (A2)	5cm Mucky Peat or Peat	Depleted Dark Surface (F7)
Black Histic (A3)	Sandy Gleyed Matrix (S4)	Redox Depressions (F8)
Hydrogen Sulfide (A4)	Sandy Redox (S5)	Indicators for Problematic Hydric Soils
Stratified Layers (A5)	Stripped Matrix (S6)	Coast Prairie Redox (A16)
2 cm Muck (A10)	Loamy Mucky Mineral (F1)	Iron-Manganese Masses (F12)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Very Shallow Dark Surface (F12)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Other
Restrictive Layer (if observed): Type:		
Depth (Inches):		
Remarks:		

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)				Secondary Indicators		
Surface Water (A1)		Water Stained Leaves (B9)		Surface Soil Cracks (B6)		
High Water Table (A2)		Aquatic Fauna (B13)		Drainage Patterns (B10)		
Saturation (A3)		True Aquatic Plants (B14)		Dry-Season Water Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)		
Sediment Deposits (B2)		Oxidized Rhizospheres on Living Roots		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 Soil (C6)		Geomorphic Position (D2)		
Iron Deposits (B5)		Thin Muck Surface (C7)		FAC-Neutral Test (D5)		
Inundation Visible on Aerial Imagery (B7)		Gauge or Well Data (D9)				
Sparsely Vegetated Concave Surface (B8)		Other				
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)		
				Hydrology Indicators Present?		
				Yes	No	X

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

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

8/12/2022 8:29:48 AM

in

Case No(s). 22-0746-EL-BNR

Summary: Application Construction Notice For The Muddy Creek Emergent Pole Replacements Project electronically filed by Mrs. Tammy M. Meyer on behalf of Duke Energy Ohio Inc. and D'Ascenzo, Rocco and Kingery, Jeanne and Akhbari, Elyse Hanson and Vaysman, Larisa