

Construction Notice for the Melmore – Tiffin Center 138 kV Transmission Line Replacement Project



An **AEP** Company

BOUNDLESS ENERGY™

PUCO Case No. 24-0082-EL-BNR

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

Submitted by:
AEP Ohio Transmission Company, Inc.

February 8, 2024

**CONSTRUCTION NOTICE FOR MELMORE – TIFFIN CENTER 138 kV TRANSMISSION LINE
REPLACEMENT PROJECT**

CONSTRUCTION NOTICE

AEP Ohio Transmission Company, Inc.

Melmore-Tiffin Center 138 kV Transmission Line Replacement Project

4906-6-05 Accelerated Application Requirements

AEP Ohio Transmission Company, Inc. (the “Company”) provides the following information to the Ohio Power Siting Board pursuant to 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 Construction Notice

AEP Ohio Transmission Company (the “Company”) proposes the Melmore – Tiffin Center 138 kilovolt (“kV”) Transmission Line Replacement Project (the “Project”) in Clinton Township, Seneca County, Ohio. The purpose of the Project is to replace a single steel monopole structure on the existing Melmore – Tiffin Center 138 kV Transmission Line, directly south of the Tiffin Center Station. The Project is on property owned by the Company and no additional right-of-way (“ROW”) will be needed. The location of the Project is shown on Figures 1 and 2 in Appendix A.

The Project meets the requirements for a Construction Notice (“CN”) as defined by Item 2(a) of Appendix A to Ohio Administrative Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

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

The Project has been assigned Case No. 24-0082-EL-BNR.

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B(2) Statement of Need

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

A new, greenfield 69 kV transmission line is proposed to cross underneath the existing Melmore-Tiffin Center 138 kV Transmission Line. In order to meet National Electric Safety Code clearance requirements, one structure on the Melmore-Tiffin Center 138 kV Transmission Line needs to be raised to allow for proper clearances to the proposed infrastructure.

Failure to move forward with the Project will result in the Company's inability to safely construct and operate the new 69 kV transmission line. The existing 69 kV system in the Tiffin area has experienced outages due to the condition of the area. Not building the new 69 kV transmission line puts customers at a higher risk for continued outages.

The proposed 69kV transmission line need and solution was presented at the PJM SRRTEP on June 17, 2019, and September 17, 2021, and subsequently assigned PJM identification number s2637. The need to raise a structure on the 138 kV line was not identified when the 69 kV solution was presented to PJM; however, the Project does not change the grid topology and does not need to go back for a revision to PJM. The Project was identified in the Company's 2023 Long Term Forecast Report on page 48 (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 Figure 1 in Appendix A.

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.

Due to the location of the replacement pole structure and the Company's existing Tiffin Center Substation, no other alternatives were considered for the Project. Any other alternative would add additional length to the Project without any additional benefit. The new pole location will remain entirely within Company-owned property; therefore, the resulting alignment represents the most suitable and least impactful pole location as it minimizes potential impacts to affected landowners and will result in no impacts to wetlands, streams, or cultural resource areas eligible for the National Register of Historic Places ("NRHP"). Therefore, this Project represents the most suitable location and is the most appropriate solution for meeting the Company's needs in the area.

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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 will be located entirely within Company owned property, with no additional property owners or tenants affected. The Company maintains a website (<http://aeptransmission.com/ohio/>) on which an electronic copy of this CN is available. An electronic copy of the CN will be served to the public library in each political subdivision affected by this Project.

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 March 2025 with an anticipated in-service date of May 2025.

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.

Figure 1 in Appendix A identifies the location of the Project area on the United States Geological Survey 1:24,000 topographic quadrangle map (Tiffin North, Ohio). Figure 2 in Appendix A displays the Project components on a 2022 aerial photograph.

To visit from downtown Columbus, Ohio, take I-71 N for 22.3 miles. Take exit 131 for US-36 E/SR-37 E. Turn left onto US-36 E/SR-37 E and continue for 6.8 miles. Keep right to continue on SR-37 E/E Central Avenue. Turn right to merge onto US-23 N and continue for 13.9 miles. Take exit to merge onto SR-53 N/OH-67 E towards Tiffin for 18.5 miles. Turn right on Benner Street Road and continue for 0.2 miles. Turn right onto W Market Street and continue for 0.9 miles. Keep left to continue on SR-101 E/E Market Street/Portland Road and continue for 2.9 miles. The Project is located to the east of SR-101 E/Portland Road at 41° 8'37.12"N, 83° 7'37.76"W.

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.

All work activities are proposed on one parcel (Parcel Identification Number D17009248320401), which is owned by the Company. No other property easements, options, or land use agreements are necessary to construct or operate the Project.

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B(9) Technical Features

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

One galvanized steel transmission monopole will be installed in order to make NESC and AEP radial/vertical clearances with another transmission line asset just outside of Tiffin Center station. This structure will replace the current standing structure #52.

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

Line Asset Name: Melmore – Tiffin Center 138 kV
Ownership: AEP Ohio Transmission Company
Voltage: 138kV
Conductors: (6) 477 KCM HAWK ACSR (26/7)
Static Wire: (1) 96 Fiber / (1) 7#8 Alumoweld
Insulators: Polymer
ROW Width: N/A
Structure Type: (1) Double circuit, monopole steel davit arm structure with (1) one pier 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.

Not applicable. No occupied residences or institutions are located within 100 feet of the Project.

B(9)(c) Project Cost

The estimated capital cost of the project.

The cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately \$400,000 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.

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B(10) Social and Ecological Impacts

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

B(10)(a) Land Use Characteristics

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

An aerial photograph of the Project vicinity is provided as Figure 2 in Appendix A. The Project is located in Clinton Township in Seneca County, Ohio. The Project area is rural in nature and located northeast of the city of Tiffin. The surrounding Project area is comprised of industrial land to the north with the Tiffin Center Station and agricultural land used for row crops to the south. No changes in land use are anticipated as part 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.

No properties registered as agricultural district land are located in the Project area based on phone coordination with the Seneca County Auditor's Office on January 4, 2024. No additional impacts to agricultural land use are anticipated as a result of the Project.

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 a Phase I Cultural Resource Management Investigation of the Project Area; no archaeological and cultural resources were identified. Therefore, no further investigation was considered to be necessary by the consultant. The Ohio State Historic Preservation Office ("SHPO") agreed that the Project will not impact any cultural resources eligible for listing on the NRHP and no additional coordination is necessary prior to construction. A copy of the October 11, 2023 concurrence letter from SHPO is provided in Appendix C.

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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 Ohio Environmental Protection Agency (“OEPA”) for authorization of construction storm water discharge under NPDES General Permit for Discharges of Storm Water Associated with Construction Activity OHC000006. The Company will also coordinate stormwater permitting needs with Seneca County as required. The Company will implement and maintain best management practices as outlined in a Project-specific Storm Water Pollution Plan to minimize erosion and sediment to Project surface waters during storm events.

No streams, wetlands, or other water bodies were identified in the Project area. Therefore, the Project will not require a Clean Water Act Section 404 Permit from the United States Army Corps of Engineers or a Section 401 Water Quality Certification from the OEPA.

Based on review of the Federal Emergency Management Agency (“FEMA”) Flood Insurance Rate Map (map number 39147C0219D), no mapped FEMA floodplains are located in the Project area. Therefore, no floodplain permit will be required for this Project.

No other known local, state, or federal requirements were required for the Project.

B(10)(e) Threatened, Endangered, and Rare Species

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

The Company’s consultant submitted coordination letters to the United States Fish and Wildlife Service (“USFWS”) and the Ohio Department of Natural Resources (“ODNR”) Ohio Natural Heritage Program and Division of Wildlife, seeking an environmental review of the Project for potential impacts to threatened and endangered species. USFWS and ODNR provided responses on April 18, 2022, and April 20, 2022, respectively (see Appendix C).

The USFWS recommends seasonal tree clearing due to the presence of federally listed bat species, including Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*). No tree clearing is anticipated by the Project so no impacts to these bat species are anticipated. USFWS indicated that no adverse effects to any other federally endangered, threatened, proposed species, or proposed or designated critical habitat are anticipated due to the project type, size, and location.

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Four bat species, including northern long-eared bat (*Myotis septentrionalis*), Indiana bat (*Myotis sodalis*), little brown bat (*Myotis lucifugus*), and tricolored bat (*Perimyotis subflavus*), were identified as being within range of the Project area and ODNR requests adherence to seasonal tree clearing activities (October 1 to March 31). Based on general observations during the ecological survey, no forested areas were identified within the Project area. Additionally, the Company's consultant completed a desktop review for potential hibernaculum within 0.25 miles of the Project area and no caves, mines, and/or karst features were identified. More detailed results from the desktop habitat assessment have been included within Appendix C. As per ODNR/USFWS guidance, further coordination regarding potential hibernaculum is only necessary if the habitat assessment find potential habitat within 0.25 miles of the Project area. Due to the results of the desktop survey and the absence of tree clearing for the Project, no adverse impacts to the listed bat species are anticipated and further coordination with ODNR and/or USFWS is not warranted.

The ODNR identified two reptile species as being within range of the Project area, Blanding's turtle (*Emydoidea blandingii*) and spotted turtle (*Clemmys guttata*). Additionally, two fish species were identified as being within range of the Project area, longnose sucker (*Catostomus catostomus*) and greater redhorse (*Moxostoma valenciennesi*). Due to the absence of streams and wetlands within the Project area, no impacts are anticipated to these species and no further coordination with the ODNR is warranted.

The ODNR identified six bird species as being within range of the Project area: king rail (*Rallus elegans*), least bittern (*Ixobrychus exilis*), Loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus hudsonis*), Upland sandpiper (*Bartramia longicauda*), and Western Meadowlark (*Sturnella neglecta*). Per field reviews on October 6, 2023, no suitable nesting habitat was identified, and, therefore, these species are not likely to be impacted by the Project.

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.

The Company's consultant prepared an ecological survey report, which is provided in Appendix D. The Project area is located within an active agricultural field that is absent of streams, wetlands, and ponds, as well as national and state forests and parks, floodplains, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries.

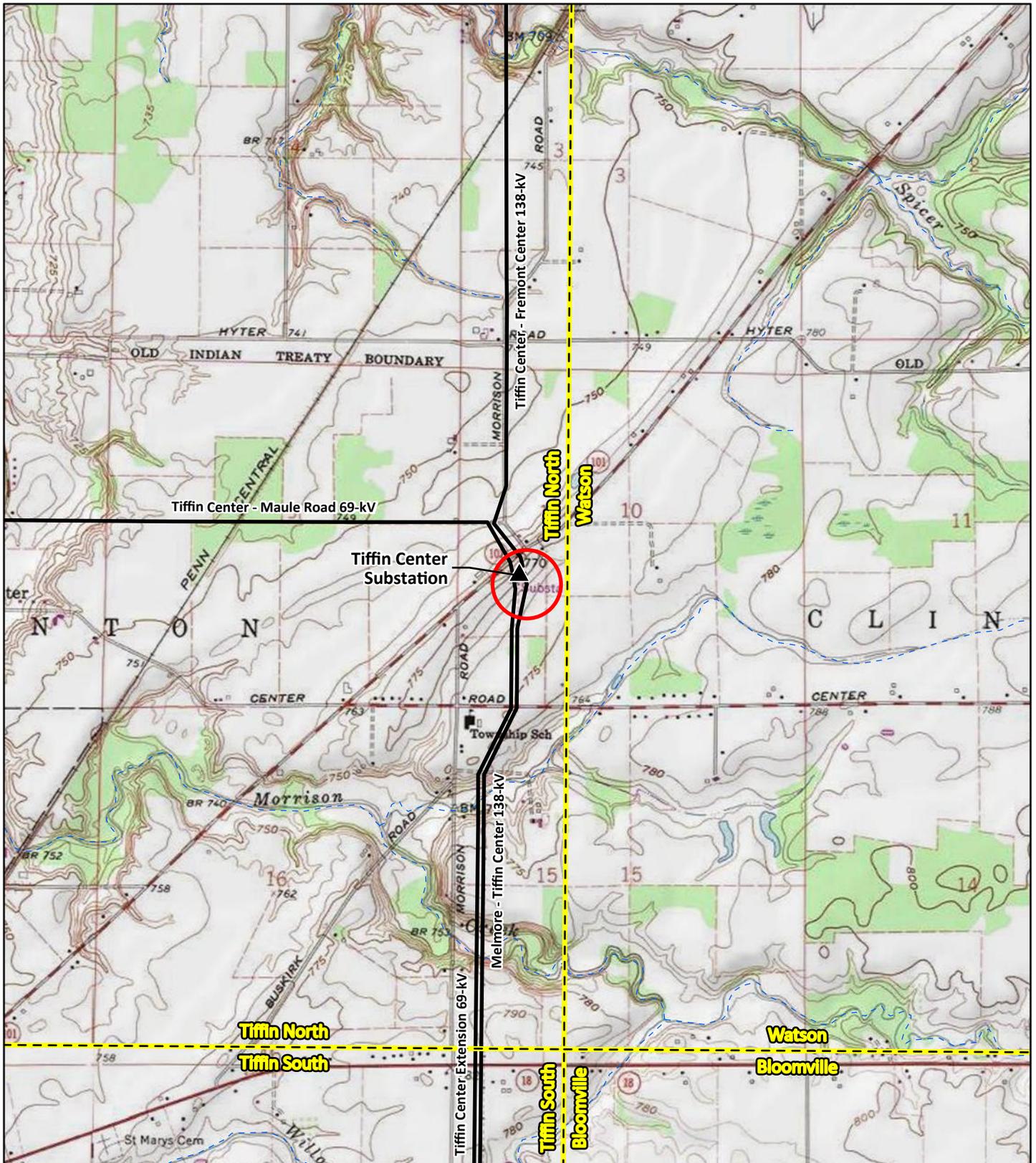
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B(10)(g) Unusual Conditions

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



- ▲ Substation
- Existing Transmission Line
- USGS Topographic Line
- Project Area

Data Sources: AEP, USGS 7.5' Topographic Quadrangle (Tiffin North)

Coordinate System and Datum:
NAD 83 State Plane
Ohio North, Feet



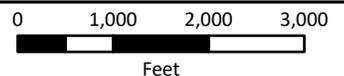
February 06, 2024



FIGURE 1
TOPOGRAPHIC OVERVIEW



Melmore-Tiffin Center 138-kV
Transmission Line Project





- ▲ Substation
- Proposed Structure
- Proposed Centerline
- Existing Transmission Line
- ▭ Parcel Boundary

Data Sources: AEP,
Seneca County,
Google Imagery, 2022

Coordinate System
and Datum:
NAD 83 State Plane
Ohio North, Feet



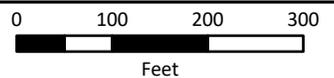
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FIGURE 2 AERIAL MAP



Melmore-Tiffin Center 138-kV
Transmission Line Project



Appendix B PJM Solution and Long Term Forecast Report

AEP Transmission Zone M-3 Process Seneca County, Ohio

Need Number: AEP-2019-OH031

Process Stage: Solutions Meeting 9/17/2021

Previously Presented: Needs Meeting 6/17/2019

Supplemental Project Driver: Operational Flexibility, and Customer Service

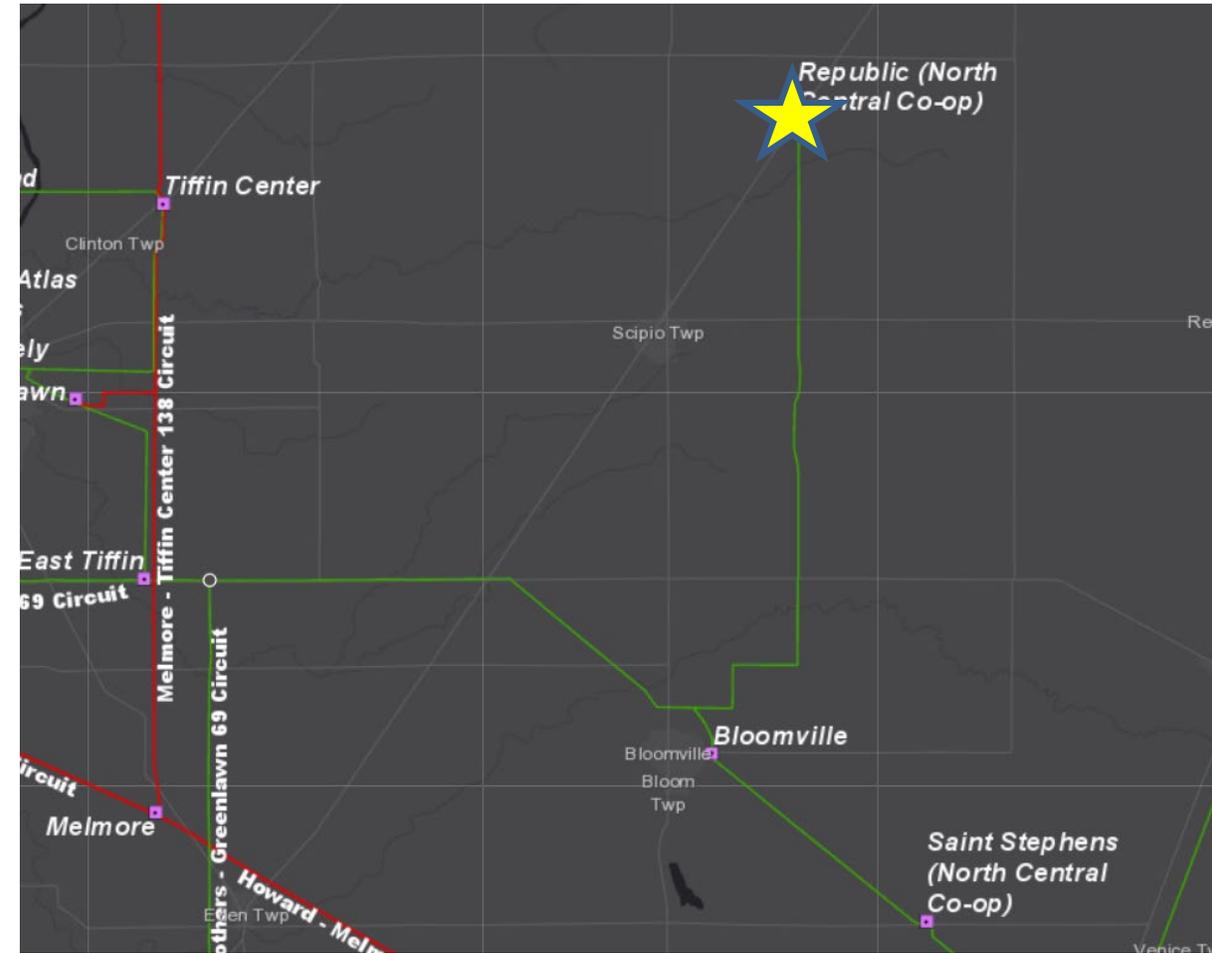
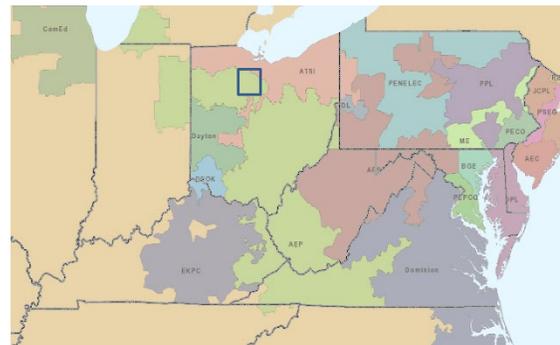
Specific Assumption Reference:

AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions slide 8)

Problem Statement:

- North Central Cooperative has experienced below average reliability due to the radial nature of the Carrothers- Greenlawn 69kV circuit.
- There have been 14 momentary and 8 permanent outages from 2014-2019 (CMI: 4,881,447; 9.278 MW). The radial line is 8.1 miles long.

Model: PJM 2019 RTEP Series Cases



AEP Transmission Zone M-3 Process Seneca County, Ohio

Need Number: AEP-2019-OH031

Process Stage: Solutions Meeting 9/17/2021

Proposed Solution:

- Install a new 69 kV 3-way POP Switch (Kilbourne Sw) and 69 kV metering to serve North Central’s Republic Station. **Estimated Cost: \$0.64 M**
- Construct a new 3- breaker 69kV Station in a ring configuration named Founders. **Estimated Cost: \$5.1M**
- Construct ~ 8 miles of new 69 kV line between Tiffin Center and the new Kilbourne Switch delivery point using 556 ACSR conductor. **Estimated Cost: \$11.99 M**
- Install a new 69 kV 3000A 40kA breaker and associated terminal equipment at Tiffin Center on the line towards Kilbourne switch. **Estimated Cost: \$0.7 M**
- Remove the existing Honey Creek 69 kV switch currently used to radially serve the Republic delivery point. **Estimated Cost: \$0.1 M**
- Construct ~ 0.83 miles of new 69 kV double circuit line between structure 103 on the Carrothers-Greenlawn circuit to the new Founders delivery point using 556 ACSR conductor. **Estimated Cost: \$2.4M**

Total Estimated Transmission Cost: \$20.93 M

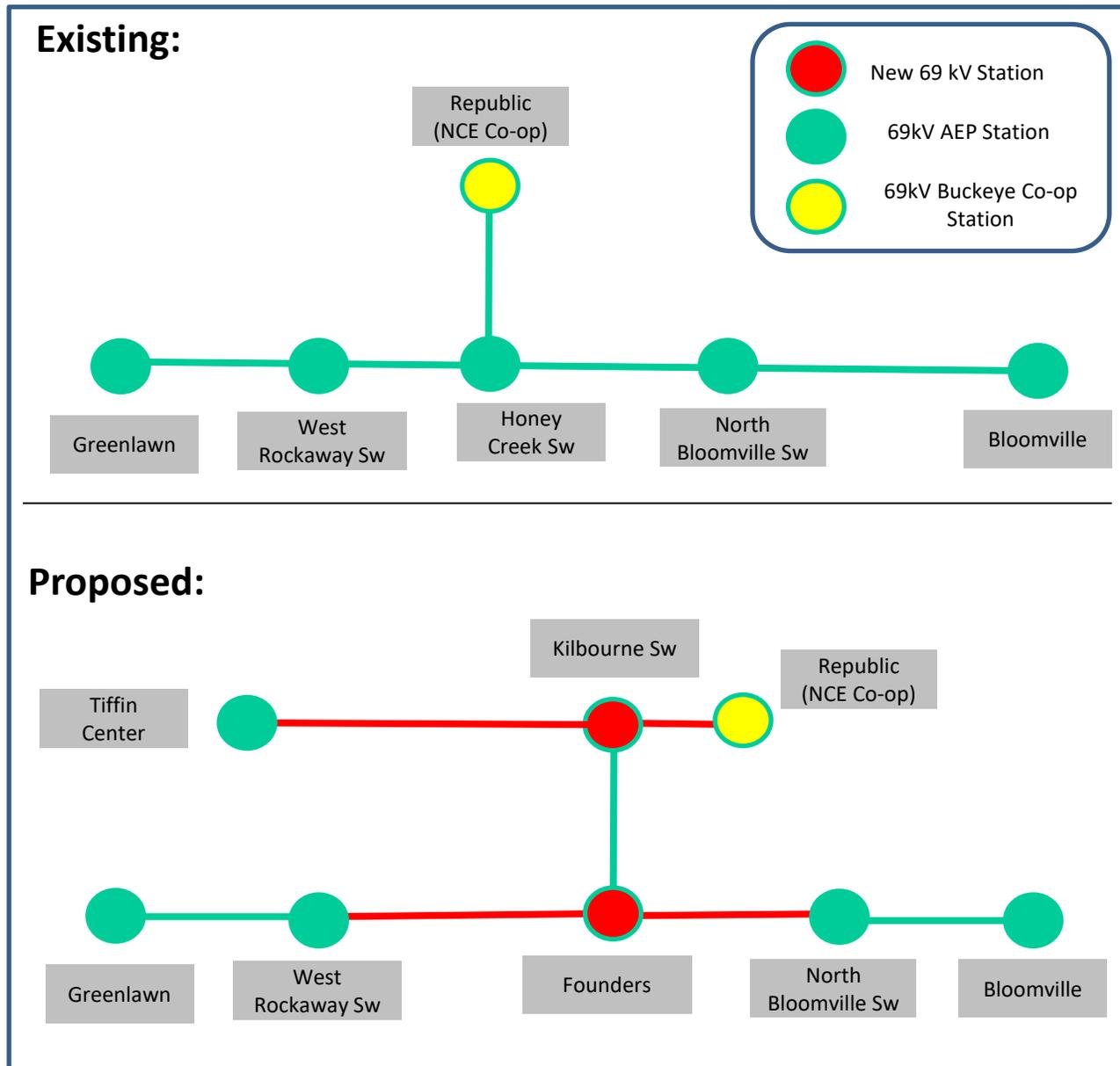
Ancillary Benefits:

Provides the Republic radial line looped transmission service to reduce the number of outages. **Alternatives Considered:**

Construct a new 6.5 mile greenfield line from Republic to a new delivery point on the Carrothers-Greenlawn 69kV circuit. This alternative would then allow for looped service to the Republic radial with a shorter greenfield build. However, this alternative was not chosen due to outage concerns with both ends of the feed to Republic residing on the same Carrothers- Greenlawn circuit which could result in more frequent outages to the customer rather than being fed from two independent lines.

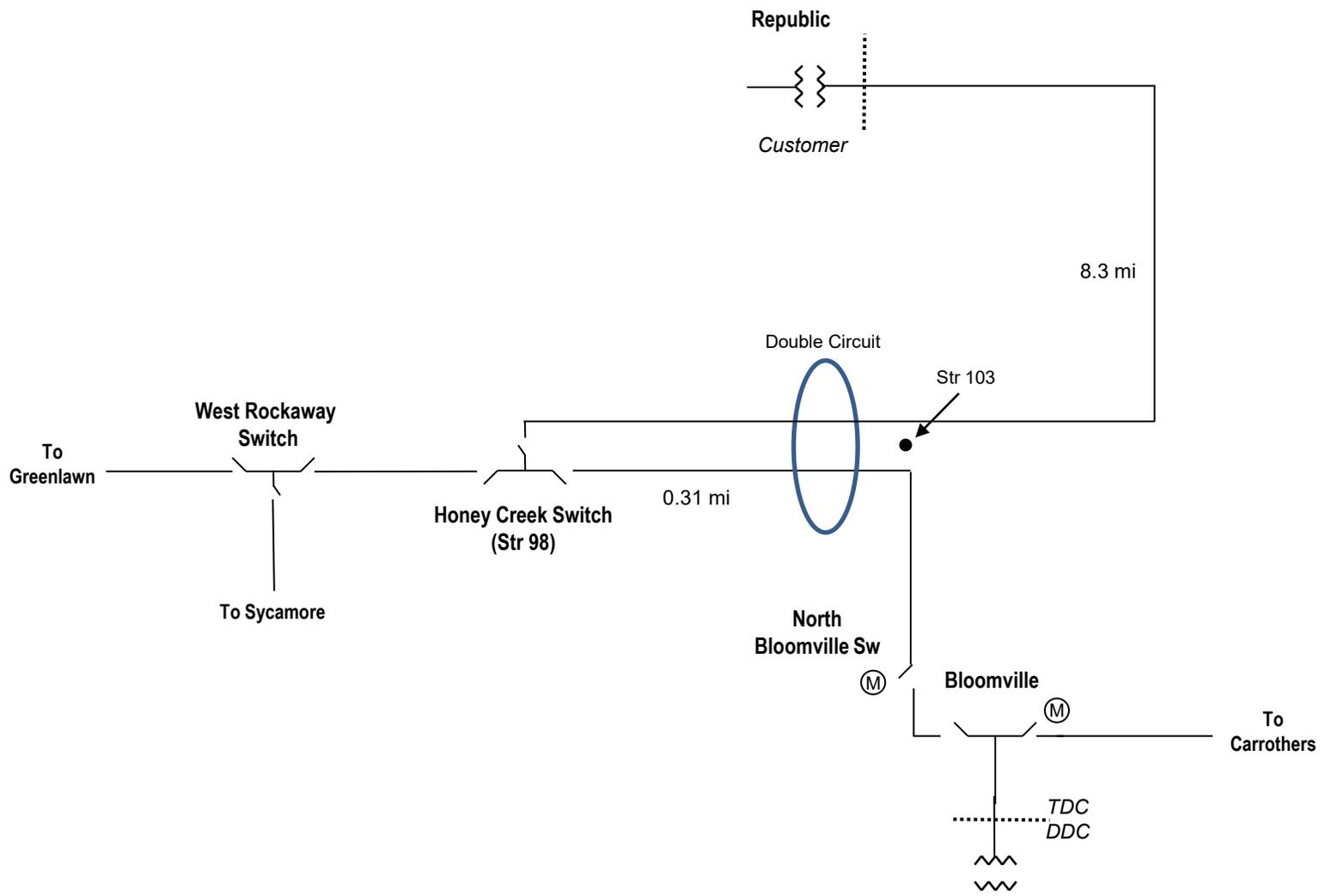
Projected In-Service: 9/1/2024

Project Status: Engineering



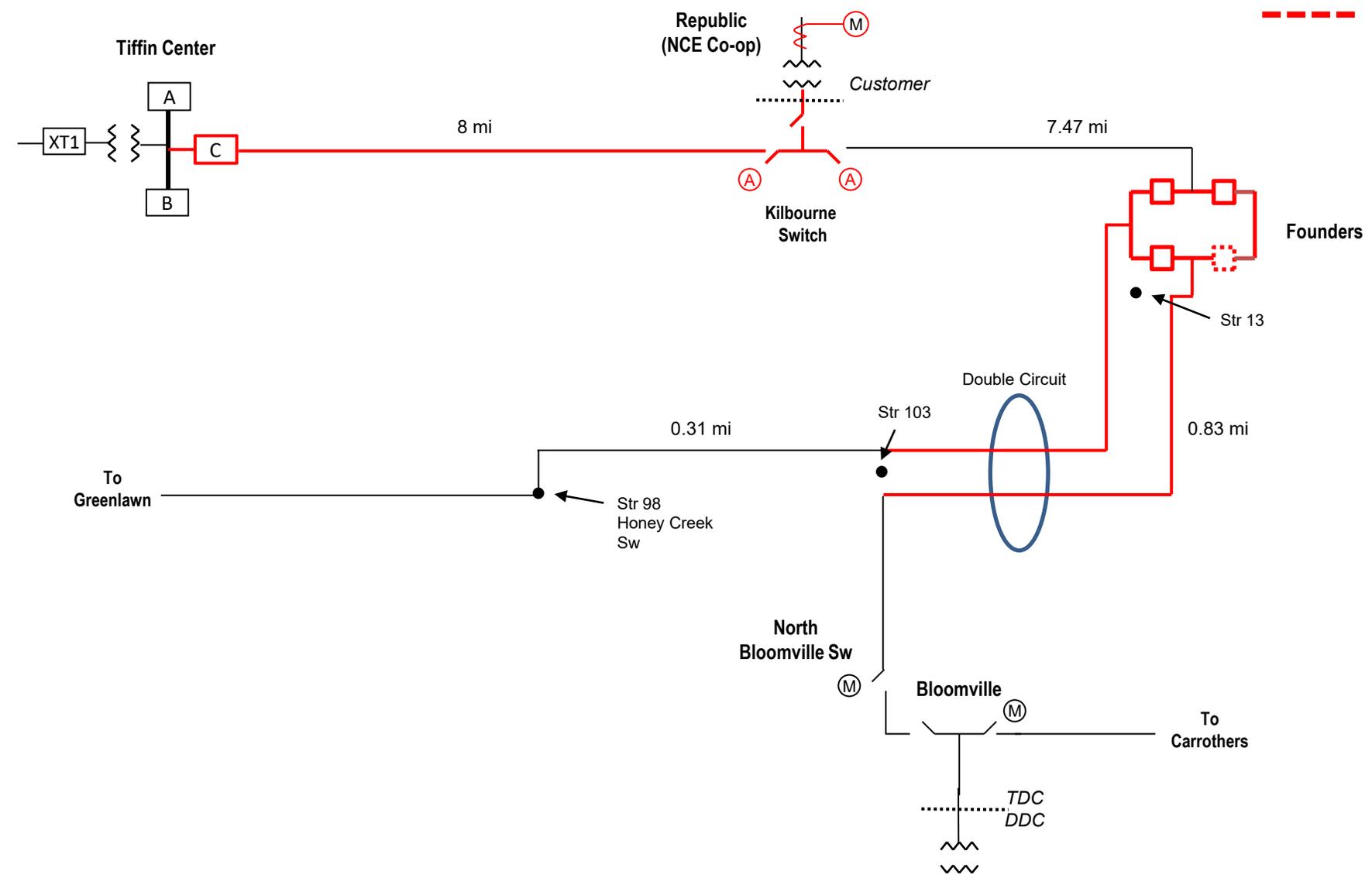
Master Project System Electrical Diagram (Existing)

- Existing
- Proposed
- Related Projects
- - - Future Projects



Master Project System Electrical Diagram (Proposed)

- Existing
- Proposed
- Related Projects
- - - Future Projects



Need Number: AEP-2019-OH031

Process Stage: Need Meeting 6/17/2019

Supplemental Project Driver:

Equipment Material/Condition/Performance/Risk

Specific Assumption Reference:

AEP Guidelines for Transmission Owner Identified Needs

Problem Statement:

Honey Creek SW - North Central Co-op Line Section (vintage 1955)

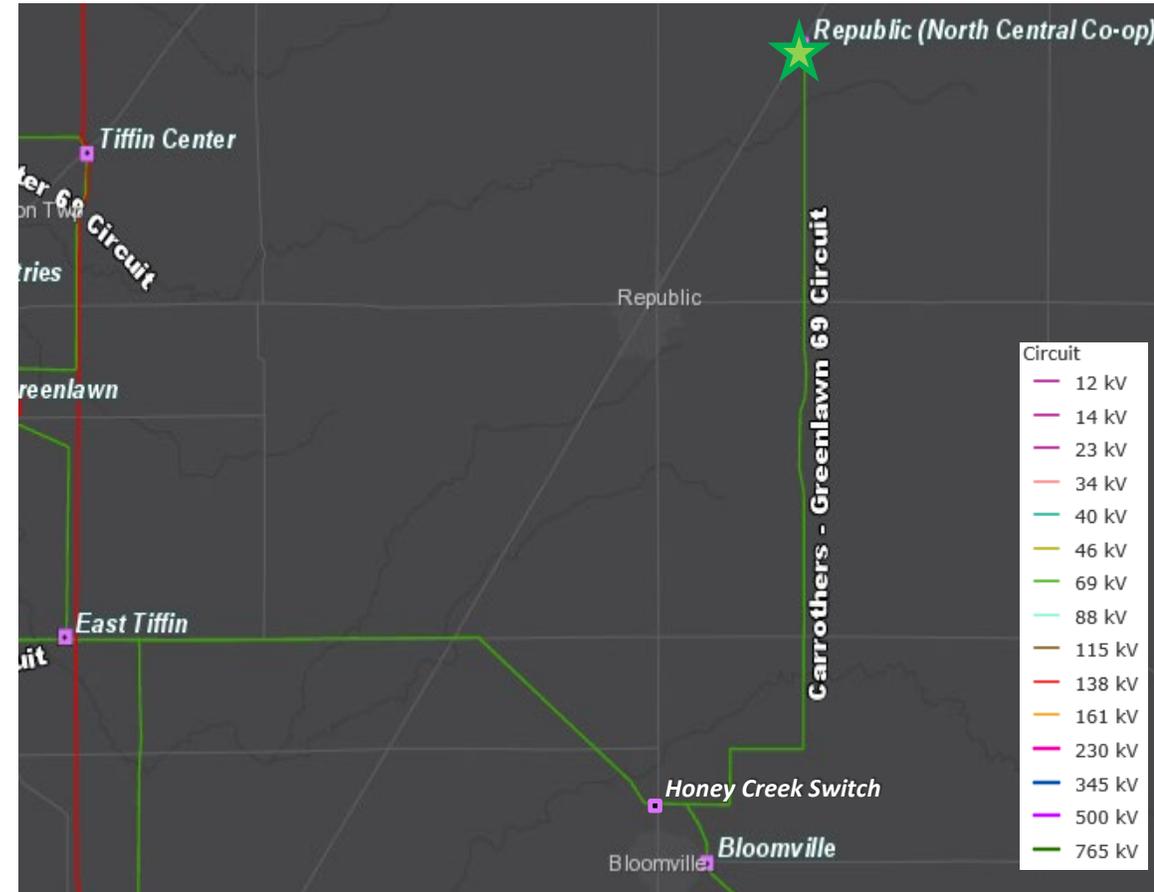
- Length: 8.06 Miles
- Original Construction Type: Wood
- Original Conductor Type: 1/0 ACSR 6/1 (Raven)
- Momentary/Permanent Outages: 13 in the past 5 years
- CMI: 2,505,168
- Number of open conditions: 46
 - Open conditions include: Damaged HP Insulators, Poles, Ground Lead, & Guy Wires

Additional Info: Radial service severely restricts the ability to perform routine maintenance and restoration activities.

The maintenance of radial transmission lines often requires costly temporary facilities or other labor-intensive measures involving energized work because a maintenance outage to such radial loads is generally not feasible.

Model: N/A

AEP Transmission Zone M-3 Process Republic, Ohio



1.	LINE NAME AND NUMBER:	Buckhorn - Black Diamond (s2149)
2.	POINTS OF ORIGIN AND TERMINATION	Buckhorn - Black Diamond INTERMEDIATE STATION - N/A
3.	RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS	0.8 mi / 100 ft / 1 circuit
4.	VOLTAGE: DESIGN / OPERATE	138 kV / 138 kV
5.	APPLICATION FOR CERTIFICATE:	2022
6.	CONSTRUCTION:	2023-2026
7.	CAPITAL INVESTMENT:	\$2.0M
8.	PLANNED SUBSTATION:	Black Diamond
9.	SUPPORTING STRUCTURES:	Steel
10.	PARTICIPATION WITH OTHER UTILITIES	N/A
11.	PURPOSE OF THE PLANNED TRANSMISSION LINE	New 138 kV line extension to serve Buckhorn from Black Diamond (formally South Millersburg)
12.	CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION	Increased risk of equipment failure, reliability, and operational issues
13.	MISCELLANEOUS:	
1.	LINE NAME AND NUMBER:	Tiffin Center - Founders s2637 TP2020011
2.	POINTS OF ORIGIN AND TERMINATION	Tiffin Center - Founders INTERMEDIATE STATION -Kilbourne Switch
3.	RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS	15.57 mi / 60 ft / 1 circuit (8 mi is the proposed line/rebuild)
4.	VOLTAGE: DESIGN / OPERATE	69 kV /69 kV
5.	APPLICATION FOR CERTIFICATE:	N/A
6.	CONSTRUCTION:	2023 - 2024
7.	CAPITAL INVESTMENT:	\$11.99 M
8.	PLANNED SUBSTATION:	Founders
9.	SUPPORTING STRUCTURES:	Steel
10.	PARTICIPATION WITH OTHER UTILITIES	N/A
11.	PURPOSE OF THE PLANNED TRANSMISSION LINE	This line will establish a new 69kV connection between Republic station and Tiffin Center station.
12.	CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION	Increased risk of equipment failure & customer outages

Appendix C Agency Correspondence



In reply, refer to
2013-SEN-26215

October 11, 2023

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

RE: Melmore-Tiffin Center 138kV Transmission Line Adjustment Project, Clinton Township, Seneca County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received October 2, 2023 regarding the proposed Melmore-Tiffin Center 138kV Transmission Line Adjustment Project, Clinton Township, Seneca County, 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 *An Addendum Cultural Resource Management Review for Melmore-Tiffin Center 138kV Transmission Line Adjustment Project in Clinton Township, Seneca 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. No previously identified archaeological sites are located within the project area and no new archaeological sites were identified. Our office agrees no additional archaeological survey is needed. No additional architecture resources 50 years old or older are located within the Area of Potential Effect (APE).

Based on the information provided, we continue to agree the project as proposed will have no 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. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1100049



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

John Kessler, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6621
Fax: (614) 267-4764

April 20, 2022

Eric Duenkel
POWER Engineers, Inc.
11733 Chesterdale Road
Cincinnati, OH 45246

Re: 22-0310; AEP Republic - Tiffin Center 69kV Transmission Line Install Project

Project: The project proposes to install a new approximately 8-mile 69 kV transmission line, connecting the North Central Cooperative Republic Substation and the AEP Ohio Tiffin Substation.

Location: The proposed project is located in Liberty and Tiffin Townships, Seneca 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: The Natural Heritage Database has the following data at or within one mile of the project area:

Western Meadowlark (*Sturnella neglecta*), SI

The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened.

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

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

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

The project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, and the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Erin Hazelton at Erin.hazelton@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW 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 \geq 20 if possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS “*Range-wide Indiana Bat 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 Erin Hazelton 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 must not have an impact on freshwater native mussels at the project site. This applies to both listed and non-listed species. Per the Ohio Mussel Survey Protocol (2020), 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. This is further explained within the Ohio Mussel Survey Protocol. 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, as a last resort, 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. The Ohio Mussel Survey Protocol (2020) can be found at:

<https://ohiodnr.gov/static/documents/wildlife/permits/dow-protocol-ohio-mussel-survey.pdf>

The project is within the range of the longnose sucker (*Catostomus catostomus*), a state endangered fish, and the greater redhorse (*Moxostoma valenciennesi*), a state threatened fish. The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the Blanding's turtle (*Emydoidea blandingii*), a state threatened species. This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but also is known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the king rail (*Rallus elegans*), a state endangered bird. Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh vegetation. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the loggerhead shrike (*Lanius ludovicianus*), a state endangered bird. The loggerhead shrike nests in hedgerows, thickets and fencerows. They hunt over hayfields, pastures, and other grasslands. If thickets or other types of dense shrubby habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

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

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands,

seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). 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 type of 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. Your local floodplain administrator contact information can be found at the website below.

<https://ohiodnr.gov/static/documents/water/floodplains/Floodplain%20Administrator%20List.pdf>

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

From: [Ohio_FW3](#)
To: [Ehlinger, Nathan](#)
Cc: nathan.reardon@dnr.state.oh.us; [Parsons, Kate](#)
Subject: [EXTERNAL] AEP Tiffin Center-Kilbourne Switch 69 kV Transmission Line Install Project, Seneca County, Ohio
Date: Monday, April 18, 2022 11:34:26 AM
Attachments: [image.png](#)
[image.png](#)

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



Project Code: 2022-0024751

Dear Mr. Ehlinger,

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

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

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. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/angered/mammals/nleb/index.html> [fws.gov]), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present. If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana 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 it is important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf [epa.ohio.gov]). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

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

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

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrice Ashfield". The signature is fluid and cursive, with a large initial "P" and a long, sweeping underline.

Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW

Appendix D Ecological Survey Report

MELMORE – TIFFIN CENTER 138 KV TRANSMISSION LINE ADJUSTMENT PROJECT ECOLOGICAL SURVEY REPORT



PROJECT NO.: 31300107.075
DATE: DECEMBER 2023

AEP TRANSMISSION
8500 SMITH'S MILL ROAD
NEW ALBANY, OH 43054



An AEP Company

BOUNDLESS ENERGY™

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1 INTRODUCTION

On behalf of American Electric Power (AEP) Ohio Transmission Company, Inc. (AEP Ohio Transco), WSP USA (WSP) conducted environmental surveys for the proposed Melmore-Tiffin Center 138 kV Transmission Line Adjustment Project (“Project”), located in Clinton Township, Seneca County, Ohio.

The environmental survey included a wetland and water resource delineation and characterization of potential habitat for state and federally listed species. The wetland delineation was performed to determine whether wetlands and streams are present within the vicinity of the Project which would meet the definition of Waters of the United States (WoUS) or be subject to regulations implemented by the Ohio Environmental Protection Agency (OEPA), and if present to document their extents and current conditions. The wetland delineation was performed by individuals trained in the three-parameter methodology (hydrophytic vegetation, wetland hydrology, and hydric soils) adopted by the U.S. Army Corps of Engineers (USACE) as outlined in the USACE *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral/Northeast Region (Version 2.0)* (USACE, 2011) and in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987).

The report presents the results of the ecological considerations and review of the site’s existing and reasonably foreseeable site conditions at the time of the environmental survey. The results cannot apply to site changes occurring after the survey which WSP has not had the opportunity to review. During the course of any survey, site conditions may change over time due to human and/or natural causes; as such, the results presented in this report may be invalidated, either wholly or in part, by changes beyond the control of WSP.



2 BACKGROUND INFORMATION

2.1 PROJECT AREA

The Project is located within Clinton Township, Seneca County, Ohio. The Environmental Survey Area (ESA) is 11.75 acres. The Project is located at the Tiffin Center Station (approximate coordinates: 41.1440°, -83.1277°) northeast of the City of Tiffin (Figure 1, Appendix A). The ESA is located within the Tiffin North, Ohio U.S. Geological Survey (USGS) 7.5-minute topographic map quadrangle boundaries. Table 2-1 provides an overview of the project location.

TABLE 2-1: GENERAL PROJECT INFORMATION

COUNTY:	Seneca
TOWNSHIP:	Clinton
END POINT COORDINATES:	Tiffin Center Substation: 41.1440°, -83.1277°
USGS QUADRANGLE BOUNDARIES:	Tiffin North
ENVIRONMENTAL SURVEY AREA SIZE (ac.):	11.75
ELEVATION RANGE (ft. above sea level):	769 – 775
8-DIGIT HYDROLOGIC UNIT CODE:	04100011
12-DIGIT HYDROLOGIC UNIT CODE(S) :	04100011-01-02 04100011-01-05
DATE(S) OF SURVEY :	October 6, 2023

2.1.1 DRAINAGE BASINS

All streams in the vicinity of the ESA drain to the Sandusky River, which is a traditionally navigable waterway (TNW). The ESA is located within the Sandusky (Hydrologic Unit Code [HUC] 04100011) drainage basin. The ESA lies within two 12-digit HUCs, as outlined in Table 2-2 (USDA, 2019).

The OEPA 401 Water Quality Certification for the Nationwide Permits Web Mapping Application indicates that field-assessed streams within both of the 12-digit sub-watersheds are denoted as “Eligible.” According to the OEPA, impacts to streams in an “Eligible” watershed do not require an individual Section 401 water quality certification provided that general and regional limitations and conditions for the nationwide permits are met (OEPA, 2020).

TABLE 2-2: 12-DIGIT HUC’S CROSSED BY THE PROJECT

8-DIGIT HUC CODE ¹	8-DIGIT HUC CODE NAME ¹	12-DIGIT HUC CODE ¹	12-DIGIT HUC NAME ¹	OHIO EPA SECTION 401 ELIGIBILITY ²
04100011	Sandusky	04100011-01-02	Morrison Creek	Eligible
		04100011-01-05	Spicer Creek – Sandusky River	Eligible



TABLE 2-2: 12-DIGIT HUC'S CROSSED BY THE PROJECT

8-DIGIT HUC CODE ¹	8-DIGIT HUC CODE NAME ¹	12-DIGIT HUC CODE ¹	12-DIGIT HUC NAME ¹	OHIO EPA SECTION 401 ELIGIBILITY ²
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¹Source: USDA, 2019

²Source: OEPA, 2020



3 METHODOLOGY

On October 6, 2023 a WSP ecologist traversed the 11.75 acre ESA to conduct a wetland and waters delineation. The physical boundaries of aquatic resources were recorded using a Trimble Global Positioning System (GPS) unit rated for sub-decimeter accuracy. The GPS data was then geo-corrected using Trimble GPS Pathfinder Office software (version 5.60) and reviewed for quality control.

Prior to conducting field surveys, the WSP ecologist completed a desktop review by analyzing several federal and state documents for the presence of wetlands and streams. This review included Natural Resources Conservation Service (NRCS) soil survey data, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps of Ohio, USGS 7.5-minute topographic maps, and USGS National Hydrography Dataset (NHD) stream and river data as an exercise to identify the occurrence and location of potential wetlands and streams.

3.1 WETLAND AND STREAM DELINEATION

3.1.1 WETLAND DELINEATION

The USACE and the U.S. Environmental Protection Agency (USEPA) define wetlands as areas inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR, Part 328.3).

Wetlands were delineated according to Section 404 of the Clean Water Act, Technical Report Y-87-1 *Corps of Engineers Wetlands Delineation Manual ('87 Manual)* (Environmental Laboratory, 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral/Northeast, (Version 2.0) (Regional Supplement)* (USACE, 2011). Representative data points were collected for wetlands and corresponding, adjacent upland areas. Wetland data was recorded on the USACE *Regional Supplement Wetland Determination Data Forms*.

Wetland vegetation communities were classified according to the *Classification of Wetlands and Deepwater Habitats of the United States*, commonly referred to as the Cowardin Classification System (Cowardin et al., 1979). Wetlands within the ESA were assessed using the OEPA *Ohio Rapid Assessment Method for Wetlands v. 5.0 (ORAM)* to determine the ecological quality and level of disturbance (Mack, 2001).

3.1.2 STREAM DELINEATION AND ASSESSMENT

Streams were identified by the presence of a defined bed and bank, and evidence of an ordinary high water mark (OHWM). The OHWM is defined in the USACE *Regulatory Guidance Letter No. 05-05* (USACE, 2005). Generally, the OHWM is identified by a clearly defined, natural line along the stream bank created by fluctuations and flow of water; this may include changes in contours, substrate, vegetation, and debris (USACE, 2005).

Stream assessments were conducted using the methods described in the OEPA's *Methods for Assessing Habitat in Flowing Waters: Using OEPA's Qualitative Habitat Evaluation Index* (Rankin, 2006) and *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams, Version 3* (Davic, 2012).



4 RESULTS

A WSP ecologist surveyed the ESA on October 6, 2023 by walking the 11.75-acre ESA and evaluating for wetlands and other WoUS. The WSP ecologist did not identify any wetlands or streams within the ESA. A representative upland verification point was taken and is depicted on the Delineated Features Map (Figure 3, Appendix A).

4.1 DESKTOP REVIEW

4.1.1 SOILS EVALUATION

According to the NRCS Soil Data for Seneca County, Ohio, there are three soil map units identified within the ESA, as presented in Table 4-1 and Figure 2 (Appendix A). The soils observed by the WSP ecologist during the reconnaissance of the ESA were consistent with the NRCS soil survey mapping.

TABLE 4-1: SOIL UNITS MAPPED WITHIN THE ESA

SOIL UNIT SYMBOL	SOIL UNIT NAME	PERCENT HYDRIC	HYDRIC RATING ¹	AREA WITHIN ESA (ac.)
BdB	Belmore loam, 2 to 6 percent slopes	0	Non-Hydric	7.21
DmA	Digby loam, 1 to 4 percent slopes	5	Predominantly Non-Hydric	1.58
Mf	Millgrove loam	95	Predominately Hydric	2.96
Total Area of Non-Hydric Soils				7.21
Total Area of Predominantly Non-Hydric Soils				1.58
Total Area of Predominately Hydric Soils				2.96

¹Non-Hydric = 0% hydric soil component; Predominantly Non-Hydric = 1-32%; Partially Hydric =33-65%; Predominantly Hydric = 66-99%; and All Hydric = 100%. Source: Soil Survey Staff, NRCS. Web Soil Survey.

4.1.2 NATIONAL WETLAND INVENTORY REVIEW

According to the NWI maps of the Tiffin North, Ohio quadrangle boundary, there are no mapped NWI features within the 11.75-acre ESA, as is shown on Figure 2 (Appendix A).

4.1.3 FEMA FLOODPLAIN REVIEW

According to Federal Emergency Management Agency (FEMA) National Flood Hazard Layer, the Project does not cross any 100-year floodplains or flood hazard areas, as is shown on Figure 2 (Appendix A).

4.2 DELINEATED WETLANDS

No wetlands were identified during the October 6, 2023 environmental survey. A representative upland verification point (Upland MTC-1) was collected to confirm site conditions at the time of the environmental survey and is shown



on Figure 3 (Appendix A). The determination data form for Upland MTC-1 is included as Appendix B. Representative photographs of the ESA are included as Appendix C.

4.3 STREAMS AND RIVERS

No streams or rivers were identified during the October 6, 2023 environmental survey, as is shown on Figure 3 (Appendix A).

4.4 PONDS AND OPEN WATER

During the October 6, 2023 field surveys, the WSP ecologist did not identify any open water features within the ESA, as is shown on Figure 3 (Appendix A).

4.5 VEGETATIVE COMMUNITIES

The WSP ecologist conducted a general habitat survey in conjunction with the stream and wetland delineation. The ESA is best characterized by an existing electric utility substation surrounded by active agricultural land. Land uses and habitat types identified within the ESA are described below in Table 4-2. A breakdown of vegetated land cover is provided, overlain on aerial photography in Figure 4 (Appendix A).

TABLE 4-2: VEGETATIVE COMMUNITIES WITHIN THE ESA

VEGETATIVE COMMUNITY	DESCRIPTION	ACREAGE WITHIN THE ESA	PERCENTAGE OF ESA
Cultivated Cropland	Agricultural land primarily consisting of soybean fields were present within the ESA.	7.18	61.1%
Developed, High Intensity	These areas consist of developed residential, industrial, and commercial land uses, including roads, buildings, and parking lots. These areas are generally devoid of significant vegetation.	2.55	21.7%
Developed, Open Space	Developed areas, including residential and commercial properties, were observed within the ESA. These landscaped areas are frequently mowed or maintained grasses and forbs.	0.53	4.5%
Hayfield	Areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20% of total vegetation.	1.25	10.6%
Successional Hardwood Forest	Upland forested areas dominated primarily by native deciduous hardwood species, including red maple (<i>Acer rubrum</i>), American beech (<i>Fagus grandifolia</i>), and American Sycamore (<i>Platanus occidentalis</i>) among others.	0.24	2.1%
Total		11.75	100%



4.6 THREATENED AND ENDANGERED SPECIES COORDINATION

4.6.1 USFWS COORDINATION

Coordination with the USFWS had been completed as part of the Republic-Tiffin Center 69 kV Transmission Line Project, which overlaps with the current Project ESA. In an email dated April 18, 2022 the USFWS provided comments with regard to federally listed threatened and endangered species within the Project vicinity. The USFWS indicated that there are no federal wildlife refuges, wilderness areas, or critical habitat within the vicinity of the Project. Comments from USFWS regarding protected species are provided in Table 4-3. The USFWS review comments has been included in Appendix D.

4.6.2 ODNR COORDINATION

The ODNR Environmental Review response dated April 20, 2022 included comments from the Ohio Natural Heritage Database Program, Division of Wildlife (DOW), and Division of Water Resources. A review of the Natural Heritage Database identified records of western meadowlark (*Sturnella neglecta*) within a one-mile radius of the Republic-Tiffin Center 69 kV Transmission Line Project. It is unclear where this record occurs in relation to the current Project ESA. No records of high-quality native communities or protected natural areas were identified. However, the ESA lies within the ranges of multiple state listed species. Using this as guidance, WSP has provided observations of threatened and endangered species habitat within the vicinity of the ESA in Table 4-3. The ODNR Environmental Review has been included in Appendix D.

Per ODNR comments, WSP conducted a desktop review for potential hibernacula within a 0.25-mile radius of the ESA. No known mine openings occur within the 0.25-mile-radius desktop review area. The ESA does lie within an area underlain by carbonate bedrock, but records of individual, exposed karst features are not recorded. Evidence of mines, caves, or exposed bedrock were not observed in a review of topographic mapping or aerial imagery. In addition, suitable hibernacula were not observed during the October 6, 2023 environmental survey. Results of the desktop review are displayed in Figure 5 (Appendix A).



TABLE 4-3: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESA	AGENCY COMMENT	WSP IMPACT ASSESSMENT
Mammals						
Indiana bat (<i>Myotis sodalis</i>)	Endangered	Endangered	<p>Winter hibernacula are provided by caves and mines. Summer roost habitat typically includes live or dead trees with exfoliating bark, crevices, or cavities that can be used for roosting. Open sub-canopy areas and flight corridors are important to allow maneuvering during foraging. Proximity to water sources provides a greater density of insect prey.</p>	<p>Yes (Summer)</p>	<p>USFWS and ODNR comments recommended seasonal tree clearing dates (October 1 through March 31) to avoid impacts protected bat species and a desktop hibernacula survey to be completed for presence of potential winter habitat.</p>	<p>The project is within the vicinity of records of Indiana bat and northern long-eared bat.</p>
tri-colored bat (<i>Perimyotis subflavus</i>)	Endangered	Not Listed			<p>Potentially suitable summer habitat may be provided by forested areas within the ESA.</p>	
northern long-eared bat (<i>Myotis septentrionalis</i>)	Threatened	Threatened			<p>No potential hibernacula were identified within 0.25-miles of the ESA.</p>	
little brown bat (<i>Myotis lucifugus</i>)	Endangered	Not Listed			<p>No impact to these species or their habitat is anticipated if seasonal tree-clearing windows are observed.</p>	



TABLE 4-3: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESA	AGENCY COMMENT	WSP IMPACT ASSESSMENT
Reptiles						
Blanding's turtle (<i>Emydoidea blandingii</i>)	Threatened	Not Listed	This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next.	No	ODNR indicated that due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact these species.	No impact to these species or their habitat is anticipated to occur.
spotted turtle (<i>Clemmys guttata</i>)	Threatened	Not Listed	This species prefers fens, bogs and marshes, but also is known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches.	No		
Fish						
longnose sucker (<i>Catostomus Catostomus</i>)	Endangered	Not Listed	Inhabits cold, clear waters, including lakes, pools, rivers and streams, and occasionally also brackish waters	No	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 these or other aquatic species.	No in-stream work is anticipated, therefore no impacts to these species or their habitat is anticipated.
greater redhorse (<i>Moxostoma valenciennesi</i>)	Threatened	Not Listed	Partial to clean, fresh water. It is usually found in the sandy or rocky bottoms of medium to large rivers, creeks, and lakes. It needs clean gravel or riffles in order to spawn.	No		
Birds						
king rail (<i>Rallus elegans</i>)	Endangered	Not Listed	Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh vegetation.	No	If this type of habitat will be impacted, construction should be avoided in this habitat	Potentially suitable habitat was not identified within the ESA, therefore no impacts to these species or their



TABLE 4-3: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESA	AGENCY COMMENT	WSP IMPACT ASSESSMENT
least bittern (<i>Ixobrychus exilis</i>)	Threatened	Not Listed	This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water.	No	during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.	habitat are anticipated to occur.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	Endangered	Not Listed	Nests in hedgerows, thickets and fencerows. Prefer hayfields, pastures, and other grasslands for catching prey.	No	If thickets or other types of dense shrubby habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 through July 31. If this habitat will not be impacted, the project is not likely to impact this species.	Potentially suitable habitat was not identified within the ESA, therefore no impacts to these species or their habitat are anticipated to occur.
northern harrier (<i>Circus hudsonis</i>)	Endangered	Not Listed	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.	No	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, the project is not likely to impact this species.	Potentially suitable habitat was not identified within the ESA, therefore no impacts to these species or their habitat are anticipated to occur.
Upland sandpiper (<i>Bartramia longicauda</i>)	Endangered	Not Listed	Utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and ungrazed pasture,	No	If this type of habitat will be impacted, construction should be avoided	Potentially suitable habitat was not identified within the ESA, therefore no impacts to these



TABLE 4-3: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESA	AGENCY COMMENT	WSP IMPACT ASSESSMENT
			hayfields, and grasslands established through the Conservation Reserve Program (CRP).		in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, the project is not likely to impact this species.	species or their habitat are anticipated to occur.
Western Meadowlark (<i>Sturnella neglecta</i>)	State Listed	Not Listed	Nests and forages in open grasslands, meadows, pastures, and fields of low-growing vegetation, or along marshes and road edges with sparse cover.	No	ODNR – NHD record within a one mile radius of the project area USFWS – n/a	Potentially suitable habitat was not identified within the ESA, therefore no impacts to these species or their habitat are anticipated to occur.



5 SUMMARY

WSP conducted environmental surveys of the 11.75-acre Melmore-Tiffin Center 138 kV Transmission Line Adjustment Project on October 6, 2023. No wetlands or streams were identified by the WSP ecologist within the 11.75-acre ESA. No potential hibernacula were identified within 0.25 miles of the ESA and no potential hibernacula were identified within the ESA during the field survey (Figure 5).

Based on observations within the ESA during environmental surveys, USFWS comments, and ODNR comments, potential impacts to the Indiana bat and northern long-eared bat and any other state-listed bat species are not anticipated if the recommended seasonal clearing dates are utilized. Forested areas that would typically provide potential summer roost habitat for bat species were located within the ESA; however, seasonal clearing windows are recommended to limit impacts to these species or their habitat.

WSP performed a desktop review for potential hibernacula within the vicinity of the Project as a result of comments from ODNR relating to state and federally listed bat species and the findings are depicted on Figure 5, Bat Hibernacula Map. Topographic maps did not depict caves, cliffs/ledges, or karst features within a 0.25-mile radius of the ESA. A review of aerial imagery also did not provide evidence of these habitat types. No abandoned underground mines (AUMs) or potential hibernacula were identified within 0.25 miles of the ESA and no potential hibernacula were identified within the ESA during the field survey. If any tree clearing will occur outside the recommended clearing window (October 1st – March 31st) appropriate coordination with USFWS and ODNR will occur to seek permission for out of season tree clearing.

Since no streams were delineated, no mussel surveys are necessary related to protected mussel species. Additionally, no construction timing windows are required to protect any state and/or federally listed fish species.

Potentially suitable habitat for the three identified listed bird species (northern harrier, king rail, and least bittern) was not identified within the ESA. The majority of the vegetative coverage within the ESA was comprised of cultivated cropland and developed land uses, among others which were less prevalent. Based on the habitat type, size, and quality requirements of the identified state-listed bird species, no impacts to these species or their habitat is anticipated to occur as a result of Project activities.

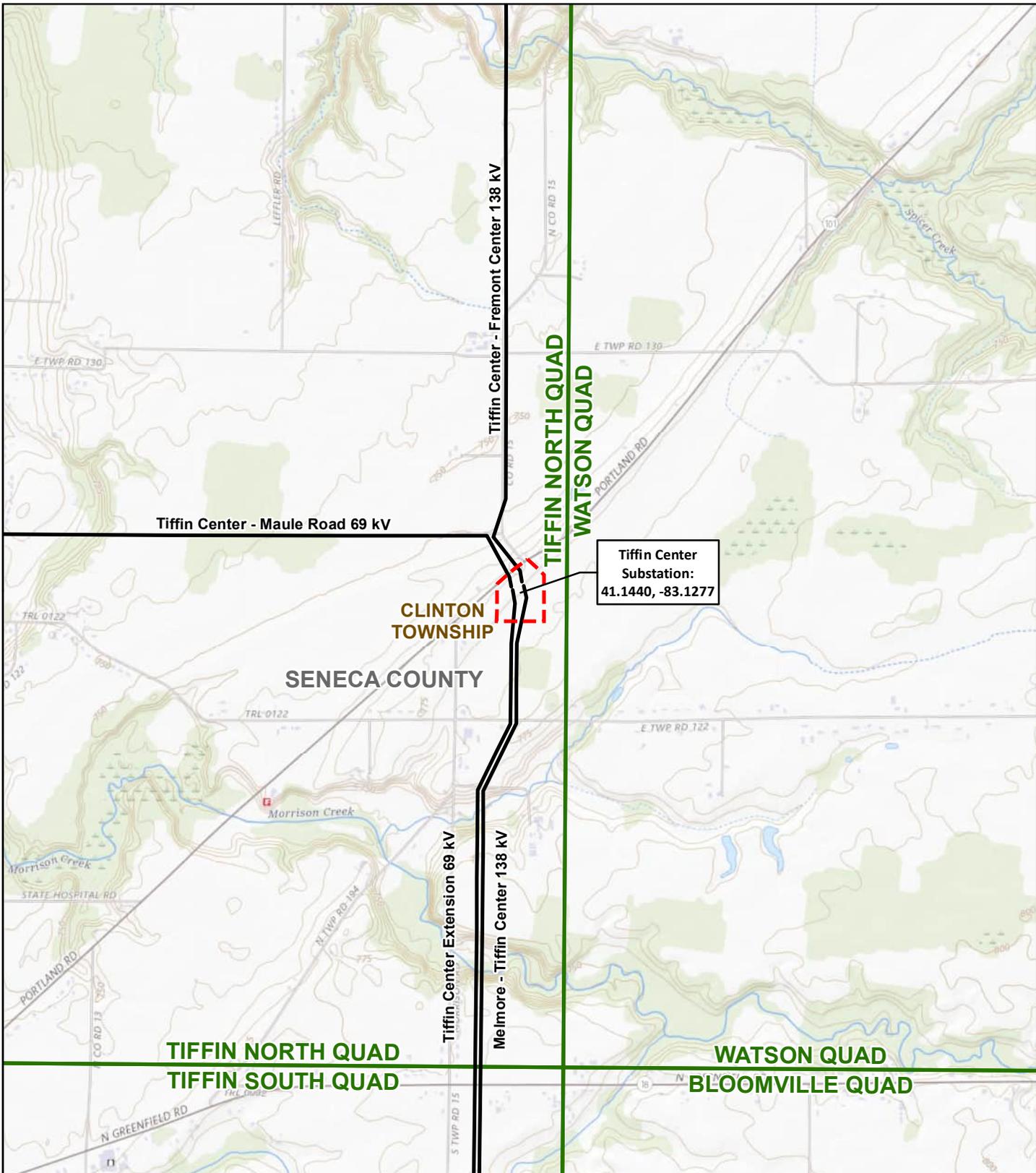


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APPENDIX

A FIGURES



Tiffin Center Substation:
41.1440, -83.1277

-  Existing Transmission Line
-  Environmental Survey Area
-  USGS 24k Topo Quad Boundary
-  Township Boundary
-  County Boundary

Sources:
Topo (USGS)
Quad Boundaries (USGS)

Coordinate System:
State Plane Ohio North
NAD 1983

October 16, 2023

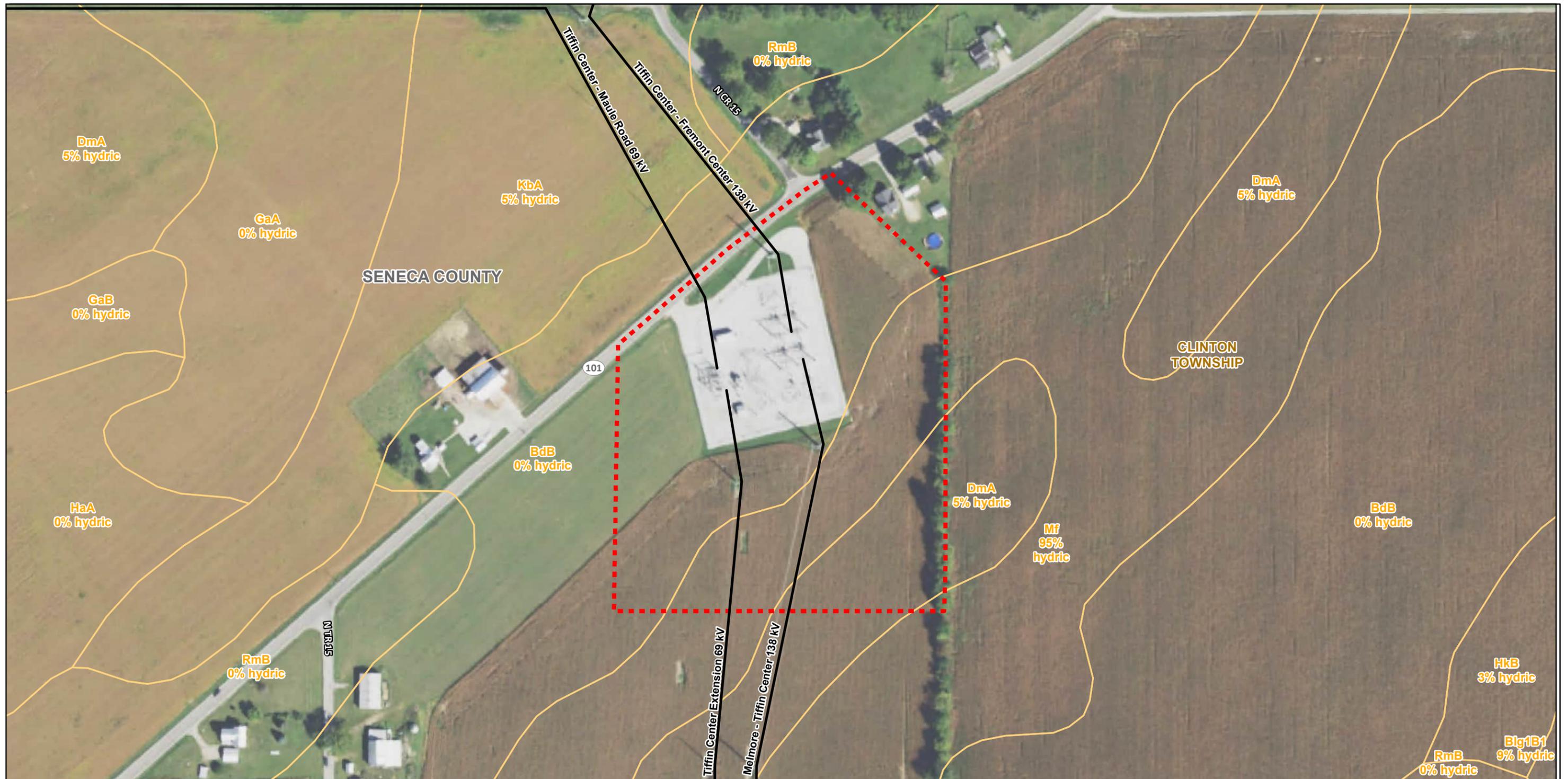


MELMORE – TIFFIN CENTER 138 kV
TRANSMISSION LINE ADJUSTMENT
Figure 1. Project Location Map



0 1,000 2,000 Feet





-  Existing Transmission Line
-  Environmental Survey Area
-  Soil Map Unit
-  Township Boundary
-  County Boundary

Sources:
 2021 Imagery (NAIP)
 Census Boundaries (ESRI)
 Floodplains (FEMA)
 Hydrography (USGS)
 Soil Units (USDA)
 Transportation (ODOT)
 Wetlands (USFWS)

Coordinate System:
 Ohio State Plane North
 NAD 1983

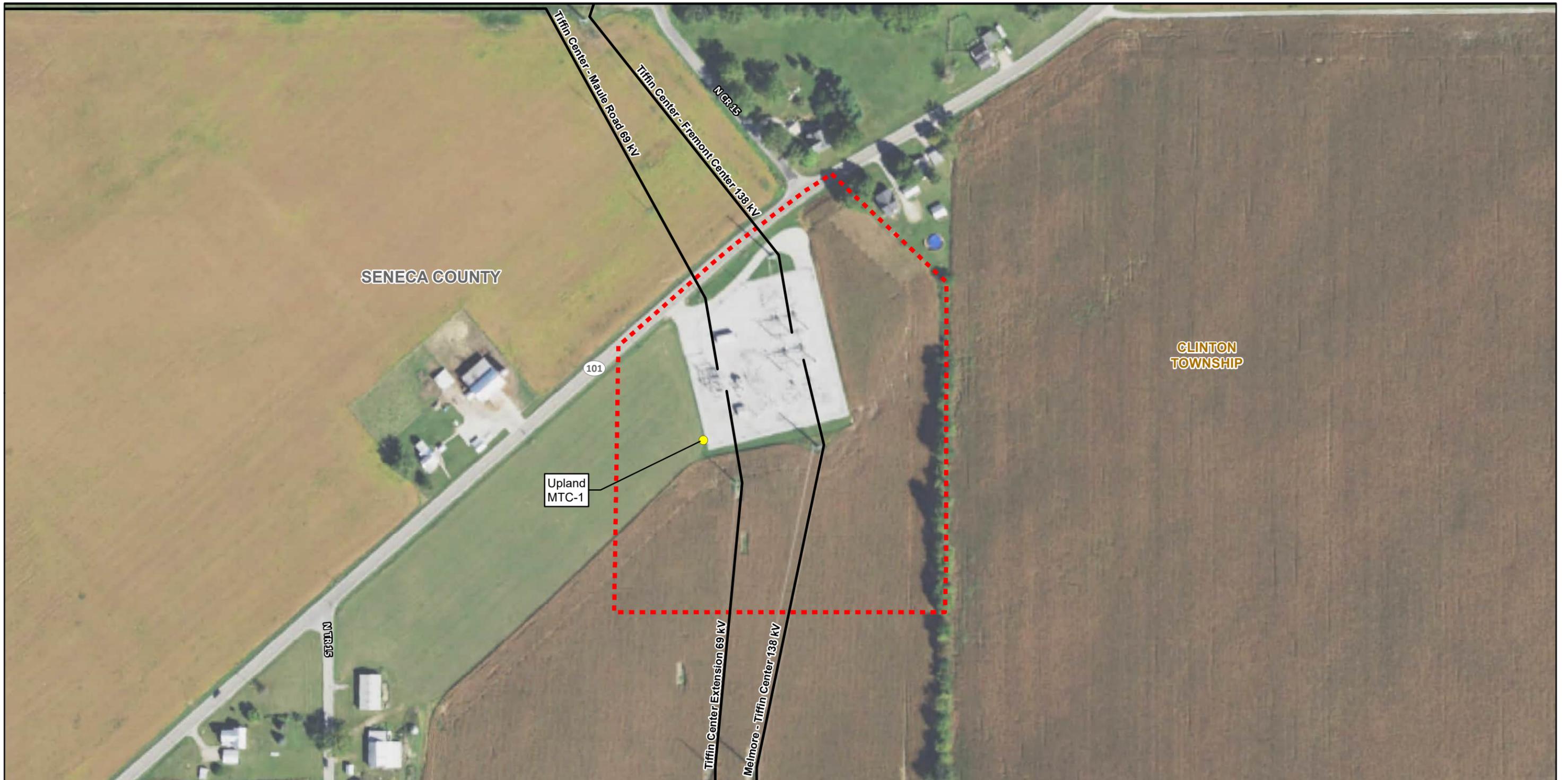
October 16, 2023



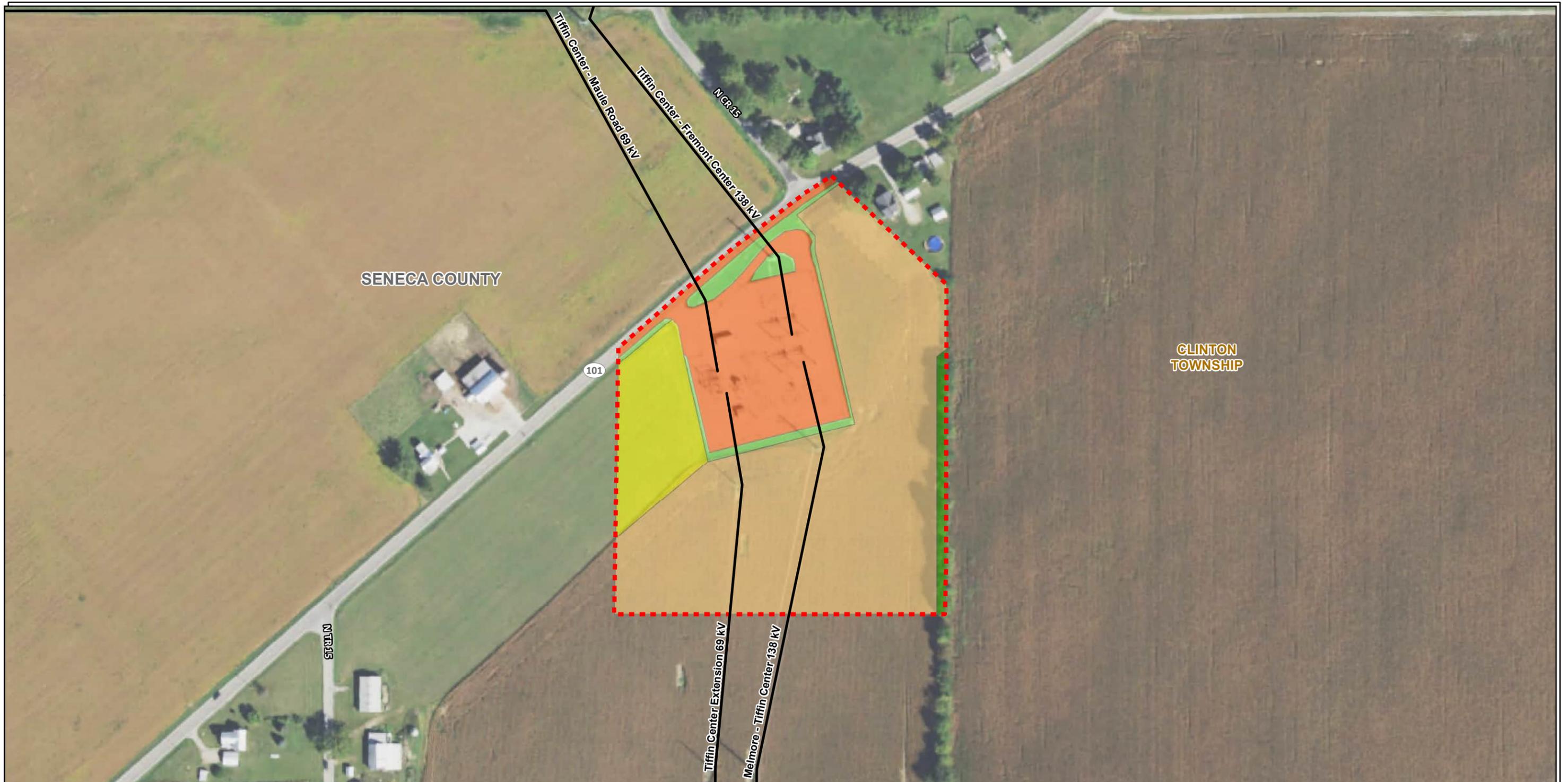
MELMORE - TIFFIN CENTER 138 KV
 TRANSMISSION LINE ADJUSTMENT
Figure 2. Environmental Basemap



Note: No FEMA-designated 100-year floodplain or floodway in current map extent. No NWI wetlands, NHD waterbodies, or NHD streams in current map extent.



<p>Page 1 of 1</p> <ul style="list-style-type: none"> ● Upland Data Point Existing Transmission Line Environmental Survey Area Township Boundary County Boundary 	<p>Sources: 2021 Imagery (NAIP) Census Boundaries (ESRI) Transportation (ODOT)</p>		<p>MELMORE - TIFFIN CENTER 138 KV TRANSMISSION LINE ADJUSTMENT</p> <p>Figure 3. Delineated Features</p>
<p>Coordinate System: Ohio State Plane North NAD 1983</p>		<p>0 200 400 Feet</p>	
<p>October 16, 2023</p>			



-  Existing Transmission Line
-  Environmental Survey Area
-  Cultivated Cropland
-  Developed, High Intensity
-  Developed, Open Space
-  Hayfield
-  Successional Hardwood Forest

-  Township Boundary
-  County Boundary

Page 1 of 1

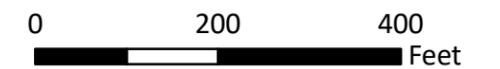
Sources:
2021 Imagery (NAIP)
Census Boundaries (ESRI)
Transportation (ODOT)

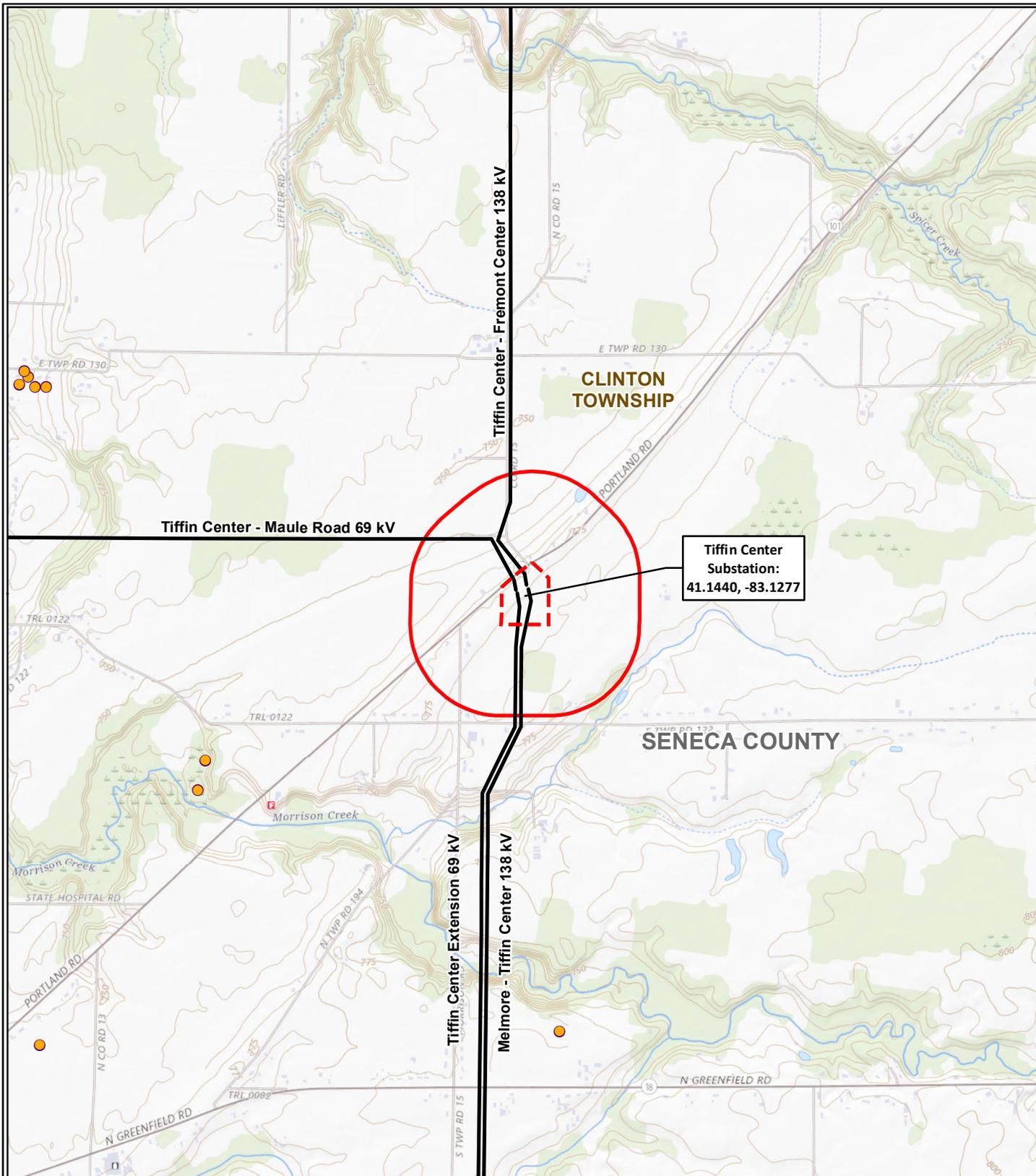
Coordinate System:
Ohio State Plane North
NAD 1983

October 16, 2023



MELMORE - TIFFIN CENTER 138 KV
TRANSMISSION LINE ADJUSTMENT
Figure 4. Vegetation Coverage





Tiffin Center Substation:
41.1440, -83.1277

- Karst Points
- Existing Transmission Line
- Environmental Survey Area
- 0.25-mile Radius Review Area
- Township Boundary
- County Boundary

Note: No mines or mine openings in current map extent. Project Area underlain by carbonate bedrock with > 20 ft of glacial drift.

Sources:
Topo (USGS)
Quad Boundaries (USGS)

Coordinate System:
State Plane Ohio North
NAD 1983

December 4, 2023



MELMORE – TIFFIN CENTER 138 kV
TRANSMISSION LINE ADJUSTMENT

Figure 5. Bat Hibernacula Desktop Review



APPENDIX

B USACE WETLAND DETERMINATION FORMS – NORTHCENTRAL/ NORTHEAST REGION

Project/Site: Melmore-Tiffin Center City/County: Seneca Sampling Date: 10/16/2023
 Applicant/Owner: American Electric Power (AEP) State: OH Sampling Point: UPL MTC-1
 Investigator(s): Philip Renner Section, Township, Range: _____
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): None Slope %: 1
 Subregion (LRR or MLRA): LRR L Lat: 41.875445 Long: -86.176259 Datum: NAD93
 Soil Map Unit Name: Belmore loam, 2 to 6 percent slopes NWI classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Representative data point on edge of hayfield and soy bean field	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
---	---

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	---

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

Remarks:
 No sign of wetland hydrology.

VEGETATION – Use scientific names of plants.

Sampling Point: UPL MTC-1

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 Feet</u>)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
	=Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15 Feet</u>)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
	=Total Cover			
Herb Stratum (Plot size: <u>5 Feet</u>)				
1.	<u><i>Trifolium repens</i></u>	15	No	FACU
2.	<u><i>Phleum pratense</i></u>	65	Yes	FACU
3.	<u><i>Taraxacum officinale</i></u>	5	No	FACU
4.	<u><i>Solidago canadensis</i></u>	5	No	FACU
5.	<u><i>Setaria viridis</i></u>	10	No	UPL
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
	100 =Total Cover			
Woody Vine Stratum (Plot size: <u>30 Feet</u>)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
	=Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>	
FACW species	<u>0</u>	x 2 =	<u>0</u>	
FAC species	<u>0</u>	x 3 =	<u>0</u>	
FACU species	<u>90</u>	x 4 =	<u>360</u>	
UPL species	<u>10</u>	x 5 =	<u>50</u>	
Column Totals:	<u>100</u> (A)		<u>410</u> (B)	
Prevalence Index = B/A =				<u>4.10</u>

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No X

Remarks: (Include photo numbers here or on a separate sheet.)

APPENDIX

C REPRESENTATIVE PHOTOGRAPHS

MELMORE-TIFFIN CENTER 138 KV TRANSMISSION LINE PROJECT

PHOTOGRAPH 1



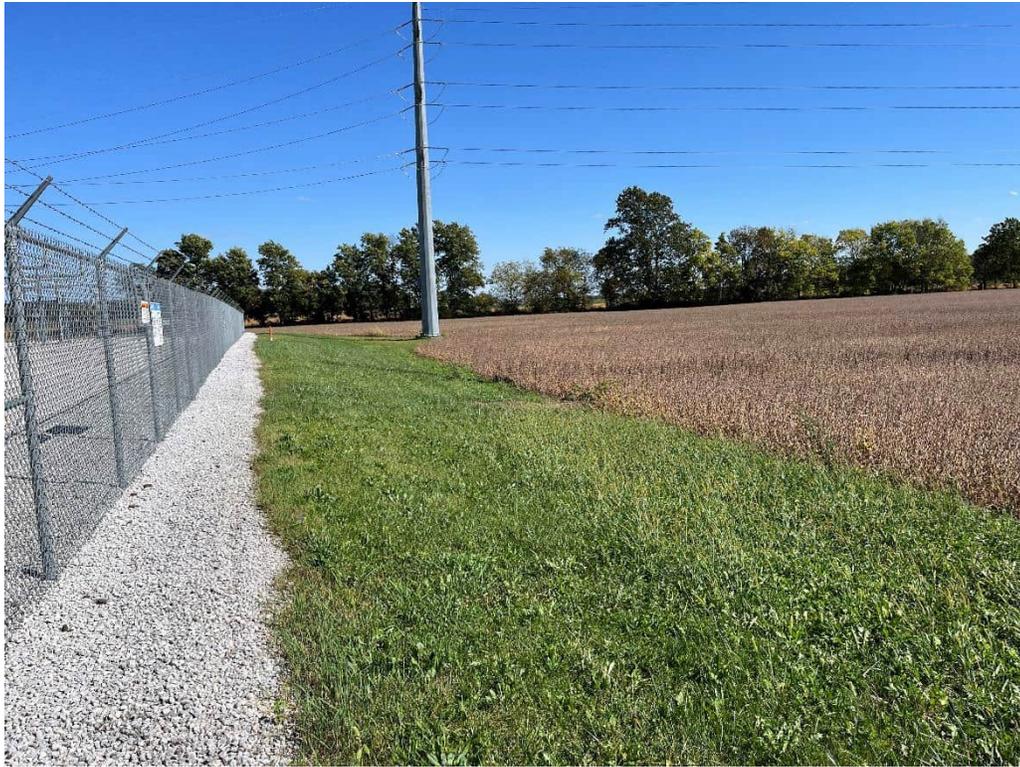
Upland MTC-1, facing north on October 6, 2023.

PHOTOGRAPH 2



Upland MTC-1, facing south on October 6, 2023.

PHOTOGRAPH 3



Upland MTC-1, facing east on October 6, 2023.

PHOTOGRAPH 4



Upland MTC-1, facing west on October 6, 2023.

PHOTOGRAPH 5



Representative view of hayfield in ESA, facing northwest on October 6, 2023.

PHOTOGRAPH 6



Representative view of agricultural land-use in ESA, facing northwest on October 6, 2023.

PHOTOGRAPH 7



Representative view of developed land use in ESA, facing west on October 6, 2023.

PHOTOGRAPH 8



Representative view of successional hardwood woodland in ESA, facing north on October 6, 2023.

APPENDIX

D AGENCY COORDINATION



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

John Kessler, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6621
Fax: (614) 267-4764

April 20, 2022

Eric Duenkel
POWER Engineers, Inc.
11733 Chesterdale Road
Cincinnati, OH 45246

Re: 22-0310; AEP Republic - Tiffin Center 69kV Transmission Line Install Project

Project: The project proposes to install a new approximately 8-mile 69 kV transmission line, connecting the North Central Cooperative Republic Substation and the AEP Ohio Tiffin Substation.

Location: The proposed project is located in Liberty and Tiffin Townships, Seneca 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: The Natural Heritage Database has the following data at or within one mile of the project area:

Western Meadowlark (*Sturnella neglecta*), SI

The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened.

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

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

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

The project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, and the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Erin Hazelton at Erin.hazelton@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW 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 \geq 20 if possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS “*Range-wide Indiana Bat 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 Erin Hazelton 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 must not have an impact on freshwater native mussels at the project site. This applies to both listed and non-listed species. Per the Ohio Mussel Survey Protocol (2020), 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. This is further explained within the Ohio Mussel Survey Protocol. 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, as a last resort, 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. The Ohio Mussel Survey Protocol (2020) can be found at:

<https://ohiodnr.gov/static/documents/wildlife/permits/dow-protocol-ohio-mussel-survey.pdf>

The project is within the range of the longnose sucker (*Catostomus catostomus*), a state endangered fish, and the greater redhorse (*Moxostoma valenciennesi*), a state threatened fish. The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the Blanding's turtle (*Emydoidea blandingii*), a state threatened species. This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but also is known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the king rail (*Rallus elegans*), a state endangered bird. Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh vegetation. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the loggerhead shrike (*Lanius ludovicianus*), a state endangered bird. The loggerhead shrike nests in hedgerows, thickets and fencerows. They hunt over hayfields, pastures, and other grasslands. If thickets or other types of dense shrubby habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

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

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands,

seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). 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 type of 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. Your local floodplain administrator contact information can be found at the website below.

<https://ohiodnr.gov/static/documents/water/floodplains/Floodplain%20Administrator%20List.pdf>

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

From: [Ohio_FW3](#)
To: [Ehlinger, Nathan](#)
Cc: nathan.reardon@dnr.state.oh.us; [Parsons, Kate](#)
Subject: [EXTERNAL] AEP Tiffin Center-Kilbourne Switch 69 kV Transmission Line Install Project, Seneca County, Ohio
Date: Monday, April 18, 2022 11:34:26 AM
Attachments: [image.png](#)
[image.png](#)

CAUTION: This Email is from an **EXTERNAL** source. **STOP. THINK** before you **CLICK** links or **OPEN** attachments.



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



Project Code: 2022-0024751

Dear Mr. Ehlinger,

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

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

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. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/angered/mammals/nleb/index.html> [fws.gov]), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present. If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana 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 it is important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf [epa.ohio.gov]). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

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

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

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrice Ashfield". The signature is fluid and cursive, with a large initial "P" and "A".

Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW