Letter of Notification for the Vassell – Green Chapel 345 kV Transmission Line Adjustment Project

AEP OHIO TRANSMISSION COMPANY™

An AEP Company

BOUNDLESS ENERGY™

PUCO Case No. 24-0791-EL-BLN

Submitted to:
The Ohio Power Siting Board
Pursuant to Ohio Administrative Code
Section 4906-6-05

Submitted by:
AEP Ohio Transmission Company, Inc.

August 21, 2024

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc.

Vassell – Green Chapel 345 kV Transmission Line Adjustment Project

4906-6-05 Accelerated Application Requirements

AEP Ohio Transmission Company, Inc. (the "Company") provides the following information to the Ohio Power Siting Board (OPSB) in accordance with the accelerated application requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

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 Letter of Notification.

The Company is proposing the Vassell – Green Chapel 345 kV Transmission Line Adjustment Project (the "Project"), located within Berkshire and Trenton townships in Delaware County, Ohio and Jersey and Monroe townships in Licking County, Ohio. The Project involves adjusting approximately 0.7 mile of the Vassell – Green Chapel 345 kV Transmission Line (approved OPSB Case No. 24-0014-EL-BLN). The proposed adjustments are near the existing Vassell 345 kV Station (approved Case No. 11-1313-EL-BSB) and the proposed Green Chapel 345 kV Station (approved Case No. 23-0028-EL-BLN). The adjustments are required due to necessary engineering modifications near both stations to properly align the transmission line at each station. The location of the proposed transmission line ("Project Area") is shown on Maps 1, 2, and 3 in Appendix A.

The Project meets the requirements for a Letter of Notification (LON) as defined by Items 1(d)(ii) of Appendix A to Ohio Administrative Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

> *(1) New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:*
>
> > *(d) Line(s) primarily needed to attract or meet the requirements of a specific customer or customers as follows:*
> >
> > > *(ii) Any portion of the line is on property owned by someone other than the specific customer or applicant.*

The Project has been assigned Case No. 24-0791-EL-BLN.

B(2) Statement of Need

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

The Project involves adjusting approximately 0.7 mile of the Vassell – Green Chapel 345 kV Transmission Line. The need of the overall project remains the same as what was reported in OPSB Case No. 24-0014-EL-BLN.

The New Albany area continues to see some of the fastest growing electric demand in the AEP system. The robust economic development activity in New Albany is creating a continued influx of new customer interconnection requests.

The approximate load in the New Albany area today is 500 MW and the demand is expected to exceed 2,000 MW by the end of 2027 and will continue to grow in future years. Due to the projected customer load, existing facilities that serve the area including the 345 kV circuits between Corridor Station and Vassell Station will exceed their thermal capacities under certain scenarios.

The Company proposes to introduce new 345 kV sources into the area to address identified planning criteria violations by constructing two new 345 kV transmission lines between AEP Ohio Transmission Company Inc.'s Vassell Station and the Green Chapel and Curleys Stations, respectively. Several projects in the New Albany area will be needed address issues created by the projected load growth and to serve the current demand of more than 10 new customer requests in the area.

Failure to move forward with the proposed Project and future projects will result in the inability to serve the various customer load expectations (existing and new customers). In addition to the direct customer service, failure to move forward with the Project would have a negative impact on economic development in the area.

Each customer need was presented and reviewed with stakeholders between February 2022 and April 2023, at the PJM SRRTEP or TEAC Meetings. The solution to the Project was presented in the December 5, 2023, PJM TEAC Meeting. The Project has not been assigned the PJM supplemental number at this time. The Project was included in the Company's 2024 Long Term Forecast Report (LTFR) on pages 123 and 124 (See Appendix B).

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 in relation to existing transmission lines and substations is shown on Map 1 and Map 2 in Appendix A. Map 3, in Appendix A, identifies the Project components on a 2022 aerial photograph.

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 adjustments for the Project occur near both the existing Vassell 345 kV Station and the proposed Green Chapel Station. The proposed route adjustments accommodate updated engineering design specific to each station and align the proposed route to the proper connection points at each station. No additional wetland, streams, or cultural resource impacts are anticipated, and no additional tree clearing is required for the adjustments.

Based on the information gathered, the Company selected the proposed route and adjustments as shown on Map 3 in Appendix A, which represents the most suitable location and most appropriate solution for the Project.

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's public communications and outreach process began in early 2023, when the Company initiated stakeholder engagement by coordinating with local governments and agencies. Company representatives invited landowners within the Project area to in-person open house meetings, conducted on May 2 and May 3, 2023, and provided a link to the Project website to access information via a virtual open house. The landowners were also provided with contact information for the Company's outreach specialist and were encouraged to submit comments and questions.

Additionally, the Company will further inform affected property owners and tenants about this Project through several different mediums. Within seven days of filing this LON, the Company will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements of OAC Section 4906-6-08(A)(1-6). Further, the Company will mail a letter, via first class

mail, to affected landowners, tenants, contiguous owners and any other landowner the Company may approach for an easement necessary for the construction, operation, or maintenance of the Project. The letter will comply with all requirements of OAC Section 4906-6-08(B). The Company maintains a website (http://aeptransmission.com/ohio/) which hosts an electronic copy of this LON and the public notice of this LON. An electronic copy of the LON will be served to the public library in each political subdivision affected by this Project. In addition, the Company retains ROW land agents that discuss Project timelines, construction and restoration activities and convey this information to affected owners and tenants.

B(6) Construction Schedule

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

Construction of the Project is planned to begin in January 2025 with an anticipated in-service date of April 2026.

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.

Maps 1 and 2, in Appendix A, identify the location of the Project area on United States Geological Survey 1:24,000 topographic quadrangle maps (Jersey, Johnstown, and Sunbury). Appendix A, Map 3 shows the Project area on a 2022 aerial photograph.

To visit the northern terminus of the Project from downtown Columbus, Ohio, take I-670 E towards the airport for 0.7 miles, then take exit 5C to continue on I-71 N towards Cleveland for 22.1 miles. Take exit 131 on the right for US-36 E for 3.7 miles. Continue straight onto W Cherry Street for 0.5 mile before turning right onto S Morning Street. Continue onto OH-37 E/ E Granville Street for 0.7 mile. The Company's existing Vassell 345 kV Station is located on the right, approximately 0.2 mile east of Joe Walker Road.

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.

A **revised** list of properties required for the Project are provided in the table below. The easement form exhibit provided in Appendix C represents the minimum easement rights the Company would require in order to construct, operate, and maintain these facilities.

Property Parcel Number	Agreement Type	Easement or Option Obtained (Yes/No)
095-111846-00.002	New Easement	Yes
052-172752-00.001	New Easement	Yes
052-172890-00.000	New Easement	Yes
052-172890-00.001	New Easement	Yes
052-173706-00.000	New Easement	Yes
052-175698-00.000	New Easement	Yes
052-175806-00.000	New Easement	Yes
416-320-01-025-000	New Easement	Yes
417-414-01-002-001	New Easement	Yes

B(9) Technical Features

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

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

The Vassell – Green Chapel 345 kV Transmission Line Adjustment is estimated to include the following:

Voltage: 345 kV
Conductors: (3) 2-Bundle 1590 kCM Falcon ACSS (54/19)
Static Wire: 2x (1) 144 Ct OPGW
Insulators: Polymer
ROW Width: 150 feet
Structure Type: One (1) Steel monopole, strain insulator, deadend structure on concrete pier with anchor bolt foundation

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.

B(9)(b)(i) Calculated Electric and Magnetic Field Strength Levels

i) Calculated Electric and Magnetic Field Levels

There are no residences within 100 feet of the proposed shifts. The EMF calculations provided in the Vassell – Green Chapel 345 kV Transmission Line (approved OPSB Case No. 24-0014-EL-BLN) remain the same for the overall project.

B(9)(b)(ii) Design Alternatives

A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

There are no residences within 100 feet of the proposed shifts, however, the design alternatives provided in the Vassell – Green Chapel 345 kV Transmission Line (approved OPSB Case No. 24-0014-EL-BLN) remain unchanged.

B(9)(b)(ii)(c) Project Cost

The estimated capital cost of the project.

The incremental cost estimate for the proposed engineering modifications is approximately $750,000 using a Class 4 estimate. Pursuant to the PJM OATT, the costs for this Project will be recovered in the AEP Ohio Transmission Company Inc.'s FERC formula rate (Attachment H-20 to the PJM OATT) and allocated to the AEP Zone.

B(10) Social and Ecological Impacts

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

B(10)(a) Operating 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 Berkshire and Trenton Townships within Delaware County, Ohio and in Monroe and Jersey Townships within Licking County, Ohio. The northern portion of the Project is bounded by the City of Sunbury and the cities of Johnstown and New Albany are located in the southeastern portion of the Project area. Cultivated farmland is the dominant land use for the overall project area, followed by residential development, as classified by the county auditors or identified during field review. According to plans acquired from local governments and agencies, suburban sprawl with mixed residential-commercial growth is anticipated north of New Albany and west of Johnstown, which is located near the proposed Green Chapel Station.

There are no schools, parks, cemeteries, churches, wildlife management areas, or nature preserve lands within 1,000 feet of the centerline of the Project.

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 Licking County Auditor and Delaware County Auditor were contacted in early August 2024 to obtain information about agricultural district lands, and the data was received via email correspondence on August 5, 2024 and August 6, 2024, respectively. No agricultural district lands are within the potential disturbance area of the adjustments.

The Project occupies approximately 13.2 acres. Approximately 6.3 acres of the Project has historically been used for row crop land and 4.1 acres has historically been used for pasture/hayfields. However, agricultural impacts will be minimized by using monopole structures and the fact that agricultural activities are a compatible and permitted use within the transmission right-of-way.

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.

The Company's consultant completed Phase I Archaeological and Phase I History/Architectural surveys, which involved subsurface testing and visual inspection for an area encompassing the overall project. No previously unrecorded resources that were identified were considered as being landmarks or eligible for the National Register of Historic Places. As a result, the Company recommended to the SHPO that the overall project would have no adverse effect on historic properties and no further cultural resource work would be necessary. In their response, dated January 8, 2024, SHPO supported the consultant's recommendations. See Appendix D.

Additional coordination was conducted with SHPO for the revised alignment, recommending that the Project would have no adverse effect on historic properties and no further cultural resource work would be necessary. A copy of SHPO's correspondence will be provided once received by the Company.

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.

A Notice of Intent will be filed with the Ohio Environmental Protection Agency for authorization of construction stormwater discharges under General Permit OHC000006. The Company will also coordinate stormwater permitting needs with the appropriate local entities as required. The Company

will implement and maintain best management practices (BMPs) as outlined in the Project-specific Storm Water Pollution Prevention Plan (SWPPP) to minimize erosion control sediment to protect surface water quality during storm events.

Wetland and stream delineation field surveys were completed for the overall project in June 2023 and between September to December 2023, and again in August 2024 to account for proposed adjustments (see Appendix E). In the additional 19.1 acres surveyed for the Project, the Company's consultant identified no new wetlands, streams, or ponds. Two wetlands within the survey area increased in size due to Jurisdictional Determinations, but no new impacts are anticipated to these wetlands for the Project.

As a result of the route adjustments included within the Addendum #2 Ecological Report, the Company is re-evaluating the need for construction and forestry needs to perform non-mechanized clearing of trees (i.e., root structures of trees remain intact) in order to determine the level of permitting compliance with the Clean Water Act (CWA) permits. Prior to construction within jurisdictional waters (wetlands and/or streams), the Company intends to attain the necessary approvals from either or both the USACE or Ohio Environmental Protection Agency (OEPA), if warranted.

The FEMA Flood Insurance Rate Map (FIRM) was reviewed to identify any floodplains/flood hazard areas that have been mapped within the Project Area (specifically, map numbers 39089C0140J and 39089C0139H). Based on this mapping, FEMA-designated 100-year floodplains associated with Kiber Run are crossed by the proposed alignment; however, no proposed structures are planned to be located within the floodplain areas. Local floodplain permitting, if deemed necessary for the overall project, will be coordinated with agencies of jurisdiction as applicable prior to construction.

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.

Coordination letters were sent to U.S. Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources-Division of Wildlife (ODNR-DOW). The USFWS response was received on September 11, 2023, and ODNR-DOW's response was received on October 13, 2023. Copies of the agencies' correspondence letters are provided in Appendix D**.** The proposed route adjustments are minor and an update to the USFWS or ODNR-DOW was not necessary, as the original correspondence is still valid.

As part of the ecological study completed for the overall project, a coordination letter was submitted to the USFWS Ohio Ecological Services Field Office seeking technical assistance on the overall project for potential impacts to threatened or endangered species. The September 11, 2023, response letter from

the USFWS (see Appendix D) indicated that the federally endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*My*otis *septentrionalis*) occur throughout the state of Ohio. The USFWS indicated that seasonal tree clearing would be required if suitable bat habitat trees were identified. Any tree clearing required for the Project will adhere to seasonal restrictions (March 31 through October 1); therefore, adverse impacts to protected bat species are not anticipated as a result of the Project. Due to the overall project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.

A coordination letter was submitted to the ODNR-DOW Ohio Natural Heritage Program (ONHP) and the ODNR - Office of Real Estate seeking an environmental review of the overall project for potential impacts on state listed and federally listed threatened or endangered species. Correspondence from ODNR DOW/OHNP and the ODNR – Office of Real Estate was received on October 13, 2023 (See Appendix D).

According to the DOW, the overall project is within the range of the state and federally endangered Indiana bat, the state and federally endangered northern long-eared bat, the state endangered little brown bat (*Myotis lucifugus*), and the state endangered tricolored bat (*Perimyotis subflavus*). Additionally, the DOW indicated that the southern portion of the overall project is within the vicinity of records for the northern long-eared bat. Because of the presence of state endangered bat species established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area.

Similar to the USFWS response, ODNR recommends cutting between October 1 and March 31 to avoid impacts to theses protected bat species. Based on a desktop survey for caves, mines, and other potential openings, no winter hibernacula were identified within 0.25 mile of the Project (See Appendix E). The acreage of tree clearing required for the overall project was reduced by approximately 1.1 acre. As a result, approximately 28 acres of tree clearing are anticipated for the overall project, which will occur within the seasonal restrictions. Therefore, no additional coordination with ODNR regarding bat species is required.

The ODNR-DOW indicated that the overall project is within the range of five mussel species: the federally endangered rayed bean (*Villosa fabalis*), the federally endangered snuffbox (*Epioblasma triquetra*), the federally threatened rabbitsfoot (*Quadrula cylindrica cylindrica*), the state threatened salamander mussel (*Simpsonaias ambigua*), and the state threatened pondhorn (*Uniomerus tetralasmus*). No in-water work within a perennial stream is proposed for the overall project; therefore, these species are not anticipated to be impacted by the overall project.

In addition, the ODNR lists the overall project in the range of the northern harrier (*Circus hudsonius*). The ODNR recommends that nesting habitats for the listed species be avoided during their nesting periods. The professional survey completed for avian resources concluded no suitable habitat was observed for the northern harrier in the overall project area; therefore, no impacts to this bird species are anticipated.

Of the previous ten state and/or federal listed threatened and endangered species identified within range of the overall project area as identified within the Original Ecological Report (December 2023), no habitat for any of the listed aquatic or bird species were identified within the Addendum #2 Project Survey Area. However, the four bat species (Indiana bat, Northern long-eared bat, little brown bat, and tricolored bat) were identified as having potential summer roosting habitat and no hibernacula within the Addendum #2 Project Survey area, which is consistent with the original threatened and endangered species coordination for the original route. Therefore, no further coordination with either the USFWS and/or ODNR is warranted. A copy of the Addendum #2 Ecological Report with further discussion of threatened and endangered species has been provided in Appendix E.

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 stated in Section B(10)(e), a copy of the correspondence letters received from the USFWS and ODNR-DOW are provided in Appendix D. USFWS indicated no impacts to proposed or designated critical habitats, which is still true with the proposed route adjustment.

The Company's consultant conducted a wetland and stream delineation survey in the overall project study area and prepared an Ecological Survey Report. The Company's consultant conducted additional surveys and an addendum to the report per the route alignment change. The Addendum #2 Ecological Report is provided in Appendix E.

Within the additional 19.1 acres of ecological survey area for the Project, the Company's consultant has identified no additional wetlands, streams, or ponds. No additional impacts are anticipated for existing delineated features.

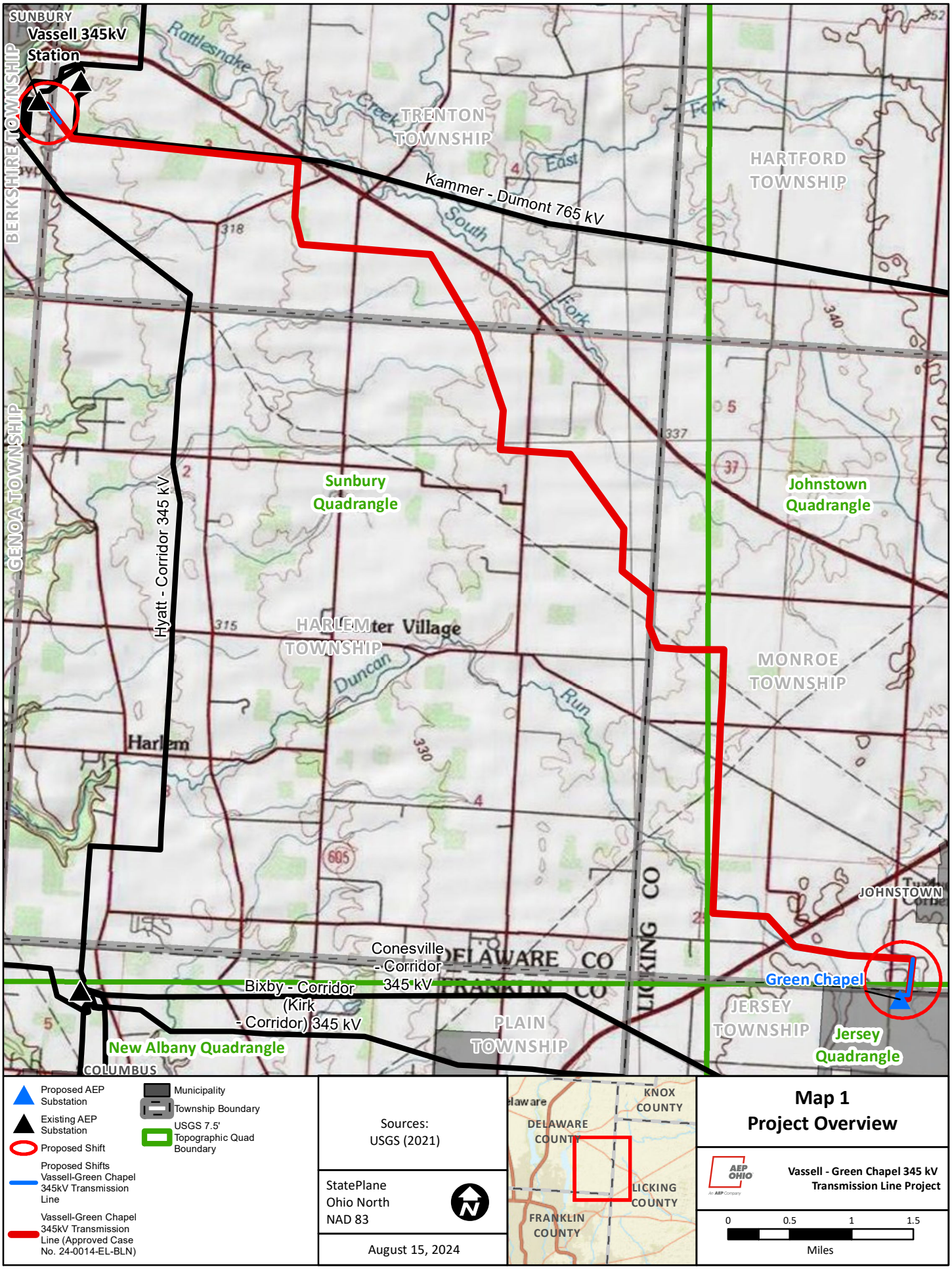
Based on a review of the Protected Areas Database of the United States as well as the Conservation Easement Database, there are no state or national parks, forests, or wildlife areas within the vicinity of the Project.

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 the Company's knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts.

Appendix A Project Maps



Proposed AEP Substation
Existing AEP Substation
Proposed Shift
Proposed Shifts Vassell-Green Chapel 345kV Transmission Line
Vassell-Green Chapel 345kV Transmission Line (Approved Case No. 24-0014-EL-BLN)
Municipality
Township Boundary
USGS 7.5' Topographic Quad Boundary

Sources: USGS (2021)

StatePlane Ohio North NAD 83

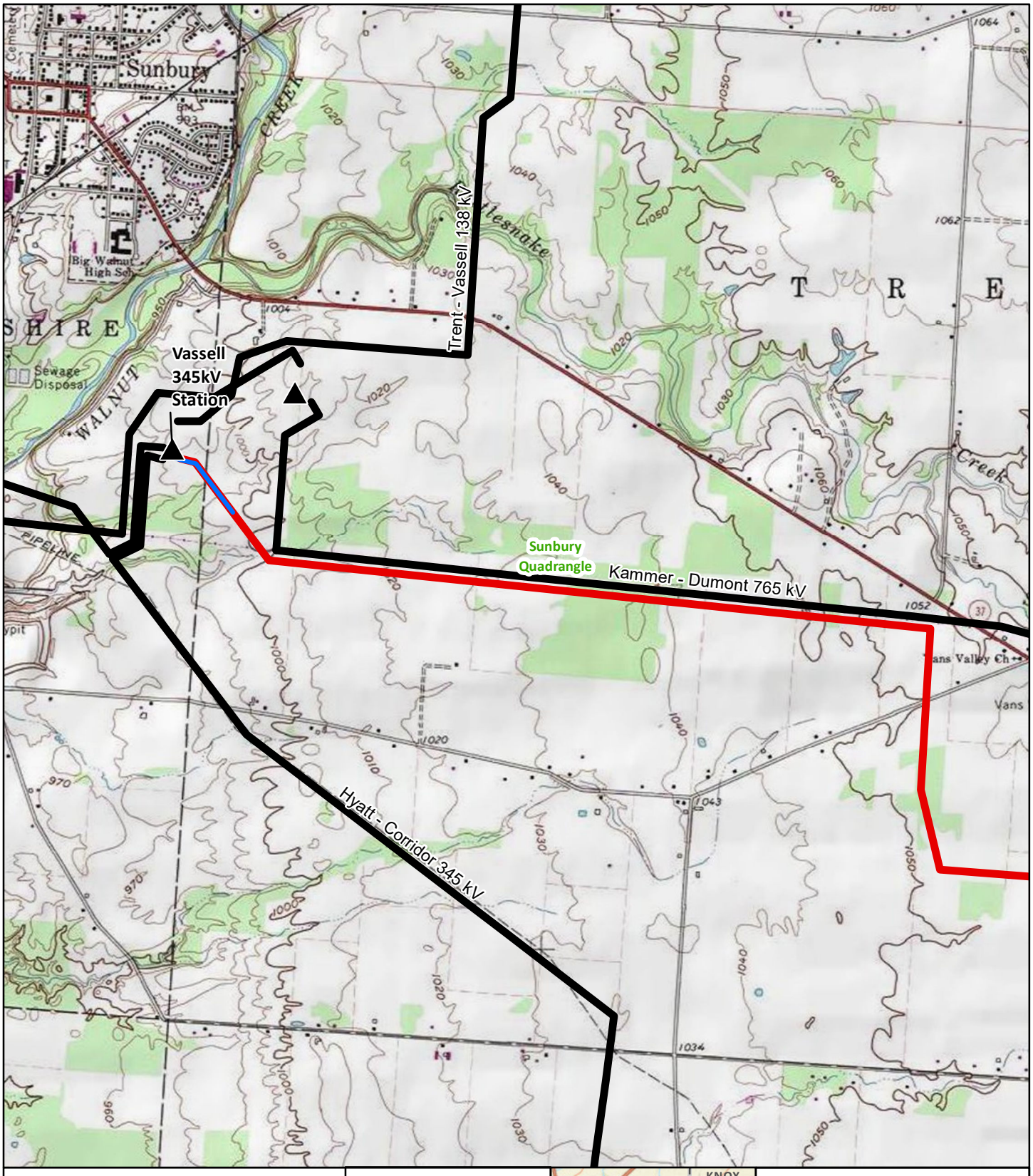
August 15, 2024

Map 1
Project Overview

AEP OHIO

Vassell - Green Chapel 345 kV Transmission Line Project

0 0.5 1 1.5
Miles



Existing AEP Substation

Proposed Shifts Vassell-Green Chapel 345kV Transmission Line

Vassell-Green Chapel 345kV Transmission Line (Approved Case No. 24-0014-EL-BLN)

Existing AEP Transmission Line

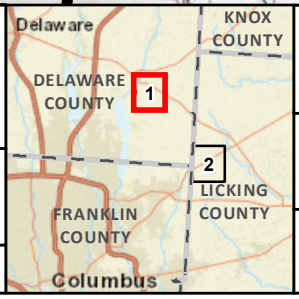
USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2021)

Page 1 of 2

StatePlane
Ohio North
NAD 83

August 15, 2024



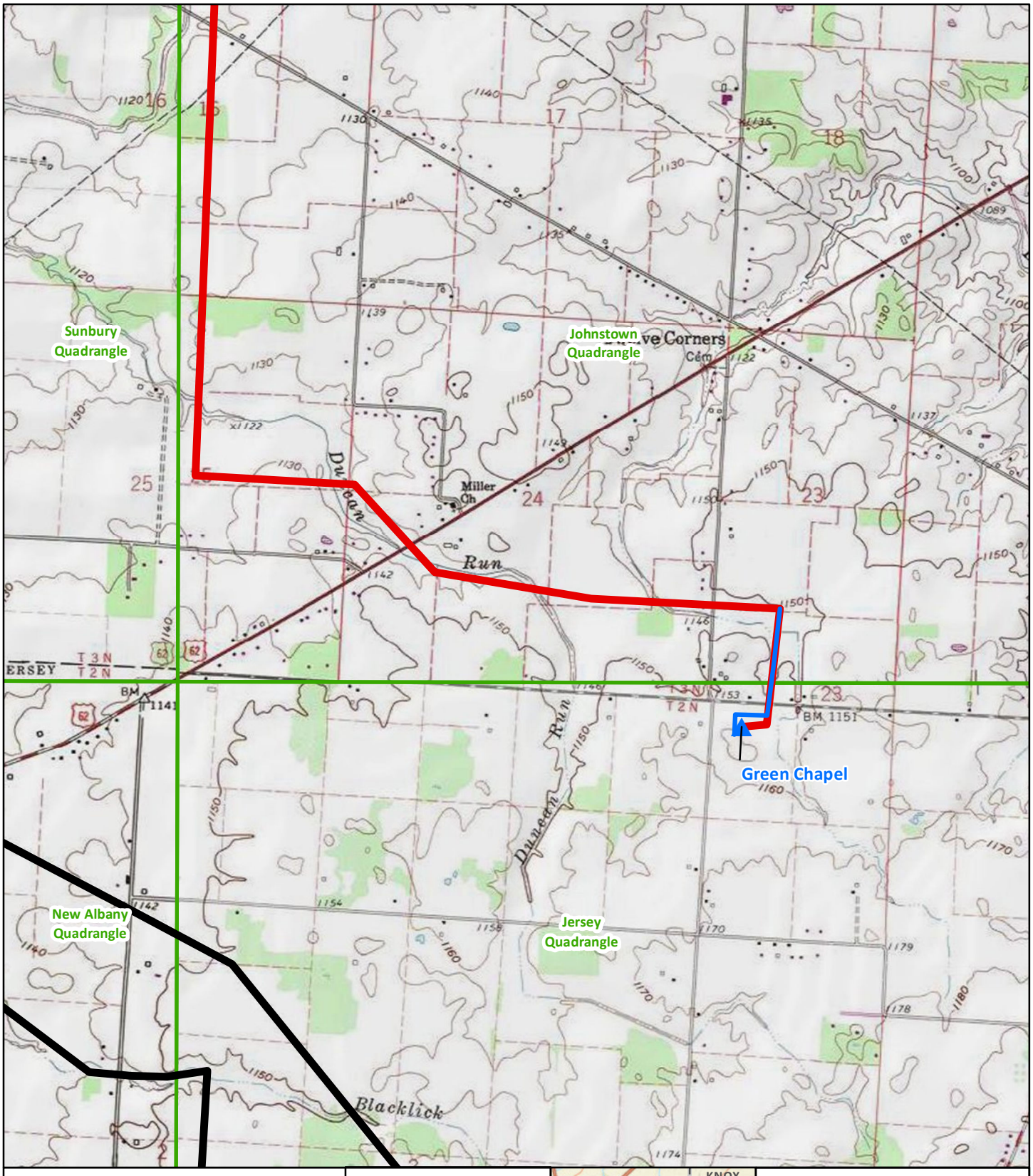
Map 2
Project Area

AEP OHIO

Vassell - Green Chapel 345 kV Transmission Line Project

0 1,000 2,000

Feet



Proposed AEP Substation

Proposed Shifts Vassell-Green Chapel 345kV Transmission Line

Vassell-Green Chapel 345kV Transmission Line (Approved Case No. 24-0014-EL-BLN)

Existing AEP Transmission Line

USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2021)

Page 2 of 2

StatePlane
Ohio North
NAD 83

August 15, 2024

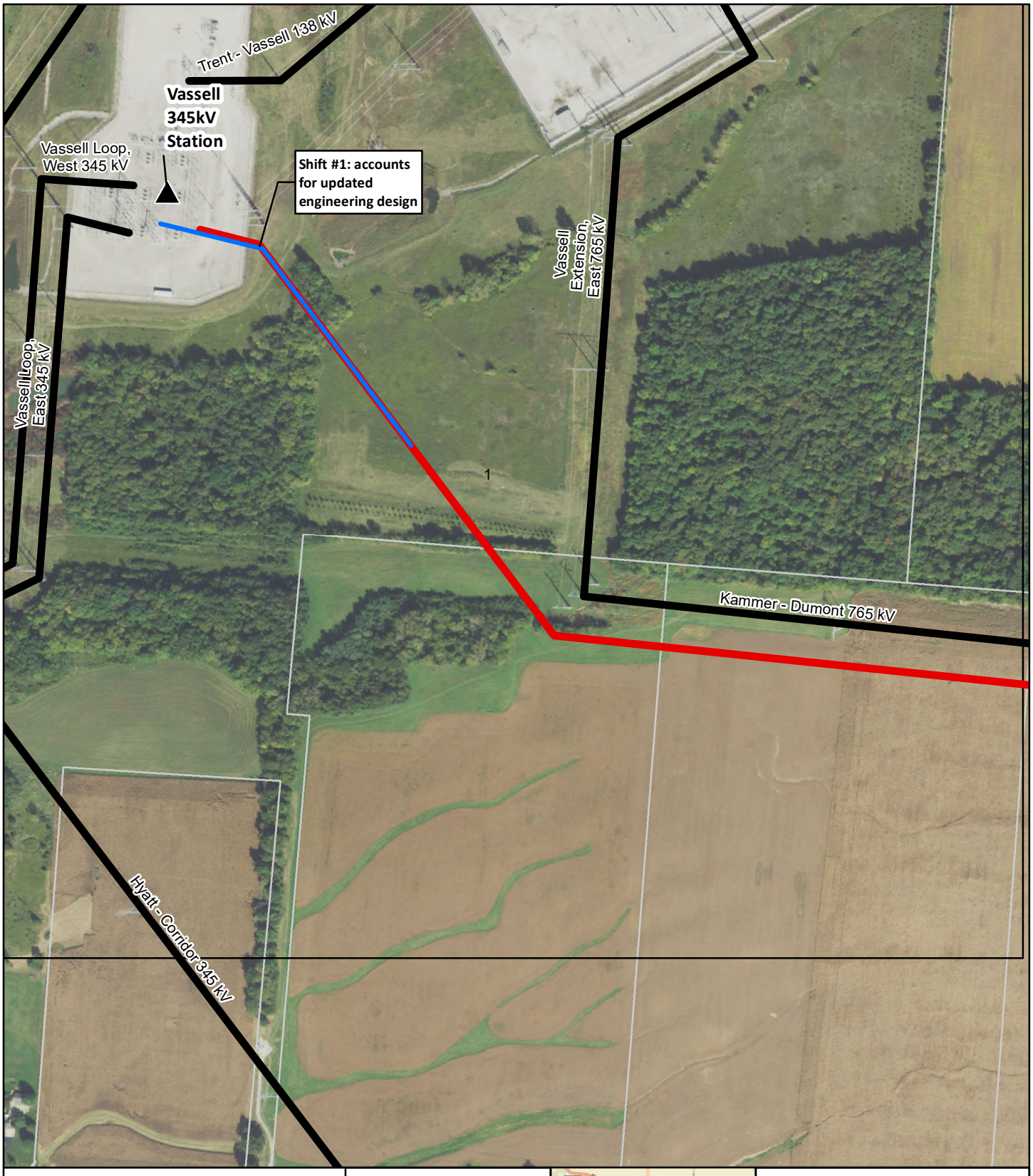
Map 2
Project Area

AEP OHIO

Vassell - Green Chapel 345 kV Transmission Line Project

0 1,000 2,000

Feet



Existing AEP Substation

Proposed Shifts Vassell - Green Chapel 345 kV Transmission Line

Vassell - Green Chapel 345kV Transmission Line (Approved OPSB Case No. 24-0014-EL-BLN)

Existing AEP Transmission Line

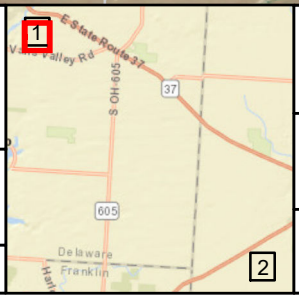
Parcel Boundary

Sources:
NAIP Imagery (USDA 2022)

Page 1 of 2

StatePlane
Ohio South
NAD 83

August 15, 2024

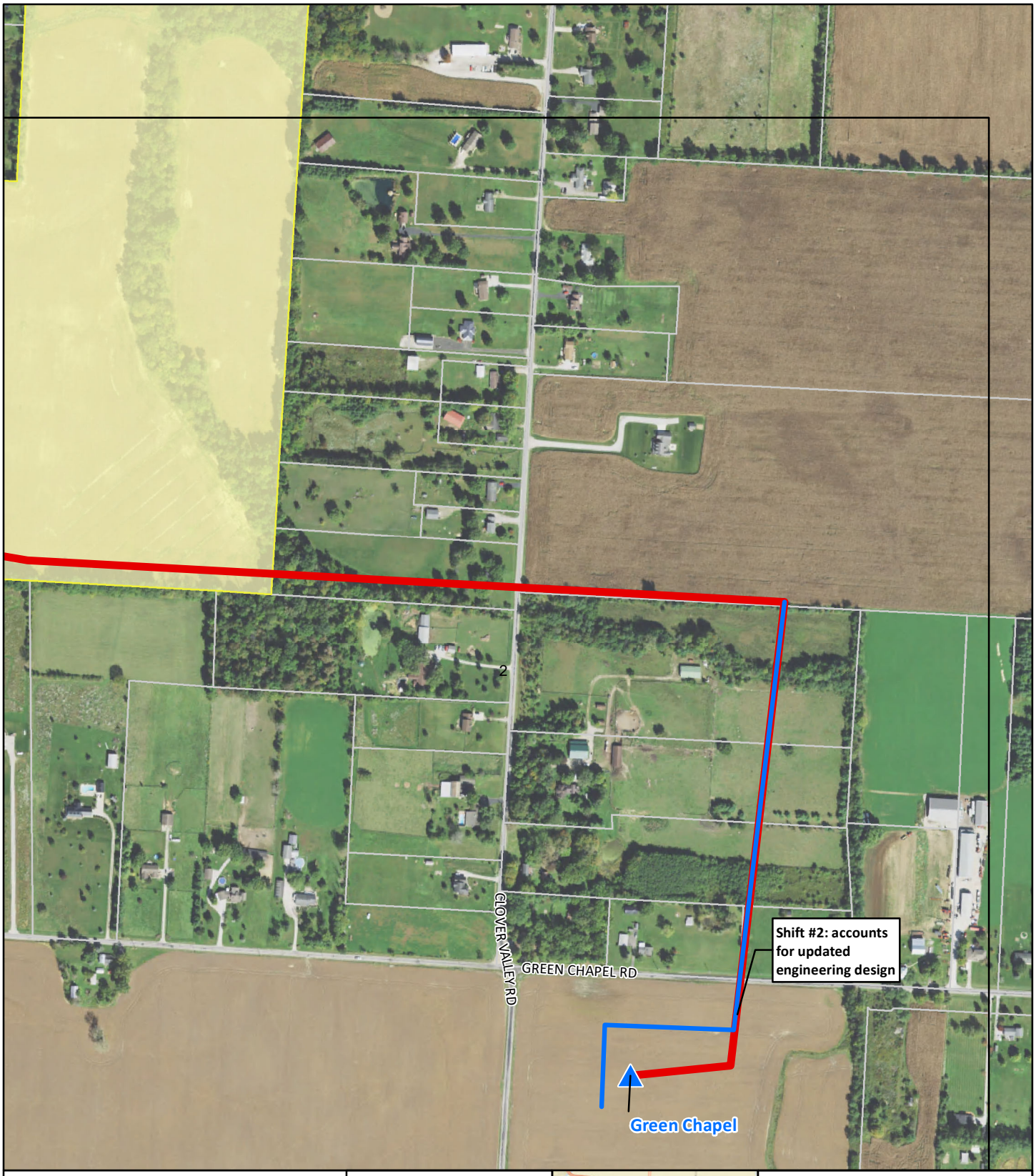


Map 3
Aerial Map

AEP OHIO
An AEP Company

Vassell - Green Chapel 345 kV Transmission Line Project

0 250 500 750
Feet



Proposed AEP Substation

Proposed Shifts Vassell - Green Chapel 345 kV Transmission Line

Vassell - Green Chapel 345kV Transmission Line (Approved OPSB Case No. 24-0014-EL-BLN)

Agricultural District Parcel

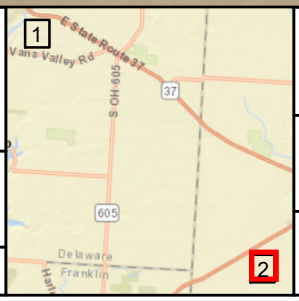
Parcel Boundary

Sources:
NAIP Imagery (USDA 2022)

Page 2 of 2

StatePlane
Ohio South
NAD 83

August 15, 2024



Map 3
Aerial Map

AEP OHIO
An AEP Company

Vassell - Green Chapel 345 kV Transmission Line Project

0 250 500 750

Feet

Appendix B PJM Solution

12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Potential for increased transmission line outages
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Vassell - Green Chapel 345 kV (TP2022981)
2	**POINTS OF ORIGIN AND TERMINATION**	Vassell - Green Chapel INTERMEDIATE STATION - N/A
3	**RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS**	~12.5 mi / 150 ft / 2 circuit
4	**VOLTAGE: DESIGN / OPERATE**	345 kV / 345 kV
5	**APPLICATION FOR CERTIFICATE:**	2024
6	**CONSTRUCTION:**	2025 - 2027
7	**CAPITAL INVESTMENT:**	$75 M
8	**PLANNED SUBSTATION:**	N/A
9	**SUPPORTING STRUCTURES:**	Steel
10	**PARTICIPATION WITH OTHER UTILITIES**	N/A
11	**PURPOSE OF THE PLANNED TRANSMISSION LINE**	Mitigate overloading on multiple transmission facilities including other 345 kV transmission lines and 345-138 kV transformers
12	**CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION**	Potential for increased transmission line outages
13	**MISCELLANEOUS:**	
1	**LINE NAME AND NUMBER:**	Vassell - Curleys 345 kV (TP2022981)
2	**POINTS OF ORIGIN AND TERMINATION**	Vassell - Curleys INTERMEDIATE STATION - N/A

3	RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS	~12.5 mi / 150 ft / 2 circuit
4	VOLTAGE: DESIGN / OPERATE	345 kV / 345 kV
5	APPLICATION FOR CERTIFICATE:	2024
6	CONSTRUCTION:	2025 - 2027
7	CAPITAL INVESTMENT:	$75 M
8	PLANNED SUBSTATION:	N/A
9	SUPPORTING STRUCTURES:	Steel
10	PARTICIPATION WITH OTHER UTILITIES	N/A
11	PURPOSE OF THE PLANNED TRANSMISSION LINE	Mitigate overloading on multiple transmission facilities including other 345 kV transmission lines and 345-138 kV transformers
12	CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION	Potential for increased transmission line outages
13	MISCELLANEOUS:	
1	LINE NAME AND NUMBER:	Conesville - Coridor 345 kV (TP2023011)
2	POINTS OF ORIGIN AND TERMINATION	1). Bermuda - Corridor INTERMEDIATE STATION - N/A 2). Bermuda - Innovation INTERMEDIATE STATION - N/A
3	RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS	~7.8 mi total ~1.85 mi double circuit ~ 5.95 mi single / 150 ft / 1 & 2 circuit (1.85 mi double circuit work)
4	VOLTAGE: DESIGN / OPERATE	345 kV / 345 kV
5	APPLICATION FOR CERTIFICATE:	2024
6	CONSTRUCTION:	2024 - 2025
7	CAPITAL INVESTMENT:	$21.01 M
8	PLANNED SUBSTATION:	Bermuda

Appendix C Form Easement

Line Name: Vassell - Green Chapel
Line No.: TLN380:OH422
Easement No.:

EASEMENT AND RIGHT OF WAY

On this _____ day of _____, 202__, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and the covenants hereinafter set forth, __[landowner name and marital status]__, whose address is _____ ("Grantor"), whether one or more persons, hereby grants, sells, conveys, and warrants to AEP Ohio Transmission Company, Inc., an Ohio corporation, a unit of American Electric Power, whose principal business address is 1 Riverside Plaza, Columbus, Ohio 43215 ("AEP"), and its successors and affiliates, a permanent easement and right of way ("Easement") for a single electric transmission line, not to exceed 345 kV, and for internal communication purposes related to the supply of electricity (the "Transmission Line"), being, in, on, over, under, through and across the following described lands of Grantor, situated in the State of Ohio, County of _____, and Township of _____ and being a part of ___[abbreviated legal description]____ ("Grantor's Property").

Contingent provision: [Spouse of Grantor, if any] join herein for the purpose of releasing all dower rights in regard to the Easement.

Grantor claims title by ___[name of vesting instrument]___ dated _____ from ___[name of first grantor]___, recorded on _____ at ___[record volume, page]___ in the _____ County Recorder's Office.

Auditor/Key/Tax Number: ____[Tax Parcel Number]____

The Easement Area is more fully described and depicted on Exhibit "A", a copy of which is attached hereto and made a part hereof ("Easement Area").

GRANTOR FURTHER GRANTS AEP THE FOLLOWING RIGHTS:

The right, now or in the future, to construct, reconstruct, operate, maintain, alter, improve, inspect,

patrol, protect, repair, remove, replace, upgrade and relocate within the Easement Area, structures and appurtenant equipment necessary for the Transmission Line.

The right, in AEP's discretion, now or in the future, to cut down, trim or remove, and otherwise control, any and all trees, overhanging branches, vegetation or brush situated within the Easement Area and any temporary access roads or temporary workspaces identified on Exhibit "A" outside the Easement Area. Provided, however, that AEP shall not use herbicides or similar products for these purposes on any portions of the Grantor's Property maintained for residential or agricultural use. AEP shall also have the right to cut down, trim or remove trees situated on Grantor's Property which adjoin the Easement Area within the Tree Protection Zone when in the reasonable opinion of AEP those trees are dead, dying, diseased, leaning, or structurally defective and may endanger the safety of, or interfere with the construction, operation or maintenance of AEP's facilities or ingress or egress to, from or along the Easement Area. The Tree Protection Zone extends eighty feet on all sides of the Easement Area depicted in Exhibit A.

AEP shall also have the right of reasonable ingress and egress over, across and upon the Easement Area only, unless additional access routes are depicted in the attached Exhibit A. Provided, however, that in the event access over, across and upon the Easement Area – and access routes, if any, shown in Exhibit A – shall become blocked or otherwise rendered unsafe or hazardous for use, AEP may temporarily access the Easement Area from other points across Grantor's Property, so long as that access is both reasonable and limited to the duration of the interference or safety hazard. AEP shall return the access area to its preexisting condition or pay damages to Grantor.

AEP shall also have the right to use temporary workspaces and temporary access roads outside the Easement Area, if any are shown on Exhibit A, in connection with its initial construction of the Transmission Line. AEP may shift the location of such temporary workspaces, if any, up to twenty (20) feet in any direction, and also shift the location of such temporary access roads, if any, up to twenty (20) feet in any direction, as field conditions or other requirements dictate. Upon completion of the overall Transmission Line project, but in no event later than two (2) years following the start of construction on Grantor's Property, AEP shall remove its equipment from all such temporary workspaces and temporary access roads outside the Easement Area, and AEP's temporary rights outside of the Easement Area shall automatically cease, terminate and revert to Grantor. AEP shall return any such areas to their preexisting condition or pay damages to Grantor as soon as practicable.

THIS GRANT IS SUBJECT TO THE FOLLOWING CONDITIONS:

Grantor reserves the right to cultivate annual crops, pasture, construct fences (provided gates are installed that adequately provide AEP the access rights conveyed herein) and roads or otherwise use Grantor's Property encumbered by this Easement in any way not inconsistent with the rights herein granted. In no event, however, shall Grantor, its heirs, successors, affiliates and assigns plant or cultivate any trees or place, construct, install, erect or permit any temporary or permanent building, structure, improvement or obstruction including but not limited to, storage tanks, billboards, signs, sheds, dumpsters, light poles, water impoundments, above ground irrigation systems, swimming pools or wells, or permit any alteration of the ground elevation, over, or within the Easement Area. AEP may, at Grantor's cost, remove any structure or obstruction if placed

within the Easement Area, and may re-grade any alterations of the ground elevation within the Easement Area.

AEP agrees to repair or pay Grantor for actual damages sustained by Grantor to crops, fences, gates, irrigation and drainage systems, drives, or lawns that are permitted herein, when such damages arise out of AEP's exercise of the rights herein granted.

Pursuant to R.C. 163.02, Grantor possesses a right of repurchase pursuant to R.C. 163.211 if AEP decides not to use Grantor's Property for the purpose stated in the appropriation petition and Grantor provides timely notice of a desire to repurchase.

This instrument contains the complete agreement, expressed or implied between the parties herein and shall inure to the benefit of and be binding on their respective successors, affiliates, heirs, executors, and administrators.

This Easement may be executed in counterparts, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same instrument.

Any remaining space on this page left intentionally blank. See next page(s) for signature(s).

IN WITNESS WHEREOF, said Grantor hereunto set their hand(s) and seal(s) as of the last date set forth below.

GRANTOR

SIGNATURE BLOCK FOR A BUSINESS ENTITY / TRUST:

[name of entity/trust & kind of business association identified]

By:_____
Print name:_____
Its Authorized Signer

State of Ohio §
§ SS:
County of _____ §

This instrument was acknowledged before me on this _____ day of _____, 202__ by _____, the _____[title]_____ of ___[name of entity/trust]___, a/an ___[state of incorporation and type of entity/trust]____, on behalf of ___[name of entity/trust]___.

_____
Notary

SIGNATURE BLOCK FOR AN INDIVIDUAL:

_____
____[Typed name of individual]____

State of Ohio §
§ SS:
County of _____ §

This instrument was acknowledged before me on this _____ day of _____, 202__ by ___[name of individual]____.

_____
Notary

This instrument prepared by Marland Turner, American Electric Power Service Corporation, 1 Riverside Plaza, Columbus, OH 43215 for and on behalf of AEP Ohio Transmission Company, Inc., a unit of American Electric Power.

When recorded return to: American Electric Power – Transmission Right of Way, 8600 Smith's Mill Road, New Albany, OH 43054.

Appendix D Agency Coordination

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

September 11, 2023

Project Code: 2023-0125820

Dear Anna Findish:

The U.S. Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened, endangered, and proposed species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

Federally Proposed Species: On September 14, 2022, the Service proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The bat faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. During spring, summer, and fall, this species roosts primarily among leaf clusters of live or recently dead trees, emerging at dusk to hunt for insects over waterways and forest edges. While white-nose syndrome is by far the most serious threat to the tricolored bat, other threats now have an increased significance due to the dramatic decline in the species' population. These threats include disturbance to bats in roosting, foraging, commuting, and over-wintering habitats. Mortality due to collision with wind turbines, especially during migration, has also been documented across their range. Conservation measures for the Indiana bat and northern long-eared bat will also help to conserve the tricolored bat.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, we recommend removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats.

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats and northern long-eared bats. If Indiana bats and northern long-eared bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Scott Hicks
Acting Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Eileen Wyza, ODNR-DOW

Office of Real Estate
Tara Paciorek, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6661
Fax: (614) 267-4764

October 13, 2023

Anna Findish
AECOM
707 Grant Street
Pittsburgh, Pennsylvania 15219

Re: 23-1066; AEP Vassell - Green Chapel North Enhancement

Project: The proposed project involves the implementation of improvements between the existing Vassell Station and a proposed station (approximately 12.4 miles).

Location: The proposed project is located in Berkshire, Trenton, and Harlem townships, Delaware County, and Monroe and Jersey townships, Licking County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state, or federal agency nor relieve the applicant of the obligation to comply with any local, state, or federal laws or regulations.

Natural Heritage Database: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The portion of the project south of Duncan Plains Road is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species. Because presence of state endangered bat species has been established in this area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be

acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. However, if trees are present within this area, (outside of the area delineated above) and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "*OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING*". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "*RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES*." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza, for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

This project is within the range of the following listed mussel species.
Federally Endangered
rayed bean (*Villosa fabalis*)
snuffbox (*Epioblasma triquetra*)

Federally Threatened
rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Threatened
Salamander Mussel (*Simpsonaias ambigua*)
pondhorn (*Uniomerus tetralasmus*)

This project must not have an impact on native mussels. This applies to both listed and non-listed species, as all species of mussel are protected in Ohio. Per the Ohio Mussel Survey Protocol (2022), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 5 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide

information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, the DOW recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the Ohio Mussel Survey Protocol. If there is no in-water work proposed, impacts to mussels are not likely.

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact aquatic species.

The project is within the range of the northern harrier (*Circus hudsonius*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator

In reply, refer to
2023-DEL-59893

January 8, 2024

Ryan Weller
Weller & Associates, Inc.
1395 W. Fifth Ave.
Columbus, OH 43212
rweller@wellercrm.com

RE: Vassell-Green Chapel 345kV North Transmission Line Greenfield Project, Delaware and Licking Counties, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received December 11, 2023 regarding the proposed Vassell-Green Chapel 345kV North Transmission Line Greenfield Project, Delaware and Licking Counties, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-4 & 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Investigation for the 20.2 km (12.6 mi) Vassell-Green Chapel 345kV North Transmission Line Greenfield Project in Delaware and Licking County, Ohio* by Ryan J. Weller (Weller & Associates, Inc. 2023).

A literature review, visual inspection, surface collection, shovel probe, and shovel test unit excavation was completed as part of the investigations. Ten (10) previously identified archaeological sites are located within the project area, Ohio Archaeological Inventory (OAI) #33DL2618-33DL2620, 33DL2630, 33DL2632, 33DL2691, 33DL2712-33DL2714, and 33LI3550. OAI#33DL2618 was previously recommended potentially eligible for listing in the National Register of Historic Places (NRHP). Intensive survey in and around this site during this survey failed to identify the site. The reminder of the previously identified archaeological sites were previously determined not eligible for listing in the NRHP. Our office agrees with this recommendation and no additional survey is needed at OAI#33DL2618. Twenty-six (26) new archaeological sites were identified during survey, OAI#33DL3695-3703, 33LI3608, 33LI3610-33LI3612, and 33LI3615-33LI3627. None of the sites are recommended eligible for listing in the NRHP. Our office agrees with this recommendation and no additional archaeological survey.

The following comments pertain to the *History/Architecture Investigations for the 20.2 km (12.6 mi) Vassell-Green Chapel 345kV North Transmission Line Greenfield Project in Delaware and Licking Counties, Ohio* by Scott McIntosh (Weller & Associates, Inc. 2023).

A literature review and field survey were conducted as part of the investigations. A total of forty-nine (49) architectural resources fifty years of age or older were identified in the Area of Potential Effects (APE). One (1) resource was previously determined eligible under Criterion C and was recorded to the Ohio Historic Inventory (OHI) as part of this survey (DEL0122813). None of the other resources are recommended eligible. Our office agrees with Weller's recommendations of eligibility. Based on the information provided, the project as proposed will have no direct effect on the historic resource.

Based on the information provided, we agree the project as proposed will have no adverse effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me at (614) 298-2022, or by e-mail at khorrocks@ohiohistory.org or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1100944-1100945

In reply, refer to
2023-DEL-59893

March 11, 2024

Ryan Weller
Weller & Associates, Inc.
1395 W. Fifth Ave.
Columbus, OH 43212
rweller@wellercrm.com

RE: Vassell-Green Chapel 345kV North Transmission Line Greenfield Project, Delaware and Licking Counties, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received February 19, 2024, regarding the proposed Vassell-Green Chapel 345kV North Transmission Line Greenfield Transmission Line Greenfield Project, Delaware and Licking Counties, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-4 & 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the letter report titled *Addendum Cultural Resource Management Investigations for the Vassell-Green Chapel North 345kV Greenfield Transmission Line Project in Delaware and Licking Counties, Ohio* by Ryan J. Weller (Weller & Associates, Inc. 2024). This project involved the investigation of several areas associated with reroutes for a proposed transmission line.

A literature review, visual inspection, shovel test unit excavation, and surface collection were completed as part of the investigations. Portions of the addendum project area had been previously investigated for cultural resources. Three (3) archaeological sites, Ohio Archaeological Inventory (OAI) #33DL3693, #33DL3694, and #33LI3631 were identified within the addendum project during survey. These sites were not recommended as eligible for listing in the National Register of Historic Places (NRHP). Our office agrees with this recommendation and no additional archaeological survey is needed. There were no additional architectural resources 50 years of age or older identified within the Area of Potential Effects (APE) of the addendum project during survey.

Based on the information provided, we continue to agree the project, as proposed, will have no adverse effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional cultural resources are discovered during the implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me by e-mail at cgullett@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Catherine Gullett, Project Reviews Coordinator
Resource Protection and Review
State Historic Preservation Office

RPR Serial No: 1101917

Appendix E Wetland Delineation Report

VASSELL – GREEN CHAPEL 345KV TRANSMISSION LINE – ADDENDUM #2

LICKING COUNTY, OHIO

ADDENDUM #2 ECOLOGICAL REPORT

Prepared for:
American Electric Power Ohio Transmission Company
8600 Smiths Mill Road
New Albany, Ohio 43054

Prepared by:

525 Vine Street, Suite 1900
Cincinnati, Ohio 45202

Project #: 60702685

August 2024

TABLE OF CONTENTS

TABLES (in-text)

FIGURES

Number

APPENDICES

Number

1.0 INTRODUCTION

American Electric Power, Ohio Transmission Company (AEP Ohio Transco) is proposing improvements between the existing Vassell Station and a Green Chapel Station as part of the Vassell-Green Chapel 345kV Transmission Line (Project), which was covered in the December 2023 Original Ecological Report (AECOM, 2023) and February 2024 – Addendum #1 Ecological Report (AECOM, 2024). Since the Original and Addendum #1 Ecological Reports, the Addendum #2 Ecological Report was completed to capture the following adjustments:

- New Alignment Adjusted for Tie-In to Green Chapel Station and Vassell Station, resulting in one new structure and 0.07-mile of new alignment outside of previously surveyed areas.
- Structures renumbered to incorporate the additional structure and revise the previously named Structures 21a and 27a to be in numerical order from south to north along the alignment.
- An anticipated shift of alignment between Structure 28 to Structure 32.
- There are two Jurisdictional Determinations (JD)s located in the Project rights-of-way (ROW). The first JD issued for W-MRK-022 results in a larger boundary than surveyed by AECOM; W-MRK-022 is part of Wetland A under the JD: LRH-2024-159 SCR PJD – AJD (Appendix C). The second JD (LRH-2023-389-SCR PJD - AJD) approved resulted in changing the jurisdictional status to isolated and expanding the boundary of W-MRK-002 (Wetland K). Copies of the previously filed JDs are provided in Appendix C. This report updates the boundary of W-MRK-022 (Wetland A) and switches the status of W-MRK-002 (Wetland K) to isolated.

For visual representation of the changes, a summary figure has been provided within **Appendix B** that displays the original and revised routes, structures, as well as survey areas associated with the December 2023 – Original Ecological Report, Addendum #1 Ecological Report, and this Addendum #2 Ecological Report. This Addendum #2 Ecological Report specifies any features identified within 19.1 acres of additional review areas identified as Addendum #2 Project Survey Area in Licking County, Ohio (OH). The Addendum #2 Project Survey Area associated with this Addendum #2 Ecological Report is located within Jersey, OH United States Geological Survey (USGS) 7.5-minute topographical quadrangle as displayed on the Project Overview (Figure 1).

The purpose of the field survey was to assess the presence of wetlands and possible “waters of the United States” (WOTUS) that occur within the proposed Project Survey Area. Secondary, land uses were also recorded to classify and characterize potential habitat for threatened and endangered species. This report will be used to assist AEP Ohio Transco’s efforts to identify potential WOTUS as well as threatened and endangered species habitat present within the proposed Project Survey Area to avoid or minimize impacts during construction activities.

2.0 METHODOLOGY

A comprehensive methodology of the field surveys and data reviews are included within the December 2023 - Original Ecological Report and a brief summary of the delineation and agency coordination methodology has been provided below. The field survey was completed for Addendum #2 Project Survey Area centered along areas previously listed as “no access”, for a 150-foot corridor along the proposed transmission line centerline. The Addendum #2 Project Survey Area is approximately 19.1 acres. Prior to conducting field surveys, digital United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey data, United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) data, USGS National Hydrography Dataset (NHD), FEMA 100-year floodplain data (FEMA), and USGS 7.5-minute topographic maps were reviewed as an exercise to identify the occurrence and location of potential wetland areas.

Field survey activities included recording the physical boundaries of observed water features using submeter capable EOS Arrow Global Positioning System (GPS) units in conjunction with ArcGIS Field Maps application on iPad tablets. The GPS data was imported into ArcMap Geographic Information System (GIS) software, where the data was reviewed, edited for accuracy, and compiled in a format suitable for transfer and use by AEP Ohio Transco. Water features were delineated and assessed based upon the appropriate procedures detailed below. Land uses observed within the Project Survey Area were assigned a general classification based upon the principal land characteristics and vegetation cover of the location.

3.0 RESULTS

Since the previous Addendum #1 Ecological Report, a new alignment was proposed for a tie-in to Green Chapel Station and Vassell Station resulting in one new structure and 0.07-mile of new alignment outside of the previously surveyed areas. Structures were renumbered to incorporate the additional structure and revise the previously named Structures 21a and 27a to be in numerical order from south to north along the alignment. No additional wetlands, streams, and ponds were identified as a result of these adjustments.

Two wetlands located within the Project Survey Area were increased in size due to the Jurisdictional Determinations. W-MRK-022 (Wetland A) was covered under the PJD: 2024-159 SCR, and W-MRK-002 (Wetland K) was covered under the AJD: 2023-389-SCR (**Appendix C**). Only portions of the third wetland complex, W-MRK-001 (Wetland F), were covered under PJD: 2023-389-SCR, so AECOM boundaries were not revised.

W-MRK-002 was previously identified as potentially connecting to W-MRK-001 outside the survey area. As results from an approved JD were provided, it was confirmed to be isolated and a revised ORAM was completed (**Appendix D**), changing the wetland from Category 2 to Category 1.

The route adjustments were completed within extent of a previous ecological survey completed as part of Green Chapel Station on August 16, 2022, as well as previous surveys for previous considered alignments associated with this Project in June 15, 2023, which is still within range of validity of delineation (within 5-years) as per regulatory guidance. The Addendum #2 Project Survey Area that overlaps the extent of this previously completed survey did not have a presence of any wetlands, streams, and/or ponds. Previously recorded data forms and photographs of delineated AECOM wetlands, streams, ponds, and upland drainage features within the vicinity of the Project Survey Area are contained within the December 2023 - Original Ecological Report (AECOM, 2023).

3.1 WETLAND DELINEATION

3.1.1 PRELIMINARY SOILS EVALUATION

According to the USDA/NRCS Web Soil Survey, Licking County has a total of four soil map units identified within the Addendum #2 Project Survey Area (USDA NRCS, 2021). These soil map units are:

- Bennington silt loam, 0 to 2 percent slopes (BeA)
- Bennington silt loam, 2 to 6 percent slopes (BeB)
- Centerburg silt loam, 2 to 6 percent slopes (Cen1B1)
- Pewamo silty clay loam, 0 to 1 percent slopes (Pe)

Of these, all four soil map units were previously described in the December 2023 - Original Ecological Report and characteristics of hydric conditions was previously provided within this report. Soil Map units located in the Addendum #2 Project Survey Area and vicinity are shown in **Figure 2**.

3.1.2 NATIONAL WETLANDS INVENTORY MAP REVIEW

According to NWI data covering the Project location, the Addendum #2 Project Survey Area does not contain any NWI mapped wetlands. The location of the Addendum #2 Project Survey Area in relation to NWI mapped wetlands in the Project vicinity are shown on **Figure 2**.

3.1.3 DELINEATED WETLANDS

During desktop review of the Project Survey Area, two wetlands (W-MRK-022/Wetland A and W-MRK-002/Wetland K) were increased in size due to USACE JDs. During the field survey, no new wetlands were delineated within the Addendum #2 Project Survey Area. One wetland, W-MRK-001, has an approved JD and the boundary of the approved JD area is included within the original extents and was not further revised. Additionally, W-MRK-002 category assessment for ORAMs was revised from Category 2 to Category 1 due to results of an approved JD. The revised ORAM for W-MRK-002 is provided as **Appendix D**. The boundaries of the Addendum #2 Project Survey Area subject to this report are displayed on **Figure 3**. Due to update of wetland size and structure numbers along the alignment, Table 1 displays “highlighted yellow”

for changes since the December 2023 – Original Report and the February 2024 – Addendum #1 Ecological Report.

Previous data forms and photographs of other features within the December 2023 – Project Survey Area and Addendum #1 Project Survey Area are contained within the December 2023 – Original Report and February 2024 – Addendum #1 Ecological Report, respectively.

TABLE 1: SUMMARY OF DELINEATED WETLANDS WITHIN THE ADDENDUM #2 PROJECT SURVEY AREA

Wetland ID	Location		Isolated?	Habitat Type	Delineated Area (acre)	ORAM		Nearest Structure # (Existing / Proposed)	Existing Structure # in Wetland	Proposed Structure # in Wetland	Structure Installation Method	Proposed Impacts	
	Latitude	Longitude				Score	Category					Temporary Matting Area (acre)	Permanent Impact Area (acre)
W-CRW-001	40.224988	-82.850404	Yes	PEM	0.210	29	1	65	None	None	TBD	TBD	TBD
W-MRK-001 / Wetland F	40.222487	-82.826070	No	PEM	3.56	37	2	59	None	None	TBD	TBD	TBD
	40.222258	-82.827372		PFO	3.988				None	None	TBD	TBD	TBD
W-MRK-002 / Wetland K	40.222414	-82.824598	Yes	PEM	0.249	29	1	59	None	None	TBD	TBD	TBD
	40.222070	-82.824641		PFO	0.637				None	None	TBD	TBD	TBD
W-MRK-004	40.148161	-82.748641	Yes	PFO	0.367	35	2	18	None	None	TBD	TBD	TBD
W-MRK-005	40.147472	-82.748273	Yes	PFO	0.034	35	2	18	None	None	TBD	TBD	TBD
W-MRK-006	40.128403	-82.725013	No	PEM	0.016	23	1	6	None	None	TBD	TBD	TBD
W-MRK-007	40.128079	-82.725113	No	PFO	0.516	35.5	2	5	None	None	TBD	TBD	TBD
W-MRK-011	40.187063	-82.776704	Yes	PEM	0.422	12	1	39	None	None	TBD	TBD	TBD
W-MRK-012	40.215830	-82.813053	Yes	PFO	0.540	26	1	55	None	None	TBD	TBD	TBD
W-MRK-013	40.214477	-82.813157	Yes	PFO	3.490	26	1	54	None	None	TBD	TBD	TBD
W-MRK-014	40.213258	-82.812144	Yes	PFO	0.261	26	1	53	None	None	TBD	TBD	TBD
W-MRK-016	40.132913	-82.744998	Yes	PEM	0.285	19	1	12	None	None	TBD	TBD	TBD
	40.132786	-82.745138		PFO	0.223				None	None	TBD	TBD	TBD
W-MRK-017	40.140132	-82.749653	Yes	PFO	0.150	35	2	15	None	None	TBD	TBD	TBD
W-MRK-020	40.221870	-82.818920	Yes	PSS	1.120	31	2	57	None	None	TBD	TBD	TBD
	40.224070	-82.846010		PFO	0.737				None	None	TBD	TBD	TBD
W-MRK-022 / Wetland A	40.128340	-82.731160	No	PEM	1.611	15	1	62	None	None	TBD	TBD	TBD
W-MRK-030	40.192450	-82.781720	Yes	PEM	0.434	45	2	23	None	None	TBD	TBD	TBD
	40.163095	-82.747505		PFO	2.59				None	None	TBD	TBD	TBD
W-MRK-034	40.187063	-82.776704	No	PEM	0.06	14	1	8	None	None	TBD	TBD	TBD
W-MRK-035	40.215830	-82.813053	No	PFO	0.266	30	2	42	None	None	TBD	TBD	TBD
P-MRK-003	40.124774	-82.719418	No	N/A	0.129	N/A	N/A	2	None	None	TBD	TBD	TBD
P-MRK-004	40.127664	-82.723867	No	N/A	0.339	N/A	N/A	6	None	None	TBD	TBD	TBD
				Total:	**22.234**							TBD	**TBD**

Note: Attributes highlighted as “Yellow” within the table above illustrate the changes since the December 2023 – Original Report and February 2024 – Addendum #1 Report. The changes identified are associated with extension of previously identified resources, shift of structures, and no new wetlands identified.

3.2 STREAM DELINATION

During the field survey, no new streams were delineated within the Addendum #2 Project Survey Area. As a result, no additional data forms and/or photographs are provided within this Addendum #2 Ecological Report. Previous photographs and data forms are enclosed within the December 2023 – Original or February 2024 – Addendum #1 Ecological Reports.

AECOM has provided a provisional determination that all delineated streams within the Project Survey Area appear to be jurisdictional (i.e., WOTUS), based on their observed or presumed confluence with downstream waters. Final jurisdictional status can only be determined by the USACE, and AECOM assessments are provisional. A summary of the delineated features for the entire Project both Original and Addendum #1 Project Survey Area are provided in **Table 4**, with extended or adjusted features highlighted as “yellow”.

TABLE 2: SUMMARY OF DELINEATED STREAMS WTIHIN THE ADDENDUM #2 PROJECT SURVEY AREA

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Crossing ?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation			Fill Type	Area (acre)
S-CRW-001	40.22706	-82.85052	Intermittent	UNT to Big Walnut Creek	409	2.5	11	HHEI	75	Class III PHW	Eligible	TBD	TBD	TBD
S-MRK-001	40.22222	-82.82706	Ephemeral	UNT to Big Walnut Creek	218	2.5	1.75	HHEI	13	Class I PHW	Eligible	TBD	TBD	TBD
S-MRK-002	40.20528	-82.78772	Intermittent	UNT to Hoover Reservoir	1,865	6	2.5	HHEI	40	Class II PHW	Eligible	TBD	TBD	TBD
S-MRK-005	40.15297	-82.74773	Perennial	UNT to Duncan Run	1,076	16	9	QHEI	40	Poor	Eligible	TBD	TBD	TBD
S-MRK-006	40.12718	-82.71824	Intermittent	Kiber Run	469	8	3	CH 3745-1	N/A	Warmwater Habitat	Eligible	TBD	TBD	TBD
S-MRK-007	40.12840	-82.72470	Perennial	Kiber Run	1,327	10	6.5	CH 3745-1	N/A	Warmwater Habitat	Eligible	TBD	TBD	TBD
S-MRK-008	40.12808	-82.72432	Intermittent	UNT to Kiber Run	170	10	6.5	HHEI	37	Class II PHW	Eligible	TBD	TBD	TBD
S-MRK-009-x1	40.13005	-82.737656	Perennial	Duncan Run	1,200	6	11	CH 3745-1	N/A	Warmwater Habitat	Eligible	TBD	TBD	TBD
S-MRK-009-x2	40.128761	-82.731214	Perennial	Duncan Run	1,437	6	11	CH 3745-1	N/A	Warmwater Habitat	Eligible	TBD	TBD	TBD
S-MRK-015	40.20369	-82.77273	Perennial	Duncan Run	409	3.5	2	CH 3745-1	N/A	Warmwater Habitat	Eligible	TBD	TBD	TBD
S-MRK-016	40.13277	-82.74191	Ephemeral	UNT to Duncan Run	74	2	1	HHEI	10	Modified Class I	Eligible	TBD	TBD	TBD
S-MRK-017	40.13478	-82.74848	Intermittent	UNT to Duncan Run	1,395	2	1	HHEI	50	Modified Class II	Eligible	TBD	TBD	TBD
S-MRK-018	40.13621	-82.74888	Perennial	Duncan Run	841	15	6	CH 3745-1	N/A	Warmwater Habitat	Eligible	TBD	TBD	TBD
S-MRK-023	40.22408	-82.84764	Perennial	UNT to Big Walnut Creek	443	6	6	HHEI	55	Class III PHW	Eligible	TBD	TBD	TBD
				Total:	**11,333**									**TBD**

Note: No changes since the December 2023 – Original Report or the February 2024 – Addendum #1 Report have been identified.

3.2.1 OEPA STREAM ELIGIBILITY

OEPA stream eligibility for 401 Water Quality Certification mapping was reviewed for the Addendum #2 Project Survey Area. The Addendum #2 Project Survey Area crosses one OEPA stream eligibility watershed which was included in the December 2023 - Original Ecological Report, that watershed is:

- Headwaters Raccoon Creek, 050400060301 (Eligible)

Please refer to the original report for detailed information regarding the stream eligibility (AECOM, 2023). Updated OEPA stream eligibility mapping for the Project vicinity is provided on **Figure 4.**

3.3 FEMA 100 YEAR FLOODPLAINS

No FEMA regulated 100-year floodplains or floodways are located within the Addendum #2 Project Survey Area, (FEMA, 2007).

3.4 PONDS

No ponds were identified within the Addendum #2 Project Survey Area.

3.5 UPLAND DRAINAGE FEATURES

No upland drainage features were identified within the Addendum #2 Project Survey Area.

3.6 VEGETATIVE COMMUNITIES

AECOM ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys. The habitat types observed within the Addendum #2 Project Survey Area include Agricultural Row-Crop, Old Field, and Urban Habitat. Vegetative communities are depicted visually on aerial photography in **Figure 5**. Due to adjacency of previously provided photographs in either the December 2023 – Original Report or February 2024 –Addendum #1 Report, only one additional photograph was taken to characterize the Project area within this Addendum #2 Ecological Report and is provided as **Appendix A**. Please see photographs of these habitats within the original reports.

TABLE 3 - VEGETATIVE COMMUNITIES WITHIN THE ADDENDUM #2 SURVEY AREA

Vegetative Community	Description	Approximate Acreage Within the Addendum #2 Project Survey Area	Approximate Percentage Within the Addendum #2 Project Survey Area
Agricultural Row-Crop	Agricultural lands being utilized for row-crop production and associated activities, typically devoid of vegetation outside of the target crop and opportunistic/invasive species.	12.3	64.40
Old Field	Herbaceous cover exists alongside roads, field borders, and abandoned fields within the survey area of the Project in the form of successional old-field communities. These communities are the earliest stages of recolonization by plants following disturbance. This community type is typically short-lived, giving way progressively to shrub and forest communities unless periodically re-disturbed, in which case they remain as old fields. The old-field areas within the study corridors and adjacent areas are infrequently mowed areas of grasses, forbs, and occasional shrubs.	5.3	27.75
Urban	Urban areas are areas developed with residential and commercial land uses, including roads, buildings and parking lots. These areas are generally devoid of significant woody and herbaceous vegetation.	1.5	7.85
	Totals:	**19.1**	**100%**

Note: This table represents the habitat identified within the Addendum #2 Project Survey Area, only. For complete habitats identified within the Project Survey Area, combine the acreage presented within the December 2023 – Original Report and the February 2024 – Addendum #1 Report with the quantities identified within the table above.

3.7 RARE, THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION

Protected Species Agency Consultation –

A species list and overall assessment of the potential for rare, threatened, and endangered species, is provided within the December 2023 - Original Ecological Report. The Addendum #2 Project Survey Area is located within the previously consulted areas in September and October 2023 and no further coordination is necessary.

4.0 SUMMARY

The Addendum #2 Ecological Report was completed to was completed to survey areas where minor route adjustments shifted the alignment and to mark changes to features due to two JDs requested located within the Project Survey Area. The field survey identified no new features within the Addendum #2 Project Survey Area and two wetlands (W-MRK-022 and W-MRK-002) were increased in size due to the JDs and W-MRK-002/Wetland K was revised to ORAM Category 1. No changes to boundary or category occurred to W-MRK-001/Wetland F.

Of the previously ten state and/or federal listed threatened or endangered species identified within range of the Project area as identified within the December 2023 – Original Report, no habitat for any of the listed aquatic, bird, or bat species were identified within the Addendum #2 Project Survey Area. However, the four bat species were identified as having potential summer roosting habitat for the remaining survey areas

outside of the Addendum #2 Project Survey Area. If tree clearing cannot be completed during the seasonal tree clearing restriction (October 1 to March 31), further coordination with the ODNR/USFWS is still warranted as part of the original assessment regarding threatened and endangered species.

The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of AECOM's assessment. The results cannot apply to site changes of which AECOM is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due to natural processes or human impacts at the project site or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the expansion of knowledge over time. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond the control of AECOM.

5.0 REFERENCES

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Vassell Station
40.22837
-82.852709
BERKSHIRE TOWNSHIP
TRENTON TOWNSHIP
HARTFORD TOWNSHIP
Galena
Sunbury
Johnstown
DELAWARE COUNTY
LICKING COUNTY
GENOA TOWNSHIP
HARLEM TOWNSHIP
MONROE TOWNSHIP
DELAWARE COUNTY
FRANKLIN COUNTY
Green Chapel Station
40.121519
-82.719497
BLENDON TOWNSHIP
New Albany
PLAIN TOWNSHIP
JERSEY TOWNSHIP
Jersey
Northeast Columbus
FRANKLIN COUNTY
LICKING COUNTY

DELAWARE COUNTY
LICKING COUNTY
FRANKLIN COUNTY

Legend

- Station
- December 2023 Report - Project Study Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Project Survey Area - Addendum 2
- Vassell - Green Chapel North Route (Addendum 2)
- Potential Alternative
- Ohio USGS 7.5' Topographic Quadrangle
- Township Boundary
- County Boundary

N

0 0.5 1 2

Miles

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 1
PROJECT OVERVIEW

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JOB NO.: 60702685	AECOM

Date Saved: 6/10/2024
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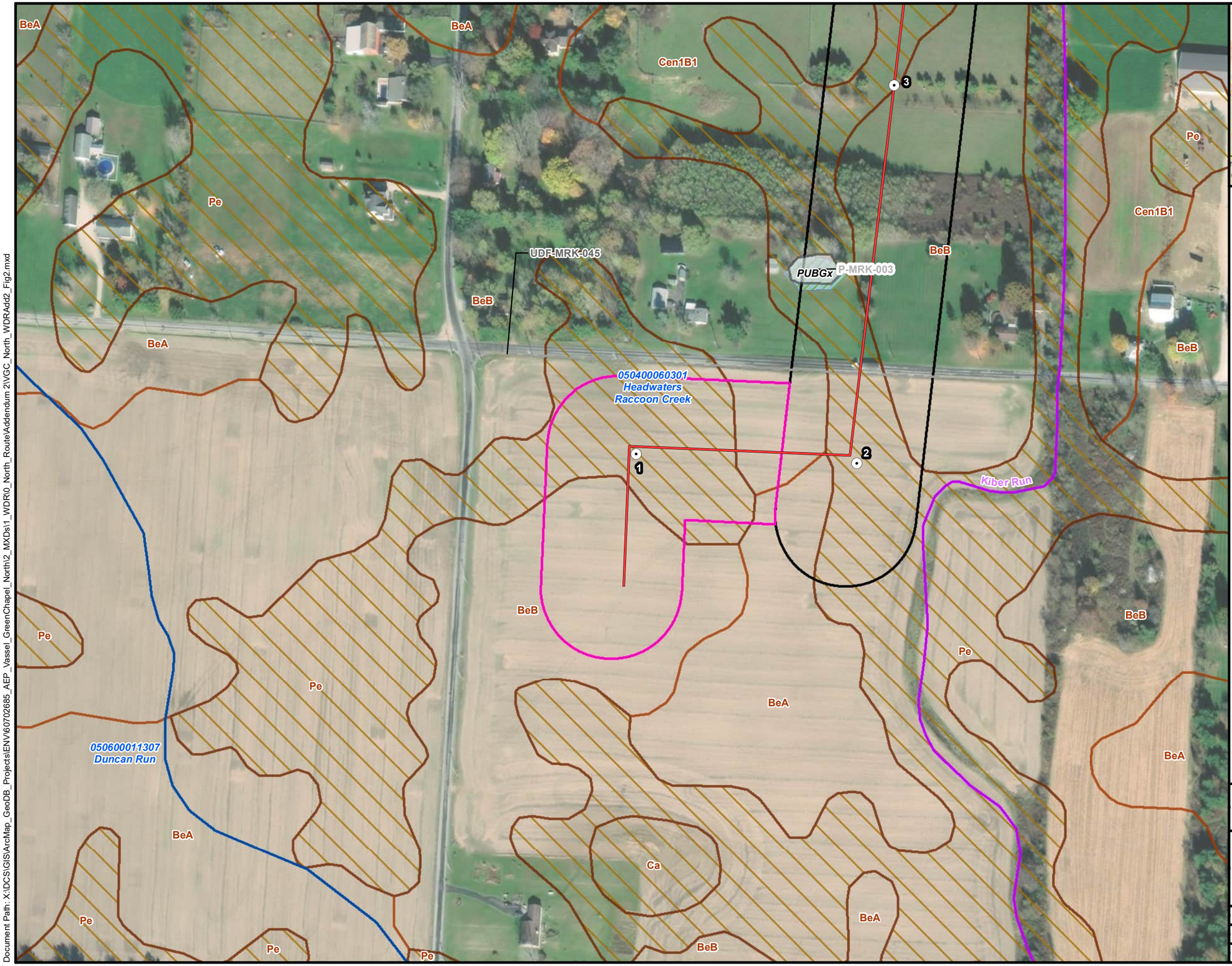

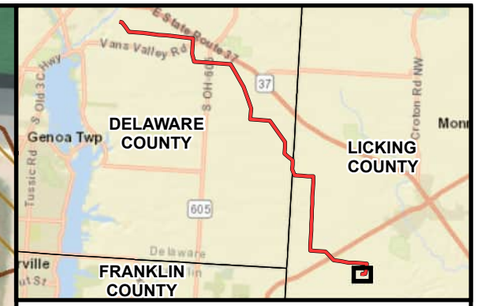

Legend

- Proposed Structures
- Previously Delineated Upland Drainage Feature
- Vassell - Green Chapel 345 kV Transmission Line
- NHD Stream (USGS)
- Previously Delineated Pond
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2
- NWI Wetland (USFWS)
- HUC 12 (USGS)
- SSURGO Soil Map Unit (NRCS)
- Hydric SSURGO Soil Map Unit (NRCS)

Soil Map Unit Description

BeA - Bennington silt loam, 0 to 2 percent slopes

BeB - Bennington silt loam, 2 to 6 percent slopes

Cen1B1 - Centerburg silt loam, 2 to 6 percent slopes

Pe - Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes

N

0 100 200 400

Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 2
SHEET 1 OF 5
SOIL MAP AND
NATIONAL WETLANDS INVENTORY MAP

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JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
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Legend

- Proposed Structures
- Proposed Alternative Structures
- Previously Delineated Upland Drainage Feature
- Vassell - Green Chapel 345 kV Transmission Line
- Potential Alternative
- Culvert
- Culvert
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2
- NWI Wetland (USFWS)
- HUC 12 (USGS)
- SSURGO Soil Map Unit (NRCS)
- Hydric SSURGO Soil Map Unit (NRCS)

Soil Map Unit Description

BeA - Bennington silt loam, 0 to 2 percent slopes

BeB - Bennington silt loam, 2 to 6 percent slopes

Pe - Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes

PwA - Pewamo silty clay loam, 0 to 1 percent slopes

N

0 100 200 400

Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 2
SHEET 2 OF 5
SOIL MAP AND
NATIONAL WETLANDS INVENTORY MAP

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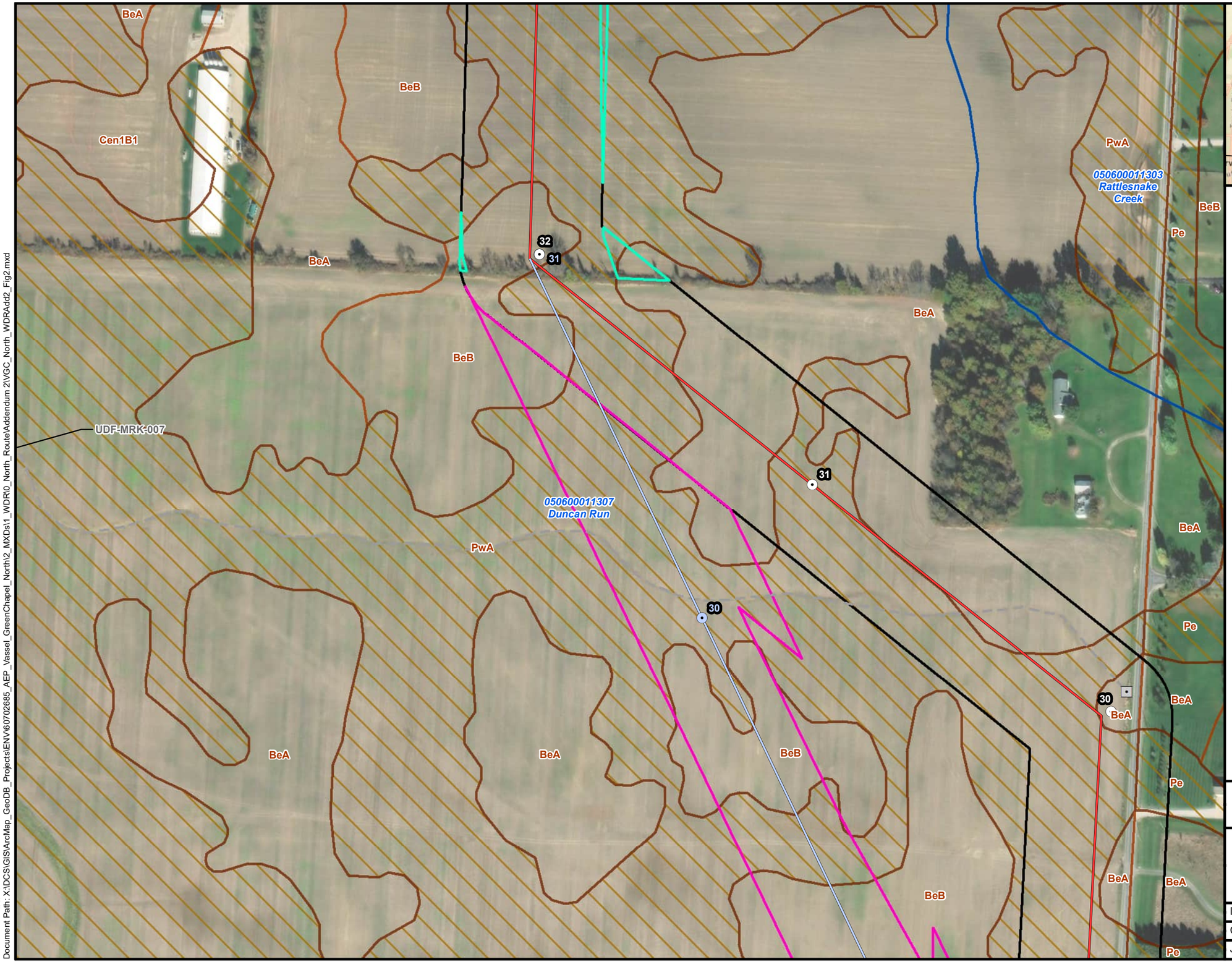
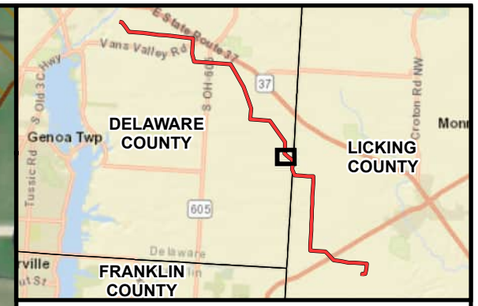




Legend

- Proposed Structures
- Proposed Alternative Structures
- Previously Delineated Upland Drainage Feature
- Vassell - Green Chapel 345 kV Transmission Line
- Potential Alternative
- Culvert
- Culvert
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Project Survey Area - Addendum 2
- HUC 12 (USGS)
- SSURGO Soil Map Unit (NRCS)
- Hydric SSURGO Soil Map Unit (NRCS)

Soil Map Unit Description

BeA - Bennington silt loam, 0 to 2 percent slopes

BeB - Bennington silt loam, 2 to 6 percent slopes

PwA - Pewamo silty clay loam, 0 to 1 percent slopes

N

0 100 200 400

Feet

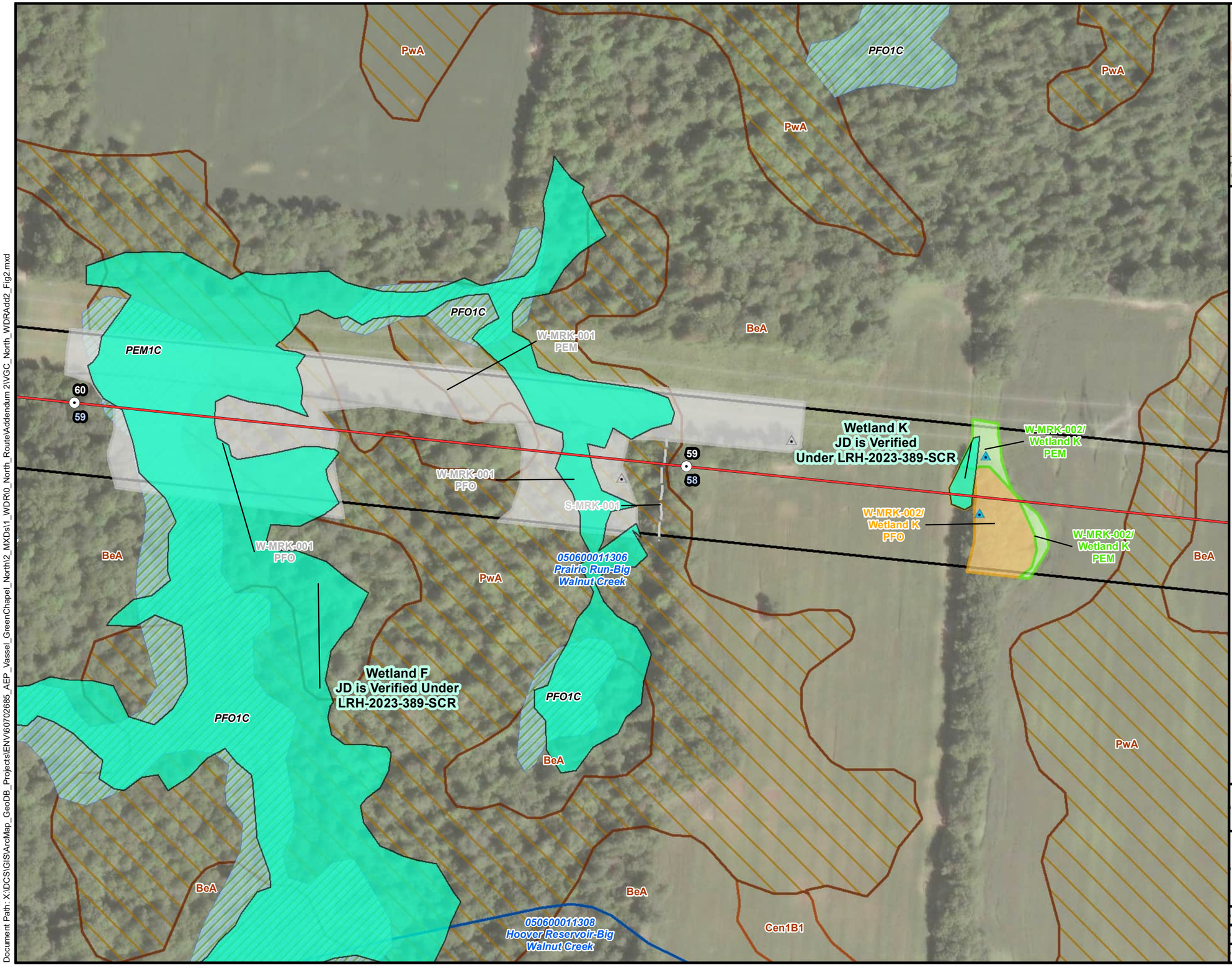
AEP OHIO TRANSMISSION COMPANY

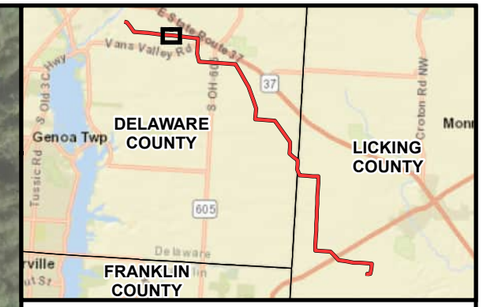
Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 2
SHEET 3 OF 5
SOIL MAP AND
NATIONAL WETLANDS INVENTORY MAP

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BM
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDRI0_North_Route\Addendum 2\VGC_North_WDRAdd2_Fig2.mxd





Legend

- Proposed Structures
- Proposed Alternative Structures
- Wetland Data Point
- Previously Delineated Wetland Data Point
- Previously Delineated Upland Data Point
- Vassell - Green Chapel 345 kV Transmission Line
- Previously Delineated Ephemeral Stream
- Delineation by Others (Verified Under LRH-2023-389-SCR)
- Delineated PEM Wetland
- Delineated PFO Wetland
- Previously Delineated PEM Wetland
- Previously Delineated PFO Wetland
- December 2023 Report - Project Survey Area
- NWI Wetland (USFWS)
- HUC 12 (USGS)
- SSURGO Soil Map Unit (NRCS)
- Hydric SSURGO Soil Map Unit (NRCS)

Soil Map Unit Description

BeA - Bennington silt loam, 0 to 2 percent slopes

PwA - Pewamo silty clay loam, 0 to 1 percent slopes

N

0 100 200 400

Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 2
SHEET 4 OF 5
SOIL MAP AND
NATIONAL WETLANDS INVENTORY MAP

DATE: 8/8/2024	1 INCH = 200 FEET
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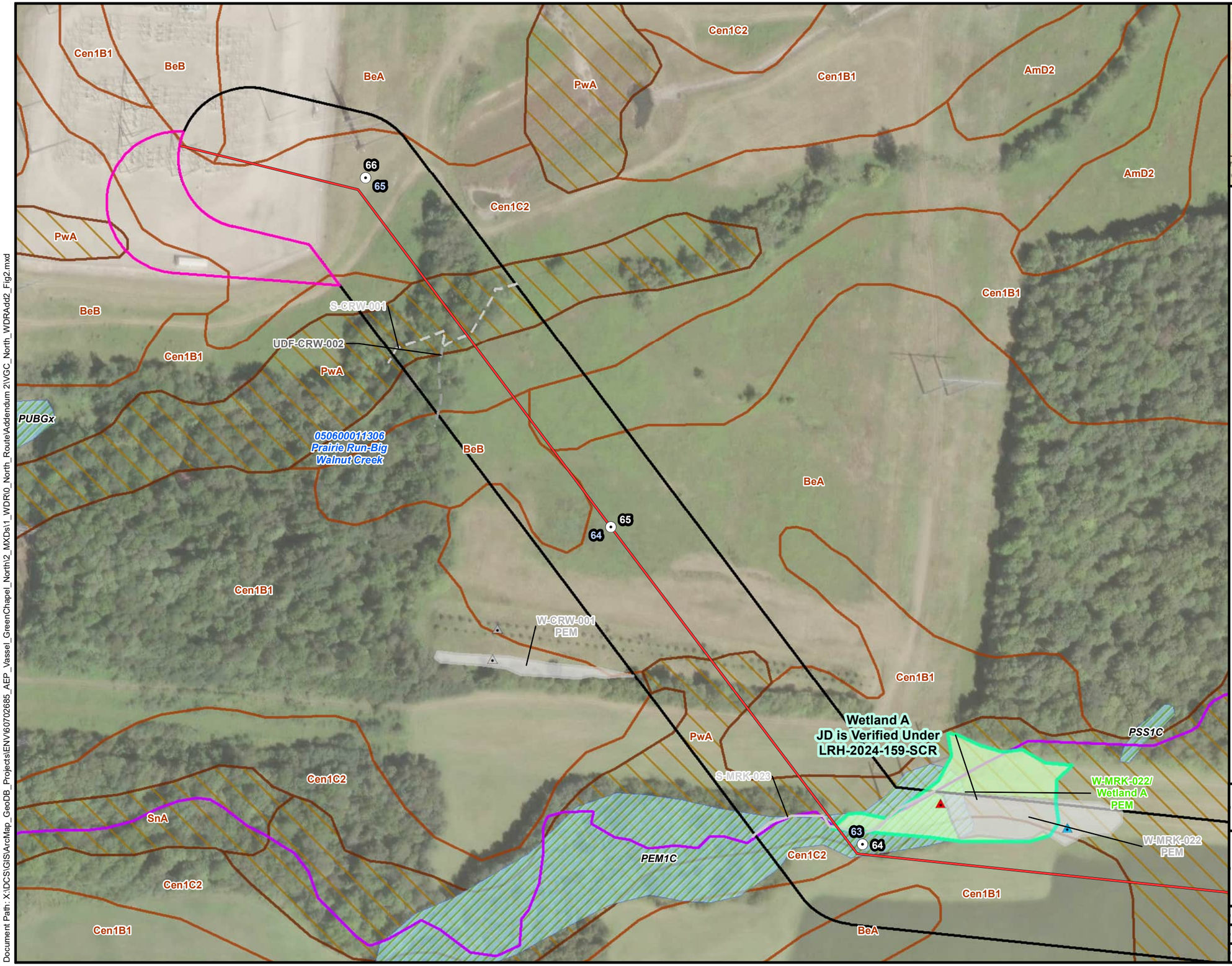
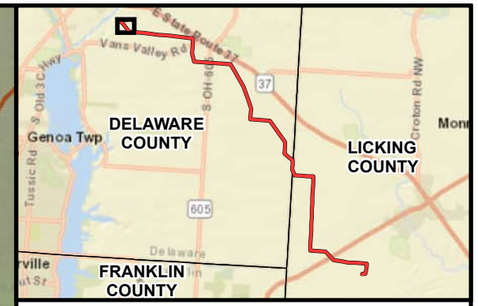
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VGC_North_WDRAdd2_Fig2.mxd





Legend

- Proposed Structures
- Proposed Alternative Structures
- Previously Delineated Upland Drainage Feature
- Wetland Data Point
- Upland Data Point
- Previously Delineated Wetland Data Point
- Previously Delineated Upland Data Point
- Vassell - Green Chapel 345 kV Transmission Line
- Previously Delineated Intermittent Stream
- Previously Delineated Perennial Stream
- NHD Stream (USGS)
- Wetland Boundary by Others (Approved JD: 2024-159-SCR-PJD-AJD)
- Delineated PEM Wetland
- Previously Delineated PEM Wetland
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2
- NWI Wetland (USFWS)
- HUC 12 (USGS)
- SSURGO Soil Map Unit (NRCS)
- Hydric SSURGO Soil Map Unit (NRCS)

Soil Map Unit Description

- BeA - Bennington silt loam, 0 to 2 percent slopes
- BeB - Bennington silt loam, 2 to 6 percent slopes
- Cen1B1 - Centerburg silt loam, 2 to 6 percent slopes
- Cen1C2 - Centerburg silt loam, 6 to 12 percent slopes, eroded
- PwA - Pewamo silty clay loam, 0 to 1 percent slopes

N

0 100 200 400

Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 2
SHEET 5 OF 5
SOIL MAP AND
NATIONAL WETLANDS INVENTORY MAP

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BM
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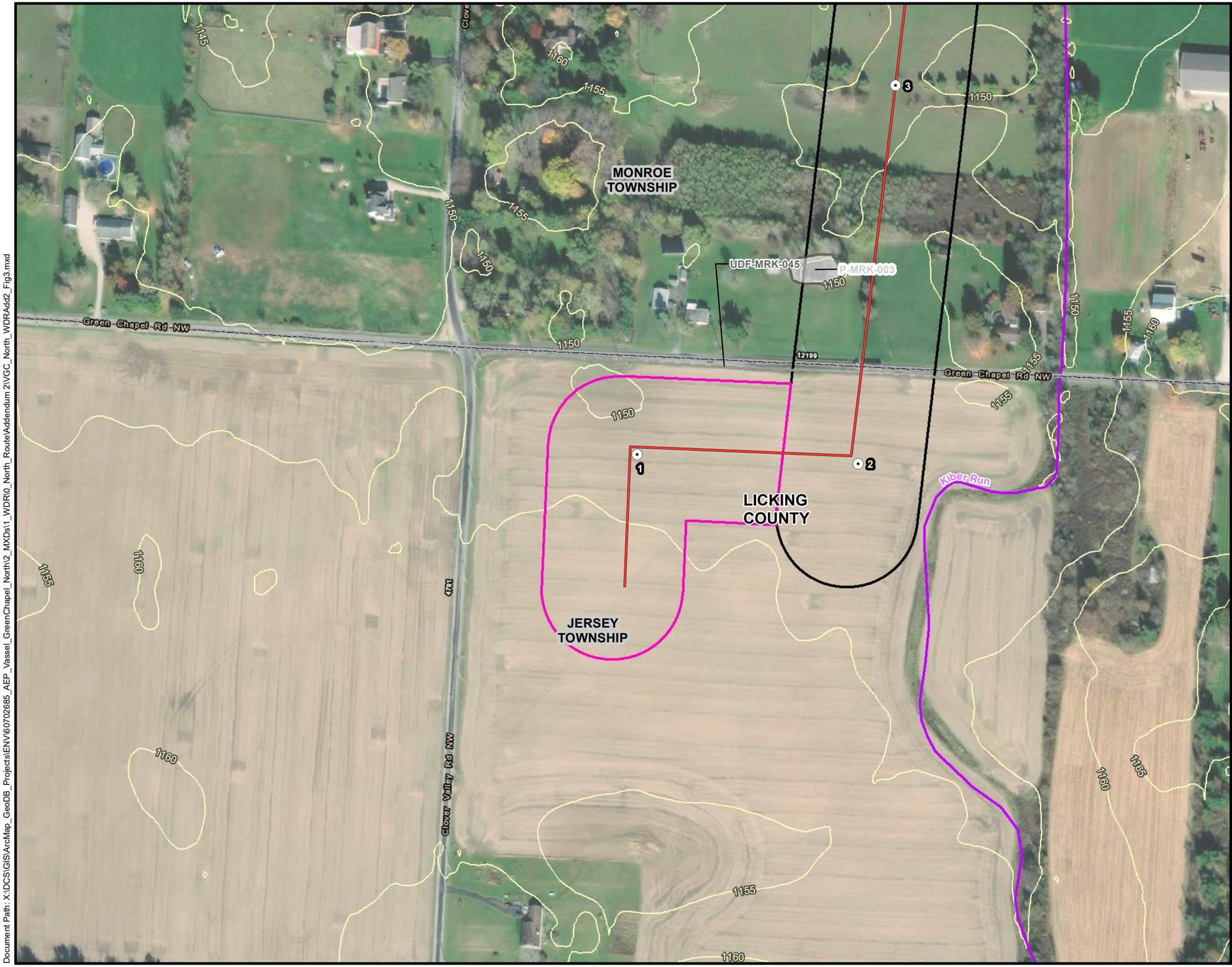
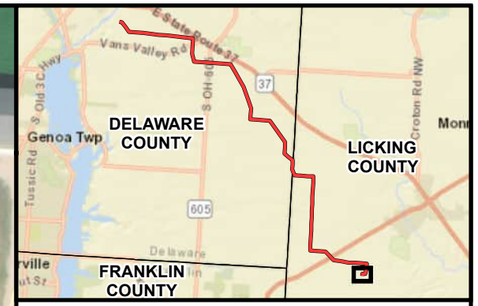
Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VGC_North_WDRAdd2_Fig2.mxd





Legend

- Proposed Structures
- Previously Delineated Upland Drainage Feature
- Vassell - Green Chapel 345 kV Transmission Line
- NHD Stream (USGS)
- Contour (5-Ft)
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2
- Previously Delineated Pond

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 3
SHEET 1 OF 5
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

DATE: 8/8/2024	1 INCH = 200 FEET
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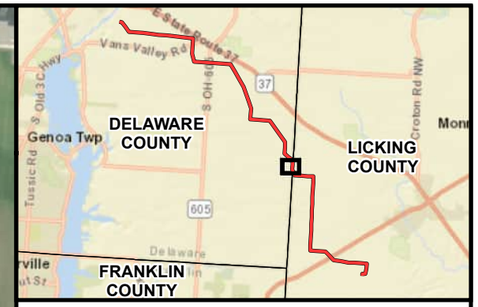
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VGC_North_WDRAdd2_Fig3.mxd



Legend

- Culvert
- Proposed Structures
- Proposed Alternative Structures
- Previously Delineated Upland Drainage Feature
- Vassell - Green Chapel 345 kV Transmission Line
- Potential Alternative
- Contour (5-Ft)
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2

N

0 100 200 400

Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 3
SHEET 2 OF 5
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BM
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
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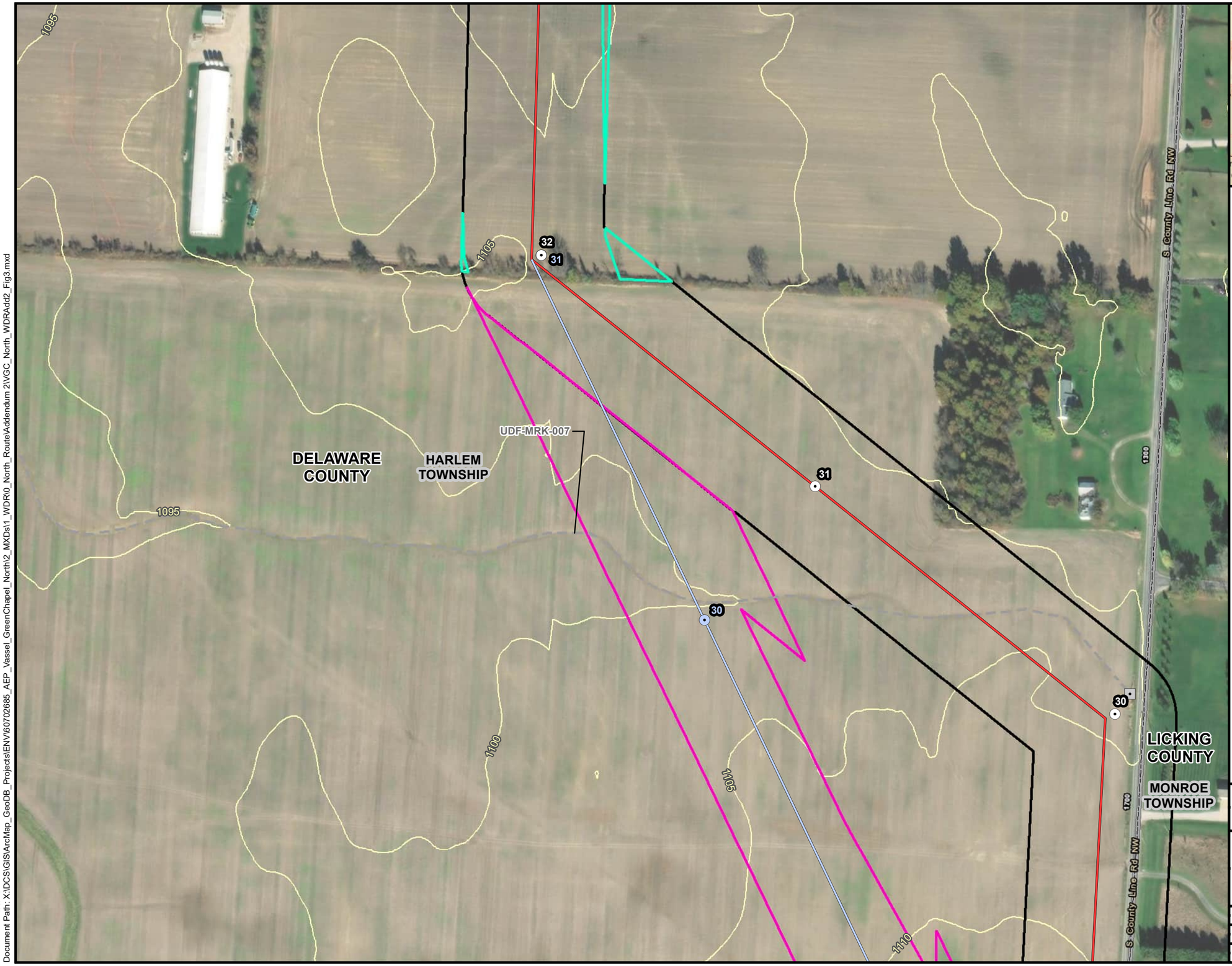

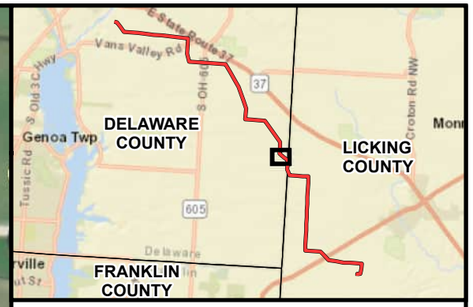

Legend

- Culvert
- Proposed Structures
- Proposed Alternative Structures
- Previously Delineated Upland Drainage Feature
- Vassell - Green Chapel 345 kV Transmission Line
- Potential Alternative
- Contour (5-Ft)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Project Survey Area - Addendum 2

N

0 100 200 400

Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 3
SHEET 3 OF 5
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BM
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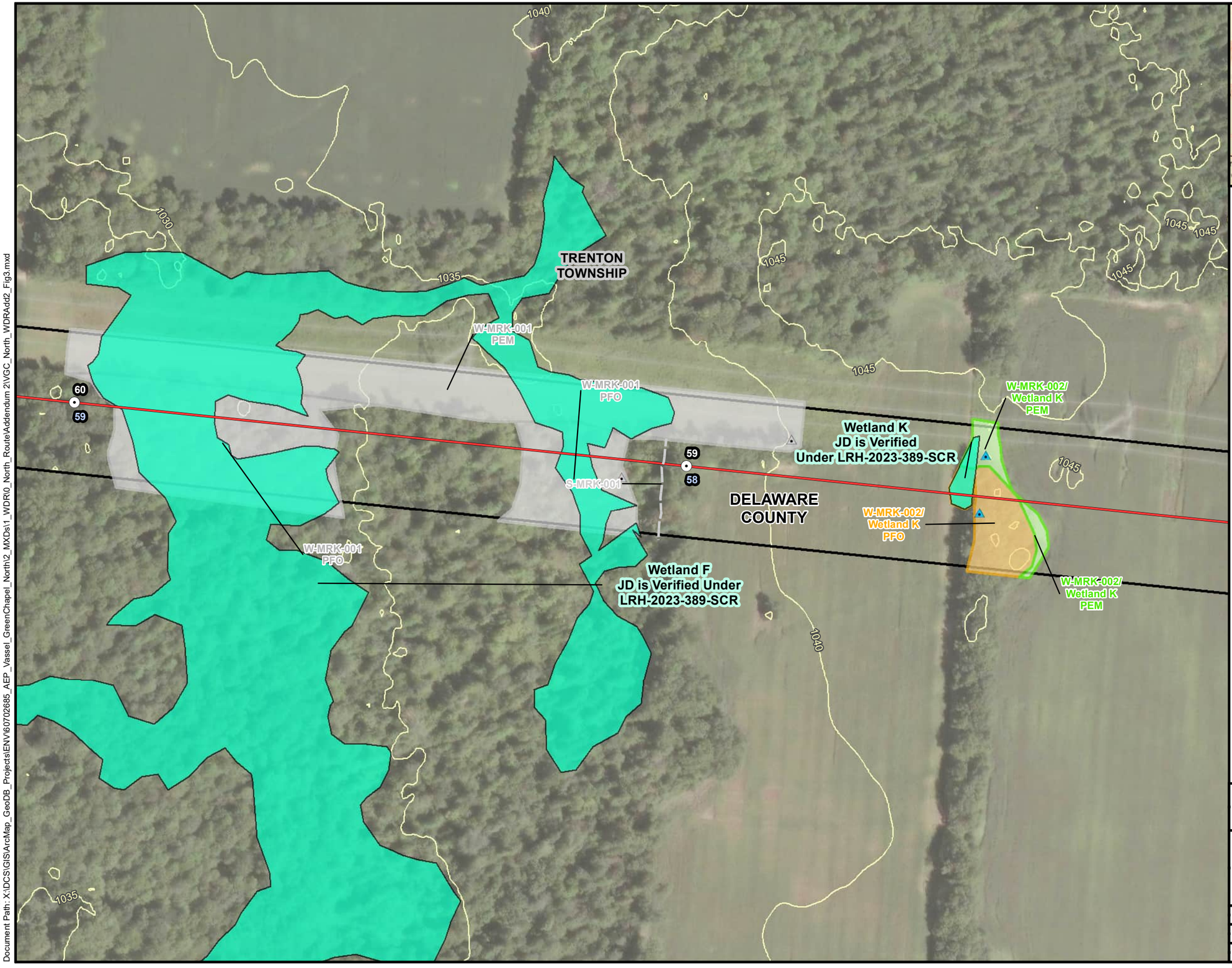
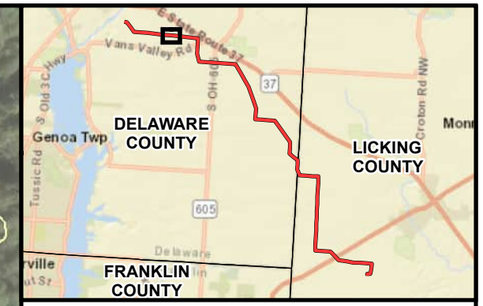
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_RouteAddendum 2\VGC_North_WDRAdd2_Fig3.mxd





Legend

- Proposed Structures
- Proposed Alternative Structures
- Previously Delineated Ephemeral Stream
- Wetland Data Point
- Previously Delineated Wetland Data Point
- Previously Delineated Upland Data Point
- Delineation by Others (Verified Under LRH-2023-389-SCR)
- Vassell - Green Chapel 345 kV Transmission Line
- Contour (5-Ft)
- December 2023 Report - Project Survey Area
- Delineated PEM Wetland
- Delineated PFO Wetland
- Previously Delineated PEM Wetland
- Previously Delineated PFO Wetland

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 3
SHEET 4 OF 5
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

DATE: 8/8/2024	1 INCH = 200 FEET
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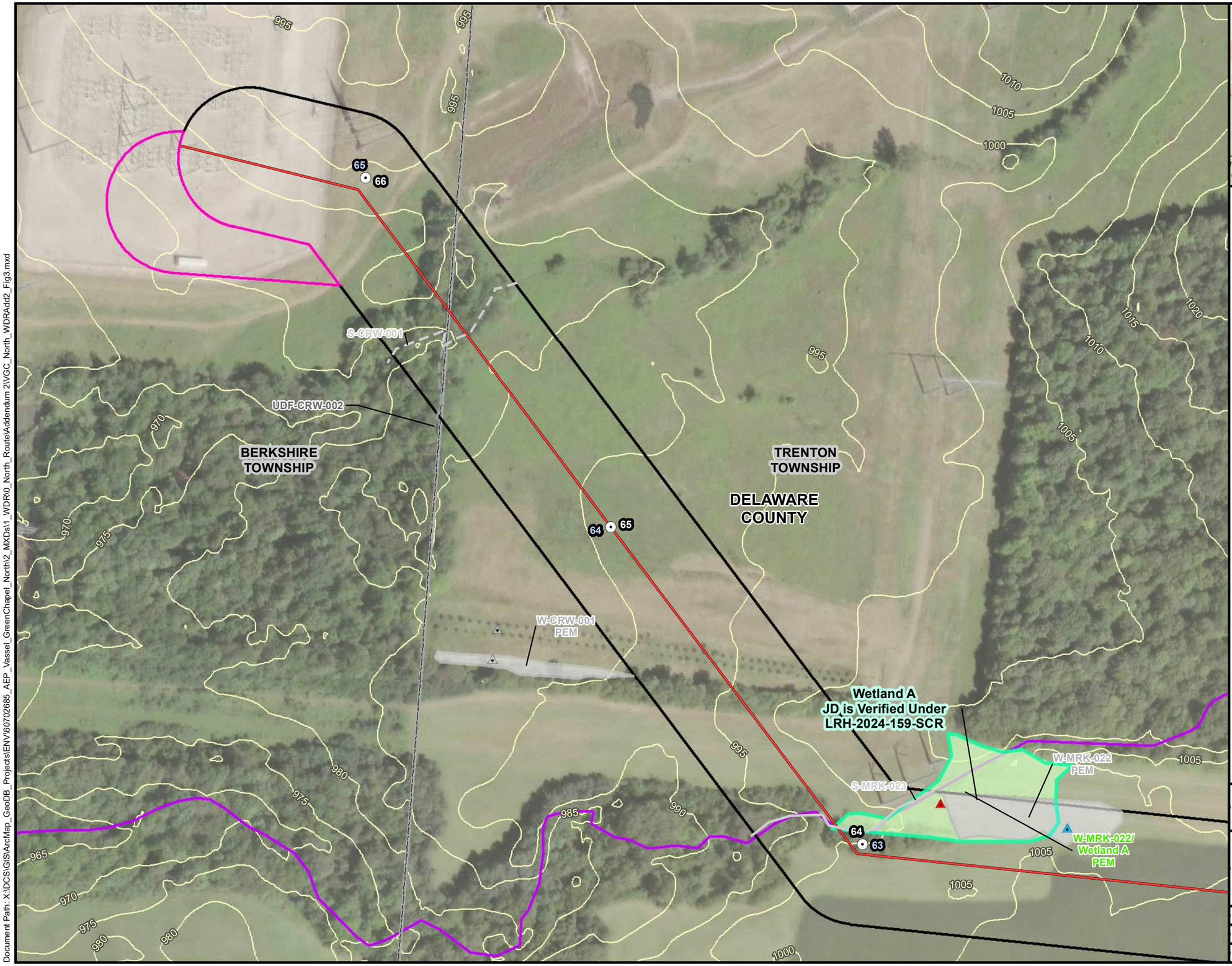

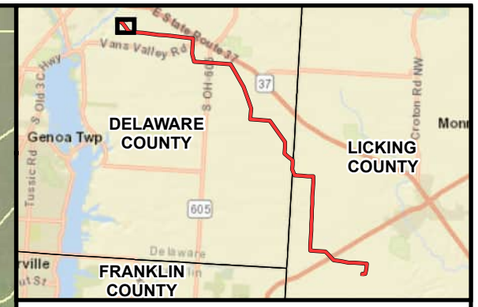

Legend

- Proposed Structures
- Proposed Alternative Structures
- Previously Delineated Upland Drainage Feature
- Previously Delineated Intermittent Stream
- Previously Delineated Perennial Stream
- Wetland Data Point
- Upland Data Point
- Previously Delineated Wetland Data Point
- Previously Delineated Upland Data Point
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- Vassell - Green Chapel 345 kV Transmission Line
- NHD Stream (USGS)
- Contour (5-Ft)
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2
- Delineated PEM Wetland
- Previously Delineated PEM Wetland

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 3
SHEET 5 OF 5
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BM
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Date Saved: 8/8/2024
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OEPA EPA 401 Eligible Little Walnut Creek 050600011305

Prairie Run

OEPA EPA 401 Eligible Perfect Creek-Big Walnut Creek 050600011304

OEPA EPA 401 Eligible Perfect Creek-Big Walnut Creek 050600011304

North Fork Rattlesnake Creek

North Fork Rattlesnake Creek

North Fork Rattlesnake Creek

OEPA EPA 401 Eligible Otter Fork Licking River 050400060101

Otter Fork Licking River

Little Walnut Creek

Vassell Station
40.22837
-82.852709

Rattlesnake Creek

East Fork Rattlesnake Creek

OEPA EPA 401 Eligible Rattlesnake Creek 050600011303

South Fork Rattlesnake Creek

OEPA EPA 401 Eligible Prairie Run-Big Walnut Creek 050600011306

Lobdell Creek

Big Walnut Creek

OEPA EPA 401 Eligible Hoover Reservoir-Big Walnut Creek 050600011308

OEPA EPA 401 Eligible Lobdell Creek 050400060302

Raccoon Creek

OEPA EPA 401 Eligible Bliss Run-Alum Creek 050600011602

OEPA EPA 401 Eligible Duncan Run 050600011307

OEPA EPA 401 Eligible Headwaters Raccoon Creek 050400060301

Duncan Run

Kiber Run

Rocky Fork Creek

OEPA EPA 401 Possibly Eligible Rocky Fork Creek 050600011501

Schleppi Run

Green Chapel Station
40.122908
-82.720966

Bevelheimer Ditch

OEPA EPA 401 Possibly Eligible Headwaters Blacklick Creek 050600011503

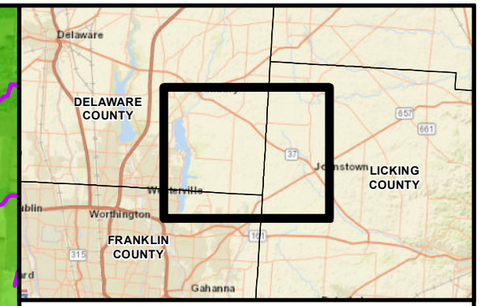
Blacklick Creek

Sugar Run

OEPA EPA 401 Possibly Eligible City of Gahanna-Big Walnut Creek 050600011502

Cornell Run

Cornell Run



Legend

- Station
- Vassell - Green Chapel 345 kV Transmission Line
- Potential Alternative
- NHD Stream (USGS)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Project Survey Area - Addendum 2

OEPA Eligibility:

- Eligible
- Possibly Eligible

N

0 0.5 1 2

Miles

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 4
STREAM ELIGIBILTY MAP

DATE: 6/10/2024	1 INCH = 1 MILE
CREATED BY: NB	CHECKED BY: BM
JOB NO.: 60702685	AECOM

Date Saved: 6/10/2024
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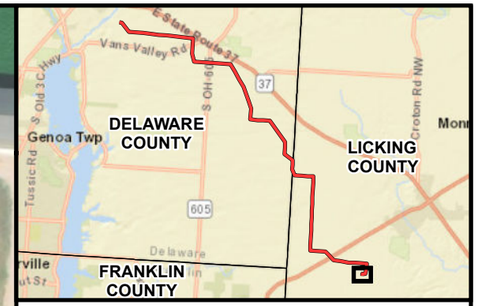


Legend

- Proposed Structures
- Station
- December 2023 Report Photographs
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2

Vegetative Communities Type

- Old Field

N

0 100 200 400

Feet

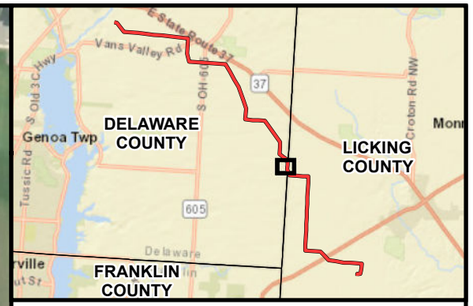
AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 5
SHEET 1 OF 4
VEGETATIVE COMMUNITIES
ASSESSMENT MAP

DATE: 6/10/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BM
JOB NO.: 60702685	AECOM

Date Saved: 6/10/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VGC_North_WDRAdd2_Fig5.mxd



Legend

- Proposed Structures
- Proposed Alternative Structures
- December 2023 Report Photographs
- Vassell - Green Chapel North Route (Addendum 2)
- Potential Alternative
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2

Vegetative Communities Type

- Agricultural Row-Crop

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 5
SHEET 2 OF 4
VEGETATIVE COMMUNITIES
ASSESSMENT MAP

DATE: 6/10/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BM
JOB NO.: 60702685	AECOM

Date Saved: 6/10/2024
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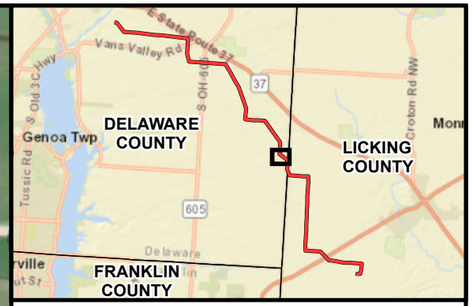

Legend

- Proposed Structures
- Proposed Alternative Structures
- December 2023 Report Photographs
- April 2024 Report - Addendum #2 Photographs
- Vassell - Green Chapel North Route (Addendum 2)
- Potential Alternative
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Project Survey Area - Addendum 2

Vegetative Communities Type

- Agricultural Row-Crop

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 5
SHEET 3 OF 4
VEGETATIVE COMMUNITIES
ASSESSMENT MAP

DATE: 6/10/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BM
JOB NO.: 60702685	AECOM

Date Saved: 6/10/2024
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Joe Walker Rd

Vassell Station

66

65

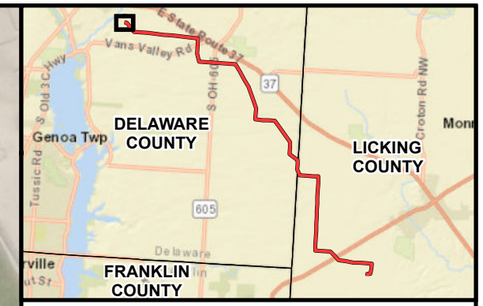
PH-1

PH-2

PH-3

65

64



Legend

- Proposed Structures
- Proposed Alternative Structures
- Station
- December 2023 Report Photographs
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2

Vegetative Communities Type

- Old Field
- Urban

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

FIGURE 5
SHEET 4 OF 4
VEGETATIVE COMMUNITIES
ASSESSMENT MAP

DATE: 6/10/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BM
JOB NO.: 60702685	AECOM

Date Saved: 6/10/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VGC_North_WDRAdd2_Fig5.mxd

APPENDIX A

Habitat Photographs

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name:	Site Location:	Project No.
AEP	Vassell - Green Chapel North Project – Addendum #2	60702685

PH-68

Date:

June 15, 2023

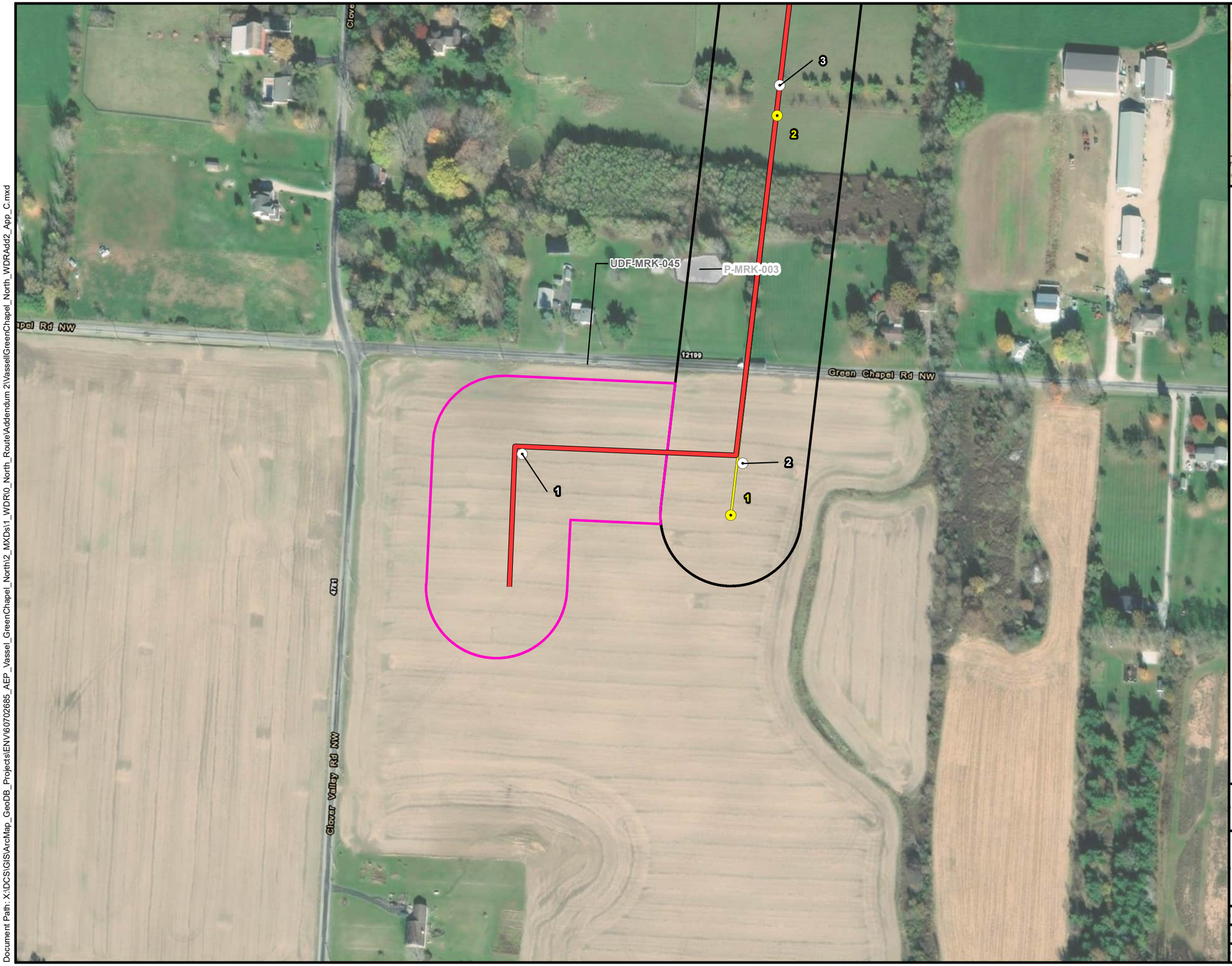
Description:

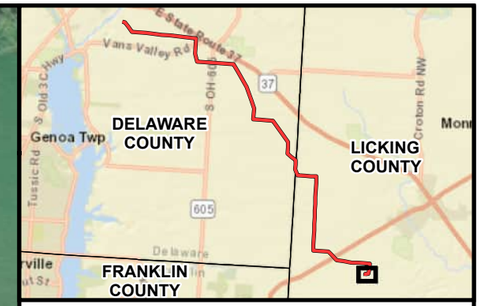
Agricultural Row Crop

Facing East

APPENDIX B

December 2023 – Original Report, February 2024 – Addendum #1 Report, and Addendum #2 Comparison Map





Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2
- Previously Delineated Pond

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 1 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
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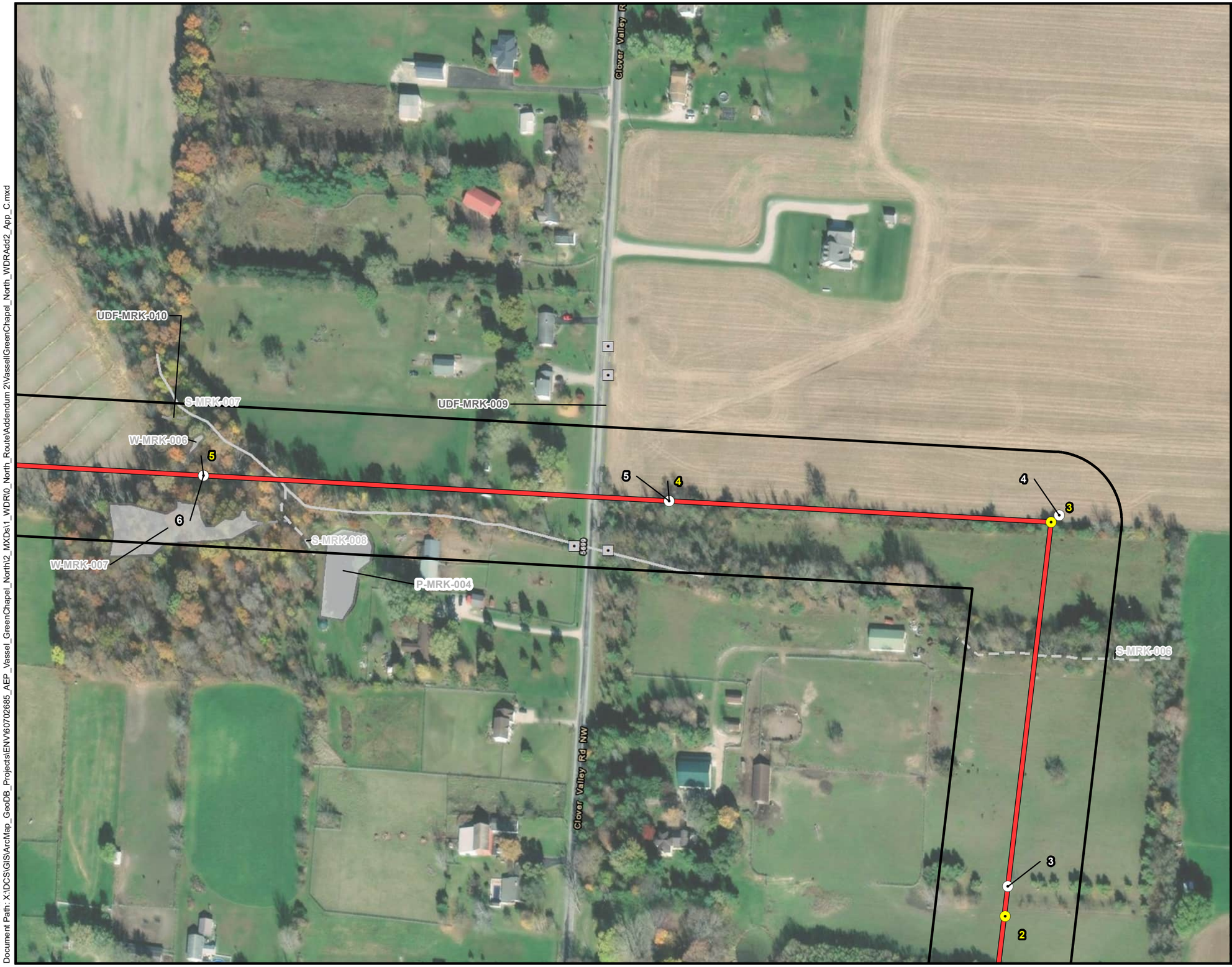
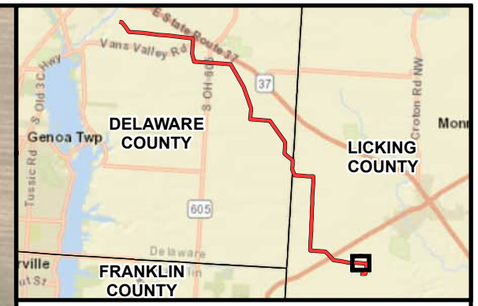




Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Intermittent Stream
- Previously Delineated Perennial Stream
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- Previously Delineated Pond
- Previously Delineated Wetlands

N

0 100 200 400

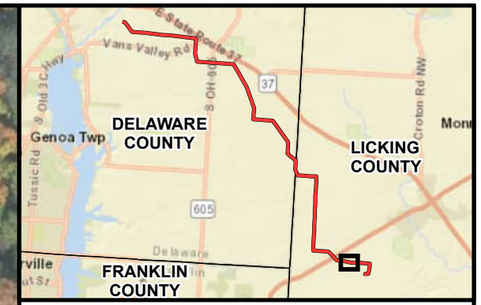
Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 2 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDRI0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Perennial Stream
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- Previously Delineated Wetlands

N

0 100 200 400

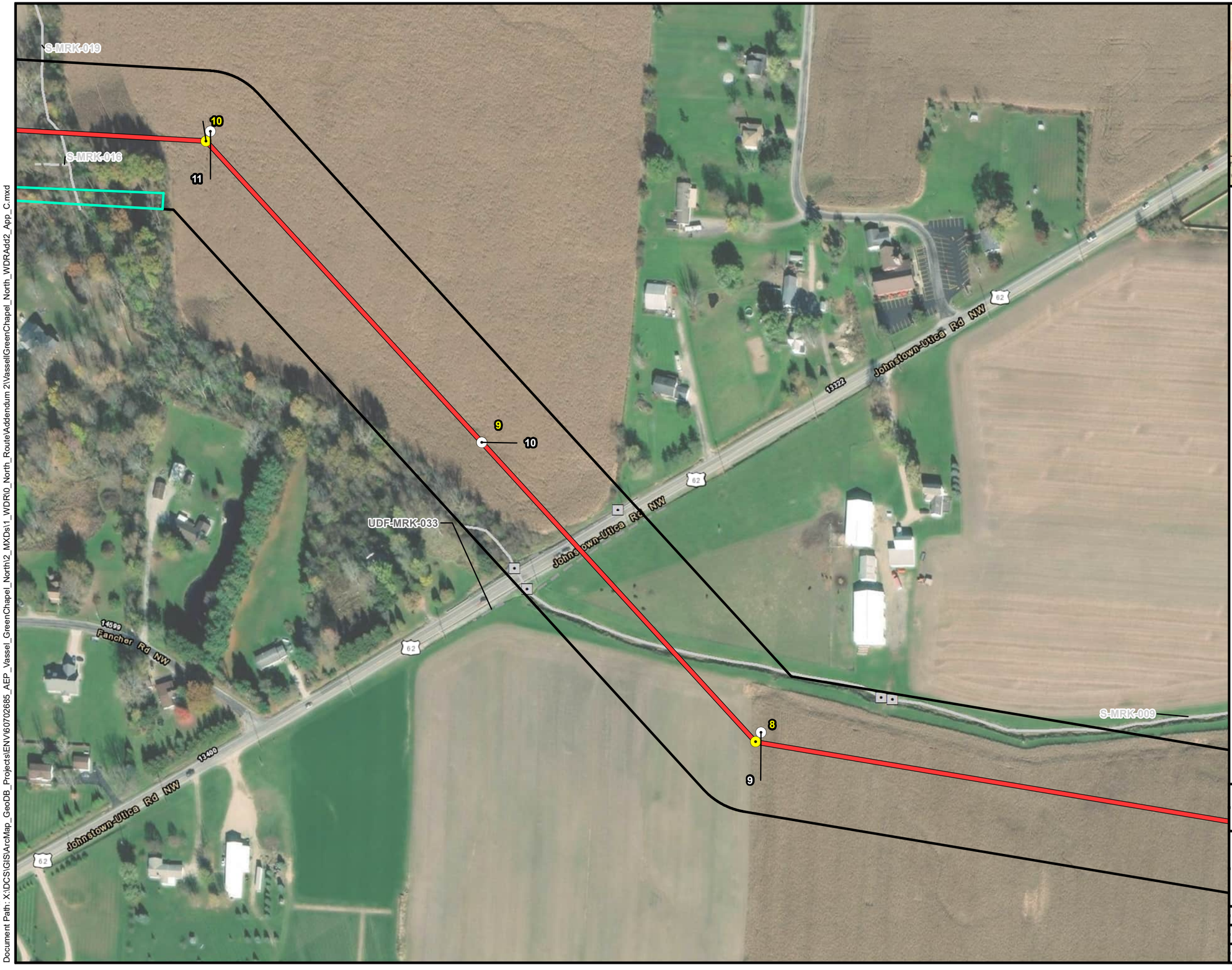
Feet

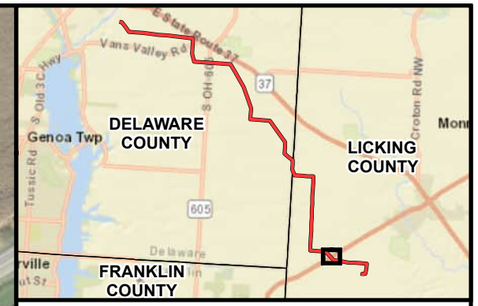
Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 3 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd





Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Ephemeral Stream
- Previously Delineated Perennial Stream
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)

N

0 100 200 400

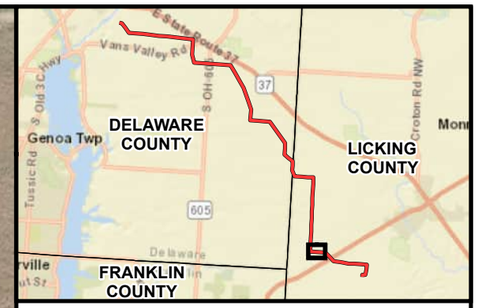
Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 4 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Ephemeral Stream
- Previously Delineated Intermittent Stream
- Previously Delineated Perennial Stream
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Previously Delineated Wetlands

N

0 100 200 400

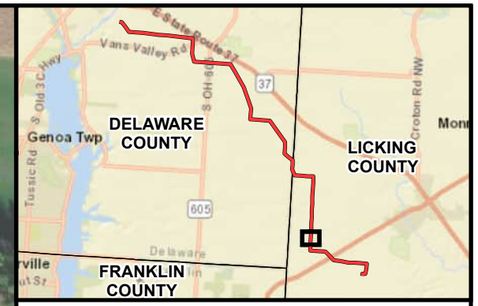
Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 5 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Perennial Stream
- December 2023 Report - Project Survey Area
- Previously Delineated Wetlands

N

0 100 200 400

Feet

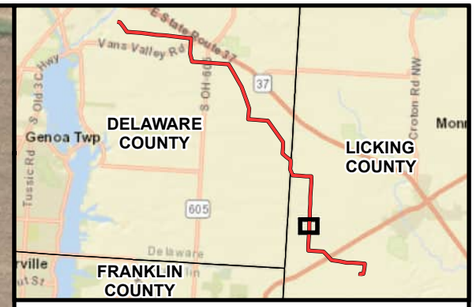
AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 6 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\11_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

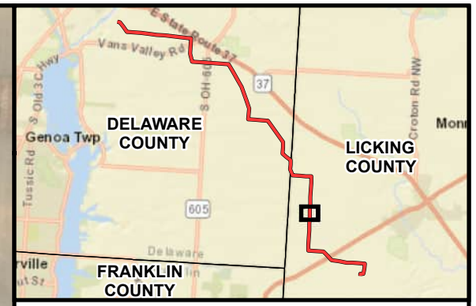
Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 7 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd

S-MRK-005
UDF-MRK-004
UDF-MRK-005
14300
Duncan Plains Rd NW
19
18
W-MRK-004
W-MRK-005
17
18



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Perennial Stream
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Previously Delineated Wetlands

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 8 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
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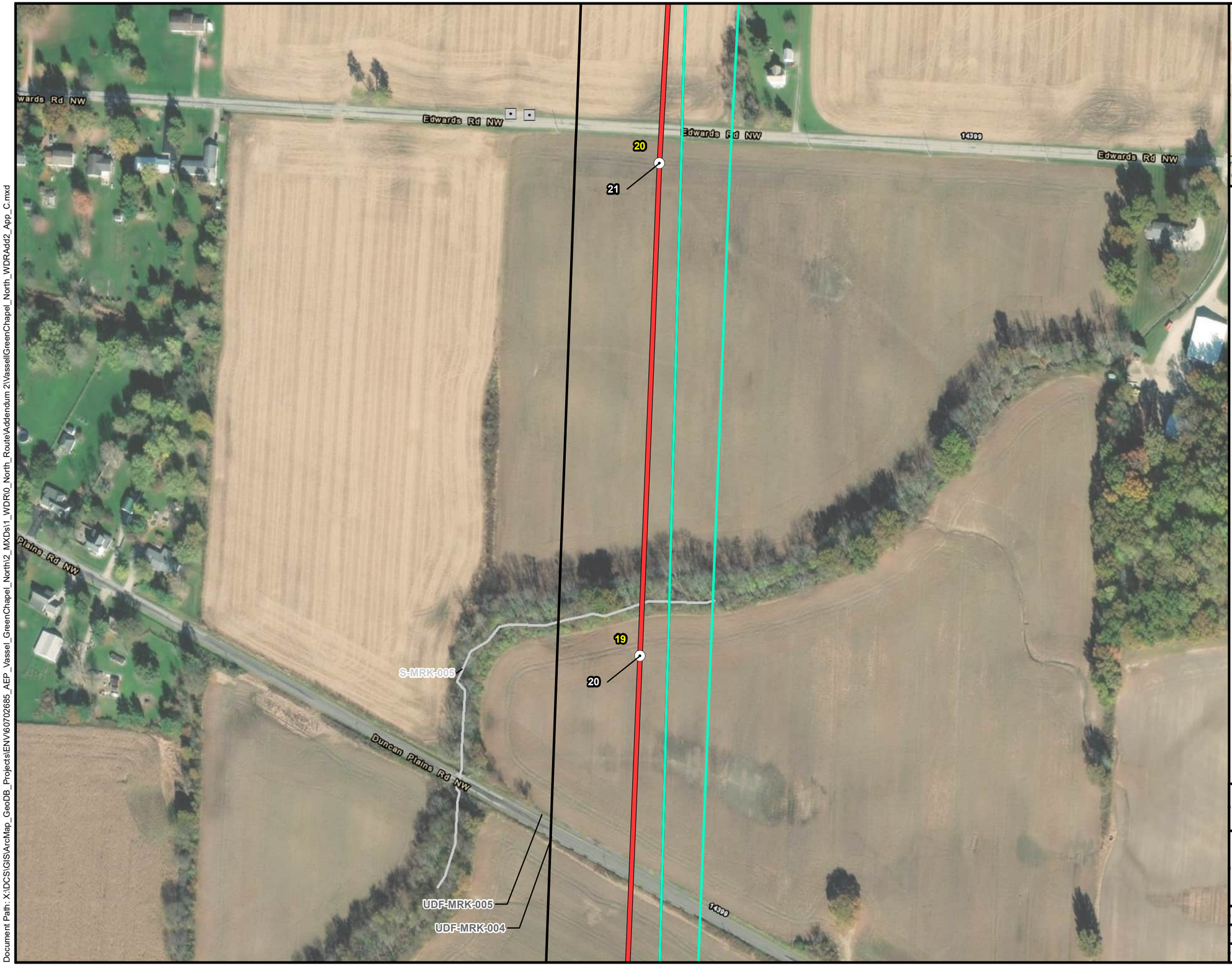

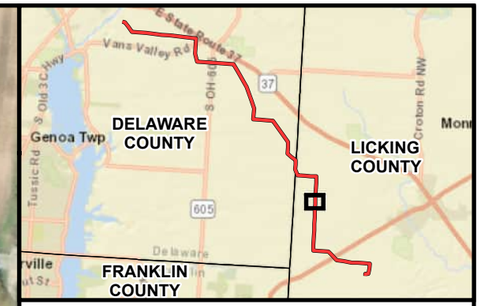

Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Perennial Stream
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 9 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
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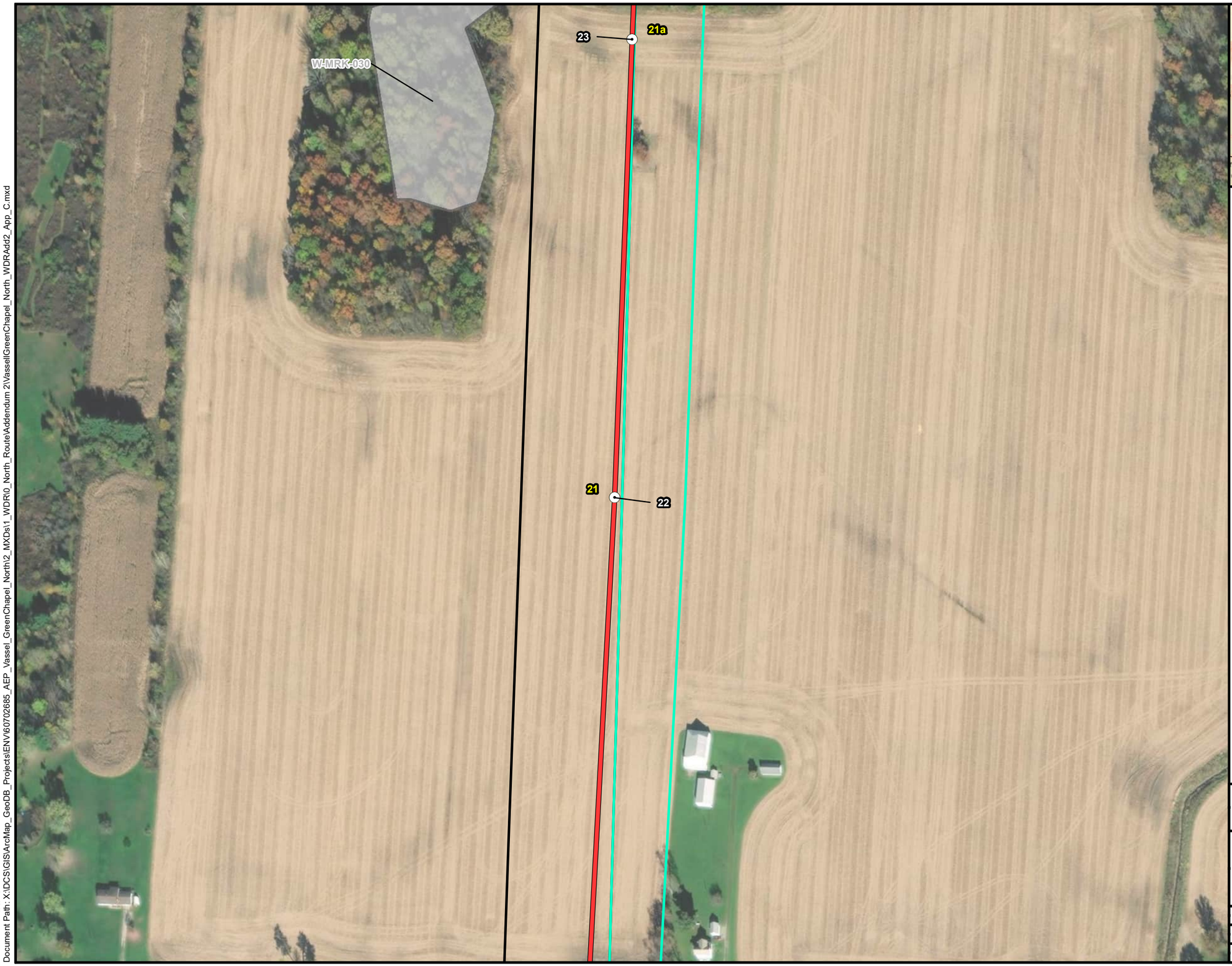

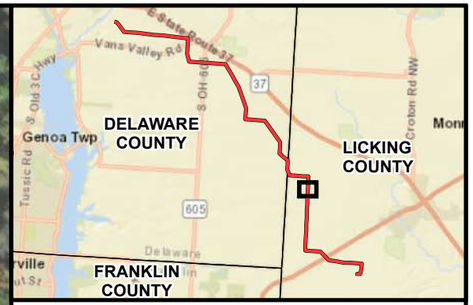

Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Previously Delineated Wetlands

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 10 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
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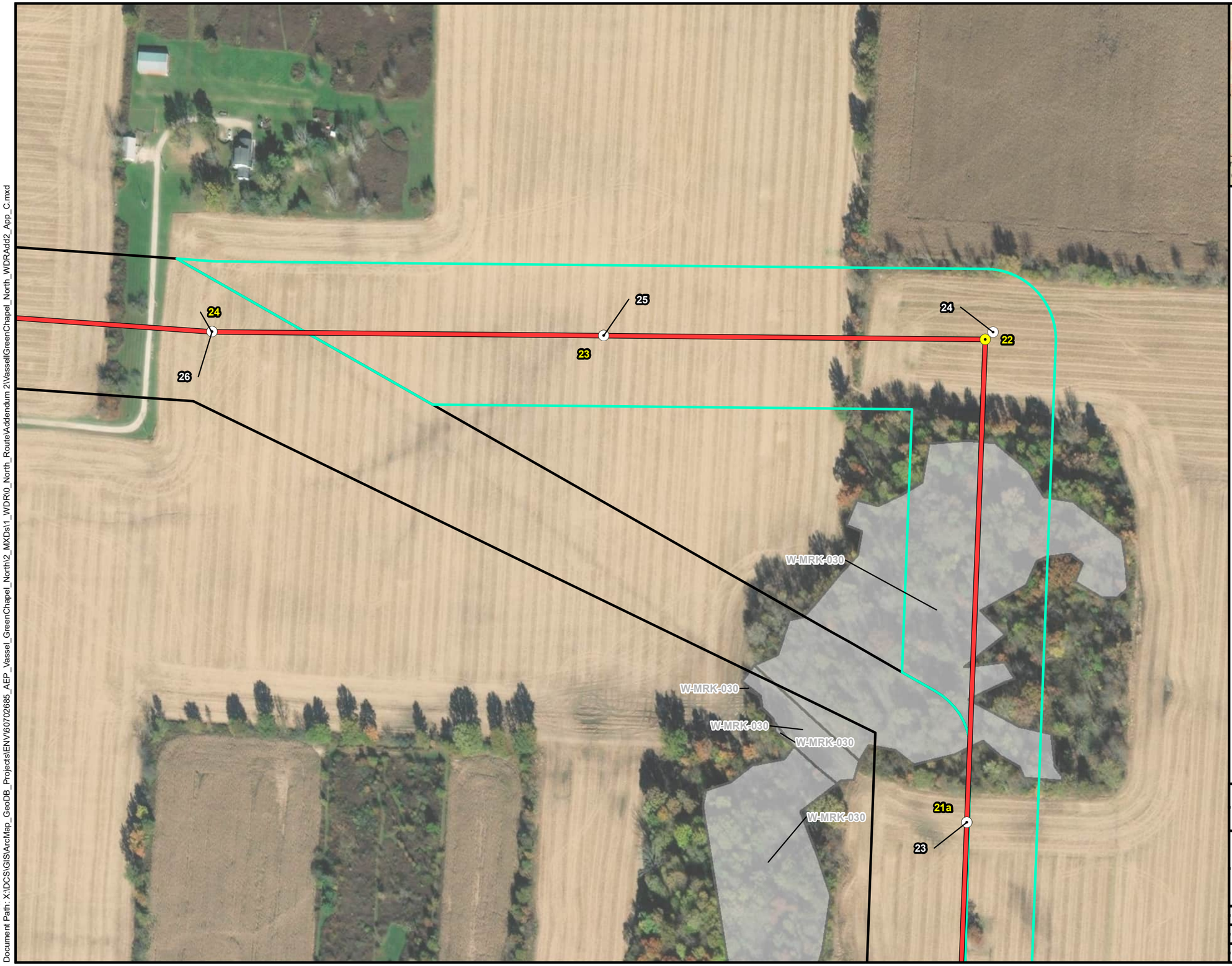

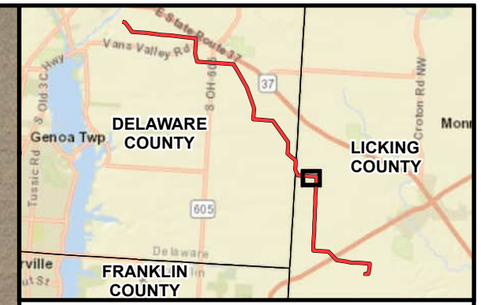

Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Previously Delineated Wetlands

N

0 100 200 400

Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 11 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
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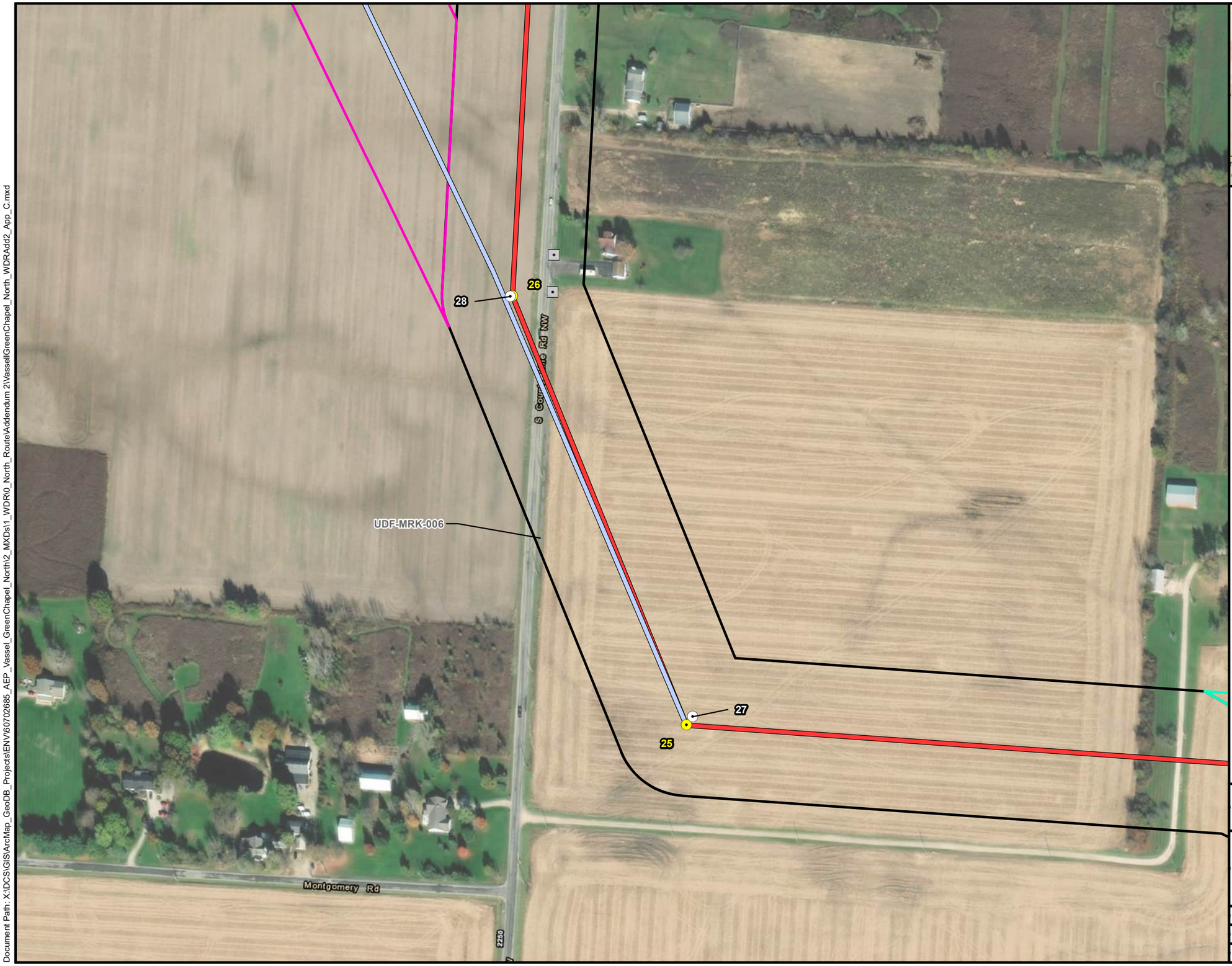

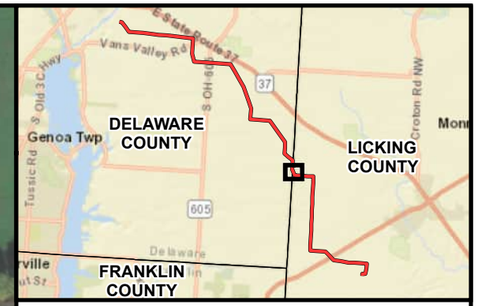

Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Potential Alternative
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Project Survey Area - Addendum 2

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 12 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
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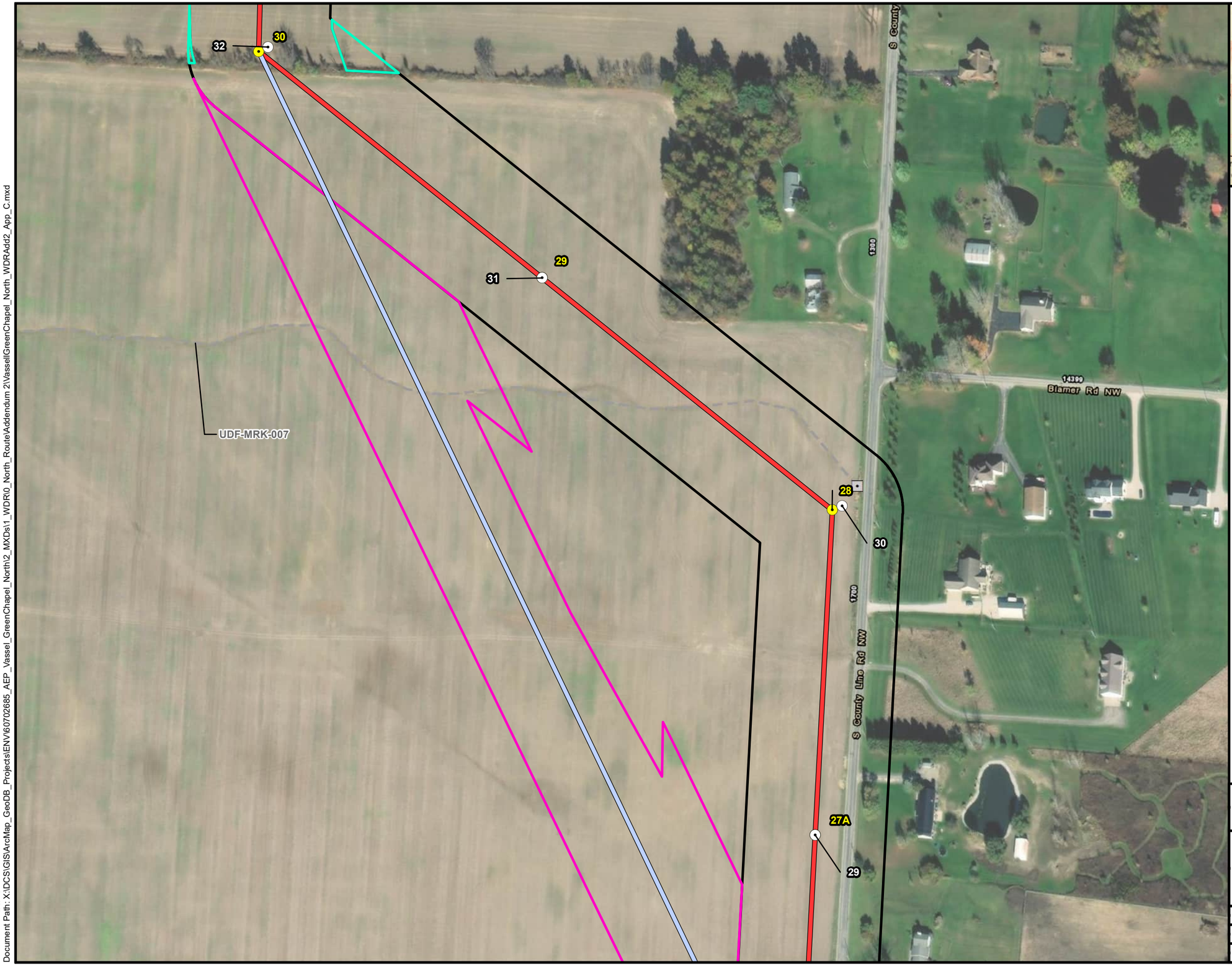

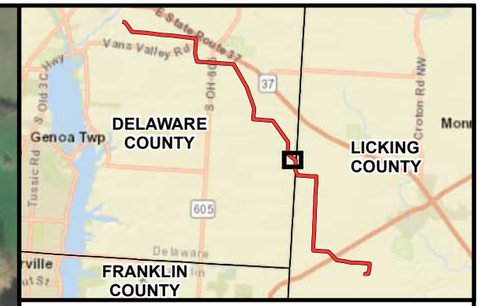

Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Potential Alternative
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Project Survey Area - Addendum 2

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 13 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
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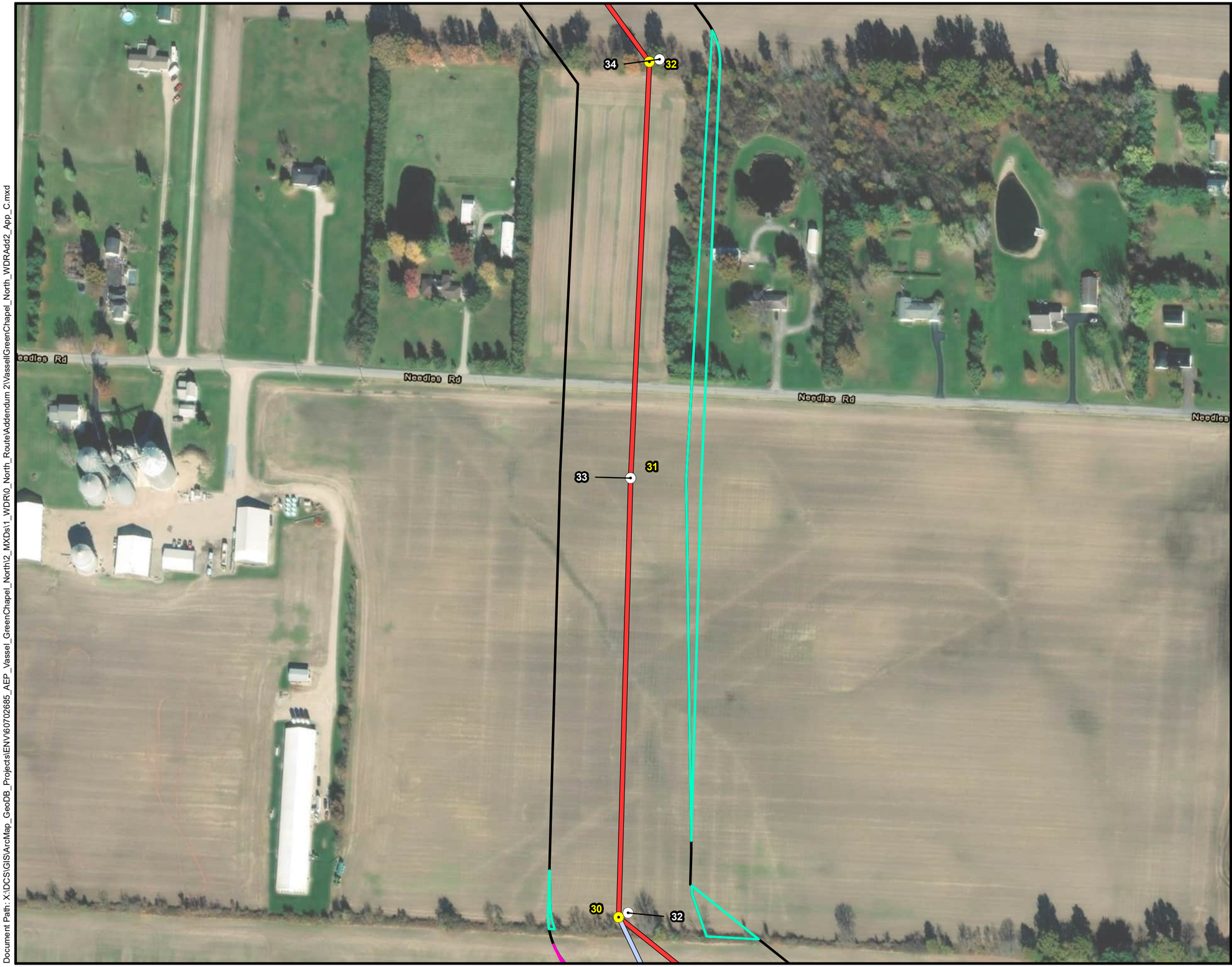
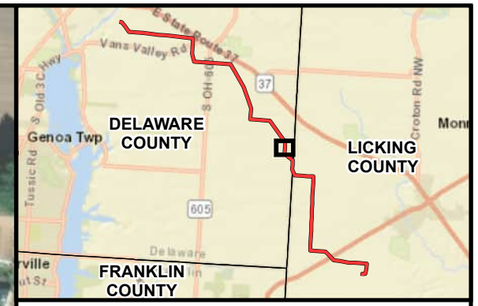




Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Potential Alternative
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Project Survey Area - Addendum 2

N

0 100 200 400

Feet

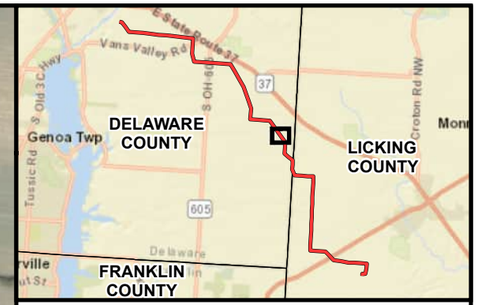
AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 14 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)

N

0 100 200 400

Feet

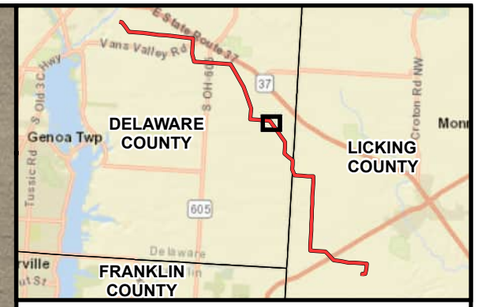
AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 15 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 16 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
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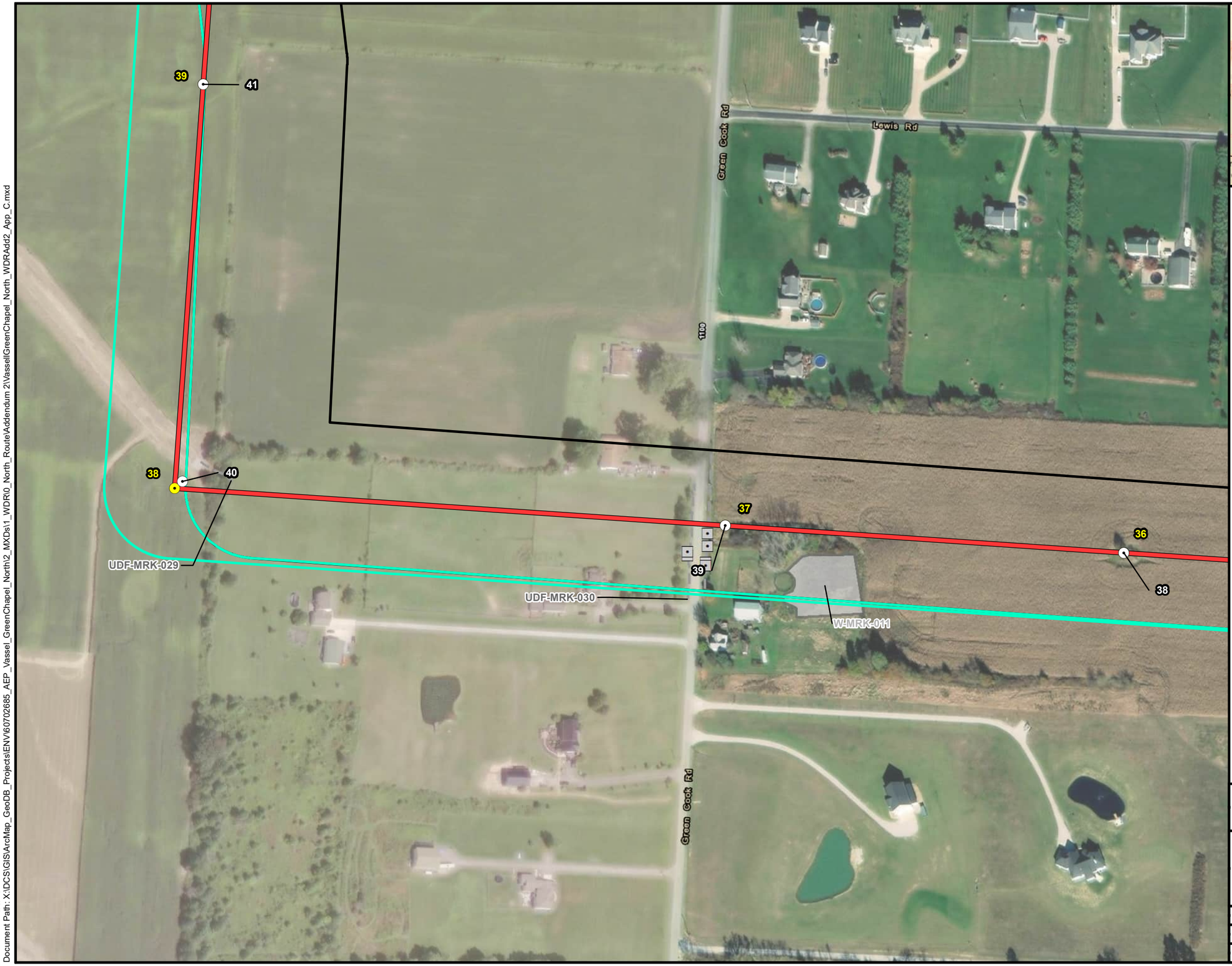
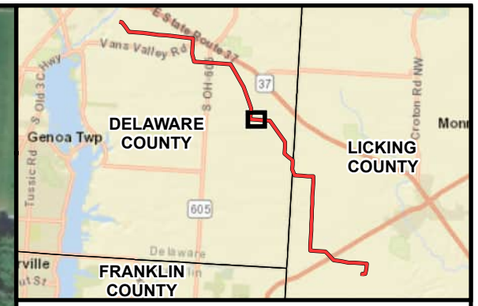
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd





Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Previously Delineated Wetlands

N

0 100 200 400

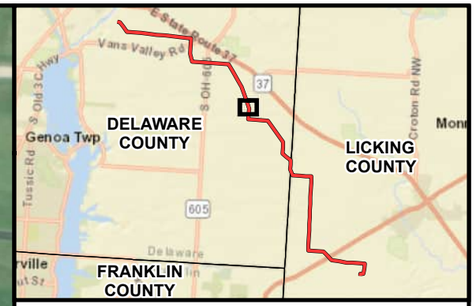
Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 17 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Previously Delineated Wetlands

N

0 100 200 400

Feet

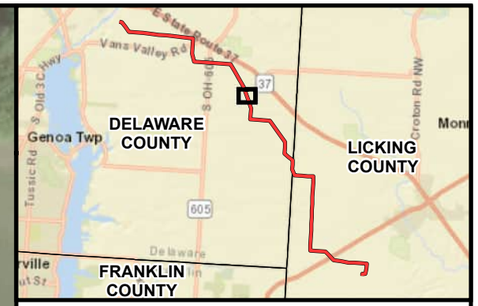
AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 18 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)

N

0 100 200 400

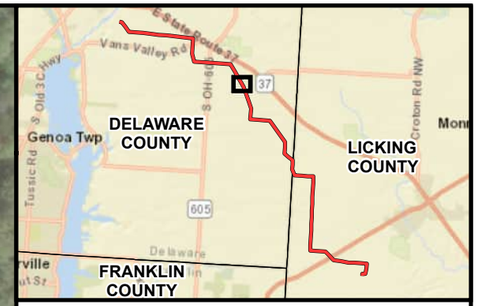
Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 19 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)

N

0 100 200 400

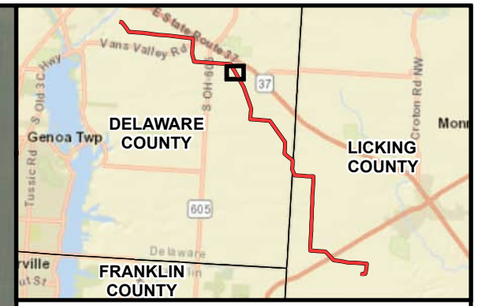
Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 20 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Intermittent Stream
- December 2023 Report - Project Survey Area

N

0 100 200 400

Feet

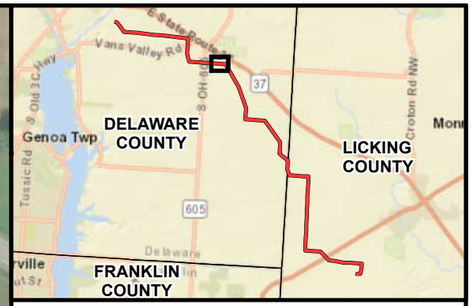
AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 21 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area

N

0 100 200 400

Feet

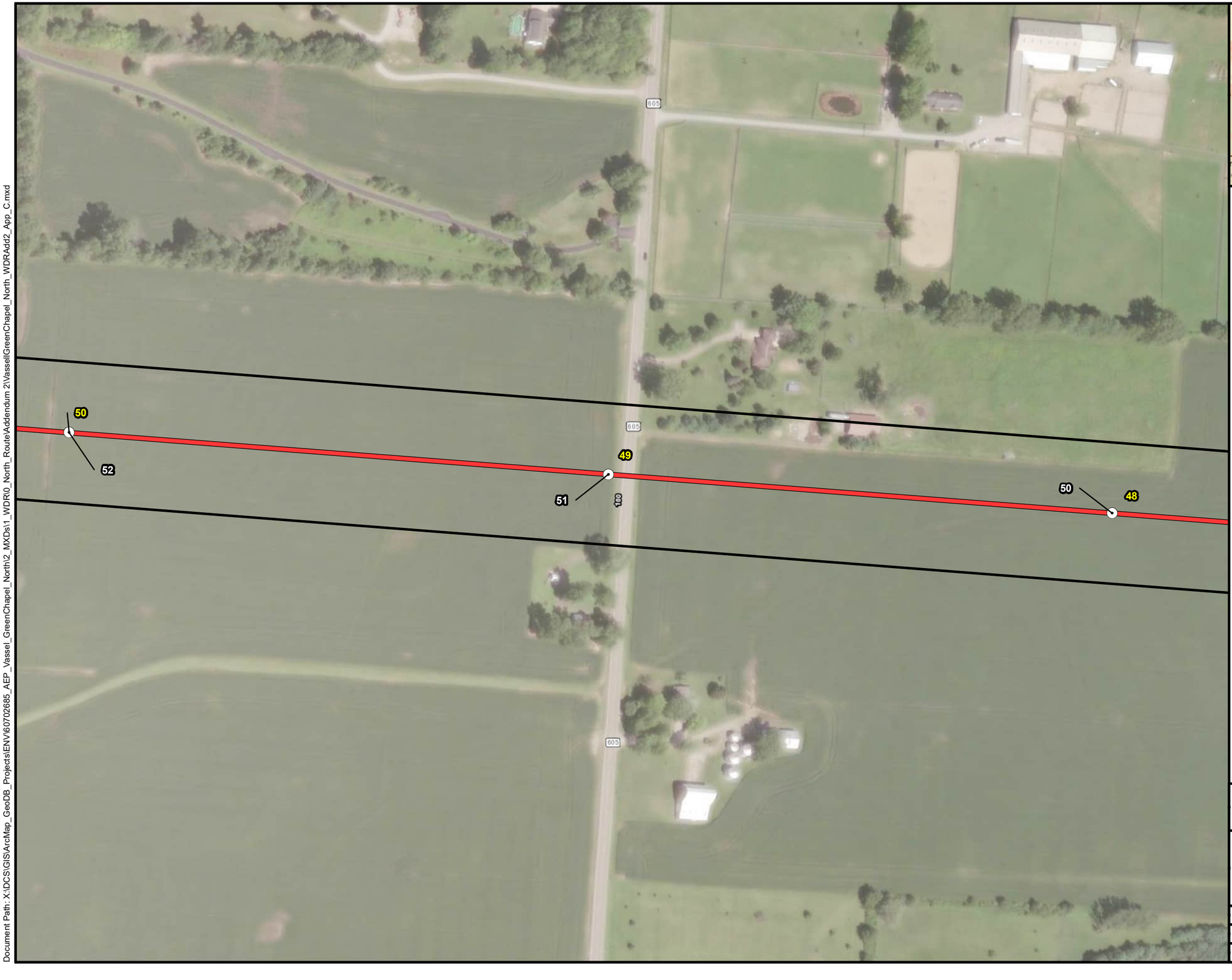
AEP OHIO TRANSMISSION COMPANY

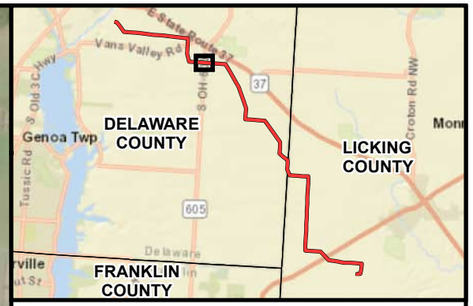
Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 22 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd





Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area

N

0 100 200 400

Feet

AEP OHIO TRANSMISSION COMPANY

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 23 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
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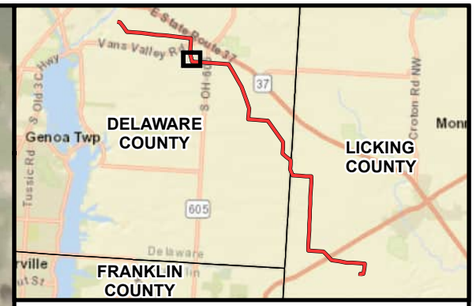


Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Previously Delineated Wetlands

N

0 100 200 400

Feet

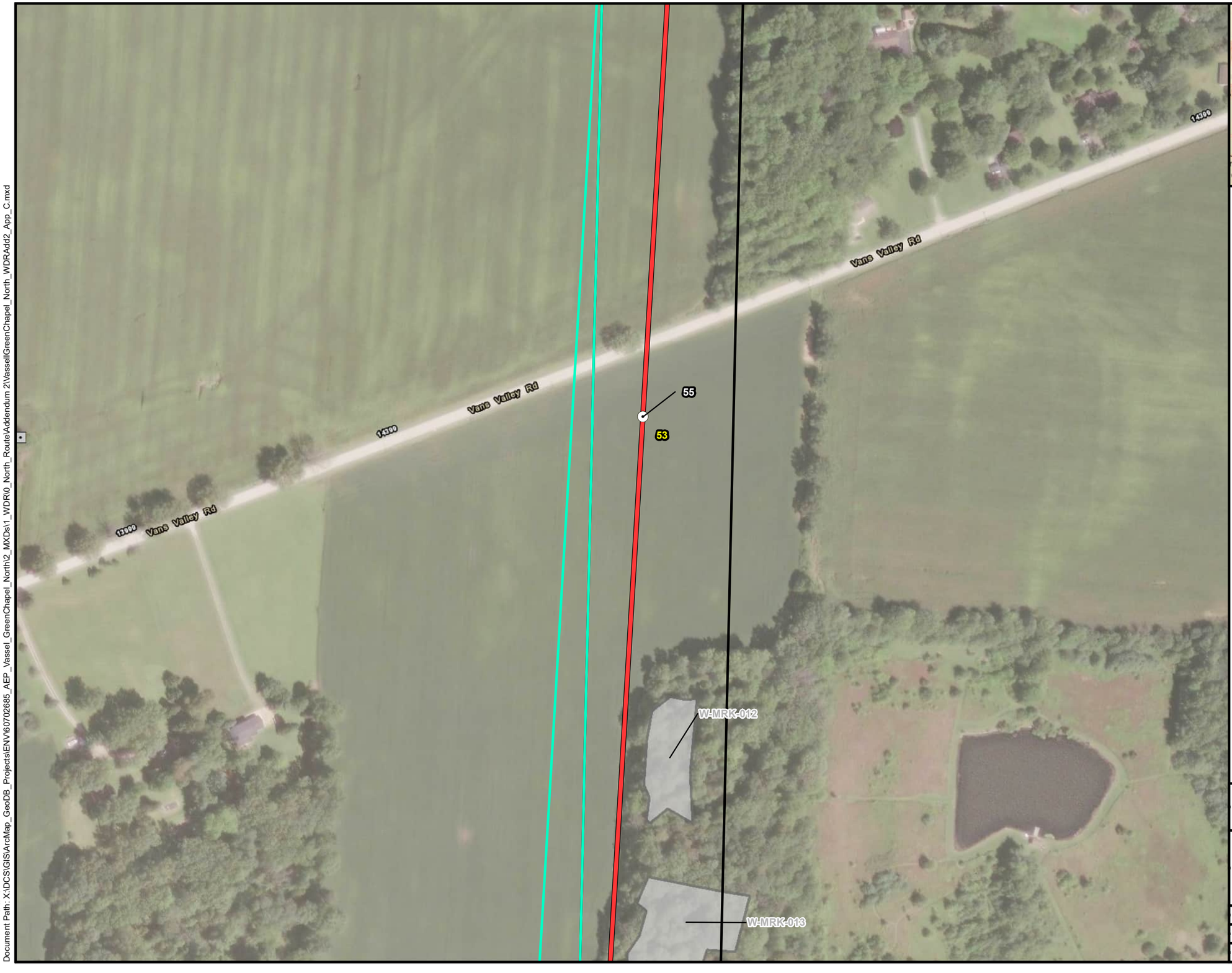
AEP OHIO TRANSMISSION COMPANY

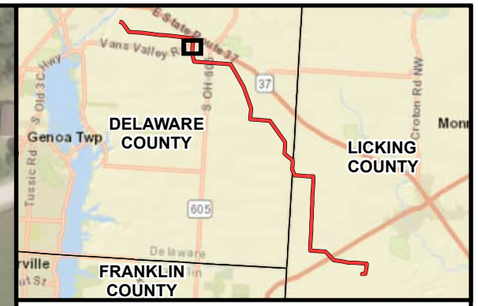
Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 24 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd





Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Culvert
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Previously Delineated Wetlands

N

0 100 200 400

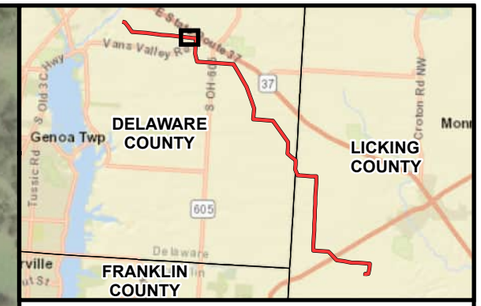
Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 25 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- February 2024 Report - Project Survey Area (Addendum #1)
- Previously Delineated Pond
- Previously Delineated Wetlands

N

0 100 200 400

Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 26 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd

Wetland F
JD is Verified Under
LRH-2023-389-SCR

W-MRK-001

W-MRK-001

W-MRK-001

W-MRK-001

W-MRK-001

Wetland K
JD is Verified
Under LRH-2023-389-SCR

W-MRK-002/
Wetland K

W-MRK-002/
Wetland K

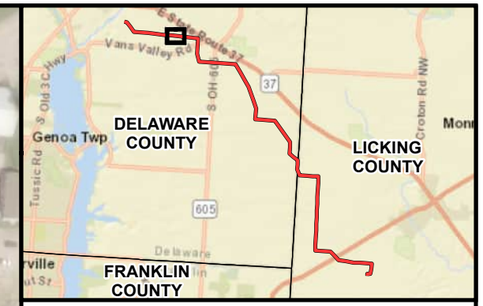
W-MRK-002/
Wetland K

57

59

56

58



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Wetland Data Point
- Previously Delineated Wetland Data Point
- Previously Delineated Upland Data Point
- Delineation by Others (Verified Under LRH-2023-389-SCR)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Ephemeral Stream
- December 2023 Report - Project Survey Area
- Addendum 2 Delineated PEM Wetland
- Addendum 2 Delineated PFO Wetland
- Previously Delineated Wetlands

N

0 100 200 400

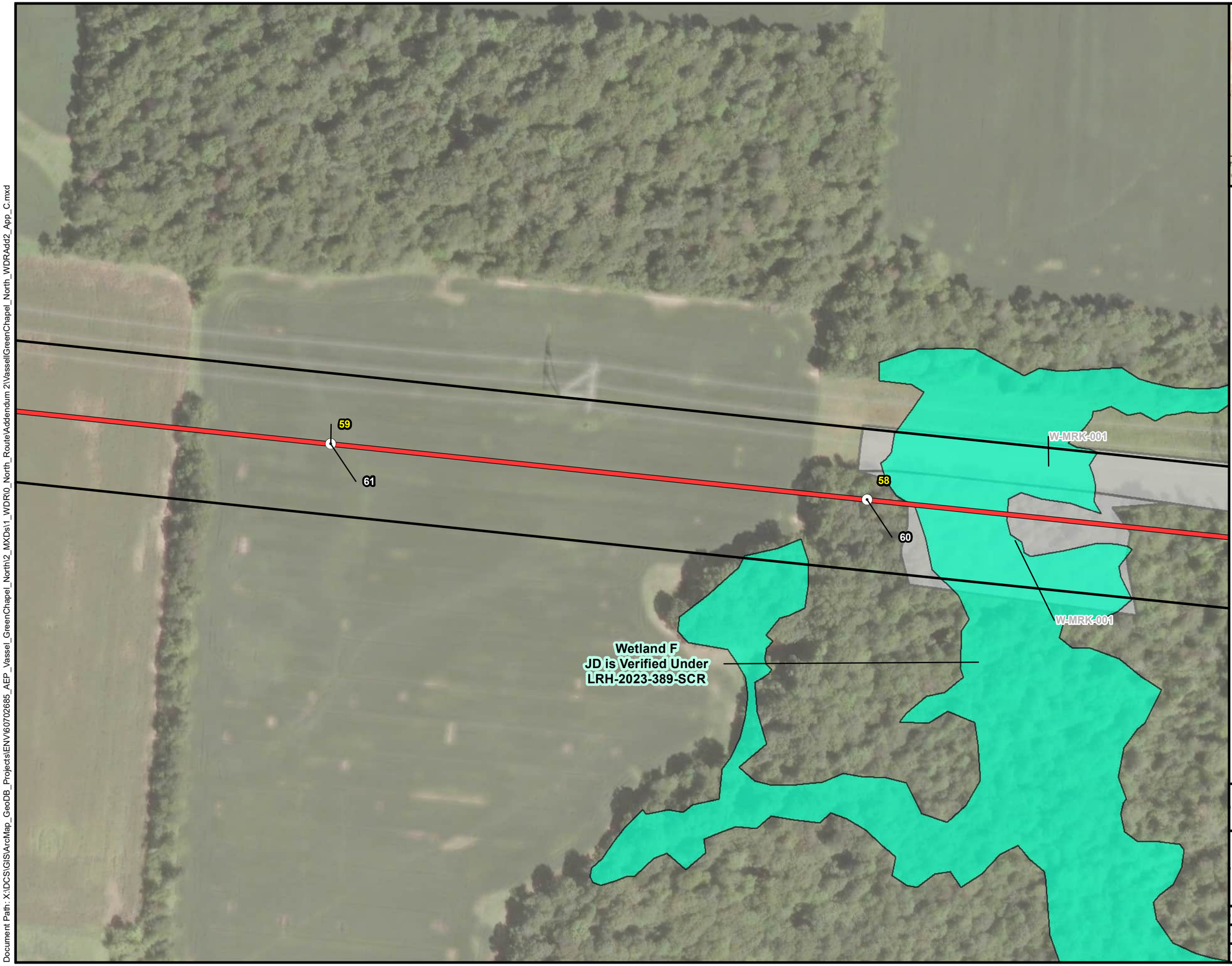
Feet

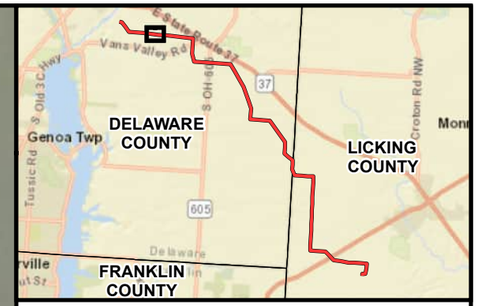
Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 27 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd





Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Delineation by Others (Verified Under LRH-2023-389-SCR)
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area
- Previously Delineated Wetlands

N

0 100 200 400

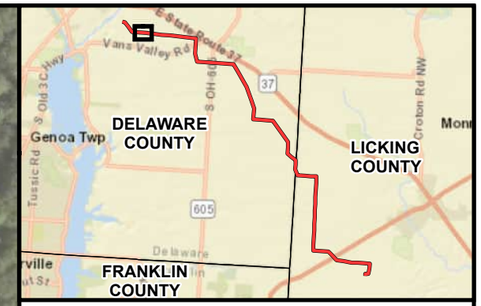
Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 28 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd



Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Wetland Data Point
- Wetland Boundary by Others (Approved JD: 2024-159-SCR-PJD-AJD)
- Delineated PEM Wetland
- Previously Delineated PEM Wetland
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- December 2023 Report - Project Survey Area

N

0 100 200 400

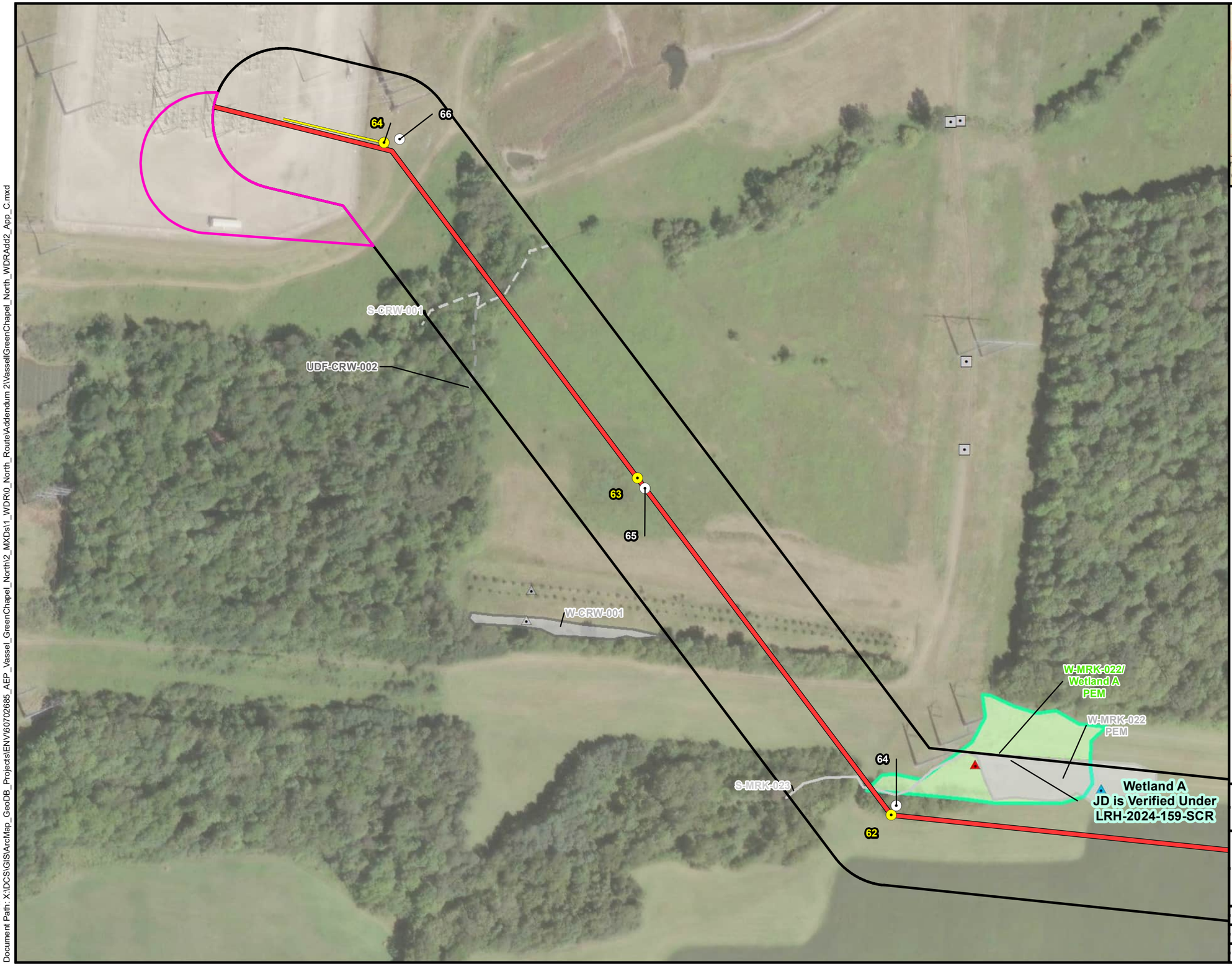
Feet

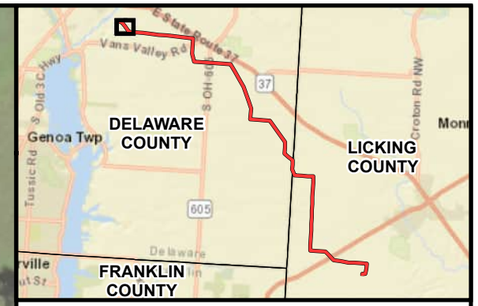
Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 29 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd





Legend

- Structure (Addendum 1 February 2024 Report)
- Structure (Addendum 2)
- Wetland Data Point
- Upland Data Point
- Previously Delineated Wetland Data Point
- Previously Delineated Upland Data Point
- Culvert
- Wetland Boundary by Others (Approved JD: 2024-159-SCR-PJD-AJD)
- Delineated PEM Wetland
- Previously Delineated PEM Wetland
- Vassell - Green Chapel North Route (February 2024 - Report)
- Vassell - Green Chapel North Route (Addendum 2)
- Previously Delineated Intermittent Stream
- Previously Delineated Perennial Stream
- Previously Delineated Upland Drainage Feature
- December 2023 Report - Project Survey Area
- Project Survey Area - Addendum 2
- Previously Delineated Wetlands

N

0 100 200 400

Feet

Vassell - Green Chapel
345 kV Transmission Line Project
Addendum 2

APPENDIX B
SHEET 30 OF 30
DECEMBER 2023 - ORIGINAL REPORT, ADDENDUM #1 AND ADDENDUM #2 ECOLOGICAL REPORT

DATE: 8/8/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/8/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North\2_MXDs\1_WDR\0_North_Route\Addendum 2\VassellGreenChapel_North_WDRAdd2_App_C.mxd

APPENDIX C

Jurisdictional Determination: 2024-159 SCR PJD – AJD
Jurisdictional Determination: 2023-389 SCR PJD - AJD

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HUNTINGTON DISTRICT
502 8TH STREET
HUNTINGTON, WV 25701-2018

July 18, 2024

Regulatory Division
North Branch
LRH-2023-389-SCR-Unnamed Tributary Big Walnut Creek

PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS

Molly Iams
The Sunbury Land Company
800 Walton Parkway, Suite 120
New Albany, Ohio 43054

Dear Molly Iams:

I refer to the *Investigation of Waters of the United States for the Sunbury Site-Balance of Site (270 AC)* property dated June 19, 2024, and submitted on your behalf by EMH&T. You have requested a preliminary jurisdictional determination (JD) for Streams 1, 4, 5, 6 and Wetlands F, R, T, U, V and an approved JD for Stream 7, Wetlands, K, Q, S, Farm Swale, and Swales 5-6 located within a 270-acre property. The JD review area includes two (2) areas located north of Vans Valley Road, south of State Route 37, and east of Old 3C Road in Trenton Township, Delaware County, Ohio (Southeast Area: 40.217830 latitude, -82.831603 longitude) (Northwest Area: 40.229073 latitude, -82.839665 longitude). Your request has been assigned the following file number: LRH-2023-389-SCR-Unnamed Tributary Big Walnut Creek. Please reference this file number on all future correspondence related to this JD request.

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

Preliminary Jurisdictional Determination

Based upon a review of the submitted report, this office has determined that approximately 1,633 linear feet of four (4) streams (Streams 1, 4, 5, 6) and 1.04 acres of five (5) wetlands (Wetlands F, R, T, U, V) are located within the JD review area and may be waters of the United States in accordance with the Regulatory Guidance Letter for JDs issued by the Corps on October 31, 2016 (Regulatory Guidance Letter No. 16-01). As indicated in the guidance, this Preliminary JD is non-binding and cannot be appealed (33 CFR § 331.2) and only provides a written indication that waters of the United States, including wetlands, may be present on-site.

You have declined to exercise the option to obtain an approved JD in this instance and at this time for the aquatic resources mentioned above. However, for the purposes of the determination of impacts, compensatory mitigation, and other resource protection measures for activities that require

authorization from this office, these aquatic resources will be evaluated as if they are waters of the United States.

Enclosed please find a copy of the preliminary JD (Enclosure 1). If you agree with the findings of this preliminary JD and understand your options regarding the same, please sign and date a copy of the preliminary JD form and return it to this office within 30 days of receipt of this letter. You should submit the signed copy via email or to the following address:

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

Approved Jurisdictional Determination

The features addressed in this approved JD were evaluated consistent with the definition of "waters of the United States" found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett v. EPA*. Additionally, to the extent applicable, our December 2, 2008 headquarters guidance entitled *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States* was followed in the final verification of Section 404 jurisdiction. Based on a review of the information provided, 86 linear feet of one (1) stream (Stream 7), 0.80 acre of three (3) wetlands (Wetlands K, Q, S), and 3,306 linear feet of three (3) swales (Farm Swale and Swales 5-6) are located within the approved JD review area as shown in Enclosure 2.

Stream 7 (86 linear feet) is not a relatively permanent water for its relevant reach. Wetland K (0.13 acre), Wetland Q (0.09 acre), and Wetland S (0.58 acre) are surrounded by uplands and do not exhibit an unbroken surface connection or a continuous surface water connection to a water identified in paragraph (a)(1) through (a)(6) of the pre-2015 regulations. Farm Swale 1 (1,160 linear feet), Swale 5 (889 linear feet), and Swale 6 (1,257 linear feet) are erosional features that exhibit no ordinary high-water mark or defined bed and banks. Swales 5 and 6 exhibit no wetland characteristics and Farm Swale 1 flows through Wetland U. Therefore, Stream 7, Wetlands K, Q, S, Farm Swale, and Swales 5-6 are not jurisdictional waters of the United States and are not subject to Section 404 regulation; however, you should contact the Ohio Environmental Protection Agency, Division of Surface Water, at (614) 664-2001 to determine state permit requirements.

In accordance with the September 27, 2023 Joint Memorandum between the United States Environmental Protection Agency (USEPA) and the Corps regarding coordination on jurisdictional determinations, local level coordination was completed with the USEPA Region 5, with coordination completed on July 17, 2024.

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

Appeal (RFA) form (Enclosure 3). If you request to appeal this determination you must submit a completed RFA form to the Great Lakes and Ohio River Division Office at the following address:

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

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR § 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by September 16, 2024. **It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.**

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

A copy of this letter will be provided to your agent, Heather Dardinger with EMH&T and the Ohio Environmental Protection Agency. If you have any questions concerning the above information, please contact Katie Samples of the North Branch at 304-399-6933, by mail at the above address or by email at katie.e.samples@usace.army.mil.

Sincerely,
Teresa D. Spagna

Teresa D. Spagna
Chief, North Branch

Enclosures
cc (by email):

Heather Dardinger (EMH&T)
Rachel Secrest (Ohio Environmental Protection Agency)
Anna Kamnyev (Ohio Environmental Protection Agency)

Stream 7
86 LF

Wetland T
0.10 AC

Ephemeral

Perennial

Wetland U
0.79 AC

Farm Swale
1,160 LF

Wetland R
0.01 AC

Wetland V
0.01 AC

Stream 1
754 LF Perennial

Wetland S
0.58 AC

Wetland Q
0.09 AC

Wetland K
0.09 AC Forested
0.04 AC Emergent

Wetland F
0.11 AC Forested
0.02 AC Emergent

Swale 5
889 LF

UP-3

Swale 6
1,257 LF

UP-4

Stream 6
191 LF

Stream 5
161 LF

Stream 4
527 LF

Legend

- Study Area
- <all other values>
- Jurisdictional Stream
- Non-Jurisdictional Stream
- Jurisdictional, Forested
- Jurisdictional, Emergent
- Non-Jurisdictional (Isolated), Forested
- Non-Jurisdictional (Isolated), Emergent
- Pond
- Swale
- Upland Point
- Culvert Point

TRENTON TOWNSHIP, DELAWARE COUNTY, OHIO

SUNBURY SITE - BALANCE

DELINEATION MAP

EXHIBIT 6

0 125 250 500 Feet

N

EMH&T
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Toll Free: 888.775.3648
emht.com

Date:	June 2024
Scale:	1" = 250'
Job No:	2022-1032
Sheet:	1 of 1

Path: J:\2022\1032\GIS_Sunbury_Site_Balance - Revised\Exhibit 6 - Delineation.mxd | Last Updated: 6/19/2024 3:39:37 PM

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HUNTINGTON DISTRICT
502 8TH STREET
HUNTINGTON, WV 25701-2018

April 9, 2024

Regulatory Division
North Branch
LRH-2024-159-SCR-Unnamed Tributary Big Walnut Creek

PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS

Molly Iams
The Sunbury Land Company
800 Walton Parkway, Suite 120
New Albany, Ohio 43054

Dear Molly Iams:

I refer to the Investigation of Waters of the United States for the Sunbury Site- Southwest dated February 13, 2024, and submitted on your behalf by EMH&T. You have requested a preliminary jurisdictional determination (JD) for two (2) streams (Streams 1-2) and four (4) wetlands (Wetlands A, B, C, and E) and an approved JD for one (1) ditch (Ditch 1) and five (5) swales (Swales 1-5) located within a 222-acre property. The JD review area is located north of Vans Valley Road, south of State Route 37, and east of Old 3C Road in Trenton Township, Delaware County, Ohio (40.220842 latitude, -82.844033 longitude). Your request has been assigned the following file number: LRH-2024-159-SCR-Unnamed Tributary Big Walnut Creek. Please reference this file number on all future correspondence related to this JD request.

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

Preliminary Jurisdictional Determination

Based upon a review of the submitted report, this office has determined that approximately 2,453 linear feet of two (2) streams (Streams 1-2) and 1.96 acres of four (4) wetlands (Wetlands A, B, C, and E) are located within the JD review area and may be waters of the United States in accordance with the Regulatory Guidance Letter for JDs issued by the Corps on October 31, 2016 (Regulatory Guidance Letter No. 16-01). As indicated in the guidance, this Preliminary JD is non-binding and cannot be appealed (33 CFR § 331.2) and only provides a written indication that waters of the United States, including wetlands, may be present on-site.

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

Enclosed please find a copy of the Preliminary JD (Enclosure 1). If you agree with the findings of this Preliminary JD and understand your options regarding the same, please sign and date a copy of the Preliminary JD form and return it to this office within 30 days of receipt of this letter. You should submit the signed copy via email or to the following address:

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

Approved Jurisdictional Determination

The features addressed in this approved JD were evaluated consistent with the definition of "waters of the United States" found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett v. EPA*. Additionally, to the extent applicable, our December 2, 2008 headquarters guidance entitled *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States* was followed in the final verification of Section 404 jurisdiction. Based on a review of the information provided, 1,224 linear feet of one (1) Ditch (Ditch 1) and 8,291 linear feet of five (5) swales (Swales 1-5) are located within the approved JD review area (Enclosure 2).

Swales 1-5 are grass farm swales that do not exhibit an ordinary high-water mark, defined bed and banks, or wetland characteristics. Ditch 1 is a man-made drainage ditch that appears to have been constructed wholly in uplands. Drainage Ditch 1 drains only uplands and does not exhibit a relatively permanent flow of water. Therefore, Swales 1-5 and Ditch 1 are not jurisdictional waters of the United States and are not subject to Section 404.

This jurisdictional verification is valid for a period of five (5) years from the date of this letter unless new information warrants revision of the delineation prior to the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form (Enclosure 3). If you request to appeal this determination you must submit a completed RFA form to the Great Lakes and Ohio River Division Office at the following address:

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

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR § 331.5, and that it has been received by the

Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by June 7, 2024. **It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.**

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

A copy of this letter will be provided to your agent, Heather Dardinger, with EMH&T. If you have any questions concerning the above information, please contact Katie Samples of the North Branch at 304-399-6933, by mail at the above address or by email at katie.e.samples@usace.army.mil.

Sincerely,

Teresa D. Spagna
Chief, North Branch

Enclosures
cc (by email):

Heather Dardinger (EMH&T)

U.S. Army Corps of Engineers (USACE)

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD)

For use of this form, see Sec 404 CWA, Sec 10 RHA, Sec 103 MPRSA; the proponent agency is CECW-COR.

Form Approved -
OMB No. 0710-0024
Expires 2024-04-30

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the review area that may be subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice or FOIA request as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in any resulting jurisdictional determination (JD), which may be made available to the public on the District's website and/or on the Headquarters USACE website.

Disclosure Submission of requested information is voluntary; however, if information is not provided, the request for a JD cannot be evaluated nor can a PJD be issued.

The Agency Disclosure Notice (ADN)

The public reporting burden for this collection of information, 0710-0024, is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

SECTION I - BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 2024-04-08

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:
Molly Iams, The Sunbury Land Company, LLC, 8000 Walton Parkway, Suite 120, New Albany, Ohio 43054

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:
CELRH-RD-N, Sunbury Site- Southwest, LRH-2024-159-SCR-Unnamed Tributary Big Walnut Creek

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

State: Ohio County/Parish/Borough: Delaware City: Trenton Township

Center coordinates of site (*lat/long in degree decimal format*): Latitude: 40.220842 ° Longitude: -82.84403 °

Universal Transverse Mercator: 343077.312912, 4453935.066753

Name of nearest waterbody: Unnamed Tributary Big Walnut Creek

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

☒ Office (*Desk*) Determination. Date: 2024-04-08

☒ Field Determination

Date(s): 25 October 2023 as part of a field investigation for a larger property

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

	Site Number	Latitude (*decimal degrees*)	Longitude (*decimal degrees*)	Estimated amount of aquatic resource in review area (*acreage and linear feet, if applicable*)	Type of aquatic resource (*i.e., wetland vs. non-wetland waters*)	Geographic authority to which the aquatic resource "may be" subject (*i.e., Section 404 or Section 10/404*)
	Stream 1	40.224483	-82.844278	2,357 linear feet	Non-wetland	Section 404

	Site Number	Latitude (*decimal degrees*)	Longitude (*decimal degrees*)	Estimated amount of aquatic resource in review area (*acreage and linear feet, if applicable*)	Type of aquatic resource (*i.e., wetland vs. non-wetland waters*)	Geographic authority to which the aquatic resource "may be" subject (*i.e., Section 404 or Section 10/404*)
	Stream 2	40.224217	-82.849450	96 linear feet	Non-wetland	Section 404
	Wetland A	40.224321	-82.846590	1.38 acres	Wetland	Section 404
	Wetland B	40.224056	-82.848567	0.08 acre	Wetland	Section 404
	Wetland C	40.224248	-82.849558	0.38 acre	Wetland	Section 404
	Wetland E	40.224172	-82.837273	0.12 acre	Wetland	Section 404

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

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD or no JD whatsoever, which do not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the USACE has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD or reliance on no JD whatsoever; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of USACE permit authorization based on a PJD or no JD whatsoever constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the USACE will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

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

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:

Map: Exhibit 6 - Delineation Map (report, February 2024)

☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.

☐ Office concurs with data sheets/delineation report.

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

Rationale:

☐ Data sheets prepared by the USACE:

☐ Corps navigable waters' study:

☐ U.S. Geological Survey Hydrologic Atlas:

☒ USGS NHD data.

☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name:

Exhibit 2 - Exhibit 2 - USGS Topographic Map, Sunbury, OH Quad (report, February 2024).

☒ USDA Natural Resources Conservation Service Soil Survey.

Citation: Exhibits 3A and 3B- Soil Survey Map and Historic Soils Map (report, July 2023)

☒ National Wetlands Inventory map(s).

Cite Name: Exhibit 5- National Wetlands Inventory Map (report, February 2024)

☐ State/Local Wetland Inventory map(s):

☒ FEMA/FIRM maps:

Exhibit 4- Flood Insurance Rate Map (report, February 2024)

☐ 100-year Floodplain Elevation is: _____. (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (*Name & Date*): Exhibit 6 - Delineation Map (report, February 2024)

or ☒ Other (*Name & Date*): Photographs 1-33 dated 9 November 2022 (report, February 2024) and Corps Site Investigation Photo 10 (25 October 2023)

☐ Previous determination(s). File no. and date of response letter:

☐ Other information (*please specify*):

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

Name of Regulatory Staff Member Completing PJD	Date	Signature of Regulatory Staff Member Completing PJD
Katie Samples	2024-04-09	Katie Samples Digitally signed by Katie Samples Date: 2024.04.10 12:35:51 -04'00'
Name of Person Requesting PJD	Date	Signatureof Person Requesting PJD *(REQUIRED, unless obtaining the Signature is Impracticable*

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

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HUNTINGTON DISTRICT
502 8TH STREET
HUNTINGTON, WEST VIRGINIA 25701

CELRH-RDN 9 April 2024

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023) ,[1] LRH-2024-159-SCR-Unnamed Tributary Big Walnut Creek, MFR 1 of 1[2]

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.[3] AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.[4] For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),[5] the Clean Water Act (CWA) implementing regulations published by the Department of the Army in 1986 and amended in 1993 (references 2.a. and 2.b. respectively), the 2008 *Rapanos-Carabell* guidance (reference 2.c.), and other applicable guidance, relevant case law and longstanding practice, (collectively the pre-2015 regulatory regime), and the *Sackett* decision (reference 2.d.) in evaluating jurisdiction.

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. The features addressed in this AJD were evaluated consistent with the definition of "waters of the United States" found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. This AJD did not rely on the 2023 "Revised Definition of 'Waters of the United States,'" as

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[1] While the Supreme Court's decision in *Sackett* had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.
[2] When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, interstate water, or territorial seas that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).
[3] 33 CFR 331.2.
[4] Regulatory Guidance Letter 05-02.
[5] USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

amended on 8 September 2023 (Amended 2023 Rule) because, as of the date of this decision, the Amended 2023 Rule is not applicable in the state of Ohio due to litigation.

1. SUMMARY OF CONCLUSIONS.

   a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

      i. Ditch 1, non-jurisdictional
      ii. Swale 1, non-jurisdictional
      iii. Swale 2, non-jurisdictional
      iv. Swale 3, non-jurisdictional
      v. Swale 4, non-jurisdictional
      vi. Swale 5, non-jurisdictional

As shown in Attachment A and Table 1 below, approximately 2,453 linear of two (2) streams (Streams 1-2), 1.96 acres of four (4) wetlands (Wetlands A-C, E), 1,224 linear feet of one (1) ditch (Ditch 1), and 8,291 linear feet of five (5) swales (Swales 1-5) are located within the JD review area. The applicant has requested a preliminary JD for Streams 1-2 and Wetlands A-C, E.

Table 1. Aquatic Resources located within the Sunbury Site- Southwest JD Review Area LRH-2024-159-SCR-Unnamed Tributary Big Walnut Creek

Aquatic Resource	Latitude & Longitude (°N)	(°W)	Classification	Length and/or Acres within review area	JD Type
Stream 1	40.224483	-82.844278	Perennial	2,357 linear feet	PJD
Stream 2	40.224217	-82.849450	Intermittent	96 linear feet	PJD
Wetland A	40.224321	-82.846590	Palustrine, Emergent	1.38 acres	PJD
Wetland B	40.224056	-82.848567	Palustrine, Emergent	0.08 acre	PJD
Wetland C	40.224248	-82.849558	Palustrine, Forested/Emergent	0.38 acre	PJD
Wetland E	40.224172	-82.837273	Palustrine, Forested/Emergent	0.12 acre	PJD
Ditch 1	40.221812	-82.849877	Ditch	1,224 linear feet	AJD

Table 1. Aquatic Resources located within the Sunbury Site- Southwest JD Review Area LRH-2024-159-SCR-Unnamed Tributary Big Walnut Creek					
Aquatic Resource	Latitude & Longitude (°N)	(°W)	Classification	Length and/or Acres within review area	JD Type
Swale 1	40.220616	-82.849950	Swale	1,254 linear feet	AJD
Swale 2	40.219652	-82.849009	Swale	1,621 linear feet	AJD
Swale 3	40.218999	-82.848179	Swale	2,416 linear feet	AJD
Swale 4	40.218260	-82.840518	Swale	1,954 linear feet	AJD
Swale 5	40.218579	-82.839524	Swale	1,046 liner feet	AJD

2. REFERENCES.

   a. Final Rule for Regulatory Programs of the Corps of Engineers, 51 FR 41206 (November 13, 1986).

   b. Clean Water Act Regulatory Programs, 58 FR 45008 (August 25, 1993).

   c. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* (December 2, 2008)

   d. *Sackett v. EPA*, 598 U.S. _, 143 S. Ct. 1322 (2023)

3. REVIEW AREA. The 222-acre JD review area is located north of Vans Valley Road, south of State Route 37, and east of Old 3C Road in Trenton Township, Delaware County, Ohio (40.220842 latitude, -82.844033 longitude) (Attachment A).

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED. Scioto River. The Huntington District advertised the designation of the Scioto River as a Section 10 (TNW) from mouth to Mile 175.0 via Public Notice No. 94-40 dated 27 July 1994.[6]

[6] This MFR should not be used to complete a new stand-alone TNW determination. A stand-alone TNW determination for a water that is not subject to Section 9 or 10 of the Rivers and Harbors Act of 1899

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS. Based on a review of the National Hydrography Dataset (NHD), site topography, and the submitted delineation, Ditch 1 and Swales 1-5 appear to drain off-site towards an unnamed tributary to Big Walnut Creek. Big Walnut Creek is a direct tributary of the Scioto River, a TNW.

6. SECTION 10 JURISDICTIONAL WATERS[7]: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.[8] N/A

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the pre-2015 regulatory regime. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

    a. TNWs (a)(1): N/A

    b. Interstate Waters (a)(2): N/A

    c. Other Waters (a)(3): N/A

(RHA) is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established.

[7] 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

[8] This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

d. Impoundments (a)(4): N/A

e. Tributaries (a)(5): N/A

f. The territorial seas (a)(6): N/A

g. Adjacent wetlands (a)(7): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

a. Describe aquatic resources and other features within the review area identified as "generally non-jurisdictional" in the preamble to the 1986 regulations (referred to as "preamble waters").[9] Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA as a preamble water. N/A

b. Describe aquatic resources and features within the review area identified as "generally not jurisdictional" in the *Rapanos* guidance. Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA based on the criteria listed in the guidance.

Ditch 1 (1,224 linear feet) is a man-made drainage ditch that appears to have been constructed wholly in uplands. Ditch 1 drains only uplands and does not exhibit relatively permanent flow of water. The Antecedent Precipitation Tool (APT) and submitted photographs were utilized to determine whether Ditch 1 exhibits a relatively permanent flow of water. The submitted photos show that Ditch 1 contained no flow during the time of the consultant's delineation. According to the APT, conditions were drier than normal when the photos were taken in the wet season; however, the ditch does not exhibit characteristics indicative of a relatively permanent flow during normal conditions. Therefore, Ditch 1 would not be considered a water of the United States.

Swale 1 (1,254 linear feet) is a grass farm swale that exhibits no ordinary high-water mark, defined bed and banks, or wetland characteristics. Based on a review of the submitted information, the swale functions only to collect runoff during significant precipitation events. Therefore, Swale 1 is not considered a water of the United States.

[9] 51 FR 41217, November 13, 1986.

Swale 2 (1,621 linear feet) is a grass farm swale that exhibits no ordinary high-water mark, defined bed and banks, or wetland characteristics. Based on a review of the submitted information, the swale functions only to collect runoff during significant precipitation events. Therefore, Swale 2 is not considered a water of the United States.

Swale 3 (2,416 linear feet) is a grass farm swale that exhibits no ordinary high-water mark, defined bed and banks, or wetland characteristics. Based on a review of the submitted information, the swale functions only to collect runoff during significant precipitation events. Therefore, Swale 3 is not considered a water of the United States.

Swale 4 (1,954 linear feet) is a grass farm swale that exhibits no ordinary high-water mark, defined bed and banks, or wetland characteristics. Based on a review of the submitted information, the swale functions only to collect runoff during significant precipitation events. Therefore, Swale 4 is not considered a water of the United States.

Swale 5 (1,046 linear feet) is a grass farm swale that exhibits no ordinary high-water mark, defined bed and banks, or wetland characteristics. Based on a review of the submitted information, the swale functions only to collect runoff during significant precipitation events. Therefore, Swale 5 is not considered a water of the United States.

c. Describe aquatic resources and features identified within the review area as waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA. Include the size of the waste treatment system within the review area and describe how it was determined to be a waste treatment system. N/A

d. Describe aquatic resources and features within the review area determined to be prior converted cropland in accordance with the 1993 regulations (reference 2.b.). Include the size of the aquatic resource or feature within the review area and describe how it was determined to be prior converted cropland. N/A

e. Describe aquatic resources (i.e. lakes and ponds) within the review area, which do not have a nexus to interstate or foreign commerce, and prior to the January 2001 Supreme Court decision in "*SWANCC*," would have been jurisdictional based solely on the "Migratory Bird Rule." Include the size of the aquatic resource or feature, and how it was determined to be an "isolated water" in accordance with *SWANCC*. [N/A or enter rationale/discussion here.]
N/A

f. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the pre-2015 regulatory regime consistent with the Supreme Court's decision in *Sackett* (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water). N/A

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

a. The final office review was completed on 8 April 2024. A field investigation was completed in conjunction with the review for a larger parcel on 25 October 2023.

b. On behalf of the applicant, EMH&T has submitted an Investigation of Waters of the U.S for the Sunbury Site- Southwest (report) dated 13 February 2024.

c. USGS National Hydrography Dataset: NHD Map generated 8 April 2024 (National Regulatory Viewer)

d. USGS Topographic Mapping: Exhibit 2 - USGS Topographic Map, Sunbury, OH Quad (report, February 2024).

e. U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey: Exhibits 3A and 3B- Soil Survey Maps (report, February 2024)

f. National wetlands inventory map: Exhibit 5 - National Wetlands Inventory Map (report, February 2024)

g. Federal Emergency Management Agency Flood Insurance Rate Map: Exhibit 4 - Flood Insurance Rate Map (report, February 2024)

h. Aerial Photograph: Exhibit 6 - Delineation Map (report, February 2024)

i. Site Photographs: Photographs 1-33 dated 9 November 2022 (report, February 2024) and Corps Site Investigation Photo 10 (25 October 2023)

j. Antecedent Precipitation Tool: APT Output Figure for 9 November 2022 generated 8 April 2024

k. Public Notice No. 94-40 dated 27 July 1994

10. OTHER SUPPORTING INFORMATION. A preliminary JD will be completed for Streams 1-2 and Wetlands A, B, C, and E.

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.


Stream 2
96 LF
Stream 1
2,357 LF
Wetland A
1.38 AC
Wetland B
0.08 AC
Wetland C
0.22 AC Forested
0.16 AC Emergent
Wetland E
0.08 AC Forested
0.04 AC Emergent
AJD Review Area
Swale 1
1,254 LF
Swale 2
1,621 LF
Swale 3
2,416 LF
Swale 4
1,954 LF
Swale 5
1,046 LF
Ditch 1
1,224 LF
UP-1
UP-2
VANS VALLEY RD
Legend
Study Area
Stream
Jurisdictional, Forested
Jurisdictional, Emergent
Swale
Ditch
Upland Point
Culvert Point
TRENTON TOWNSHIP, DELAWARE COUNTY, OHIO
SUNBURY SITE - SOUTHWEST
DELINEATION MAP
EXHIBIT 6
0 70 140 280 Feet
N
EMH&T
Date: February 2024
Scale: 1" = 150'
Job No. 2022-1032
Sheet: 1 of 1
Path: J:\2022\1032\GIS\s_Sunbury_Site_Southwest\Exhibit 6 - Delineation.mxd | Last Updated: 2/13/2024 6:26:50 AM

APPENDIX D

Revised ORAM for W-MRK-002 / Wetland K

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

Instructions

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

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

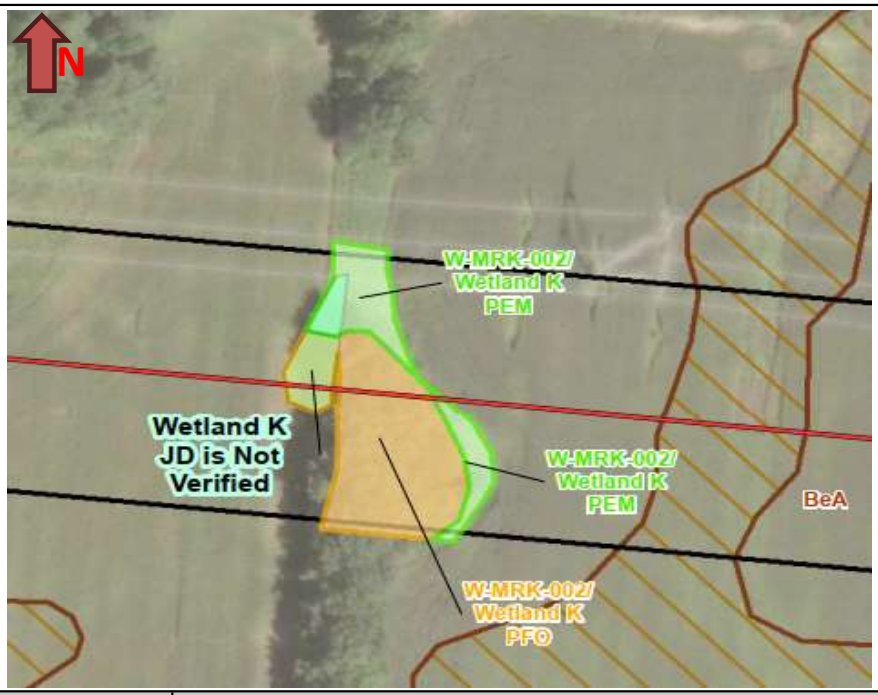
It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To properly answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual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

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

Background Information

Name:	**MRK, AJH**
Date:	**6/14/2023**
Affiliation:	**AECOM**
Address:	**707 Grant Street, 5th Floor, Pittsburgh, PA 15219**
Phone Number:	**814-516-1130**
e-mail address:	mathhew.kline@aecom.com
Name of Wetland:	**W-MRK-002**
Vegetation Communit(ies):	**PEM/PFO**
HGM Class(es):	**Depressed**

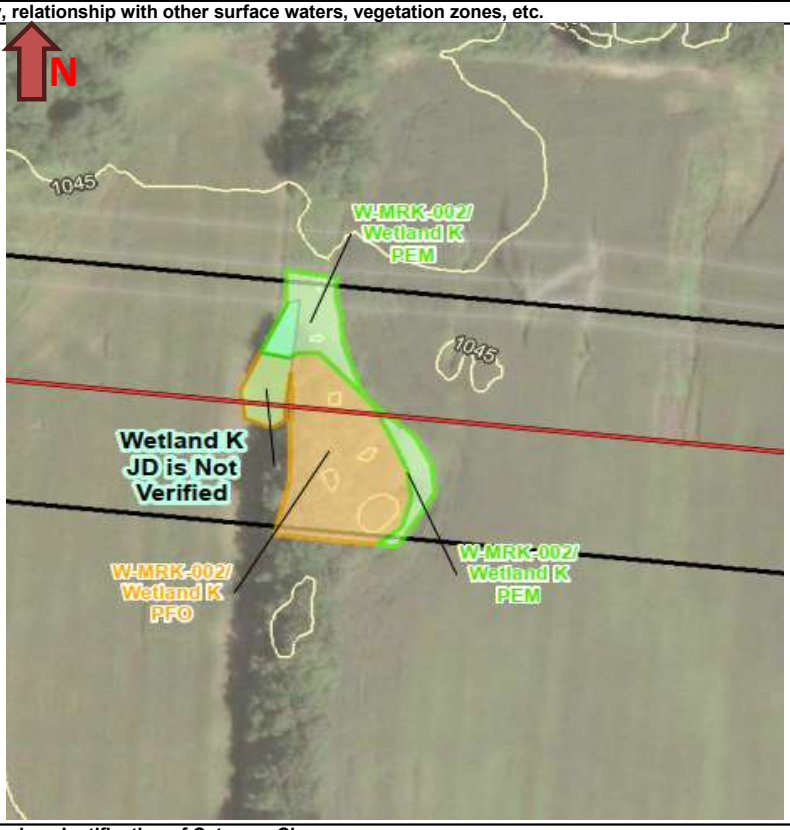
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.



Lat/Long or UTM Coordinate:	**40.222414, -82.824598; 40.222070, -82.824641**
USGS Quad Name:	**Jersey**
County:	**Delaware**
Township:	**Trenton**
Section and Subsection:	**T4N R16W**
Hydrologic Unit Code:	**Prairie Run-Big Walnut Creek 050600011306**
Site Visit:	**6/14/2023**
National Wetland Inventory Map:	**See Figure 2**
Ohio Wetland Inventory Map:	**See Figure 2**
Soil Survey:	**See Figure 2**
Delineation report/map:	**See Figure 3**

Name of Wetland:	W-MRK-002		
Wetland Size (delineated acres):	0.89	Wetland Size (Estimated total acres):	0.89

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.



Comments, Narrative Discussion, Justification of Category Changes:

PEM/PFO wetland located within a depression collecting surface runoff and seasonal flooding. Signs of standing water were observed throughout the wetland. Wetland continues outside current study area.

Final score:	29	Category:	1

Wetland ID:	W-MRK-002

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	X	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human- induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	X	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	X	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	X	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		X
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		X

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Wetland ID:	W-MRK-002

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	***NO** Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	***NO** Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	***NO** Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	***NO** Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis* , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	***NO** Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	***NO** Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	***NO** Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	***NO** Go to Question 8b

Wetland ID:	W-MRK-002

8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	***NO** Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	***NO** Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	***NO** Go to Question 11
11	**Relict Wet Prairies**. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	***NO** Complete Quantitative Rating

Wetland ID:	W-MRK-002

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	oak opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Wetland ID:	W-MRK-002

Site:	Vassell-Green Chapel	Rater(s):	MRK, AJH	Date:	6/14/2023

Field ID:

W-MRK-002 PEM/PFO

Delineated acres:	0.89
Total acres:	0.89

Metric 1. Wetland Area (size).

2.0 (max 6 pts) | 2.0 (subtotal)

Select one size class and assign score.

- [ ] >50 acres (>20.2ha) (6 pts)
- [ ] 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- [ ] 10 to <25 acres (4 to <10.1ha) (4 pts)
- [ ] 3 to <10 acres (1.2 to <4ha) (3 pts)
- [x] 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- [ ] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- [ ] <0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

1.0 (max 14 pts.) | 3.0 (subtotal)

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- [ ] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- [ ] MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- [ ] NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- [x] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- [ ] VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- [ ] LOW. Old field (>10 years), shrubland, young second growth forest. (5)
- [ ] MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- [x] HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

11.0 (max 30 pts.) | 14.0 (subtotal)

3a. Sources of Water. Score all that apply.

- [ ] High pH groundwater (5)
- [ ] Other groundwater (3)
- [x] Precipitation (1)
- [ ] Seasonal/Intermittent surface water (3)
- [ ] Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- [ ] 100 year floodplain (1)
- [ ] Between stream/lake and other human use (1)
- [x] Part of wetland/upland (e.g. forest), complex (1)
- [ ] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select one.

- [ ] >0.7 (27.6in) (3)
- [ ] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [x] <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- [ ] Semi- to permanently inundated/saturated (4)
- [ ] Regularly inundated/saturated (3)
- [ ] Seasonally inundated (2)
- [x] Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [ ] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [x] ditch
- [ ] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [x] filling/grading
- [ ] road bed/RR track
- [ ] dredging
- [ ] Other:

Metric 4. Habitat Alteration and Development.

12.0 (max 20 pts.) | 26.0 (subtotal)

4a. Substrate disturbance. Score one or double check and average.

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [ ] Recovering (2)
- [ ] Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [x] Fair (3)
- [ ] Poor to fair (2)
- [ ] Poor (1)

4c. Habitat alteration. Score one or double check and average.

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [ ] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [x] mowing
- [ ] grazing
- [x] clearcutting
- [ ] selective cutting
- [ ] woody debris removal
- [ ] toxic pollutants
- [x] shrub/sapling removal
- [ ] herbaceous/aquatic bed removal
- [ ] sedimentation
- [ ] dredging
- [x] farming
- [ ] nutrient enrichment

26.0 (subtotal this page)

ORAM v. 5.0 Field Form Quantitative Rating

Wetland ID:	W-MRK-002

Site:	Vassell-Green Chapel	Rater(s):	MRK, AJH	Date:	6/14/2023

Field ID:

W-MRK-002 PEM/PFO

26.0
subtotal this page

0.0 max 10 pts. | **26.0** subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- [ ] Bog (10)
- [ ] Fen (10)
- [ ] Old growth forest (10)
- [ ] Mature forested wetland (5)
- [ ] Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- [ ] Lake Erie coastal/tributary wetland-restricted hydrology (5)
- [ ] Lake Plain Sand Prairies (Oak Openings) (10)
- [ ] Relict Wet Praires (10)
- [ ] Known occurrence state/federal threatened or endangered species (10)
- [ ] Significant migratory songbird/water fowl habitat or usage (10)
- [ ] Category 1 Wetland. See Question 5 Qualitative Rating (-10)

3.0 max 20pts. | **29.0** subtotal

Metric 6. Plant communities, interspersion, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- [ ] Aquatic bed
- [2] Emergent
- [ ] Shrub
- [2] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other_____

6b. horizontal (plan view) Interspersion.

Select only one.

- [ ] High (5)
- [ ] Moderately high(4)
- [ ] Moderate (3)
- [x] Moderately low (2)
- [ ] Low (1)
- [ ] None (0)

6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage

- [x] Extensive >75% cover (-5)
- [ ] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- [0] Vegetated hummucks/tussucks
- [1] Coarse woody debris >15cm (6in)
- [1] Standing dead >25cm (10in) dbh
- [0] Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's 1 vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's 2 vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's 3 vegetation and is of high quality

Narrative Description of Vegetation Quality

Low spp diversity and/or predominance of nonnative or low disturbance tolerant native species
Native spp are dominant component of the vegetation, mod although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp to
A predominance of native species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

29.0 TOTAL (Max 100 pts)

1 Category

Wetland ID:	W-MRK-002

ORAM Summary Worksheet

		Circle answer or insert score		Result
Narrative Rating	Question 1 Critical Habitat	YES	*NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES	*NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES	*NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES	*NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES	*NO	If yes, Category 1.
	Question 6. Bogs	YES	*NO	If yes, Category 3.
	Question 7. Fens	YES	*NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES	*NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES	*NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES	NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES	NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES	NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES	*NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES	*NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2		
	Metric 2. Buffers and surrounding land use	1		
	Metric 3. Hydrology	11		
	Metric 4. Habitat	12		
	Metric 5. Special Wetland Communities	0		
	Metric 6. Plant communities, interspersion, microtopography	3		
	TOTAL SCORE	29		Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland ID:	W-MRK-002

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	***NO**	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over- categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	***NO**	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	***NO**	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	***YES** Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	***NO**	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1- 54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category

Choose one	***Category 1**	Category 2	Category 3	

End of Ohio Rapid Assessment Method for Wetlands.