

PART 1 OF 3

*Application for Certificate of Environmental
Compatibility and Public Need*

Lott 138 kV Transmission Line Project

OPSB Case No. 22-0940-EL-BTX

Prepared for



An **AEP** Company

BOUNDLESS ENERGYSM

Submitted to
Ohio Power Siting Board

March 2023



BEFORE THE OHIO POWER SITING BOARD

Certificate Application for Electric Transmission Facilities

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Acronyms and Abbreviations

| | |
|-----------------|--|
| ACSR | Aluminum conductor, steel-reinforced cable |
| AEP | American Electric Power |
| AEP OpCo | AEP Ohio Power Company |
| BMP | best management practices |
| CMI | customer minutes of interruption |
| Customer | Consolidated Electric Cooperative, Inc. |
| Company | Ohio Power Company |
| dbh | Diameter at breast height |
| DOW | Division of Wildlife |
| ELF | Extremely low frequency |
| EMF | Electric and Magnetic Field |
| FAA | Federal Aviation Administration |
| GIS | Geographic Information System |
| HHEI | Headwater Habitat Evaluation Index |
| IARC | International Agency for Research on Cancer |
| ICNIRP | International Commission on Non-Ionizing Radiation Protection |
| IEEE | Institute of Electrical and Electronics Engineers |
| kcm | Thousand circular mil |
| kV | kilovolt |
| kV/m | kilovolt per meter |
| lbs | pounds |
| mG | milligauss |
| MHz | megahertz |
| MOAB | medium-voltage air-break |
| MSDS | Material Safety Data Sheet |
| N/A | not applicable |
| NIEHS | National Institute of Environmental Health Services |
| NPDES | National Pollutant Discharge Elimination System |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NWI | National Wetlands Inventory |
| OAC | Ohio Administrative Code |
| ODGS | Ohio Division of Geological Survey |
| ODNR | Ohio Department of Natural Resources |
| ODOT | Ohio Department of Transportation |

| | |
|------------------------|---|
| OEPA | Ohio Environmental Protection Agency |
| OHI | Ohio Historic Inventory |
| OHPO | Ohio Historic Preservation Office |
| OPSB | Ohio Power Siting Board |
| ORAM | Ohio Rapid Assessment Method |
| OSHA | Occupational Health and Safety Administration |
| POP | Phase-Over-Phase |
| Project | Lott 138 kV Transmission Line Project |
| QHEI | Qualitative Habitat Evaluation Index |
| ROW | right-of-way |
| RTEP | Regional Transmission Plan |
| SDS | Safety Data Sheet |
| Survey Corridor | 150-feet on either side of the centerline for the Preferred and Alternate Routes |
| SWPPP | stormwater pollution prevention plan |
| USACE | U.S. Army Corps of Engineers |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| WHO | World Health Organization |

4906-05-02 PROJECT SUMMARY AND APPLICATION INFORMATION

(A) PROJECT SUMMARY

Ohio Power Company (the “Company”) plans to construct a new 3.5 mile 138-kilovolt (kV) electric transmission line extending from the existing Lott Substation to the proposed Condit Switch, cumulatively known as the Lott 138 kV Transmission Line Project (the “Project”), in Delaware County, Ohio.

(1) General Purpose of the Facility.

The purpose of the Project is to upgrade the current 34.5 kV transmission network out of the American Electric Power (“AEP”) owned Trent and Centerburg Substations, currently serving Consolidated Electric Cooperative’s (the “Customer”) Lott Substation, to 138 kV transmission service to provide increased electric grid capacity and reliability for the Customer’s existing Lott Substation and surrounding customers.

(2) General Location, Size and Operating Characteristics

The Project is located in Porter and Trenton Townships, Delaware County, Ohio. The Project begins at the existing Lott Substation located north of Justamere Road on Condit Road 4.5 miles west of Centerburg, Ohio. The Project traverses south to the proposed Condit Switch, located along the existing Conesville-Trent 138 kV transmission line, which is along State Route 3, 1.4 miles northeast of Condit, Ohio. Work associated with the Condit Switch and associated Construction Notice application will be filed under a separate case number in summer 2023.

The Project includes a new 138 kV transmission line which is 3.5 miles in length. The new transmission line will be constructed within an 80-foot right-of-way (ROW). The Company will construct the new 138 kV transmission line using single-circuit steel monopole structures that are typically 65-90 feet in height, with the tallest structure anticipated to be 95 feet above ground. Other structure types may be used as necessary to address unique situations, such as heavy turn angles.

(3) Suitability of Preferred and Alternative Routes

A Siting Study, completed by the Company and their siting team, identified a Preferred and Alternate Route (Figure 2-1). The goal of the Siting Study was to gain an understanding of the constraints and opportunity features within a study area, facilitate the development of study segments and route alternatives, evaluate potential impacts associated with the route alternatives, and identify a preferred route and one or more alternative routes. The Siting Study report is included as Appendix 4-1.

(i) Preferred Route

The Preferred Route is 3.5 miles long and extends from the existing Lott Substation to the proposed Condit Switch. The transmission line extends directly south from the Lott Substation along Condit Road for 0.2 mile to Justamere Road, where it turns directly east for 0.9 mile parallel to Justamere Road. After crossing Lane Road, the Preferred Route turns southwest to cross Justamere Road, and then turns directly south for 2.4 miles to connect with the proposed Condit Switch.

(ii) Alternate Route

The Alternate Route is also 3.5 miles long and extends from the existing Lott Substation to the proposed Condit Switch. The transmission line extends directly south from the Lott Substation along Condit Road for 0.2 mile to Justamere Road, where it turns east parallel to Justamere Road for 0.3 mile and turns directly south, crossing Justamere Road, for 1.3 miles, turns southwest for 0.3 miles, back south for 0.6 mile, a second slight turn southwest for 0.1 mile, straightens directly south for 0.3 mile, and then turns east northeast for 0.4 miles to connect with the proposed Condit Switch.

(4) Schedule

The current construction schedule is planned to begin in January 2026, and the anticipated in-service date is November 2026. A detailed proposed Project schedule with key activities and milestones can be found in Section 4906-5-03 (F)(1) of this application.

(B) APPLICANT DESCRIPTION

(1) Company History

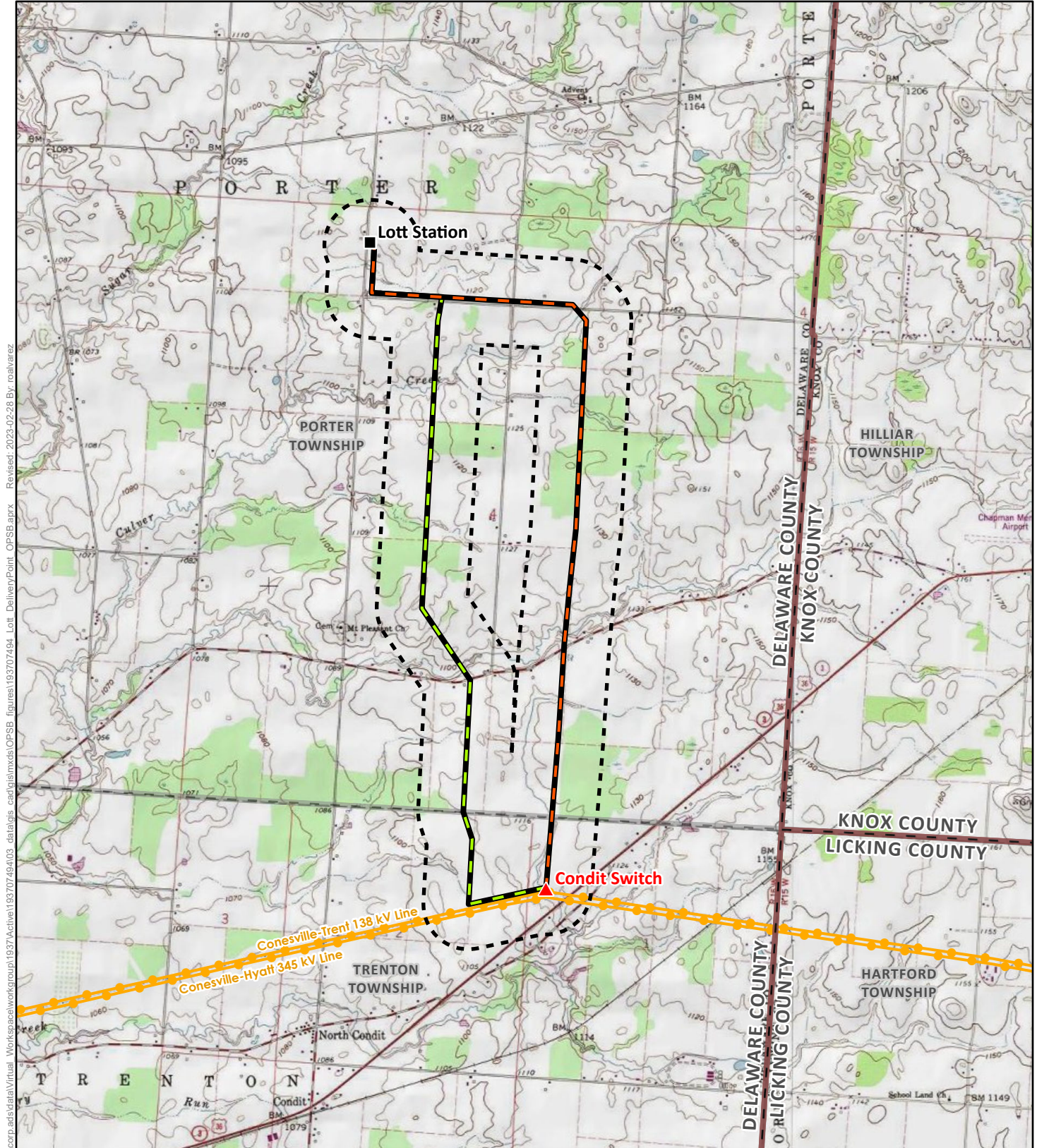
Ohio Power Company, or the Company, is a subsidiary of AEP. AEP is a public utility as defined by the Ohio Revised Code 4906.02 and 4905.03 and is engaged in the business of supplying electric transmission and distribution service to customers in Ohio.

(2) Current Operations and Affiliate Relationships

AEP was originally incorporated in 1906 as the American Gas and Electric Company. The company's earliest utility properties provided electric, gas, and other services in communities in New Jersey, New York, Pennsylvania, West Virginia, Ohio, Indiana, and Illinois. American Gas and Electric Company became AEP in 1958 and merged with Central and Southwest Corporation in 2000.

AEP is one of the largest electric utilities in the United States, delivering electricity to nearly 5.5 million customers through 224,000 miles of distribution lines in 11 states. AEP owns the nation's largest electric transmission system, which is a network comprised of more than 40,000 miles and includes more 765-kV extra-high voltage transmission lines than all other U.S. transmission systems combined. AEP also ranks among the nation's largest generators of electricity, owning approximately 26,000 megawatts of generating capacity in the U.S. AEP's utility units operate as

AEP Ohio, AEP Texas, Appalachian Power (in Virginia and West Virginia), Wheeling Power (West Virginia), AEP Appalachian Power (in Tennessee), Indiana Michigan Power Company, Kentucky Power, Public Service Company of Oklahoma, and Southwestern Electric Power Company (in Arkansas, Louisiana, and east Texas). News releases and other information about the Company can be found at www.AEP.com. In Ohio, AEP provides electricity to nearly 1.5 million customers and AEP's headquarters are in Columbus, Ohio. News and information about AEP in Ohio can be found at www.AEPOhio.com.



\\corp.adis\data\Virtual_Workspace\workgroup\1937\Active\19370749403_data\gis\mxd\OPFSB_figures\193707494_Lott_DeliveryPoint_OPFSB.aprx
 Revised: 2023-02-28 By: roalvarez

| |
|--|
| <ul style="list-style-type: none"> ■ Existing Substation ▲ Proposed Condit Switch ▬ Preferred Route ▬ Alternate Route ▬ 1,000-Foot Buffer ▬ Existing Transmission Line |
|--|

| |
|---|
| <p>Data Sources: AEP, Stantec, ESRI, HIFLD, USGS 7.5' Topographic Quadrangles</p> <p>Coordinate System and Datum NAD 1983 State Plane Ohio North</p> <p>February 28, 2023</p> |
|---|



FIGURE 2-1 Project Overview and Area Features Map

Lott 138kV Transmission Line Project

BOUNDLESS ENERGY

0 0.5 1
Miles

4906-05-03 REVIEW OF NEED AND SCHEDULE

(A) NEED FOR PROPOSED FACILITY

The existing Customer is currently served by an approximately 5-mile radial feed from the 34.5 kV distribution network out of the Company's Trent Station. The Customer's existing 34.5 kV service has experienced approximately 4.95 million Customer Minutes of Interruption (CMI) from 2013-2022. The Customer has requested that the Company provide 138 kV service to their Lott Substation delivery point in Delaware County, Ohio to address the poor reliability concerns associated with the 34.5 kV distribution network. The scope of this Project entails tapping the Company's Conesville – Trent 138 kV line (Centerburg – Trent 138 kV circuit) and installing a three-way Phase-Over-Phase (POP) medium-voltage air-break (MOAB) switch, to be filed in a separate application. From the switch 3.5 miles of greenfield 138 kV single circuit line (Condit Switch – Lott 138 kV Transmission Line) will be built, terminating at the Customer's Lott Substation. The new 138 kV single circuit extension will serve a forecasted demand of 5.5 MW in 2024. The Customer has requested an in-service date of November 2026.

The need and solution for the entire Project was presented and reviewed with stakeholders at the June 2019 and June 2020 PJM SRRTEP meetings. The Project was subsequently assigned PJM supplemental number s2283.

Failure to move forward with the proposed Project will result in continued reliability concerns experienced by the Customer related to their existing distribution service.

(1) Purpose of the Proposed Facility

The primary purpose of the Project is to address customer reliability concerns by providing 138 kV service to their existing Lott Substation delivery point to replace their current 34.5 kV distribution service.

The proposed solution addresses the Customer's request for 138 kV service and increase reliability to their substation. This will be accomplished by (a) tapping the Conesville-Trent 138 kV line (Centerburg-Trent 138 kV circuit), (b) installing a three-way POP switch called Condit Switch, and (c) constructing 3.5 miles of greenfield 138 kV single circuit line, from the Condit Switch to the terminating point at the Customer's Lott Substation.

(2) System Conditions, Local Requirements and Other Pertinent Factors

The Lott Substation delivery point has consistently been identified as having poor reliability by the Customer with a reported approximately 4.95 million CMI from 2013-2022.

(3) Load Flow Studies and Contingency Analysis

Load flow analysis is not driving the need for the Project. As mentioned in previous section, the need was driven by the Customer's request for 138 kV service as well as increased reliability. The new 138 kV service will help with reliability concerns and provide a new transmission source to the Customer's substation.

Please note that any load flow analyses would be the product of the PJM do-no-harm analysis as required by the M-3 process, which did not identify any reliability concerns with the Project. Any load flow requests should be submitted to PJM referencing project s2283 per the Critical Electric Infrastructure Information (CEII) requirements.

(4) System Performance Transcription Diagrams

Transcription diagrams would be of limited benefit for this Project because it is a supplemental project driven by the Customer's request for transmission service. The Project is not intended to resolve thermal overloads on the Company's transmission system. Therefore, transcription diagrams have not been included in this application.

(B) REGIONAL EXPANSION PLANS**(1) Proposed Facility in Long-Term Forecast****(a) Reference in Recent Long-Term Forecast**

The Project is referenced in the Company's 2022 Long-Term Forecast Report (Appendix 5-1).

(b) Explanation if Not Referenced

Not applicable, see Section 4906-5-03 (B) (1)(a) above.

(c) Reference in Regional Expansion Plans

The Project was submitted to PJM as a supplemental project and the need and solution were presented at the June 2019 and June 2020 PJM SRRTEP meetings. The Project was subsequently assigned PJM supplemental number s2283.

(C) SYSTEM ECONOMY AND RELIABILITY

The Project will provide a new 138 kV service to the Customer's Lott Substation delivery point which will provide greater reliability by migrating their service from distribution to transmission. The proposed Project will be a source of approximately 5.5 MW of load per the Customer. Failure to move forward with the proposed solution will result in continued outages to the Customer.

(D) OPTIONS TO ELIMINATE THE NEED FOR THE PROPOSED PROJECT

Before proceeding with this Project, the Company considered the electrical alternative of constructing approximately 3.5 miles of double circuit 138 kV line from new three-way POP MOAB switch along the Conesville-Trent 138 kV line to the Customer’s Lott Substation. The proposed electrical alternative was not selected to meet the Project need because of additional costs associated with constructing the double circuit, as well as the Customer’s load amount not justifying looped 138 kV service under AEP’s criteria.

(E) FACILITY SELECTION RATIONALE

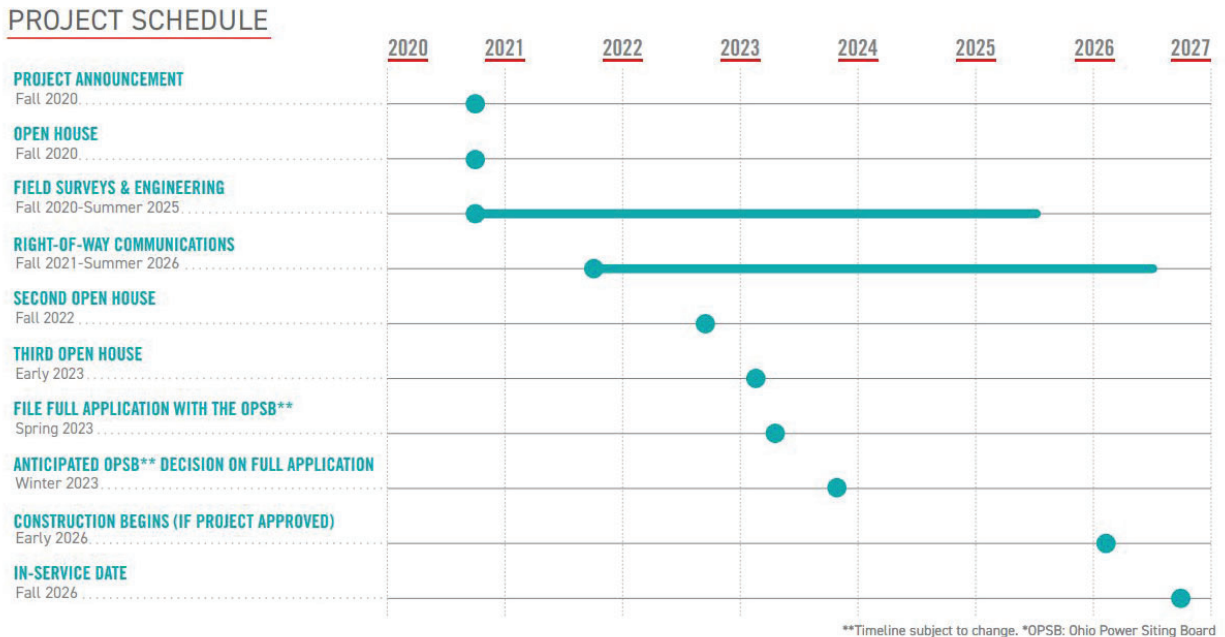
The proposed Project is needed to address the request from the Customer for transmission service to their delivery point. The proposed solution will address the transition from distribution to transmission service, which will provide greater reliability and room for future load growth.

(F) PROJECT SCHEDULE

(1) Gantt Schedule Bar Chart

Table 3-1 provides the Project schedule as a Gantt bar chart. Construction of the Project is planned to begin January 2026, and the anticipated in-service date is November 2026.

Table 3-1 The Lott 138 kV Transmission Line Project Schedule Including all Major Activities and Milestones



(2) Impact of Critical Delays

The need for the Project was a request from the Customer to provide 138 kV service to the Customer's existing Lott Substation delivery point and replace their current 34.5 kV distribution service in order to increase reliability and reduce outages. The Company worked with the Customer and Buckeye Power to identify this electrical solution, which has an anticipated in-service date of November 2026. Failure to move forward with the proposed solution will result in continued outages to the Customer.

4906-05-04 ROUTE ALTERNATIVES ANALYSIS

(A) ROUTE SELECTION STUDY

The route development process began by assembling a multi-disciplinary team including (but not limited to) transmission line siting, transmission line engineering, environmental, construction management, project management, right-of-way, system planning, and public relations (Collectively, the Siting Team). The Siting Team included both the Company employees and outside consultants. The Siting Team developed siting criteria, identified existing constraints and opportunity features, collected and analyzed environmental and design data, solicited stakeholder input, coordinated with resources and permitting agencies, developed and revised study segments and alternative routes and analyzed and reported on the selection of a Preferred Route and Alternate Route. The study is detailed in the Siting Study Report in Appendix 4-1.

(1) Study Area Description and Rationale

The boundaries of the Study Area were determined by the geographic area encompassing the Lott Substation and possible tap point locations along the Conesville-Trent 138 kV transmission line. The Study Area was intended to encompass all practical conceptual routes between these endpoints. The Siting Team identified a Study Area encompassing approximately 3,690 acres (5.8 square miles) in Delaware County, Ohio. The Study Area is generally bounded by Olive Green Road and Lott Substation to the north, Moody Road to the east, the Conesville-Trent 138 kV transmission line to the south, and Porter Central Road to the west.

(2) Study Area Map

Map 1 of the Siting Study (Appendix 4-1) illustrates the approximate boundary of the Study Area.

(3) Map of Study Area, Routes, and Sites Evaluated

Maps 2 and 3 of the Siting Study (Appendix 4-1) illustrate the boundary of the Study Area, study segments, and the alternative routes that were evaluated to guide the Siting Team in the selection of Preferred and Alternate Routes.

(4) Siting Criteria

A comprehensive list of all qualitative and quantitative siting criteria used during the Siting Study is presented in Section 2.4 of the Siting Study (Appendix 4-1). The Siting Study evaluated three main categories of criteria: (1) natural environment, (2) human environment, and (3) constructability. The natural environment criteria evaluated wetlands and waterbodies, sensitive or rare species, and their associated habitat. The human environment criteria evaluated the human use of land activities at a given location such as agricultural, forestry, residential, industrial, mining, commercial, institutional, scenic assets, and recreational uses. The constructability criteria

evaluated the ability to efficiently and cost effectively engineer, acquire right-of-way (ROW), construct, operate, and maintain the proposed Project.

(5) Siting Process for Preferred and Alternate Routes

The initial process for developing routes started with identifying the Project endpoints, the existing Lott Substation and a proposed switch (“Condit Switch”) location along the Conesville-Trent 138 kV transmission line. A Study Area was established and a review of constraints and opportunity features was completed. Once the Project endpoints, Study Area, and list of constraints and opportunity features are identified, the Siting Team developed an array of conceptual routes for the Project that consider the siting guidelines (see Map 2; Appendix 4-1). The conceptual routes were then refined and where two or more intersected, creating study segments.

Continued evaluation of new data through qualitative and quantitative analysis, such as public and stakeholder input and field inspections of the study segments, refined the study segments and eventually developed the Preferred and Alternate Routes to be assessed and compared using natural and cultural resource data, land use information and evaluating engineering and construction concerns.

The entire siting process, methodology, and results are described in further detail in the Siting Study in Appendix 4-1.

(6) Route Descriptions and Rationale for Selection

A total of 12 alternative routes were identified as part of Siting Study. The Preferred Route and Alternate Route were initially identified and examined during the development of the Siting Study (Appendix 4-1). The route options were subsequently refined following field assessments and verification activities. The amount of overlap between the routes is 8%.

Preferred Route:

The Preferred Route is 3.5 miles in length and extends from the existing Lott Substation to the proposed Condit Switch. The transmission line extends directly south from the Lott Substation along Condit Road for 0.2 mile to Justamere Road, turns directly east for 0.9 mile along Justamere Road, crosses Lane Road, turns southwest to cross Justamere Road, and then turns directly south for 2.4 miles to connect with the proposed Condit Switch. The Preferred Route is characterized by the following:

- Shortest and most direct route
- Least number of parcels and landowners crossed
- The least acreage of tree clearing required
- Least amount of angles

Alternate Route:

The Alternate Route is 3.5 miles and extends from the existing Lott Substation to the proposed Condit Switch. The transmission line extends directly south from the Lott Substation along Condit Road for 0.2 mile to Justamere Road, turns directly east along Justamere Road for 0.3 mile, turns directly south and crosses Justamere Road continuing south for 1.3 miles, then turns southwest for 0.3 miles, back south for 0.6 mile, a second slight turn southwest for 0.1 mile, straightens out directly south for 0.3 mile, and then turns east northeast for 0.4 miles to connect with the proposed Condit Switch. The Alternate Route is characterized by the following:

- Short route
- Crosses among the least number of streams and wooded riparian buffers
- Has no residences within 100 feet of centerline
- Among the least acreage of tree clearing required

(B) COMPARISON TABLE OF ROUTES, ROUTE SEGMENTS, AND SITE

Tables 1 through 3 of the Siting Study Report (Appendix 4-1) summarizes the land use, environmental and cultural resources, and constructability opportunities and constraints of each alternative route.

(C) PUBLIC INVOLVEMENT

The Company conducted a public information program to communicate Project planning details, seed feedback from landowners and residents, the media, and local elected officials, as well as to generally raise awareness of the Project. The program involved conducting three public informational meetings to seek feedback from the community about the Project and the route alternatives being considered. Additionally, coordination was completed with local municipality officials representing Porter and Trenton Townships, Delaware County, as well as the Ohio Department of Agriculture.

(1) First Public Informational Meeting

Starting March 2020, the Covid-19 pandemic limited in-person meetings. Therefore, the first public informational meeting was modified to an online meeting/virtual open house format to limit large in-person gatherings.

The Company hosted a virtual open house with Project updates, maps, timelines, typical structure details, and methods for contacting the Company. The virtual open house was hosted on-line via an interactive link (<https://www.aeptransmission.com/ohio/Lott/>) which lasted from October 9 – 26, 2020, which was also used to solicit comments and feedback from the public. There were 75 unique page views of the virtual open house website during the comment period, however, the website was still accessible and additional comments were received after the end date. For the Project, there were 29 comments received on the virtual open

house website, with four additional comments being received after the completion of the open house period. A majority of the comments received from the public and stakeholders included concerns over the impacts to property values, impacts to current and future property construction or use, visual impacts to residences, and impacts to natural resources, such as forest clearing and wetlands impacts. Several landowners commented that they had plans to build houses, businesses or other structures, or expand working ranches in the locations where potential route segments were located. No plan drawings or building permits related to these planned construction and expansion plans were provided to the Company. Three comments also provided information about potential locations of cemeteries, historical areas, and possible wetlands along the study segments. Two commenters also had concerns over the potential health impacts to members of the community and their individual households due to the stress of construction.

(2) Second Public Informational Meeting

On November 16, 2022, the Company held a second public informational meeting and open house in person at Centerburg High School located at 3782 Columbus Road in Centerburg, Delaware County, Ohio. The Company presented the “existing transmission line to be upgraded” and “route options for the transmission line to be built”. Representatives from the Company, Contract Land Staff, LLC (CLS), the Company’s siting and environmental consultant (Stantec Consulting Services Inc.), Consolidated Electric Cooperative Inc., and members from the OPSB were in attendance to answer the public’s questions and provide information about the Project as it relates to the OPSB Standard Application review and approval process.

There were 32 members of the community including property owners and municipal officials who attended the informational meeting. The Company requested that public comments be submitted by November 30, 2022. Written comments from 14 landowners were received in response to the November 16, 2022 public informational meeting. Of these comments, nine were opposed to the Alternate Route, four were in support of the Preferred Route, one was in support of the Alternate Route, three were opposed to the Preferred Route, and two comments suggested no preference over either route.

(3) Third Public Informational Meeting

On February 1, 2023, the Company held a third public informational meeting and open house in person at Centerburg High School, located at 3782 Columbus Road in Centerburg, Delaware County, Ohio. This meeting was required pursuant to O.A.C. 4906-3-03, which states that an applicant must conduct a public informational meeting no more than 90 days prior to submitting a certificate application for the Project. The Company presented updates to the proposed Project and mapping of the Alternate Route and Preferred Route. Representatives from the Company, CLS, the Company’s environmental and siting consultant, Consolidated Electric Cooperative Inc., and members from the OPSB attended the meeting. There were seven members of the community, including property owners and municipal officials, who attended the meeting. The Company requested that public comments after the open house be submitted by February 10, 2022. A total

of three written comments were submitted to the Company at the meeting. One comment stressed concern for impacts to forested areas and natural resources along the Alternate Route and emphasized a preference for the Preferred Route because it causes the least amount of possible disturbance to people and the environment. A second comment discussed concern for visual aesthetics of the transmission line on both routes, while the third comment discussed future plans of installing pasture fence and raising cattle and chickens on their property in the area that would fall under the Alternate Route ROW.

4906-05-05 PROJECT DESCRIPTION

(A) PROJECT AREA DESCRIPTION

The Project is located in central Ohio, northeast of Sunbury in Delaware County, Ohio. Delaware County is within the Till Plains physiographic section and the Galion Glaciated Low Plateau region. This region is described as having moderate relief with elevations ranging from 800 - 1,400 feet (ODGS 1998).

The closest cities to the Project include Sunbury and Centerburg, Ohio.

(1) Project Area Map

Figure 7-1, a Land Use Map, provides a map at a 1:24,000-scale showing the Preferred and Alternate Route with a 1,000-foot buffer and includes the following features that occur within the map limits:

- Transmission line route
- Existing substations
- Proposed switch station
- Roads and railroads
- Major institutions, parks, and recreational areas that are publicly identified and publicly owned
- Existing gas pipeline and electrical transmission line corridors
- Named lakes, reservoirs, streams, canals, and rivers
- Populations centers and legal boundaries of cities, villages, townships, and counties

(2) Proposed Right-of-Way, Transmission Length, and Properties Crossed

The transmission line will be constructed and operated within an 80-foot ROW. The Preferred and Alternate Route area, length, and number of properties crossed are detailed in Table 5-1.

Table 5-1 Right-of-way Area, Length, and Properties Crossed for the Preferred and Alternate Routes

| | Route Alternatives | |
|---|--------------------|-----------|
| | Preferred | Alternate |
| Proposed ROW area (acres) | 34.5 | 33.7 |
| Length (miles) | 3.5 | 3.5 |
| Number of properties crossed (by 80' ROW) | 17 | 23 |

(B) ROUTE OR SITE ALTERNATIVE FACILITY LAYOUT AND INSTALLATION**(1) Site Clearing, Construction, and Reclamation**

Descriptions of the clearing, construction, and reclamation involved to complete the Project are detailed in the following paragraphs.

(a) Surveying and soil testing.

The selected transmission line route will be surveyed to establish the centerline, ROW, and pole locations. The surveying will be completed using conventional or aerial methods. Topographic features and man-made structures near the approved route that may affect the design will be identified during the survey. Minimal clearing of small trees and brush may be required if the surveyor's line of sight is obstructed. Offsets will be used to survey around large trees and other large obstructions. Profile measurements of the topography will be obtained by conventional or aerial methods. The centerline and ROW will be staked prior to construction.

Soil and rock tests were performed along portions of the Preferred Route and Alternate Route in 2021 where foundations for poles are necessary. Augured test borings were achieved using a machine-driven auger 3.25 inches in diameter. Soil samples and testing were performed continuously for the first 10 feet and at 5-foot intervals below 10 feet, and at any change in subsurface strata. Sampling included split barrel samples in non-cohesive soils and thin-walled tube samples in cohesive soils. Testing was performed to a depth of 36 to 44 feet.

(b) Grading and excavation.

Soil surface grading for the Project is not anticipated. Some laydown and set-up areas for construction equipment may require minor local leveling, but this will be restricted to the immediate area. It is anticipated that most self-supporting steel monopole structures will be installed by direct-embed methods. Due to site-specific requirements, some poles may require concrete pier foundations. The excavation for each pier foundation will be approximately 4 to 8 feet in diameter and 20 to 35 feet deep. A portion of the excavated soil will be used for backfill around the foundation, and the excess soil material will be placed around the pole or hauled offsite to an approved spoils disposal site.

(c) Construction of temporary and permanent access roads and trenches.

Construction access will be required for installation of the pole structures and stringing of the conductor cable or wire. Access roads will require the landowner's input and approval. Preliminary access roads for the Preferred Route are presented on Figure 8-2. Note that these access roads cannot be fully planned and identified until after a final route is approved followed by the Company's contact with affected landowners for transmission line easements. Where access across wetlands or streams is necessary, timber mats, timber mat bridges, or equivalent will be used to minimize the environmental impacts. If field conditions necessitate the modification of the finalized access road locations during construction, the concurrence of the property owner will be

obtained, necessary environmental field studies will be performed, and necessary permits will be updated.

(d) Stringing of Cable.

During wire stringing operations, areas along the transmission line will be used as setup locations for the wire pulling equipment (such as conductor reels, ground-wire reels, and the wire tensioner). Conductor installation will be accomplished using the tension stringing method. Lightweight cables or ropes will be fed through the stringing sheaves mounted on the poles. Conductors will be pulled through under sufficient tension to keep the conductor off the ground to prevent any damage to the conductor. Temporary guard or clearance poles will be used as a safety precaution at locations where the conductors could create a hazard to either crewmembers or the public. The locations and heights of clearance poles will be such that conductors are held clear of other electric distribution lines, communication cables, railroads, and roadways. The stringing operation will be under the observation of transmission line construction crewmembers at all times. The observers will be in radio and visual contact with the operator of the stringing equipment.

(e) Installation of Electric Transmission Line Poles and Structures, Including Foundations.

Generally, the Project will be constructed using single-circuit steel monopole structures that are typically 65-90 feet in height within a ROW width of 80 feet. One structure on the Alternate Route is currently planned to be up to 95 feet in height. Medium to heavy angle locations may require installation of one concrete foundation with full-length anchor bolt cages. The excavation for each concrete foundation will be approximately 4.5 to 7 feet in diameter and 15 to 30 feet deep. The exact structure height and ROW widths may vary subject to final engineering design.

(f) Post-Construction Reclamation.

Topsoil at pole excavations will be stockpiled when necessary and protected from erosion. Topsoil will be redistributed over disturbed areas to foster re-vegetation following construction (except in wetland areas). Restoration, including temporary and permanent seeding, will be coordinated with the construction activities to provide re-vegetation and soil stabilization at the earliest reasonable time. Following construction, all pole locations, material storage sites, and temporary access roads will be restored and seeded with a suitable grass seed mixture that will be specified in the erosion and sediment control plan.

Re-vegetation techniques will enhance the ROW for use as possible wildlife habitat. Where stream banks are disturbed, they will be restored by planting low-growing vegetation, where necessary, to reduce bank erosion. Lawn or garden areas or paved areas damaged during the construction of the transmission line, will be restored to original condition. Landscaping or landscape plantings damaged during construction will also be restored to original condition or replaced as directed by the affected property owner. After restoration is complete, the Company will periodically inspect the ROW to identify areas of erosion, sedimentation, and inadequate re-vegetation conditions, if any. If such conditions are identified, corrective actions will be implemented.

(2) Facility Layout

(a) Transmission Line Route Map

Figures 8-2 and 8-3, Preferred and Alternate Route Details Maps, provide a map as at 1:12,000 scale showing the Preferred and Alternate Routes associated facilities with existing substations. These maps illustrate the data required by O.A.C 4906-05-05(A)(1). Additional information required by O.A.C. 4906-5-05(B)(2)(a) (for example pole structure locations) will not be finalized until a final route is approved by OPSB and the final engineering design is complete.

(b) Proposed Layout Rationale

A detailed description of the reasons for the proposed layout (i.e., the Preferred and Alternate Routes) are presented in the Siting Study (Appendix 4-1).

(c) Plans for Future Modifications

Except as otherwise described in this Application, the Company currently has no plans for future modifications of the proposed Project.

(C) DESCRIPTIONS OF PROPOSED TRANSMISSION LINES OR PIPELINES

(1) Electric Power Transmission Lines

(a) Design voltage.

The Condit Switch - Lott 138 kV Transmission Line will be designed and operated at 138 kV.

(b) Tower Designs, Pole Structures, Conductor Size and Number Per Phase, and Insulator Arrangement.

The majority of the line will be composed of braced-post tangent monopole structures with an alternating configuration (Figure 5-1) with an estimated above ground height of 65 to 90 feet. One structure on the Alternate Route is currently planned to be up to 95 feet in height. The conductor used for the new transmission line will be 1 – 795 thousand circular mil (kcm) 26/7 strand aluminum conductor steel-reinforced cable (ACSR) conductor per phase. This conductor has a maximum strength of approximately 31,500 pounds (lbs.). The new line will use one 7#8 Alumoweld Shield Wire. The 7#8 Alumoweld has a maximum strength of 15,930 lbs. Both the phase conductors and the shield wire will be installed in accordance with the latest version of the National Electric Safety Code. The conductors will be supported by aluminum suspension clamps which will be attached to the insulators. Aluminum suspension clamps will support the shield wires. At dead end locations, compression dead-end clamps will be used on both the conductor and the shield wire.

(c) Base and Foundation Design.

Medium to heavy angle locations may require installation of one concrete foundation with full length anchor bolt cages. The excavation for each concrete foundation will be approximately 4.5 to 7 feet in diameter and 15 to 30 feet deep.

(d) Cable Type and Size, Where Underground.

No underground cables are associated with this Project; therefore, this section is not applicable.

(e) Other major equipment or special structures.

No other major equipment or special structures are required for the Project.

(2) Diagram of Electric Power Transmission Substations

No electrical power transmission substations are associated with this specific Project; therefore, this section of the Application is not applicable.

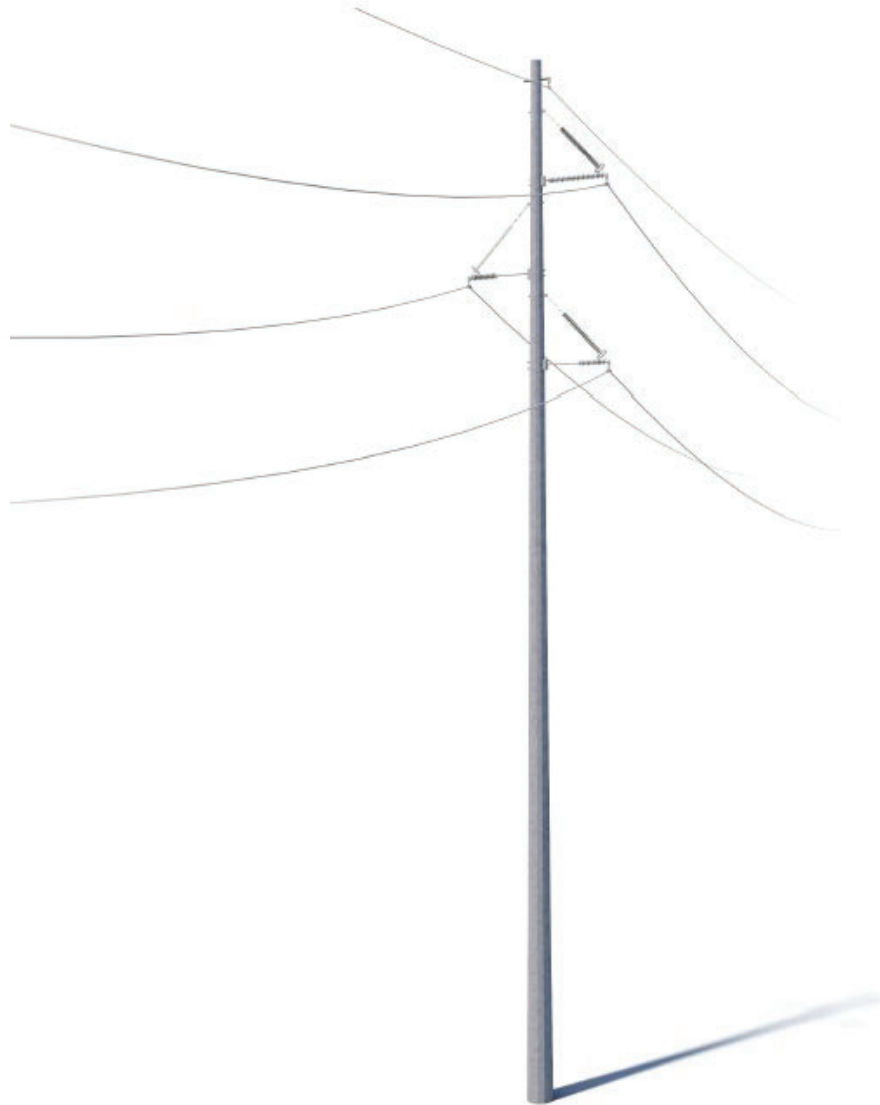
Figure 5-1 Transmission Structure Diagram

TYPICAL STRUCTURE



The project involves the use of single, steel poles.

Structure Height: **Approximately 65-90 feet***
Right-of-Way Width: **Approximately 80 feet***



4906-05-06 ECONOMIC IMPACT AND PUBLIC INTERACTION

(A) OWNERSHIP OF PROPOSED FACILITY

The Company will construct, own, operate, and maintain the proposed Project.

(B) CAPITAL AND INTANGIBLE COSTS ESTIMATE FOR ELECTRIC POWER TRANSMISSION FACILITY ALTERNATIVES

The Company is instructed to submit estimates of applicable capital and intangible costs for a variety of components of the Project. Each of the enumerated components is included in Table 6-1. The table also includes estimates of applicable intangible and capital costs for both the Preferred and Alternate Routes of the Project. The items marked as not applicable (N/A) are components that do not apply to this Project.

Table 6-1. Estimates of Applicable Intangible and Capital Costs for Both the Preferred and Alternate Routes

| FERC Account Number | Description | Preferred Route | Alternate Route |
|----------------------------|--|------------------------|------------------------|
| 350 | (1) Land and Land Rights | \$1,071,000 | \$1,061,000 |
| 352 | (2) Structures and Improvements | N/A | N/A |
| 353 | (3) Substation Equipment | N/A | N/A |
| 354 | (4) Towers and Fixtures | N/A | N/A |
| 355 | (5) Poles and Fixtures | \$5,057,000 | \$5,257,000 |
| 356 | (6) Overhead Conductors and Devices | \$556,000 | \$542,000 |
| 357 | (7) Underground Conductors and Insulation | N/A | N/A |
| 358 | (8) Underground-to-Overhead Conversion Equipment | N/A | N/A |
| 359 | (9) ROW Clearing and Roads, Trails or Other Access | \$11,000 | \$28,000 |
| TOTAL | | \$6,695,000 | \$6,888,000 |

FERC= Federal Energy Regulatory Commission

(C) CAPITAL AND INTANGIBLE COSTS ESTIMATE FOR GAS TRANSMISSION FACILITY ALTERNATIVES

This Application is for an electric transmission line. Therefore, this section is not applicable.

(D) PUBLIC INTERACTION AND ECONOMIC IMPACT

This section of the Application provides information regarding public interaction and the economic impact of each of the route alternatives.

(1) Counties, Townships, Villages, and Cities within 1,000 feet

Both the Preferred and Alternate Routes and their associated 1,000-foot corridor are in Porter and Trenton Townships, Delaware County, Ohio. There are no designated villages, cities, or municipalities that fall within 1,000 feet of either the Preferred Route or Alternate Route.

(2) Public Officials Contacted

The Company contacted several local officials to discuss the Project. A list of the local public officials, including their mailing addresses of office telephone numbers, who have been contacted to date or will be provided a digital or hard copy of the Application are provided in Appendix 6-1.

(3) Planned Public Interaction

The Company's planned public interaction included mailing letters to residents, tenants, and elected officials, creating a project website, and hosting three public information open houses. During the construction of this Project, the Company will provide Project updates on its website, retain ROW land agents to discuss Project timelines, explain construction and restoration activities, and convey this information to affected owners and tenants. Copies of informational materials provided for the virtual open house and available at the public open houses/public informational meetings are included in Appendix 6-2.

Throughout the duration of the Project, the public may contact Meghan Blankenship, Project Outreach Specialist, at 304-784-0556, or via e-mail at mdblankenship@aep.com to ask questions or provide comments. To access the Project's website, visit

<https://www.aeptransmission.com/ohio/Lott/>

The public can access copies of this Application by:

- Going to the local Library
- Going to <http://opsb.ohio.gov/> and search using the Project's case number (22-0940-EL-BTX)

The Company is logging comments and information provided through its public interaction program. At least seven days prior to any construction activities, a ROW agent from the Company will notify the landowner or the tenant by mail, telephone, or in person, depending on landowner preference.

(4) Liability Insurance for Compensation

The Company's insurance program for construction and operation of the proposed facility is outlined below

- The Company maintains bodily injury and property damage liability insurance with limits of at least \$1,000,000 for each occurrence.
- The Company is a qualified self-insuring employer under the State of Ohio Worker’s Compensation law. The Company maintains insurance as required by the Industrial Commission of Ohio statutes.

(5) Tax Revenues

The Preferred and Alternate Routes are located within Delaware County. Local school districts, park districts, libraries, career centers, and miscellaneous other levies will receive tax revenue from the Project. The approximate annual property taxes over the first year after the Project is complete are \$150,800 in tax revenue with the Preferred Route or \$161,600 in tax revenue with the Alternate Route.

Based on the 2022 tax rates, the following information in Table 6-2 includes preliminary estimates for these taxing authorities:

Table 6-2 Estimates of Tax Revenue for Both the Preferred and Alternate Routes

| County | Levy | Preferred | Alternate |
|----------|---|-----------|----------------|
| Delaware | Delaware County | 12,100 | 13,100 |
| | Porter Township | 5,300 | 4,900 |
| | Trenton Township | 500 | 1,300 |
| | Big Walnut Local Service District | 44,800 | 85,400 |
| | Centerburg Local Service District | 47,700 | 17,400 |
| | Delaware Area Career Center | 3,300 | 6,400 |
| | Knox County Career Center | 8,100 | 2,900 |
| | Preservation Park | 3,000 | 3,200 |
| | Big Walnut Local Service District Library | 1,100 | 2,000 |
| | Delaware County Library | 1,300 | 500 |
| | Misc. Other | 23,600 | 24,500 |
| | Delaware County Total | | 150,800 |

4906-05-07 HEALTH AND SAFETY, LAND USE, AND REGIONAL DEVELOPMENT

(A) HEALTH AND SAFETY

(1) Compliance with Safety Regulations

The construction and operation of the Project will comply with the requirements specified in the North American Electric Reliability Corporation Mandatory Reliability Standards, the National Electric Safety Code, the Public Utilities Commission of Ohio, and will meet all applicable safety standards established by the Occupational Health and Safety Administration (OSHA).

Safety is the highest priority for the Company. The Company's priority towards employee and public safety is exemplified by the Company's policy as stated in the Company Safety Manual:

The Company system holds in high regard the safety and health preservation of its employees. Accidents injure people, damage equipment, destroy materials, and cause needless personal suffering, inconvenience, and expense. WE believe, "No operating condition or urgency of service can ever justify endangering the life of anyone."

To this end, we will constantly work toward the following:

- *The maintenance of safe and healthful working conditions,*
- *Consistent adherence to proper operating practices and procedures designed to prevent injuries and illnesses,*
- *Conscientious observations of governmental and company safety regulations*

The Company also administers a contractor safety program. Contractors are required to maintain internal safety programs and provide safety training.

(2) Electric and Magnetic Fields

In accordance with the OPSB requirements specified in O.A.C. 4906-5-07(A)(2), the following subsections discuss the analysis of electric and magnetic fields (EMFs) associated with the Project; however, no residences or institutions are within 100-feet of either the Preferred Route or Alternate Route and therefore subsections 4906-05-07-2 A-D are not required.

(3) Estimate of Radio, Television, and Communication Interference

Radio interference can be experienced in the AM broadcast band (535-1605 kHz) and FM band (88-108 megahertz [MHz]), caused by transmission line gap-type discharge (1-1000 MHz).

Dielectric discharge due to air ionization, known as corona, is not a concern with 138 kV transmission planned in this Project. Gap-type discharge, such as that emitted by loose or defective transmission hardware, typically is localized and can be readily detected and corrected, or additional mitigation measures can be applied to eliminate interference source.

Today's digital television signals react differently to interference than the pre-2009 analog signals. Common problems with analog television included ghosting of images, noise from weak signals, and other problems, which degraded the quality of the image and sound, although the programming was still watchable. With digital TV, reception of the signal must be very nearly complete. Otherwise, audio and video are not usable. Television signals, which are transmitted at frequencies above 50 MHz, can be affected by gap discharges if received from air broadcasts (by "rabbit ears"). These problems have largely been addressed with the use of cable television.

(4) Noise from Construction, Operations, and Maintenance

(a) Blasting activities

Dynamiting and blasting activities will not be necessary during the construction of the Project.

(b) Operation of Earth Moving and Excavation Equipment

During the construction phase of the transmission line installation, a temporary increase in noise will result from the construction equipment used to clear portions of the transmission line ROW and install the equipment. Standard construction techniques will be used, and procedures will comply with applicable OSHA standards. Therefore, the noise impact on nearby sensitive areas is anticipated to be minimal. The total duration of the proposed Project is estimated to be approximately 10-12 months.

(c) Driving of Piles, Rock Breaking or Hammering, and Horizontal Directional Drilling

Driving of piles is not anticipated during construction of the Project. If required, there will be a temporary increase in noise during construction only.

(d) Erection of Structures

Poles will be installed by vehicle-mounted cranes or equivalent equipment. Self-supporting steel monopole structures/poles will require delivery of concrete for foundation construction, including excavation work for the foundation. There will be a temporary and likely minimal increase in noise during construction only.

(e) Truck Traffic

An increase in truck traffic is anticipated during the construction of the Project for equipment access and equipment delivery. No other additional traffic is anticipated for the Project beyond periodic mowing or removal of dangerous trees from the ROW.

(f) Installation of Equipment

The equipment will be installed using standard practices and equipment. There will be a temporary increase in noise during construction only.

(B) LAND USE

(1) Map of the Site and Route Alternatives

Maps at 1:24,000-scale, including the area 1,000 feet on either side of the centerline, are presented as Figure 7-1 and include the following information:

- Centerline for the Preferred and Alternate Routes
- Proposed/existing substation locations
- Land use types, road names, structures, and incorporated areas and population centers

(2) Impact on Identified Land Uses

Comparisons of the various land use types and land use features for both the Preferred Route and Alternate Route are included in Tables 7-1 and 7-2. The land use types present within the Preferred Route and Alternate Route include agricultural, commercial, developed, forested, and residential lands. The estimates of each land use type being crossed by the transmission line, land use within the 80-foot-wide construction ROW, and the permanent ROW (linear feet, acreage, and percentages) were determined using geographic information system (GIS) software calculations. The potential disturbance area during construction activities (vegetation clearing, pole installations, etc.) consists of the 80-foot-wide construction ROW. The 80-foot-wide permanent ROW will be restored through soil grading, seeding, and mulching, thus the permanent impact to the ROW is primarily limited to the removal of existing trees and other vegetation. Property owners may continue to use most of the ROW area for general uses that will not affect the safe and reliable operation of the transmission line such as lawn maintenance.

Table 7-1 Length and Percent of Land Uses Crossed by Route Alternatives

| Land Use | Preferred Route* | | Alternate Route* | |
|--------------|------------------|---------------|------------------|---------------|
| | Linear Feet | Percent | Linear Feet | Percent |
| Agricultural | 15,471 | 82.7% | 11,620 | 63.4% |
| Commercial | 145 | 0.78% | 145 | 0.79% |
| Developed | 72 | 0.38% | 41 | 0.22% |
| Forested | 2,661 | 14.2% | 3,888 | 21.2% |
| Residential | 355 | 1.9% | 2,639 | 14.4% |
| Total | 18,704 | 100.0% | 18,333 | 100.0% |

*Numbers in the table are for the planned potential disturbance area which is a nominal 80-foot-wide corridor centered on the route

Table 7-2 Acreage and Percent of Land Uses Crossed by Route Alternatives

| Land Use | Preferred Route* | | Alternate Route* | |
|--------------|------------------|---------------|------------------|---------------|
| | Acreage | Percent | Acreage | Percent |
| Agricultural | 28.4 | 82.3% | 21.4 | 63.3% |
| Commercial | 0.3 | 0.9% | 0.3 | 0.9% |
| Developed | 0.1 | 0.3% | 0.1 | 0.3% |
| Forested | 4.8 | 13.9% | 7.1 | 21.0% |
| Residential | 0.9 | 2.6% | 4.9 | 14.5% |
| Total | 34.5 | 100.0% | 33.8 | 100.0% |

*Numbers in the table are for the planned potential disturbance area which is a nominal 80-foot-wide corridor centered on the route

Table 7-3 Number of Sensitive Features Within or Near the Potential Disturbance Area for the Route Alternatives

| | Route Alternatives | |
|--|--------------------|----------------|
| | Preferred | Alternate |
| Length (in miles) | 3.5 | 3.5 |
| Features within the Potential Disturbance Area of Route Alternatives* | | |
| Historic Structures (OHI) | 0 | 0 |
| National Register of Historic Places | 0 | 0 |
| Previously Identified Archaeological Sites | 0 | 0 |
| Residences | 0 | 0 |
| Commercial Buildings | 0 | 0 |
| Outbuildings (garage, barns, etc..) | 0 | 0 |
| Industrial Buildings | 0 | 0 |
| Schools and Hospitals | 0 | 0 |
| Churches and Civic Buildings | 0 | 0 |
| State/Federal Forests and Recreational Lands | 0 | 0 |
| Airports | 0 | 0 |
| Features within 1,000 feet of Route Alternatives (centerline) | | |
| Historic Structures (OHI) | 0 | 0 ¹ |
| National Register of Historic Places | 0 | 0 |
| Previously Identified Archaeological Sites | 1 | 1 |
| Residences | 29 | 27 |
| Outbuildings (garage, barns, etc..) | 29 | 33 |
| Commercial Buildings | 1 | 0 |
| Industrial Buildings | 0 | 0 |

| | Route Alternatives | |
|--|--------------------|-----------|
| | Preferred | Alternate |
| Schools and Hospitals | 0 | 0 |
| Churches and Civic Buildings | 0 | 0 |
| State/Federal Forests and Recreational Lands | 0 | 0 |
| Airports | 0 | 0 |

*The planned potential disturbance area is a nominal 80-foot-wide corridor centered on the route. OHI=Ohio Historic Inventory

¹ One record was found on OHI. However, field surveys determined this structure (Lane Road Bridge) no longer exists

(a) Residential

Preferred Route: The Preferred Route is located within 1,000 feet of 29 residences, none of which are within the proposed 80-foot ROW. As mentioned in Table 7-2, residential land makes up 2.6 percent of the Preferred Route ROW.

Alternate Route: The Alternate Route is located within 1,000 feet of 27 residences, none of which are within the proposed 80-foot ROW. As mentioned in Table 7-2, residential land makes up 14.5 percent of the Alternate Route ROW.

(b) Commercial

Preferred Route: The Preferred Route is located within 1,000 feet of one commercial building. As mentioned in Table 7-2, commercial land makes up 0.9 percent of the Preferred Route ROW. This commercial land consists of the Lott Station property.

Alternate Route: The Alternate Route is not located within 1,000 feet of any commercial buildings. As mentioned in Table 7-2, commercial land makes up 0.9 percent of the Alternate Route ROW. This commercial land consists of the Lott Station property.

(c) Industrial

Preferred Route: The Preferred Route is not located within 1,000 feet of any industrial buildings. As mentioned in Table 7-2, there is no industrial land present within the Preferred Route ROW.

Alternate Route: The Alternate Route is not located within 1,000 feet of any industrial buildings. As mentioned in Table 7-2, there is no industrial land present within the Alternate Route ROW.

(d) Institutional (School, Hospitals, Churches, and Civic buildings)

Preferred Route: The Preferred Route is not located within 1,000 feet of any institutional structures. As mentioned in Table 7-2, there is no institutional land present within the Preferred Route ROW.

Alternate Route: The Alternate Route is not located within 1,000 feet of any institutional structures. As mentioned in Table 7-2, there is no institutional land present within the Alternate Route ROW.

(e) Recreational Land

Preferred Route: The Preferred Route is not located within 1,000 feet of any state/federal forests or recreational landscapes. As mentioned in Table 7-2, there is no recreational land present within the Preferred Route ROW.

Alternate Route: The Alternate Route is not located within 1,000 feet of any institutional structures. As mentioned in Table 7-2, there is no recreational land present within the Alternate Route ROW.

(f) Agricultural

Preferred Route: As shown in Table 7-2, approximately 82.3 percent (28.4 acres) of the Preferred Route ROW crosses agricultural land.

Alternate Route: As shown in Table 7-2, approximately 63.3 percent (21.4 acres) of the Alternative Route ROW crosses agricultural land.

A discussion of agricultural land and Agricultural District Land is provided in Section (C) below.

(g) Vacant

No vacant land is within the planned potential disturbance area or within 1,000 feet of the Preferred and Alternate routes.

(3) Impact on Identified Nearby Structures

The Project does not propose any impacts to identified nearby structures. Table 7-3 lists the structures identified within the potential disturbance area (80-foot ROW) and 1,000 feet of the route alternatives centerline.

(a) Structures within 200 Feet of Proposed Right-of-Way

Preferred Route: There are two residences within 200 feet of the Preferred Route ROW. These residences are located between 100 to 200 feet from the centerline. There are three other structures (e.g., garage, barn, etc.) and one commercial building within 200 feet of the Preferred Route ROW.

Alternate Route: There are two residences within 200 feet of the Alternate Route ROW. These residences range from 100 to 200 feet from the centerline. There are three other structures (e.g., garage, barn, etc.) within 200 feet of the Alternate Route ROW.

(b) Destroyed, Acquired, or Removed Buildings

The potential removal of structures within the proposed ROW was mitigated during the siting of the Preferred and Alternate Routes through the placement of routes away from structures. It is unlikely that construction of the Preferred or Alternate Routes will require the removal of any residential or commercial structures.

(c) Mitigation Procedures

Mitigation for the prohibition of the future installation of structures within the ROW, and vegetative clearing and maintenance activities for the transmission line, will be determined as part of the Company's acquisition of the ROW for this Project, as part of the negotiated settlement between the Company and the property owner, or as determined in appropriation proceedings. If an existing septic system located in the transmission ROW is impacted by construction, operation, or maintenance of the proposed Project, the septic system will be repaired or replaced by the Company as necessary to meet the appropriate installation requirements.

(C) AGRICULTURAL LAND IMPACTS

The potential impacts of the Project on agricultural land use include potential damage to crops that may be present, disturbance of underground field drainage systems, compaction of soils and potential for temporary reduction of crop productivity. Agricultural land used for crop cultivation within the Preferred and Alternate Routes ROWs is estimated at 28.4 acres and 21.4 acres, respectively. Additionally, several parcels crossed by the ROW for the Preferred Route and Alternate Route contain Ohio Department of Agriculture Agricultural Easements. No Agricultural District lands are crossed by the Preferred Route or Alternate Route.

(1) Agricultural Land Map

The agricultural land use areas and Ohio Department of Agriculture Agricultural Easement parcels are depicted on Figure 7-2 for both the Preferred and Alternate Routes.

(2) Impacts to Agricultural Lands and Agricultural Districts

The Delaware County Auditor was contacted to obtain information on current Agricultural District lands records. No Agricultural District land parcels are crossed by the Preferred Route or Alternate Route centerline or ROW. The data was confirmed via email with the Delaware County Auditor on February 17, 2023. The provided data fulfills the requirement of O.A.C. 4906-5-07 (C)(1)(b), which states this data must be collected not more than 60 days prior to submittal.

The centerline and ROW of the Preferred Route crosses three Ohio Department of Agriculture Agricultural Easement parcels. The centerline and ROW of the Alternate Route crosses four Ohio Department of Agriculture Agricultural Easement parcels. The locations of the Ohio Department of Agriculture easement parcels crossed are depicted on Figure 7-2. A total of approximately 9.8 acres of Ohio Department of Agriculture easement parcels occurs within the Preferred Route 80-

foot permanent ROW and 10.5 acres of Ohio Department of Agriculture easement parcels occur within the Alternate Route 80-foot permanent ROW.

(a) Acreage Impacted

Table 7-2 provides quantification of the acreage impacted for agricultural land use (crop cultivation and pasture or hayfield). The agricultural land use was based on aerial imagery, National Land Cover Database (NLCD) data, zoning data obtained from the Delaware County Auditor website, and field observations.

(b) Evaluation of Construction, Operation, and Maintenance Impacts

The following subsections include an evaluation of the impact of the construction, operation, and maintenance of the proposed transmission line and the following agricultural facilities and practices within the Project area, where present.

(i) Field Operations

Field operations such as plowing, planting, cultivating, spraying, and harvesting of cultivated crops will only be interrupted for a portion of the growing season or a portion of the dormant season for agricultural operations during construction of the Project. Property owners will be compensated for crop damages resulting from the Company construction activities. No significant impacts to livestock operations or grazing areas are anticipated. Property owners may continue to use most of the ROW area for general uses after construction contingent upon the use having no adverse impact on the safe and reliable operation of the transmission line such as lawn maintenance, crop cultivation, and livestock.

(ii) Irrigation

There are no known irrigation systems within the proposed ROW for either route. The Company will identify the presence of any such systems through contact with landowners once the final route is approved. Any system that must be relocated will be coordinated with the landowner to avoid affecting the irrigation system's operation and avoid any cost incurred by the landowner.

(iii) Field Drainage Systems

Damage to field tile systems is unlikely given the installation of mostly direct-embed steel pole structures and a relatively short construction duration, but the Company will restore damaged systems to their pre-construction condition. The Company will also work with the agricultural landowners to resolve conflicts with field drainage systems and other facilities that are crossed by the Project, where necessary.

(iv) Structures Used for Agricultural Operations

There are three agricultural structures located within 200 feet of the centerline of the Preferred and Alternate Routes. However, none of the agricultural structures fall within the 80-foot permanent

ROW. Therefore, the construction and operation of the transmission line will not adversely affect the existing structures along either route.

(v) Agricultural Land Viability for Agricultural Districts

No Agricultural District parcels are crossed by the Preferred Route or Alternate Route centerline or ROW. As agricultural land impacted by the ROW is not part of an Agricultural District, nor are there Agricultural Districts nearby, no significant impacts on the viability of Agricultural District lands are anticipated.

(c) Mitigation Procedures

Mitigation for damage to existing crops and the compaction of soils is provided as compensation to the property owner as specified in the easement for the ROW. The specific terms of the easement regarding crop damage or soil compaction are determined as part of the Company's acquisition of the ROW for the Project, as part of the negotiated settlement between the Company and the property owner, or as determined in appropriation proceedings. Additionally, the Company and the contractors hired to work on the Project have extensive experience in transmission line construction. Both the Company and the selected contractors will work to minimize agricultural impacts during the construction of the Project.

(i) Avoidance or Minimization of Damage

To minimize damage to agricultural land, the Company will place poles at the edges of agricultural fields, where feasible, and will primarily install single tangent poles to support the transmission line. The mitigation effort should limit disruption of plow patterns and minimize the creation of areas where weeds and other non-crops can grow in relation to construction of the transmission line. In instances where there is damage in the ROW, compensation for this limited impact will be provided to the property owner.

(ii) Field Tile System Damage Repairs

Concerns over interference with irrigation systems will be addressed on a case-by-case basis with the individual property owner. In general, the Company will provide mitigation for damage to underground drainage systems from construction, operation, and maintenance activities by repairing or replacing damaged sections of the drainage system as necessary.

(iii) Segregation and Restoration of Topsoil

Excavated topsoil will be segregated and stockpiled where necessary to maintain long-term agricultural uses. Topsoil will also be de-compacted and restored to original conditions, unless otherwise agreed to by the landowner.

(D) LAND USE PLANS AND REGIONAL DEVELOPMENT

This section of the Application provides information regarding land use plans and regional development.

(1) Impacts to Regional Development

This Project is expected to support regional development in Delaware County though the increased reliability and availability of electric power to residential, commercial, institutional, and industrial users throughout the region. No negative impacts on regional development are foreseen for this Project. A more detailed discussion of the need for this Project and how it will affect regional development is included in Section 4906-5-03 of this application.

(2) Compatibility of Proposed Facility with Current Regional Land Use Plans

During the development of the Project, representatives from Delaware County and Porter and Trenton Townships, were contacted for information regarding development plans and regional land use plans. The Delaware County Regional Planning Commission stated, via email correspondence received on March 16, 2021, that there are no plans in the near future for the surrounding area that would affect this Project. The response also noted that the county “Thoroughfare Plan” shows the desire of road adjustments near the north end of Justamere Road. However, these adjustments would occur west of both the Preferred and Alternate Routes and would not be affected by the construction of the Project.

(E) CULTURAL AND ARCHAEOLOGICAL RESOURCES

Cultural resource studies of the Project area were conducted on behalf of the Company. The studies included a background records check and literature review utilizing publicly available data and files from the Ohio Historic Preservation Office (OHPO), and a Phase I archaeological survey and an history/architectural survey for the Preferred and Alternate Routes.

Locations of recreation areas, recreation trails, scenic rivers, scenic routes and byways, and cultural landmarks identified during the literature review and field surveys are included in Figure 7-1. Based on these studies, no scenic rivers, scenic routes/byways or recreational areas or trails occur within 1,000 feet of the Preferred or Alternate Routes.

(1) Cultural Resources in Study Corridor

The Company’s consultant, Weller & Associates, Inc. (“Weller”) performed a literature review of maps, files, and electronic databases from the following agencies:

- An Archaeological Atlas of Ohio;
- Ohio Historic Preservation office (OHPO);
- USGS 7.5-minute series topographic maps;
- Ohio Archaeological Inventory files;

- Ohio Historic Inventory (OHI) files;
- National Register of Historic Places (NRHP) files;
- Determinations of Eligibility files;
- OHPO CRM/contract archaeology files;
- County atlases, histories, historic USGS 15-minute series topographic map(s) and current USGS 7.5-minute series topographic map(s); and
- Online Genealogical and Cemetery Records.

The literature review identified six archaeological sites, one OHI resource (Land Road Bridge) previously recorded in the Ohio Historic Inventory (which was identified as demolished and replaced by a modern bridge during field surveys), and three cemeteries recorded within one mile of the Project area. The Project has not been the subject of any previous investigations. The only current previously recorded resource recorded within 1,000 feet of the Project area is the Robinson Cemetery. The Robinson Cemetery is not recorded within or adjacent to the Project area.

A Phase I Archaeological Investigation was conducted by Weller along the Preferred Route in July 2021. Additional Phase I Archaeological Investigations were conducted by Weller for additional workspaces and access roads along the Preferred Route in November 2021. In June 2022 additional investigations were done along the Preferred Route and for the Alternate Route, and lastly for a small reroute area along the Alternate Route in February 2023. The investigations resulted in the identification of ten previously unrecorded archaeological sites, Ohio Archaeological Inventory (OAI) site numbers 33DL3406-33DL3408 and 33DL3460-33DL3466. These sites are not considered to be significant resources and are not eligible for the NRHP. Copies of the Phase I Archaeological Investigations Report and Addendum Phase I Archaeological Investigation Reports were provided to the OHPO for their review and concurrence. Response letters were received from OHPO on August 25, 2021, November 19, 2021, and July 27, 2022, and February 22, 2023. The OHPO response letters are included in Appendix 8-1. OHPO concurred with Weller that the identified archaeological sites are not considered eligible for listing on the NRHP. Therefore, the Project as proposed, will have no effect on significant archaeological resources. No further coordination in regard to archaeology is required for this Project unless the scope of work changes or new/additional archaeological remains are discovered during the course of the Project.

It should be noted, the Robinson Cemetery is located adjacent to the Alternate Route of the proposed Project. Robinson Cemetery was recorded by the WPA, showing three (3) possible burial plots, and a similar location as currently mapped. Based on the measurement provided by the OGS and WPA, it is unlikely the cemetery is located within the Alternate Route project area. However, if the Alternate Route is chosen for the proposed Project, it should be noted there is a cemetery in the general vicinity of the project area. If evidence of this cemetery is discovered during implementation, OHPO should be notified immediately. The locations of cultural sites identified in the literature review are included in Figure 7-1.

A History/Architecture Investigations study was conducted by Weller for the Preferred Route in March 2021. Additional History/Architecture Investigations were conducted by Weller for additional areas along the Preferred Route and for the Alternate Route in June 2022. A literature review and field survey were completed as part of the investigations. A total of 27 architectural resources 50 years old or older were identified within the Area of Potential Effects (APE) during the field surveys. It is Weller's recommendation that none of these properties are eligible for inclusion in the NRHP. Copies of the History/Architecture Investigations Report and Addendum History/Architecture Investigations Report were provided to the OHPO for their review. Response letters were received from the OHPO on August 25, 2021 and July 27, 2022. The OHPO agreed with Weller's recommendations of eligibility and no further history/architecture work is currently being recommended. It is the opinion of the OHPO that the planned work, if completed as proposed, will have no effect on historic properties. No further coordination is necessary unless there is a change in the Project. The OHPO response letters are included in Appendix 8-1.

(2) Construction, Operation, and Maintenance Impacts on Cultural Resources

Based on the results of the cultural resources literature review, Phase I Archaeological Investigations and History/Architecture Investigations, Addendum Phase I Archaeological Investigations, and Addendum History/Architecture Investigations, no unique impacts to known significant cultural resources associated with the construction operation, and maintenance of the proposed Project are anticipated.

It should be noted, the Robinson Cemetery is located adjacent to the Alternate Route. Robinson Cemetery was recorded by the WPA, showing three possible burial plots, and a similar location as currently mapped. Based on the measurement provided by the OGS and WPA, it is unlikely the cemetery is located within the project area. However, if the Alternate Route is chosen for the proposed project, it should be noted there is a cemetery in the general vicinity of the project area. If evidence of this cemetery is discovered during construction of the project, the OHPO should be notified immediately.

(3) Mitigation Procedures

Based on the results of the literature review and Phase I Archaeological Investigations and History/Architecture Investigations, Addendum Phase I Archaeological Investigations, and Addendum History/Architecture Investigations conducted, no unique impacts to known significant cultural resources are anticipated. Therefore, no mitigation is proposed at this time.

(4) Aesthetic Impact

(a) Visibility of the Proposed Facility

In general, the Project will be visible in the immediate surrounding area as it will generally be taller than the surrounding facilities. However, the Project is not located near known lookouts or National Historic Landmarks (Figure 7-1). The Project area is located in a rural area with few residential structures. The viewshed of some residents will be altered by the presence of the

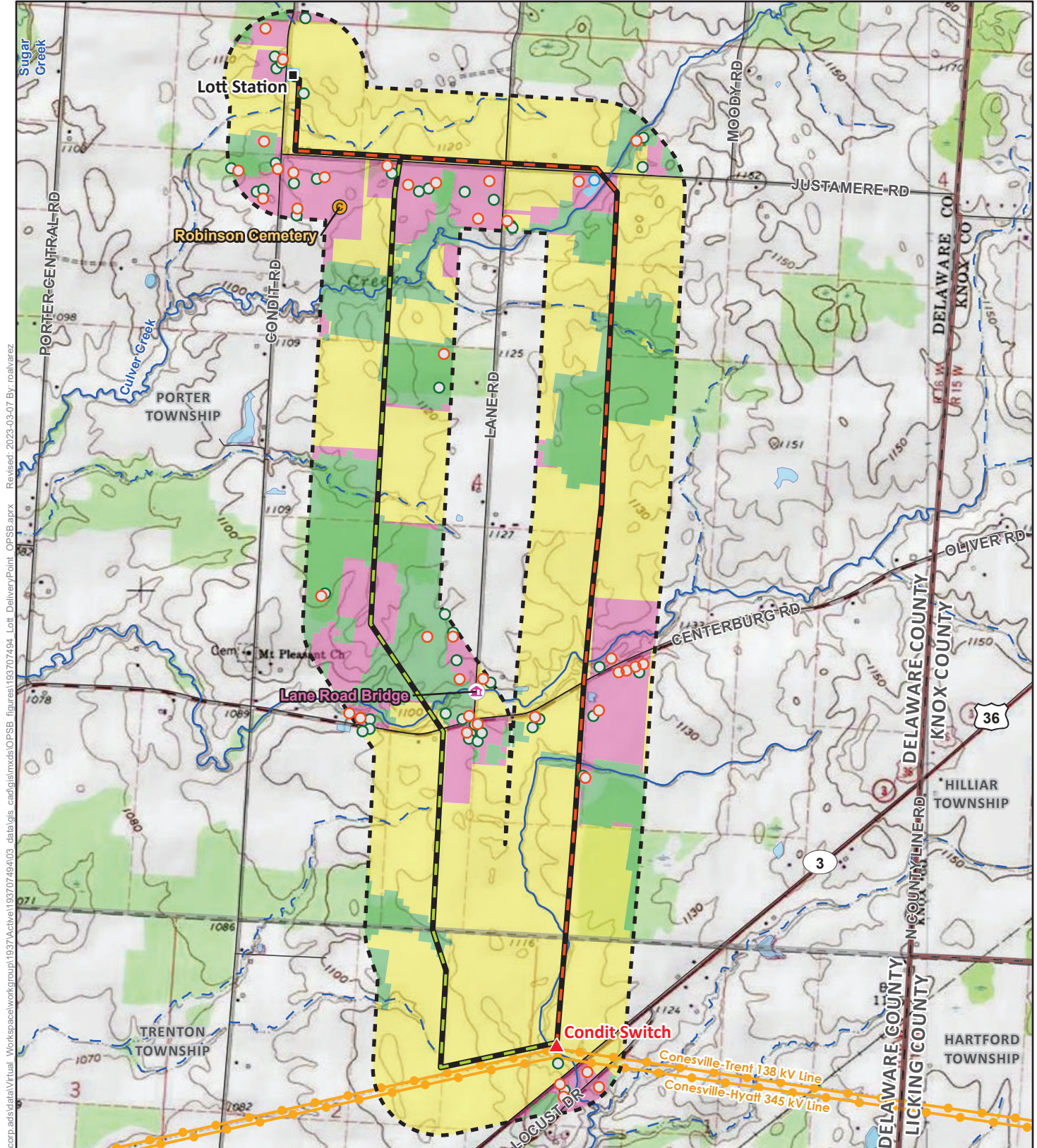
transmission line, as it will be constructed using more modern (steel) material. It is not anticipated that the Project will have an impact on the overall visual landscape.

(b) Facility Effect on Site and Surrounding Area

The viewshed along both the Preferred and Alternate Routes may be altered by the presence of the transmission line, as it will be constructed using more modern (steel) materials and will be generally taller than the existing facilities. The degree of visual impact may vary depending on exact viewpoint.

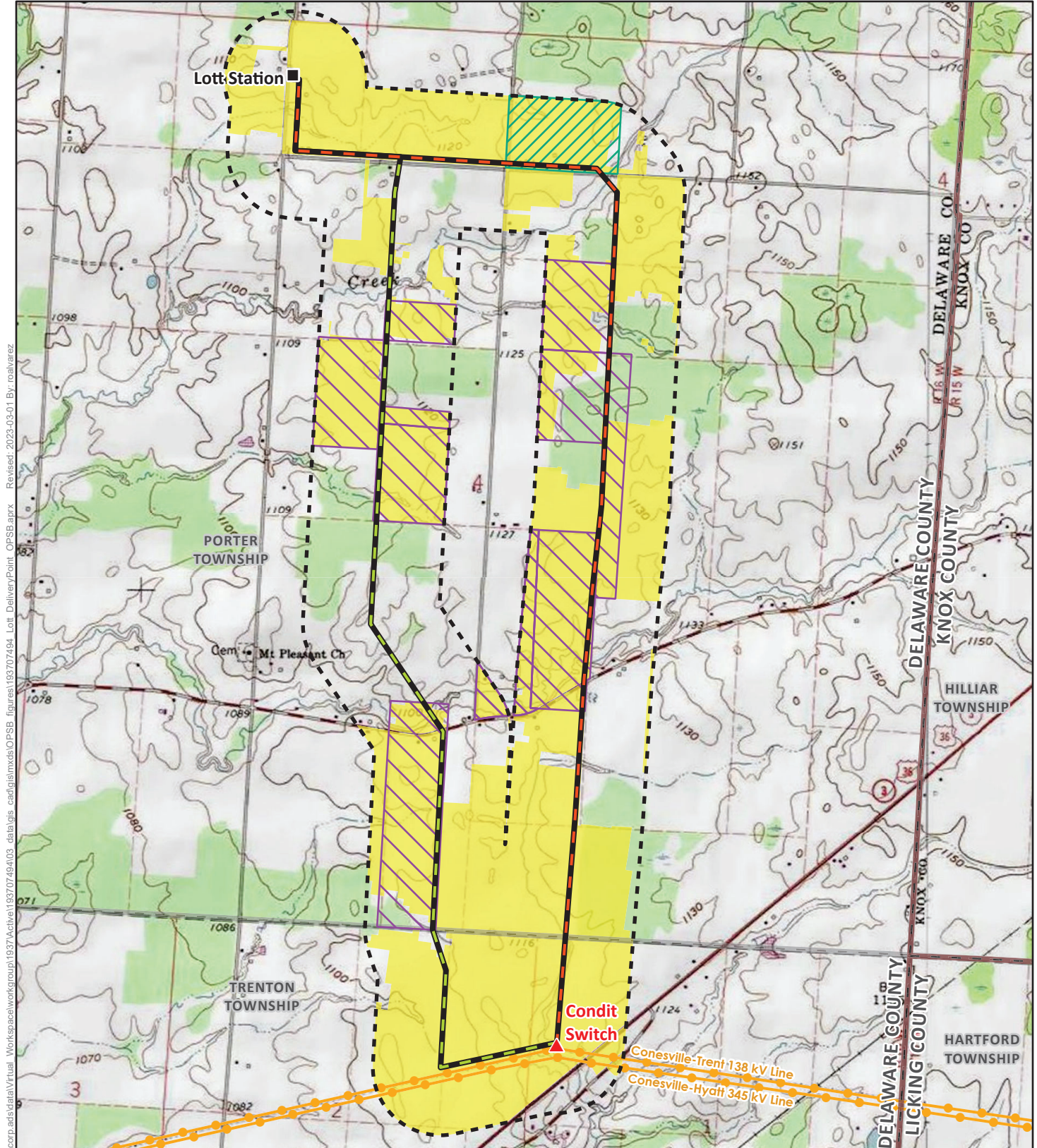
(c) Visual Impact Minimization

The ability to minimize the visual impacts of the Project is constrained by engineering requirements and the existing land use. The Company has limited the potential aesthetic impacts of the transmission line to the extent possible through route selection process.



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 Revised: 2023-03-07 By: roalvarez

| | | | | | |
|---|--|--|---|---------------------------|---|
| <p>Legend</p> <ul style="list-style-type: none"> ■ Existing Substation ▲ Proposed Condit Switch ▬ Preferred Route ▬ Alternate Route ▬ 1,000-Foot Buffer ▬ Existing Transmission Line ▬ Street ▬ Township Boundary ▬ County Boundary | <p>Sensitive Receptor</p> <ul style="list-style-type: none"> ○ Residential ○ Commercial/Business ○ Outbuilding <p>Land Use</p> <ul style="list-style-type: none"> ■ Agricultural ■ Commercial ■ Developed ■ Forested ■ Residential | <ul style="list-style-type: none"> ○ OGS Cemetery ○ Previously Recorded Historic Structure (No Longer Present) <p>National Hydrography Dataset</p> <ul style="list-style-type: none"> ▬ Perennial Stream ▬ Intermittent Stream ▬ Waterbody | <p>Data Sources: AEP, Stantec, ESRI, OHC, USGS, HIFLD, NLCD, Delaware Co., USGS 7.5' Topographic Quadrangles</p> <p>Coordinate System and Datum NAD 1983 State Plane Ohio North</p> <p>March 07, 2023</p> | <p>Locator Map</p> | <p align="center">FIGURE 7-1 Land Use Map</p> <p align="center">Lott 138kV Transmission Line Project</p> <p align="center"> <small>BOUNDLESS ENERGY</small> </p> <p align="center"> </p> |
|---|--|--|---|---------------------------|---|



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| Legend | |
|--------|--|
| | Existing Substation |
| | Proposed Condit Switch |
| | Preferred Route |
| | Alternate Route |
| | 1,000-Foot Buffer |
| | Existing Transmission Line |
| | Conservation Reserve Program Easement Parcel |
| | Ohio Department of Agriculture Easement Parcel |
| | Agricultural Land Use |

| |
|--|
| Data Sources: AEP, Stantec, ESRI, Delaware Co., NLCD, USGS 7.5' Topographic Quadrangles |
| Coordinate System and Datum NAD 1983 State Plane Ohio North |
| March 01, 2023 |



FIGURE 7-2
Agricultural Land Use Map

An AEP Company
BOUNDLESS ENERGY™

Lott 138kV Transmission Line Project

Miles

4906-05-08 ECOLOGICAL INFORMATION AND COMPLIANCE WITH PERMITTING REQUIREMENTS

In summer and fall of 2021, summer of 2022, and winter of 2023, the Company's consultant (Stantec Consulting Services Inc.) conducted a study to assess the potential effects of construction and operation of the proposed Project on the ecology of the affected area. A map and literature search were conducted of a 1,000-foot buffer on either side of the centerline of both the Preferred and Alternate Routes. A field survey of ecological habitat and features was performed within 150 feet on either side of the centerline for both the Preferred and Alternate Routes (hereafter referred to as the Survey Corridor). Information in the following paragraphs addresses the Company's ecological study conducted for both the Preferred and Alternate Routes.

(A) ECOLOGICAL MAP

An ecological overview map at a scale of 1:24,000 is provided as Figure 8-1. More detailed maps at a scale of 1:6,000 depicting field-delineated wetland and waterbody features, lakes, ponds, reservoirs, slopes of 12 percent or greater, wildlife areas, nature preserves, conservation areas, within the 1,000-foot buffer are provided as Figure 8-2 (Preferred Route) and Figures 8-3 (Alternate Route). These maps depict the transmission line alignments, substation locations, and delineated features. Figures provided in the Wetland and waterbody delineation report detail vegetation cover (Appendix 8-2). Features within 1,000 feet of the proposed routes were identified from published data and, where accessible, verified by the field ecological survey.

(B) FIELD SURVEY REPORT FOR VEGETATION AND SURFACE WATERS

The ecological surveys of the Survey Corridor were conducted in the summer and fall of 2021, summer of 2022, and winter of 2023 during several mobilizations by the Company's environmental consultant. The field survey was preceded by review of published mapping, aerial photography, protected federal and state-listed species information, and ecological information for at least 1,000 feet on either side of the Preferred and Alternate Route centerlines. Map sources included USGS 7.5-minute quadrangle topographic maps, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps, and U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey maps.

Information regarding existing flora and fauna and known occurrences of state-listed threatened and endangered species was requested from the Ohio Department of Natural Resources (ODNR) Office of Real Estate, Division of Wildlife (DOW), and Ohio Natural Heritage Program. This request indicated that the Natural Heritage Database has no records of state listed species occurring within one mile of the Survey Corridor. More detail on the data provided by the ODNR is provided in Section 4906-05-08 (C)(1) and a copy of the ODNR response letter is included in Appendix 8-1.

(1) Vegetative Communities, Wetlands, and Streams in Study Area

(a) Vegetative Communities

Vegetative communities and land use types within the Survey Corridor include agricultural field, pasture, old field, new field, hayfield, industrial land, existing roadway, mixed early successional/second growth deciduous forest, second growth coniferous forest, residential lawn, palustrine emergent (PEM) wetland, palustrine scrub-shrub (PSS) wetland, and palustrine forested (PFO) wetland. Habitat descriptions are provided below. More information is included in the Preferred and Alternate Route Ecological Survey Report included in Appendix 8-2.

(i) Agricultural Field, Hayfield, and Pasture

Portions of both the Preferred Route and Alternate Route cross agricultural fields, hayfields, and/or pasture fields. Production of species such as corn (*Zea mays*) and soybean (*Glycine max*) were observed in a large majority of the cultivated crop fields. Horse and cattle pastures were also observed along both routes.

Dominant plant species in the hayfield and pasture communities included:

- Alsike clover (*Trifolium hybridum*)
- Canada goldenrod (*Solidago canadensis*)
- Common milkweed (*Asclepias syriaca*)
- Redtop (*Agrostis gigantea*)
- Annual ragweed (*Ambrosia artemisiifolia*)
- Spotted Joe-pye weed (*Eutrochium maculatum*)
- Johnsongrass (*Sorghum halepense*)
- Canada thistle (*Cirsium arvense*)
- White clover (*Trifolium repens*)
- Fuller's teasel (*Dipsacus fullonum*)
- Red clover (*Trifolium repens*)
- Kentucky bluegrass (*Poa pratensis*)
- Tall fescue (*Schedonorus arundinaceus*)
- Giant ironweed (*Vernonia gigantea*)
- Orchardgrass (*Dactylis glomerata*)

(ii) Old Field and New Field

Herbaceous cover exists in the early successional old field communities. Old field plant communities are at the earliest stages of recolonization following disturbance. This community type is typically short-lived (less than 10 years), progressively giving way to shrub and forest communities unless periodically re-disturbed, in which case they remain as new fields. Old field and new field areas are located along both the Preferred and Alternate Routes.

Dominant plant species in the old field and new field communities included:

- Allegheny blackberry (*Rubus allegheniensis*)
- Amur honeysuckle (*Lonicera maackii*)
- Reed canarygrass (*Phalaris arundinacea*)
- Giant ironweed (*Vernonia gigantea*)
- Canada goldenrod (*Solidago canadensis*)
- Spotted Joe-pye weed (*Eutrochium maculatum*)
- Annual ragweed (*Ambrosia artemisiifolia*)
- Tall fescue (*Schedonorus arundinaceus*)
- Common milkweed (*Asclepias syriaca*)

(iii) Delineated Wetlands

Areas that satisfy wetland criteria as defined by the U.S. Army Corps of Engineers (USACE) Delineation Manual (USACE 1987) and the Midwest regional supplement (USACE 2010) were delineated as wetlands in the Survey Corridor. Wetlands were observed and delineated within both the Preferred Route and Alternate Route.

Dominant plant species observed within PEM wetlands include the following:

- Reed canarygrass (*Phalaris arundinacea*)
- Broadleaf cattail (*Typha latifolia*)
- Common rush (*Juncus effusus*)
- Green bulrush (*Scirpus atrovirens*)
- Fowl mannagrass (*Glyceria striata*)
- Rice cutgrass (*Leersia oryzoides*)
- Sweet woodreed (*Cinna arundinacea*)
- Fowl bluegrass (*Poa palustris*)
- Brome-like sedge (*Carex bromoides*)
- Halberdleaf tearthumb (*Persicaria arifolium*)
- Jewelweed (*Impatiens capensis*)

Dominant plant species observed within PSS wetlands include the following:

- White ash (*Fraxinus americana*)
- Boxelder (*Acer negundo*)
- Allegheny blackberry (*Rubus allegheniensis*)
- Coltsfoot (*Tussilago farfara*)
- Fowl mannagrass (*Glyceria striata*)
- Sweet woodreed (*Cinna arundinacea*)

Dominant plant species observed within PFO wetlands include the following:

- Bur oak (*Quercus macrocarpa*)
- White ash (*Fraxinus americana*)
- Fowl mannagrass (*Glyceria striata*)
- Sweet woodreed (*Cinna arundinacea*)
- Eastern poison ivy (*Toxicodendron radicans*)
- Fowl bluegrass (*Poa palustris*)
- Eastern bottlebrush grass (*Elymus hystrix*)
- Silver maple (*Acer saccharinum*)
- Slippery elm (*Ulmus rubra*)
- Gray's sedge (*Carex grayi*)

(i) Residential

Residential lawn areas occur surrounding or near homes or other habituated structures where regular maintenance occurs. Residential lawn habitat was identified within the Survey Corridor of both the Preferred Route and Alternate Route.

Dominant plant species in the residential lawn communities included:

- Kentucky bluegrass (*Poa pratensis*)
- Bermudagrass (*Cynodon dactylon*)
- Narrowleaf plantain (*Plantago lanceolata*)
- Common dandelion (*Taraxacum officinale*)
- Henbit deadnettle (*Lamium amplexicaule*)
- Perennial ryegrass (*Lolium perenne*)
- Timothy (*Phleum pratense*)
- Tall fescue (*Schedonorus arundinaceus*)

(ii) Successional and Second Growth Forests

Upland early successional or second growth forests are defined by temperate broadleaf trees and conifers. Within the Project area, these forests consisted of mixed early successional/second growth deciduous forest and second growth coniferous forest and were found in the Survey Corridor of both the Preferred and Alternate Routes.

Dominant plant species in the successional and second growth communities included:

- Shagbark hickory (*Carya ovata*)
- Sugar maple (*Acer saccharum*)
- Jewelweed (*Impatiens capensis*)

- Mayapple (*Podophyllum peltatum*)
- Canadian woodnettle (*Laportea canadensis*)
- Multiflora rose (*Rosa multiflora*)
- Virginia creeper (*Parthenocissus quinquefolia*)
- Eastern poison ivy (*Toxicodendron radicans*)
- Scotch pine (*Pinus sylvestris*)

(b) Wetlands

According to the USACE, a wetland is defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation (hydrophytic) typically adapted for life in saturated (hydric) soil conditions.

The Company's consultant used the onsite methodology described in the 1987 Technical Report Y-87-1, USACE Wetlands Delineation Manual (USACE 1987) and subsequent guidance documents including the 2010 Regional Supplement to the USACE Wetland Delineation Manual: Midwest Region Version 2.0 (USACE 2010). Additionally, each identified wetland was evaluated in accordance with the Ohio Rapid Assessment Method (ORAM) developed by Ohio Environmental Protection Agency (OEPA) (Mack 2001). Wetland categorizations were conducted in accordance with the latest quantitative score calibration procedure (Mack 2001). To identify whether potential wetlands exist along the Preferred and Alternate Routes, a desktop study of available resources was performed prior to the wetland delineation field surveys. Additionally, USFWS NWI maps and the NRCS soil survey and hydric soil list for Delaware County were reviewed for areas within 1,000 feet of the Preferred and Alternate Routes (NRCS 2001).

(i) Summary of National Wetland Inventory Data

USFWS NWI data, including freshwater wetlands and riverine areas, were mapped within 100 feet of the Preferred and Alternate Routes and reviewed to guide the field ecological survey as one factor in identifying potential wetland locations (USFWS 2022a). The NWI-mapped areas for the Preferred and Alternate Routes are shown on Figures 8-2 and 8-3, respectively. Table 8-1 summarizes the NWI data by wetland classification and habitat type. The actual extent and type of field-delineated wetlands along the routes are discussed in the next section.

Table 8-1. NWI Wetlands Within 100 feet of the Preferred and Alternate Routes

| Wetland Type | NWI Code | NWI Habitat Type* | Total Number of Each Habitat Type Preferred/Alternate |
|--------------|----------|--|---|
| Riverine | R4SBC | Riverine, intermittent streambed, seasonally flooded | 2 - Preferred 2 - Alternate |

| Wetland Type | NWI Code | NWI Habitat Type* | Total Number of Each Habitat Type Preferred/Alternate |
|---|----------|---|---|
| | R5UBH | Riverine, unknown perennial, unconsolidated bottom, permanently flooded | 3 - Preferred 3 - Alternate |
| Freshwater Forested Wetland | PFO1C | Palustrine forested, broad-leaved deciduous, seasonally flooded | 1 – Preferred 0 – Alternate |
| Freshwater Pond | PUBGx | Palustrine unconsolidated bottom, intermittently exposed, excavated | 2 – Preferred 0 - Alternate |
| Total Number of NWI Wetlands within 100-feet of the Preferred Route: | | | 8 |
| Total Number of NWI Wetlands within 100-feet of the Alternate Route: | | | 5 |

*USFWS 2016

(ii) Field-Delineated Wetlands

Twenty wetlands (totaling 8.83 acres) were delineated within the Preferred Route Survey Corridor. Thirteen wetlands (totaling 3.95 acres) were delineated within the Alternate Route Survey Corridor. Four of the delineated wetlands occur where the routes overlap (totaling 0.42 acre).

Within the 80-foot ROW, a total of 2.53 acres of wetlands were delineated within the Preferred Route ROW and 1.02 acres of wetlands within the Alternate Route ROW. Within the overlap there are 0.19 acre of wetlands within both the Preferred and Alternate Route ROW’s. These field-delineated wetlands for the Preferred and Alternate Routes are mapped on Figures 8-2A through 8-2E and Figures 8-3A through 8-3E, respectively.

Detailed information on each wetland is provided in Table 8-2. The anticipated temporary construction impacts, on these wetlands are included in Table 8-5 and further discussed in Section 4906-5-08(B)(3)(b).

Table 8-2. Delineated Wetlands within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

| Wetland Name | Page Number on Figure | Cowardin Wetland Type ^a | ORAM Score | ORAM Category | Acreage Within Survey Corridor ^{b,d} | Preferred Route | | Alternate Route | |
|--------------|-----------------------|------------------------------------|------------|---------------|---|--|-------------------------------------|--|-------------------------------------|
| | | | | | | Acreage Within Potential Disturbance Area/ROW ^{c,d} | Length Crossed by Centerline (feet) | Acreage Within Potential Disturbance Area/ROW ^{c,d} | Length Crossed by Centerline (feet) |
| Wetland 1 | 8-2A, 8-3A | PEM | 18 | 1 | 0.31 | 0.17 | 97.35 | 0.17 | 97.35 |
| Wetland 2 | 8-2A, 8-3A | PEM | 20 | 1 | 0.05 | 0.02 | -- | 0.02 | -- |
| Wetland 3 | 8-2B | PEM | 7 | 1 | 0.08 | 0.03 | 8.06 | -- | -- |
| Wetland 4 | 8-2B | PSS | 41 | Modified 2 | 0.03 | <0.01 | -- | -- | -- |
| Wetland 5 | 8-2B | PFO | 43 | Modified 2 | 0.07 | -- | -- | -- | -- |
| Wetland 6 | 8-2C | PFO | 35 | Modified 2 | 0.34 | 0.03 | 6.45 | -- | -- |
| Wetland 7 | 8-2C | PFO | 36 | Modified 2 | 0.12 | 0.12 | 85.19 | -- | -- |
| Wetland 8 | 8-2C | PFO | 31.5 | 2 | 6.07 | 1.43 | 540.78 | -- | -- |
| Wetland 9 | 8-2D | PEM | 32 | 2 | 0.26 | 0.24 | 148.80 | -- | -- |
| | | PFO | | | 1.26 | 0.47 | 264.41 | -- | -- |
| Wetland 10 | 8-2A, 8-3A | PEM | 16 | 1 | 0.05 | -- | -- | -- | -- |
| Wetland 11 | 8-2A, 8-3A | PEM | 17 | 1 | <0.01 | -- | -- | <0.01 | -- |
| Wetland 12 | 8-2B | PEM | 6 | 1 | 0.01 | -- | -- | -- | -- |
| Wetland 13 | 8-2B | PEM | 37 | Modified 2 | <0.01 | -- | -- | -- | -- |
| Wetland 14 | 8-2B | PEM | 55 | 2 | 0.01 | -- | -- | -- | -- |
| Wetland 15 | 8-2C | PFO | 39.5 | Modified 2 | 0.04 | 0.01 | -- | -- | -- |
| Wetland 16 | 8-2C | PEM | 35 | Modified 2 | <0.01 | -- | -- | -- | -- |
| Wetland 17 | 8-2C | PEM | 48 | 2 | 0.04 | -- | -- | -- | -- |

| Wetland Name | Page Number on Figure | Cowardin Wetland Type ^a | ORAM Score | ORAM Category | Acreage Within Survey Corridor ^{b,d} | Preferred Route | | Alternate Route | |
|---------------|-----------------------|------------------------------------|------------|---------------|---|--|-------------------------------------|--|-------------------------------------|
| | | | | | | Acreage Within Potential Disturbance Area/ROW ^{c,d} | Length Crossed by Centerline (feet) | Acreage Within Potential Disturbance Area/ROW ^{c,d} | Length Crossed by Centerline (feet) |
| Wetland 18 | 8-2C | PEM | 33 | 2 | 0.05 | -- | -- | -- | -- |
| Wetland 19 | 8-2D | PSS | 20 | 1 | 0.01 | -- | -- | -- | -- |
| Wetland 20 | 8-2D | PEM | 23 | 1 | 0.09 | -- | -- | -- | -- |
| Wetland 21 | 8-3C | PFO | 32 | 2 | 0.94 | -- | -- | 0.39 | 192.41 |
| Wetland 22 | 8-3C | PEM | 17 | 1 | 0.03 | -- | -- | -- | -- |
| Wetland 23 | 8-3C | PEM | 47 | 2 | 0.28 | -- | -- | 0.04 | 23.32 |
| Wetland 24 | 8-3B | PEM | 37 | Modified 2 | 0.16 | -- | -- | 0.03 | 16.99 |
| | | PFO | | | 0.43 | -- | -- | 0.12 | 91.44 |
| Wetland 25 | 8-3B | PFO | 29 | 1 | 0.06 | -- | -- | -- | -- |
| Wetland 26 | 8-3B | PEM | 29 | 1 | 0.07 | -- | -- | 0.04 | -- |
| | | PFO | | | 0.95 | -- | -- | 0.15 | 49.41 |
| Wetland 27 | 8-3B | PFO | 39 | Modified 2 | 0.30 | -- | -- | 0.02 | -- |
| Wetland 28 | 8-3A | PEM | 35 | Modified 2 | 0.23 | -- | -- | 0.03 | 18.97 |
| Wetland 29 | 8-3C | PEM | 49 | 2 | 0.08 | -- | -- | -- | -- |
| Totals | | | | | 12.44 | 2.53 | 1,151.04 | 1.02 | 489.89 |

^aWetland Type: PEM= palustrine emergent, PSS= palustrine scrub-shrub, PFO= palustrine forested

^bThe width of the Survey Corridor was 300 feet

^cThe width of the potential disturbance area and the final maintained ROW is planned to be 80 feet

^dAll measurements listed as less than 0.01 were assumed to be 0.01 for calculations.

(c) Waterbodies

(i) Field Delineated Streams

Streams and drainage channels were delineated and assessed during the ecological field surveys completed for the Preferred and Alternate Routes. Streams with drainage areas greater than 1 square mile or maximum pool depths greater than 40 centimeters (cm) were assessed using the OEPA Qualitative Habitat Evaluation Index (QHEI). The QHEI is one measure that is used by OEPA, in association with biotic sampling, to determine a stream's aquatic life use designation in accordance with the Ohio water quality standards (OEPA 2006). The QHEI method classifies streams based on their drainage area. Streams that drain greater than or equal to 20 square miles are classified as "larger streams," while those that drain less than 20 square miles are classified as "headwaters." Three streams identified within the Survey Corridor were evaluated using the QHEI method. Of these streams, one is located in both the Preferred and Alternate Route. Field personnel completed the QHEI data forms near the proposed transmission line crossing when possible.

The OEPA's Headwater Habitat Evaluation Index (HHEI) is used to evaluate streams with a drainage area less than or equal to one square mile, and maximum pools depths less than or equal to 40 cm (OEPA 2020). The HHEI is generally used to assess Primary Headwater Habitat (PHWH) streams that typically fall under the classification of first or second-order streams. The HHEI rates a stream based on its physical habitat and uses that information to determine the biological potential of the stream. The physical habitats scored for the HHEI are substrate type, pool depth, and bank full width. Scores for Class I PHWH Streams range from 0 to 29.9; scores for Class II PHWH Streams range from 30 to 69.9; and scores for Class III PHWH Streams range from 70 to 100. A "Modified" qualifier may be added as a prefix to any of these classes if evidence of anthropogenic alterations, such as channelization and bank stabilization, are observed. A higher score and PHWH class corresponds with a more continuous flow regime, corresponding with better quality and more diverse habitat. The flow regime determines the physical habitat of the stream and is therefore indicative of the biological communities it can support. A total of 10 streams were evaluated using the HHEI method. Three streams were identified along both the Preferred and Alternate Route Survey Corridors, an additional three were identified along the Preferred Route Survey Corridor, and an additional four were identified along the Alternate Survey Corridor.

The HHEI evaluations were completed near the proposed transmission line crossing points, if crossed by the proposed alignment. Multiple HHEI evaluations were completed at streams that exhibited significant change in either flow regime, substrate, size, and/or other characteristics that could potentially significantly change the outcome of the stream's score.

Streams identified during the ecological survey of the Preferred and Alternate Routes are shown on Figures 8-2A through 8-2E and Figures 8-3A through 8-3E, respectively. Detailed information on each delineated stream is included in Table 8-3. Aquatic life use designations within the Central Ohio tributaries basin obtained from O.A.C. 3745-1-09 are also provided.

The length of delineated streams located within the Preferred and Alternate Route Survey Corridors is approximately 5,934 linear feet. Approximately 915 linear feet of stream is located within the Preferred Route 80-foot ROW and approximately 612 linear feet of stream is located within the Alternate Route 80-foot ROW. Construction impacts of these features are included in Table 8-3 and further discussed in Section 4906-05-08(8)(3)(c).

Table 8-3. Streams Within the Preferred and Alternate Route Environmental Field Survey Area and Potential Disturbance Area/ROW

| Stream ID/ Waterbody Name | Figure | Flow Regime | Top of Bank Width (feet) | Maximum Pool Depth (inches) | Form | Score | OEPA Aquatic Life Use Designation | PHWH Class (HHEI)/ Narrative Rating (QHEI) | Length (linear feet) within Survey Corridor ^a | Preferred Route | | Alternate Route | |
|---------------------------------|----------------|----------------|-----------------------------------|-----------------------------------|------|-------|--|--|--|--------------------------|---|--------------------------|---|
| | | | | | | | | | | Crossed by Centerline | Length (linear feet) within Potential Disturbance Area/ROW ^b | Crossed by Centerline | Length (linear feet) within Potential Disturbance Area/ROW ^b |
| Stream 1 | 8-2A, 8-3A | Intermittent | 4 | 2 | HHEI | 54/33 | N/A | Modified Class II PHWH | 678 | Yes | 88 | Yes | 88 |
| Stream 2 (Culver Creek) | 8-2B, 8-3A | Perennial | 20 | 18 | QHEI | 50 | Warmwater Habitat | Fair | 701 | Yes | 93 | Yes | 86 |
| | | | 12 | | | 44 | | | | | | | |
| Stream 3 | 8-2C | Intermittent | 4.5 | 3.5 | HHEI | 37 | N/A | Modified Class II PHWH | 393 | Yes | 113 | No | -- |
| Stream 4 | 8-2D | Perennial | 16 | 28 | QHEI | 62.5 | N/A | Fair | 358 | Yes | 83 | No | -- |
| Stream 5 | 8-2D | Intermittent | 7 | 4 | HHEI | 43 | N/A | Modified Class II PHWH | 287 | Yes | 82 | No | -- |
| Stream 6 | 8-2E, 8- 3D | Perennial | 9 | 6 | HHEI | 54 | N/A | Modified Class II PHWH | 1,693 | Yes | 458 | Yes | 86 |
| | | | 9/4.3 | 10 | | 60/32 | | | | | | | |
| Stream 7 | 8-3C | Ephemeral | 4 | 0.5 | HHEI | 39 | N/A | Modified Class II PHWH | 208 | No | -- | Yes | 181 |
| Stream 8 | 8-3C | Perennial | 35 | 30 | QHEI | 60 | N/A | Good | 871 | No | -- | Yes | 83 |

| Stream ID/ Waterbody Name | Figure | Flow Regime | Top of Bank Width (feet) | Maximum Pool Depth (inches) | Form | Score | OEPA Aquatic Life Use Designation | PHWH Class (HHEI)/ Narrative Rating (QHEI) | Length (linear feet) within Survey Corridor ^a | Preferred Route | | Alternate Route | |
|---------------------------------|--------|----------------|-----------------------------------|-----------------------------------|------|-------|--|--|--|--------------------------|---|--------------------------|---|
| | | | | | | | | | | Crossed by Centerline | Length (linear feet) within Potential Disturbance Area/ROW ^b | Crossed by Centerline | Length (linear feet) within Potential Disturbance Area/ROW ^b |
| Stream 9 | 8-3C | Intermittent | 4 | 2 | HHEI | 43 | N/A | Modified Class II PHWH | 281 | No | -- | Yes | 85 |
| Stream 10 | 8-3C | Ephemeral | 6 | 3.5 | HHEI | 51 | N/A | Modified Class II PHWH | 112 | No | -- | No | -- |
| Stream 11 | 8-3B | Intermittent | 8 | 2 | HHEI | 44 | N/A | Modified Class II PHWH | 114 | No | -- | No | 4 |
| Stream 12 | 8-3B | Intermittent | 3 | 4 | HHEI | 27 | N/A | Modified Class I PHWH | 213 | No | -- | No | -- |
| Stream 13 | 8-2B | Ephemeral | 2.25 | 0 | HHEI | 18 | N/A | Modified Class I PHWH | 25 | No | -- | No | -- |
| Totals: | | | | | | | | | 5,934 | -- | 917 | -- | 613 |

^a Total width of Survey Corridor was approximately 300 feet

^b The width of potential disturbance area and the final maintained ROW is planned to be 80 feet.

(ii) Lakes, Ponds, and Reservoirs

No lakes or reservoirs were observed along the proposed Preferred or Alternate Routes. Two ponds (open waters) were identified during the field evaluation along the Preferred Route and Alternate Route. Ponds identified within the Survey Corridor are shown on Figures 8-2A through 8-2E and Figures 8-3A through 8-3E and are summarized in Table 8-4.

Impacts to ponds from construction, operation, or maintenance of the proposed transmission line are not anticipated. Best management practices (BMP) to control soil erosion and sedimentation (for example, using silt fencing and filter sock as appropriate during construction to minimize runoff siltation) will be utilized.

Table 8-4. Delineated Ponds Within the Preferred Route and Alternate Route Environmental Field Survey Area

| Feature Name | Figure | Acreage Within Survey Corridor ^a | Preferred Route | | Alternate Route | |
|----------------|------------|---|--|-----------------------------------|--|-----------------------------------|
| | | | Acreage Within Potential Disturbance Area/ROW ^b | Linear Feet Crossed by Centerline | Acreage Within Potential Disturbance Area/ROW ^b | Linear Feet Crossed by Centerline |
| Open Water 1 | 8-2A, 8-3A | 0.05 | 0 | 0 | 0 | 0 |
| Open Water 2 | 8-2D | 0.10 | 0 | 0 | 0 | 0 |
| Totals: | | 0.15 | 0 | 0 | 0 | 0 |

^a Total width of Survey Corridor was approximately 300 feet

^b The width of potential disturbance area and the final maintained ROW is planned to be 80 feet.

(2) Map of Facility, Right-of-Way, and Delineated Resources

Figures 8-2 and 8-3 provide details of the proposed ROW and delineated wetlands and waterbodies for the Preferred and Alternate Routes. Mapping depicting the Survey Corridors and delineated features are included in the Ecological Survey Report prepared for the Preferred Route and Alternate Route and included in Appendix 8-2.

(3) Construction Impacts on Vegetation and Surface Waters

(a) Construction Impacts on Vegetation

The construction impacts on vegetation along the Preferred and Alternate Routes will be limited to initial clearing of vegetation within the 80-foot ROW for the proposed transmission line and the defined access roads. Final locations for access roads will be identified at the time of the Company

transmission line easement acquisition process. Trees adjacent to the proposed ROW that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe operation of the transmission line. Vegetative wastes (such as tree limbs and trunks) generated during the construction phase will be windrowed or chipped and disposed of appropriately depending on individual landowner requests. The approximate vegetation impacts, based on GIS analysis, along the Preferred and Alternate Route ROWs are provided in Table 8-5.

Table 8-5. Approximate Vegetation Impacts Along the Potential Disturbance Area/ROW

| Land Use Type | Preferred Route | | | Alternate Route | | |
|----------------------|---------------------------|----------------------------|---------------------------------|---------------------------|----------------------------|---------------------------------|
| | Length of Route (in feet) | Length of Route (in miles) | Acreage within ROW ^a | Length of Route (in feet) | Length of Route (in miles) | Acreage within ROW ^a |
| Agricultural Field | 12,220 | 2.31 | 22.78 | 11,588 | 2.19 | 20.74 |
| Pasture/Hayfield | 0 | 0 | 0 | 2,244 | 0.43 | 3.99 |
| New Field | 235 | 0.04 | 0.58 | 38 | <0.01 | 0.07 |
| Old Field | 1,300 | 0.25 | 2.58 | 539 | 0.10 | 1.14 |
| Forested | 3,550 | 0.67 | 5.47 | 3,260 | 0.62 | 6.27 |
| Forested Wetlands | 897 | 0.17 | 2.06 | 333 | 0.06 | 0.67 |
| Scrub-shrub Wetlands | 50 | 0.01 | <0.01 | 0 | 0 | 0 |
| Residential | 114 | 0.02 | 0.21 | 50 | 0.01 | 0.21 |
| Industrial/roadway | 116 | 0.02 | 0.27 | 87 | 0.02 | 0.21 |

^a The width of potential disturbance area and the final maintained ROW is planned to be 80 feet.

(b) Construction Impacts on Wetlands

Preferred Route: During the ecological field surveys and associated wetland and waterbody delineations, nine wetlands were identified along the Preferred Route within the proposed 80-foot ROW, totaling 2.53 acres. The delineated wetlands are shown on Figures 8-2A through 8-2E. Detailed information about each feature can be found in Table 8-2 in Section 4906-05-08(B)(b)(ii). Six of these wetlands are crossed by the Preferred Route centerline, totaling 1,151 linear feet. Impacts to the wetlands will be avoided by placing transmission line structures outside of wetland boundaries, where practical. Where temporary construction access through a wetland cannot be avoided, the crossing will occur during dry conditions or protective construction matting will be used to minimize impacts from construction vehicles.

Wetland ORAM categories delineated in the Preferred Route ROW are detailed below:

- Category 1 wetlands: Three Category 1 wetlands with ORAM scores ranging from 7 to 18 were identified within the ROW, totaling 0.22 acre. No Category 1 PFO or PSS wetlands will be impacted through the clearing of trees and shrubs during construction.

- Category Modified 2 wetlands: Four Category Modified 2 wetlands with ORAM scores ranging from 39.5 to 41 were identified within the ROW, totaling 0.02 acre. Approximately 0.16 acre of PFO and approximately 0.003 acre of PSS wetlands will be impacted through the clearing of trees and shrubs during construction.
- Category 2 wetlands: Two Category 2 wetlands with ORAM scores 31.5 to 32 were identified within the proposed ROW, totaling 2.14 acres. Approximately 1.9 acres of PFO wetlands will be impacted through the clearing of trees and shrubs during construction.
- Category 3 wetlands: No Category 3 wetlands will be crossed; therefore, no construction impacts are anticipated.

Alternate Route: During wetland and waterbody delineations, nine wetlands were identified along the Alternate Route 80-foot ROW, totaling 1.02 acres. The delineated wetlands are shown on Figures 8-3A through 8-3E. Detailed information about each feature can be found in Table 8-2 in Section 4906-05-0B(B)(b)(ii). Seven wetlands are crossed by the centerline of the proposed Alternate Route, totaling 490 linear feet. Impacts to wetlands will be avoided by placing transmission line structures outside wetland boundaries, where practical. Where temporary construction access through a wetland cannot be avoided, the crossing will occur during dry conditions or matting will be used to minimize impacts.

Wetland ORAM categories delineated in the Alternate Route ROW are detailed below:

- Category 1 wetlands: Four Category 1 wetlands with ORAM scores ranging from 17 to 29 were identified within the proposed ROW, totaling 0.39 acre. Approximately 0.15 acres of PFO wetlands will be impacted through the clearing of trees and shrubs during construction.
- Category Modified 2 wetlands: Three Category Modified 2 wetlands with ORAM scores ranging from 35 to 39 were identified within the proposed ROW, totaling 0.2 acres. Approximately 0.14 acre of PFO wetlands will be impacted through the clearing of trees and shrubs during construction.
- Category 2 wetlands: Two Category 2 wetlands with ORAM scores of 32 and 47 were identified within the proposed ROW, totaling 0.43 acre. Approximately 0.39 acre of PFO wetlands will be impacted through the clearing of trees and shrubs during construction.
- Category 3 wetlands: No Category 3 wetlands will be crossed; therefore, no construction impacts are anticipated.

Through appropriate planning and permitting, care will be taken near wetlands to avoid or minimize filling and sedimentation during construction. The Company will avoid the placement of pole structures within wetlands to the extent practical. Non mechanized clearing will be required to remove specific types of woody vegetation in wetlands that might impede construction or

interfere with operation of the transmission line. Where wooded or forested wetlands occur within the ROW, the trees will be removed.

To minimize soil erosion and sedimentation during construction, BMPs such as utilization of silt fences, filter sock, and construction matting will be implemented as required during construction. Sedimentation potential at wetlands is unlikely because of the plans for structure placement outside of wetlands, and the fact that construction equipment will only cross wetlands if necessary and will do so using construction matting if wet conditions require.

Disturbance of soils in wetland areas during construction will be minimized. No permanent fill material will be placed in any wetland area. If it is necessary to place a pole or guy wires within a wetland, they will be accessed using construction matting if wet conditions exist at the time of construction. No excavation other than the boring or excavation of a hole for pole installation will be performed within a wetland. If pole placement is required within a wetland, no additional fill will be placed in the wetlands beyond the placement of the pole structure and borehole backfill.

Wetland areas will be clearly staked prior to the commencement of any clearing to minimize incidental vehicle impacts. Other than the possibility of pole locations within wetlands discussed above, operation of heavy mechanized equipment is not planned within any identified wetland areas, although some construction equipment may need to cross wetland areas on construction matting if wet conditions exist at the time. Woody vegetation in wetlands will be hand-cut by chain saws or other non-mechanized techniques. The Company will perform all construction work in accordance with the conditions and requirements of regulatory permits obtained for the Project.

(c) Construction Impacts on Waterbodies

The Preferred Route centerline has six crossings and the Alternate Route centerline has six crossings. Detailed information about each feature can be found in Table 8-3 in Section 4906- 05-0B(B)(c)(i).

Approximately 915 linear feet of stream is located within the Preferred Route ROW, approximately 612 linear feet is located within the Alternate Route ROW.

The Company will not conduct mechanized clearing within 25 feet of any stream and will only clear (using hand cutting techniques) those trees in this area that are tall enough to or have the potential to interfere with safe construction and operation of the line. No streams will be filled or permanently impacted. Some streams may have to be crossed by construction vehicles and will be bridged over with no impact to the stream. Temporary access bridges or culvert stream crossings will be used for high quality perennial, ephemeral, and intermittent streams.

- Stream bank vegetation will be preserved to the maximum extent practical, and the stream crossing width will be kept as narrow as possible. Clearing will be done by hand cutting rather than grubbing. Roots and stumps will be left in place to aid stabilization and to accelerate re-vegetation.

- Sediment laden runoff will be controlled to minimize flowing from the access road directly into the stream. Diversions and swales will be used to direct runoff to stormwater management locations. Silt fence or filter sock will be used as needed according to local topographic conditions.
- Bridges will be constructed to span the entire channel. If the channel width exceeds 8 feet, then a floating pier or bridge support may be placed in the channel. No more than one pier, footing, or support will be allowed for every 8 feet of span width. No footings, piers, or supports will be allowed for spans of less than 8 feet.
- No fill other than clean stone, free from soil, will be placed within the stream channel.

These crossings will be addressed in the Project SWPPP.

Impacts to ponds are not anticipated by the construction, operation, or maintenance of the proposed transmission line. BMPs, including utilization of silt fence or filter sock, will be used as appropriate during construction to minimize runoff siltation.

(4) Operation and Maintenance Impacts on Vegetation and Surface Water

During operation of the transmission line along either of the proposed routes, the impacts on vegetation are anticipated to be minor. Undeveloped non-forested land not significantly disturbed by construction should retain its current vegetation composition. Periodic cutting along the proposed 80-foot-wide transmission line ROW is not expected to result in a significant environmental impact to the vegetation in these types of areas.

The potential impacts on woody and herbaceous vegetation along either of the proposed routes will be limited to maintenance activities along the proposed transmission line ROW and access roads for safe and reliable operation of the transmission line. Trees adjacent to the proposed transmission line ROW that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe operation of the transmission line. Vegetative waste (such as tree limbs and trunks) that is generated during the construction phase will be windrowed or chipped and disposed of appropriately depending on individual landowner requests.

Once the transmission line is in operation, no significant impacts to streams, drainage channels, or wetlands are anticipated. Only periodic selective removal of vegetation that interferes with the operation of the transmission line will be required. No major lakes, ponds, or reservoirs should be affected by the operation or maintenance of the Preferred or Alternate Routes.

(5) Mitigation Procedures

The following mitigation procedures will be used during construction, operation, and maintenance of the proposed Project to minimize the impact on vegetation and surface waters. A SWPPP will also be prepared and implemented and will be made available onsite during Project construction.

(a) Site Restoration and Soil Stabilization

A SWPPP will be developed specifically for the Project and specified BMPs will be implemented during construction to control erosion and sedimentation. Areas where soil has been disturbed will be seeded and mulched to prevent soil erosion and sedimentation. Experience shows that seeding in non-wetland and non-agricultural areas is advantageous to control erosion on areas disturbed by construction activities. In lightly disturbed wetland areas, existing seed banks are quite often capable of quickly reestablishing vegetation that is compatible with the surrounding wetland. If any unanticipated significant disturbance occurs in wetlands, topsoil will be segregated and replaced so that the existing seed banks will be allowed to revegetate the areas initially. Additional seeding will only take place if the existing seed bank does not repopulate an area. These measures should preserve the aesthetic qualities along the ROW, prevent erosion, and promote habitat diversity.

Construction access routes and staging areas will be selected to minimize impacts to wetlands and streams to the extent practical. Following construction, pole locations, material storage sites, and temporary access roads will be seeded with a suitable grass seed mixture as specified in the SWPPP for restoring these disturbed areas.

(b) Contingency Plan Stream and Wetland Crossings

The Project does not include a stream or wetland crossing by horizontal direction drill. Therefore, a detailed frac-out (inadvertent return) contingency plan will not be required for the Project.

(c) Demarcation and Protection Methods

Wetlands, streams, and any other environmentally sensitive areas will be clearly staked, flagged, or fenced in accordance with the SWPPP prior to the commencement of any clearing to minimize incidental impacts. BMPs such as utilization of silt fences and construction matting will be implemented as required during construction.

(d) Procedures for Inspection and Repair of Erosion Control Measures

Procedures for inspection and repair of erosion control measures, especially after rainfall events will be outlined in the SWPPP.

(e) Stormwater Runoff Measures

BMPs, including utilization of silt fence or filter socks, will be used as appropriate during construction to minimize runoff and sedimentation of streams and wetlands. Measures to divert stormwater runoff away from fill slopes and other exposed surfaces will be outlined in the SWPPP.

(f) Vegetation Protection Methods

Vegetation that occurs within wetland areas may require periodic cutting. Maintenance cutting of woody vegetation in wetland areas would be hand-cut by chain saws or other non-mechanized techniques. Cutting of woody vegetation in wetlands and near stream banks will be limited to removal of only the cut back required to safely perform construction and continue operation of the

transmission line. The Company will adhere to regulatory permit requirements and conditions that will be obtained or authorized for the Project, including specifying that no mechanized clearing of vegetation be performed within the prescribed distance of a wetland or waterbody as discussed below.

(g) Clearing Methods

The Company will not conduct mechanized clearing within 25 feet of any stream and will only clear (using hand-cutting techniques) those trees in this area that are tall enough to or have the potential to interfere with safe and reliable construction and operation of the transmission line. Selective clearing will be required to remove woody vegetation in wetlands that might impede construction or interfere with operation of the transmission line. Where wooded wetlands occur within the ROW, the trees will be removed. Trees adjacent to the proposed transmission line ROW that are dead, dying, diseased, leaning, significantly encroaching, or prone to failure may require clearing to allow for safe and reliable operation of the transmission line. Vegetative waste (such as tree limbs and trunks) that is generated during the construction phase will be windrowed or chipped and disposed of appropriately depending on landowner requests.

(h) Expected Use of Herbicides

The Company does not anticipate the use of herbicides on the Project.

(C) LITERATURE SURVEY OF PLANT AND ANIMAL LIFE POTENTIALLY AFFECTED

The Project area is primarily comprised of a rural setting with few residences. The developed areas are dominated by residences, hayfields, new field, pastures, and agricultural fields. The rural areas are mostly comprised of old fields, pastures, and upland forests. Both the Preferred and Alternate Routes have potential habitat for wildlife species.

Lists of protected species are typically based on their range within Delaware County, as reported in correspondence from the ODNR and USFWS. More information regarding federally listed and state-listed threatened and endangered species and their potential to be impacted by the project is provided below.

(1) Project Vicinity Species Descriptions

Coordination with ODNR Office of Real Estate was initiated to obtain an Environmental Review and Ohio Natural Heritage Database records of known occurrences of state-listed threatened and endangered species within a one-mile buffer around the Preferred and Alternate Routes. The ODNR Office of Real Estate response letter dated May 5, 2020 (provided in Appendix 8-1) indicates that the Natural Heritage Database has no records of state-listed endangered or threatened plants or animals within a one-mile radius of the Project. However, the ODNR response letter stated that the Project is within the range of six state endangered or threatened species.

The Project is within the range of the Indiana bat (*Myotis sodalis*; federally listed endangered and state-listed endangered), and therefore the ODNR recommends that if suitable Indiana bat habitat is identified within the Project area that this habitat is conserved. If suitable trees must be cut, the ODNR recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the ODNR recommends a bat mist net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species. In addition, three threatened and endangered bat species occur throughout Ohio, including the northern long-eared bat (*Myotis septentrionalis*; federally listed threatened and state-listed endangered), little brown bat (*Myotis lucifugus*; state-listed endangered), and tricolored bat (*Perimyotis subflavus*; proposed federally listed endangered and state-listed endangered). These species were not discussed in the correspondence letter received from ODNR. However, each of these species are addressed further in the Ecological Survey Report included in Appendix 8-2.

Stantec completed a desktop bat hibernacula assessment in accordance with the 2022 Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines (USFWS 2022b) utilizing available ODNR websites, including data on known abandoned or active mines (ODNR 2023b) and locations of known or suspected karst geology (ODNR 2023a). The desktop assessment did not identify any karst regions within 0.25 miles of the Project area and did not identify any abandoned or active mines within 0.25 miles of the Project area. Additionally, no potentially suitable winter hibernacula were observed during the field surveys.

According to the ODNR response letter, the Project must not have an impact on freshwater native mussels within the project area and per the Ohio Mussel Survey Protocol (ODNR and USFWS 2022), all Group 2, 3, and 4 streams require mussel surveys if in-stream work in these streams will be required. No in-stream work is proposed during construction activities and therefore construction activities associated with the Project will not directly impact streams crossed by the project area. Therefore, mussel surveys are not required. The ODNR recommends no in-water work take place in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. Because no in-water work is proposed in any perennial stream within the project area, the Project is not likely to impact threatened or endangered aquatic species.

A technical assistance request letter was submitted to the USFWS on March 18, 2020. An initial response was received on April 23, 2020 (provided in Appendix 8-1), stating that the Project area is outside the buffer area for any known occurrences of threatened or endangered species. However, the USFWS stated that the Project area contains several large, forested areas and impacts to forest connectivity should be limited as much as possible. The USFWS recommended seasonal tree clearing to reduce impacts to federally listed bat species. The USFWS also requested that information regarding the final transmission line route be submitted to them after the final route was selected. An updated consultation request with the final transmission line routes for the Project was submitted to the USFWS on November 17, 2021. The USFWS response letter, dated November 23, 2021, (provided in Appendix 8-1) stated that there are no federal wilderness areas, wildlife refuges, or designated critical habitat within the vicinity of the Project. The USFWS also

stated that all Projects within the State of Ohio lie within the range of the federally endangered Indiana bat and the federally threatened northern long-eared bat. The USFWS response letter stated that, should the Project site contain trees ≥ 3 inches dbh (diameter at breast height), the USFWS recommends trees be saved whenever possible. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, the USFWS recommends that removal of trees ≥ 3 inches dbh only occur between October 1 and March 31 in order to avoid adverse effect to these species. If implementation of seasonal tree clearing is not possible, the USFWS recommends summer presence/probable absence surveys be conducted between June 1 and August 15.

The USFWS also stated that due to the Project type, size, and location, they do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.

The Company's consultant, Environmental Solutions & Innovations, Inc. (ESI), conducted a summer mist net survey from August 7 through 13, 2022 to determine the presence or probable absence of the state and federally listed Indiana bat and northern long-eared bat within the Project area. The survey included 16 net nights of effort, two nights each at eight net locations spread throughout and near the Project area. During the survey, 35 bats were captured including 27 big brown bats (*Eptesicus fuscus*) and eight eastern red bats (*Lasiurus borealis*). No Indiana bats, northern long-eared bats, little brown bats, or tricolored bats were captured, and no potentially suitable hibernacula were observed within the Project area. Therefore, ESI submitted the results of the survey to USFWS and ODNR with a request of concurrence that tree clearing may be conducted without seasonal clearing restrictions related to Indiana bat and northern long-eared bat presence, and that the Project is not likely to adversely affect these species. A response letter from USFWS, dated August 29, 2022 (provided in Appendix 8-1), stated that the survey demonstrated probable absence of Indiana bats and the 4(d) rule for the northern long-eared bat could be applied. Therefore, the USFWS stated that tree clearing on the Project site at any time of the year is unlikely to result in adverse impacts to Indiana bats and will not result in any unauthorized incidental take of northern long-eared bats. Negative Indiana bat summer surveys are valid for five years. Therefore, tree clearing within the project area can occur anytime until March 31, 2027. Correspondence was received from ODNR, dated September 1, 2022. The correspondence stated no Indiana bats, northern long-eared bats, little brown bats, or tricolored bats were detected, suggesting risk to these state-endangered species is low in the Project area and tree cutting during the summer maternity season is not likely to result in direct mortality of these species. Should tree cutting need to occur after March 31, 2027, the ODNR recommends further consultation to reevaluate risk to these bat species.

Current information on the species with potential to occur within the Project area, as provided through consultation with the USFWS and ODNR Office of Real Estate and through desktop evaluations of threatened and endangered species with potential to occur in Delaware County, is provided in Table 8-6.

The Company will utilize an 80-foot permanent ROW for the Project, as well as approximate 15-foot to 30-foot corridors for access roads, to allow for safe and reliable construction and operation of the transmission line and to prevent encroachments. The Company will not conduct mechanized

clearing within 25 feet of any stream and will only clear (using hand-cutting techniques) those trees in this area that are tall enough to have the potential to interfere with safe construction and reliable operation of the line.

Table 8-6. Summary of Potential Federally and State Listed Species within the Lott 138 kV Transmission Line Project Survey Corridor, Delaware County, Ohio.

| Common Name | Scientific Name | State Listing Status ^{1,2} | Federal Listed Status ^{1,3} | Habitat Preference | Potential Habitat Observed in Survey Corridor ⁴ ? | Agency Comments / Recommendations ⁵ | Impact Assessment |
|-----------------|-----------------------------|-------------------------------------|--------------------------------------|--|--|--|--|
| Snuffbox | <i>Epioblasma triquetra</i> | E | E | Occurs in medium-sized streams to large rivers, generally on mud, rocky, gravel, or sand substrates in flowing water. Often deeply buried in substrate and overlooked by collectors (NatureServe 2021). It is found in a wide range of particle sized substrates; however, swift shallow riffles with sand and gravel are where it is typically found. | No suitable habitat was observed within the Survey Corridor. | <p>ODNR – The Project is within the range of the snuffbox mussel. This Project must not have an impact on freshwater native mussels at the project site. If in-water work is planned in any stream that meets the Ohio Mussel Survey Protocol criteria⁶, ODNR recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, ODNR recommends a professional malacologist conduct a mussel survey in the Project area. The ODNR recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this species or other aquatic species.</p> <p>USFWS – Due to the project type, size, and location, we do not anticipate adverse effects to this species.</p> | No suitable habitat was observed within the Survey Corridor and no in water work will take place in a perennial stream. Therefore, impacts to this species are not anticipated and avoidance dates are not applicable. |
| Black Sandshell | <i>Ligumia recta</i> | T | N/A | Typically found in medium-sized to large rivers in locations with strong current and substrates of coarse sand and gravel with cobbles in water depths from several inches to six feet or more (NatureServe 2021). | No suitable habitat was observed within the Survey Corridor. | <p>ODNR – The Project is within the range of the black sandshell mussel. This Project must not have an impact on freshwater native mussels at the project site. If in-water work is planned in any stream that meets the Ohio Mussel Survey Protocol criteria⁶, ODNR recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, ODNR recommends a professional malacologist conduct a mussel survey in the Project area. The ODNR recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this species or other aquatic species.</p> <p>USFWS – No comments received.</p> | No suitable habitat was observed within the Survey Corridor and no in water work will take place in a perennial stream. Therefore, impacts to this species are not anticipated and avoidance dates are not applicable. |
| Rayed Bean | <i>Villosa fabalis</i> | E | E | Habitat includes gravel or sandy substrate, especially in areas of thick roots of aquatic plants and increased substrate stability (NatureServe 2021; Parmalee and Bogan 1998). Rayed bean can be associated with shoal or riffle areas, and in shallow, wave-washed areas of glacial lakes. It is generally found in smaller, headwater creeks, but sometimes in larger rivers and open-water bodies. It can occur in shallow riffles or in lakes with water depths up to four feet. It has been found in riffles, generally in vegetation, and deeply buried in sand and gravel bound together by roots (Parmalee and Bogan 1998). | No suitable habitat was observed within the Survey Corridor. | <p>ODNR – The Project is within the range of the rayed bean. This Project must not have an impact on freshwater native mussels at the project site. If in-water work is planned in any stream that meets the Ohio Mussel Survey Protocol criteria⁶, ODNR recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, ODNR recommends a professional malacologist conduct a mussel survey in the Project area. The ODNR recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this species or other aquatic species.</p> <p>USFWS – Due to the project type, size, and location, we do not anticipate adverse effects to this species.</p> | No suitable habitat was observed within the Survey Corridor and no in water work will take place in a perennial stream. Therefore, impacts to this species are not anticipated and avoidance dates are not applicable. |

| Common Name | Scientific Name | State Listing Status ^{1,2} | Federal Listed Status ^{1,3} | Habitat Preference | Potential Habitat Observed in Survey Corridor ⁴ ? | Agency Comments / Recommendations ⁵ | Impact Assessment |
|-------------|-------------------------------|-------------------------------------|--------------------------------------|--|--|---|---|
| Rabbitsfoot | <i>Quadrula cylindrica</i> | E | T | According to Gordon and Layzer (1989) the typical habitat for this species is small to medium rivers with moderate to swift currents, and in smaller streams it inhabits bars or gravel and cobble close to the fast current. Found in medium to large rivers in sand and gravel. It has been found in depths up to 3 meters (NatureServe 2021). | No suitable habitat was observed within the Survey Corridor. | ODNR – The Project is within the range of the rabbitsfoot mussel. This Project must not have an impact on freshwater native mussels at the project site. If in-water work is planned in any stream that meets the Ohio Mussel Survey Protocol criteria ⁶ , ODNR recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, ODNR recommends a professional malacologist conduct a mussel survey in the Project area. The ODNR recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this species or other aquatic species. USFWS – Due to the project type, size, and location, we do not anticipate adverse effects to this species. | No suitable habitat was observed within the Survey Corridor and no in water work will take place in a perennial stream. Therefore, impacts to this species are not anticipated and avoidance dates are not applicable. |
| Pondhorn | <i>Unio merus tetralasmus</i> | T | N/A | This species occurs in fine gravel in moderate current. It may be encountered in shallow, quiet, or slow-moving water at depths seldom exceeding two feet. This species typically inhabits the quiet or slow-moving, shallow waters of sloughs, borrow pits, ponds, ditches, and meandering streams. It is typically found buried in a substrate of fine sand and mud in shallow sloughs and ditches, and it is a species tolerant of adverse habitat conditions, surviving for periods of weeks or even months buried in the bottoms or banks of dried-up ponds (Parmalee and Bogan 1998; NatureServe 2021). | Potentially suitable habitat (perennial streams) was observed within the Survey Corridor. | ODNR – The Project area is within the range of the pondhorn mussel. This Project must not have an impact on freshwater native mussels at the project site. If in-water work is planned in any stream that meets the Ohio Mussel Survey Protocol criteria ⁶ , ODNR recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, ODNR recommends a professional malacologist conduct a mussel survey in the Project area. The ODNR recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this species or other aquatic species. USFWS – No comments received. | Potentially suitable habitat (perennial streams) was observed within the Survey Corridor. However, no in water work will take place in a perennial stream. Therefore, impacts to this species are not anticipated and avoidance dates are not applicable. |
| Indiana Bat | <i>Myotis sodalis</i> | E | E | The Indiana bat is likely distributed over the entire State of Ohio, though not uniformly. This species generally forages in openings and edge habitats within upland and floodplain forest, but they also forage over old fields and pastures (Brack et al. 2010). Natural roost structures include trees (live or dead) with exfoliating bark, and exposure to solar radiation. Other important factors for roost trees include relative location to other trees, a permanent water source and foraging areas; Dead trees are preferred as maternity roosts; however, live trees are often used as secondary roosts depending on microclimate conditions (USFWS 2007; USFWS 2022b). Roosts have also occasionally been found to consist of cracks and hollows in trees, utility poles, buildings, and bat boxes. Primarily use caves for hibernacula, although are also known to hibernate in abandoned underground mines (Brack et al. 2010). | Suitable summer roosting and foraging habitat was observed within mixed early successional/ second growth deciduous forest habitat areas within the Survey Corridor. No potential hibernacula for this species were observed in the Survey Corridor. | ODNR – If suitable habitat occurs within the Project area, the ODNR recommends trees be conserved. If suitable habitat occurs within the Project area and trees must be cut, the ODNR recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the ODNR recommends a net survey be conducted between June 1 and August 15, prior to any cutting. USFWS – 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. 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. | No potential hibernacula were observed. However, suitable summer roosting and foraging habitat was observed within mixed early successional/second growth deciduous forest habitat areas within the Survey Corridor. Summer mist net surveys conducted in August 2022 demonstrated the probable absence of this species. Therefore, there are no tree clearing restrictions and the Project is not likely to impacts to this species. |

| Common Name | Scientific Name | State Listing Status ^{1,2} | Federal Listed Status ^{1,3} | Habitat Preference | Potential Habitat Observed in Survey Corridor ⁴ ? | Agency Comments / Recommendations ⁵ | Impact Assessment |
|-------------------------|-------------------------------|-------------------------------------|--------------------------------------|--|---|---|---|
| Northern Long-eared Bat | <i>Myotis septentrionalis</i> | E | T | The northern long-eared bat is found throughout Ohio. This species generally forages in forested habitat and openings in forested habitat and utilizes cracks, cavities, and loose bark within live and dead trees, as well as buildings, as roosting habitat (Brack et al. 2010; USFWS 2020). The species utilizes caves and abandoned mines as winter hibernacula. Various sized caves are used providing they have a constant temperature, high humidity, and little to no air current (Brack et al. 2010). | Suitable summer roosting and foraging habitat was observed within mixed early successional/second growth deciduous forest habitat areas within the Survey Corridor. No potential hibernacula for this species were observed in the Survey Corridor. | <p>ODNR – No comments received.</p> <p>USFWS – 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 northern long-eared bats. Incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule</p> | No potential hibernacula were observed. However, suitable summer roosting and foraging habitat was observed within mixed early successional/second growth deciduous forest habitat areas within the Survey Corridor. Summer mist net surveys conducted in August 2022 demonstrated the probable absence of this species. Therefore, there are no tree clearing restrictions and the Project is not likely to impacts to this species. |
| Little Brown Bat | <i>Myotis lucifugus</i> | E | N/A | The little brown bat is found throughout Ohio. This species seems to prefer to forage over water but also forages among trees in rather open areas (Harvey et al. 1999). During summer, it typically inhabits buildings, attics, church belfries, barns and outbuildings, and occasionally more natural habitats such as sloughing bark of a dead tree. During summer, two types of roosts are utilized: day roosts and night roosts. Day roosts are the maternity colony roost, while little brown bats often roost in other areas where they rest and congregate to digest their food in between foraging bouts. In Ohio, this species typically utilizes caves and mines as hibernacula, although at least one hibernaculum was found to be located in an attic of an old building (Brack et al. 2010). | Suitable summer roosting and foraging habitat was observed within mixed early successional/second growth deciduous forest habitat areas within the Project area. Additionally, suitable foraging habitat was observed along larger streams within the Survey Corridor. No Potential hibernacula for this species were observed in the Project area. | <p>ODNR – No comments received.</p> <p>USFWS – No comments received</p> | No potential hibernacula were observed. However, suitable summer roosting and foraging habitat was observed within mixed early successional/second growth deciduous forest habitat areas within the Survey Corridor. Summer mist net surveys conducted in August 2022 demonstrated the probable absence of this species. Therefore, there are no tree clearing restrictions and the Project is not likely to impacts to this species. |
| Tri-colored Bat | <i>Perimyotis subflavus</i> | E | PE | The tri-colored bat is found throughout Ohio. This species has been found to forage above and within a variety of habitats, including woodlands, agricultural fields, grassy areas, and over streamside vegetation (Sparks et al. 2011). Maternity colonies have often been found within clusters of dead leaves, hanging in trees. Maternity colonies have also been found in or on buildings. Little is known of male tri-colored bats in summer, but it is thought that they are probably solitary and spend their days in similar | Suitable summer roosting and foraging habitat was observed within mixed early successional/second growth deciduous forest habitat areas within the Project area. Additionally, suitable foraging | <p>ODNR – No comments received.</p> <p>USFWS – No comments received.</p> | No potential hibernacula were observed. However, suitable summer roosting and foraging habitat was observed within mixed early successional/second growth deciduous forest habitat areas within the Survey Corridor. Summer mist net surveys conducted in August 2022 demonstrated the probable absence of this species. Therefore, there are no tree clearing restrictions and the Project is not likely to impacts to this species. |

| Common Name | Scientific Name | State Listing Status ^{1,2} | Federal Listed Status ^{1,3} | Habitat Preference | Potential Habitat Observed in Survey Corridor ⁴ ? | Agency Comments / Recommendations ⁵ | Impact Assessment |
|---|-----------------|-------------------------------------|--------------------------------------|--|--|--|-------------------|
| | | | | situations, as well as crevices, caves and mines (Brack et al. 2010). In Ohio, this species typically utilizes caves and mines as hibernacula, utilizing a variety of situations, including very cold areas near cave entrances to deeper passages that seem to be too warm for other species of bats (Brack et al. 2010). | habitat was observed along larger streams within the Survey Corridor. No potential hibernacula for this species were observed in the Project area. | | |
| <p>¹E = Endangered; T = Threatened; PE = Proposed Endangered; N/A = Not Applicable ²Source: ODNR 2022a ³Source: USFWS 2018 ⁴Survey corridor is defined as 300-foot area along the Preferred Route and Alternate Route centerlines. ⁵Agency Correspondence (Appendix 8-1) ⁶Group 2 streams are small to mid-sized streams where federally listed species are expected. Group 1 streams are small to mid-sized streams where federally listed species are not expected (ODNR and USFWS 2022b).</p> | | | | | | | |

(a) Commercial Species

The commercially important species along the proposed routes consist of those hunted or trapped for fur or other byproducts, including the following species. This information was obtained from ODNR-DOW Mammals of Ohio Field Guide (ODNR 2016).

Coyote (*Canis latrans*): Coyotes are a very adaptable species that have prospered despite the expanding human impact. Historically, they prefer open territory, but in Ohio, they have adapted to various habitat types. This species could be found near or in the Project area; however, they are diurnal and skittish animals so it is unlikely they will be impacted by construction activities.

Raccoon (*Procyon lotor*): The raccoon is widespread in Ohio, even in many suburban and urban areas. Raccoons prefer wooded areas with water nearby. This species could be found near or in the Project area; however, they are a mobile species so it is unlikely they will be impacted by construction activities.

Red fox (*Vulpes vulpes*): The red fox inhabits a wide range of habitats including mixed, cultivated, and wooded areas. This species could be found near or in the Project area; however, they are a mobile species so it is unlikely they will be impacted by construction activities.

Striped skunk (*Mephitis mephitis*): The skunk is an adaptable animal that occupies both rural and suburban areas. Their dens may be under buildings, in open fields, on hillsides, or under logs in the woods, which may have been self-created or formerly used by other animals. This species could be found near or in the Project area; however, they are a mobile species so it is unlikely they will be impacted by construction activities.

Virginia opossum (*Didelphis virginiana*): This marsupial's preferred habitat is an area interspersed with woods, wetlands, and farmland; however, they are an adaptable animal that can also be found in urban and suburban areas. This species could be found near or in the Project area; however, they are a mobile species so it is unlikely they will be impacted by construction activities.

(b) Recreational Species

Recreational terrestrial species consist of those hunted as game. Recreational species expected to inhabit areas along the ROW include the following. This information was obtained from ODNR Species Guide Index (ODNR 2020).

(i) Fowl

American crow (*Corvus brachyrhynchos*): The American crow is found in all Ohio counties. They prefer habitats with open fields and trees. American crows were observed during the field investigations along both of the routes.

Geese: Several geese species can be found in Ohio, typically during migration: snow geese (*Anser caerulescens*), greater white-fronted geese (*Anser albifrons*), cackling geese (*Branta hutchinsii*),

and brant (*Branta bernicla*). The Canada goose (*Branta canadensis*) is commonly found throughout Ohio, both as residents and migrants. Geese species could be found near or in the Project area; however, they are mobile animals so it is unlikely they will be impacted by construction activities.

Mourning dove (*Zenaida macroura*): Mourning doves are found near rural and suburban residences, nesting in shrubs and trees. They are also frequently found in rural farmlands nesting in fencerows and edge habitats. Mourning doves could be found near or in the Project area, however, they are mobile animals so it is unlikely they will be impacted by construction activities.

(ii) Mammals

Eastern cottontail rabbit (*Sylvilagus floridanus*): This species is found in both rural and urban areas. They prefer open areas bordered by thickets or brush areas. Rabbits could be found near or in the Project area; however, they are mobile animals so it is unlikely they will be impacted by construction activities.

Eastern gray squirrels and fox squirrels (*Sciurus carolinensis* and *Sciurus niger*, respectively): The fox squirrel is primarily an inhabitant of isolated woodlots, 10 to 20 acres in size with a sparse understory. The eastern gray squirrel prefers more extensive woodland areas. These squirrels could be found near or in the Project area; however, they are mobile animals so it is unlikely they will be impacted by construction activities.

White-tailed deer (*Odocoileus virginianus*): White-tailed deer live in a variety of habitats, including woods, farmlands, brushy areas, dense thickets, and woodland edges. White-tailed deer can be found near or in the Project area; however, they are mobile animals which can avoid the Project area if disturbed. It is not anticipated that this species would be impacted by construction activities.

(iii) Game Fish

The Project area contains one named perennial stream, Culver Creek, which has the potential to host game fish species. Culver Creek is a small perennial stream that eventually flows into Big Walnut Creek southwest of the Project area. Based on the small size of the stream, very limited game fish have the potential to occur within the Project area. In addition, due to no in-water work proposed for the Project, and the implementation of a SWPPP and BMPs during construction to reduce any sediment runoff into streams, impacts to game fish species are not anticipated during the construction and operation of the Project.

(2) Construction Impacts on Identified Species

Based on the activities involved for the proposed Project, habitat characteristics on the surrounding vicinity, and results from surveys completed, impacts to protected species are not anticipated during the construction of the Project.

Impacts to federal or state listed species are not anticipated for the Project due to no in-water work is proposed, and results from the bat mist net survey demonstrating probable absence of state-listed and federally listed bat species within the Project area. Therefore, no seasonal tree clearing restrictions are required for the Project and impacts to federally listed and state-listed species are not anticipated (Appendix 8-1).

The construction impact on other specific identified species (recreational and commercial) is expected to be minor because of the mobility of these species and equivalent habitat that would be impacted during construction exists immediately adjacent to the construction ROW.

(3) Operation and Maintenance Impacts on Identified Species

Operations of the Project are not likely to adversely affect state-listed and federally listed species. Clearing of mixed early successional/second growth forest vegetation will be required along some portions of the ROW; however, approximately 82.3 percent of the Preferred Route ROW and 63.3 percent of the Alternate Route ROW are agricultural land, allowing it to retain its current vegetative community. Operational activities and periodic maintenance of the permanent ROW will include periodically clearing woody species. The 80-foot permanent ROW will remain without trees. Therefore, operation activities are not anticipated to impact any of the identified species.

(4) Mitigation Procedures

If areas are identified during the informal consultation process with USFWS and ODNR that are of special concern, the Company will coordinate with these agencies to develop appropriate mitigation measures. The mitigation measures will be implemented if the areas of special concern are located within the route approved by the OPSB.

(D) SITE GEOLOGY

(1) Site Geology

Both routes are located in central Ohio, northeast of Columbus, Delaware County. This county is located within the Till Plains physiographic section and the Galion Glaciated Low Plateau physiographic region. This region is described as having moderate relief (100 feet), rolling upland transitional between the gently rolling Till Plain and the hilly Glaciated Allegheny Plateau; mantled with thin to thick drift. The ground surface elevation in this region varies from 800 to 1400 feet. The soil geology in the Project area indicates medium to low-lime Wisconsinan-age till over Mississippian age shales and sandstones (ODNR 1998).

(2) Slopes and Foundation Soil Suitability

The Soil Survey of Delaware County, Ohio (USDA 2001) and the NRCS Web Soil Survey were consulted to assess soil types within the Project area (USDA, NRCS 2020). The dominant soils in the Project area primarily include Bennington silt loam (BeB), described 2 to 6 percent slopes,

Bennington silt loam (BeA), described as 0 to 2 percent slopes and Pewamo silty clay loam (PwA), described as 0 to 1 percent slopes (ODNR 1998). A total of 8 soil units occur within the Project area.

During the route selection process, USGS topographic maps were used to avoid steep slopes for each of the route options. A desktop analysis was performed using GIS and USDA NRCS Delaware County soil data to locate areas within the Project that contained soil types known to occur on slopes that exceed twelve percent or soils that may be highly erodible. This NRCS analysis found 0.2 acre of highly erodible soils on the Preferred Route and 1.5 acres of highly erodible soils on the Alternate Route, and the topographic analysis found 0.03 acre of slopes exceeding 12 percent on the Preferred Route and no slopes exceeding 12 percent on the Alternate Route. Figures 8-2 and 8-3 shows the areas of highly erodible soils and slopes exceeding 12 percent.

To obtain further site-specific details on the suitability of the soils for foundations construction, it is recommended that detailed engineering design and geotechnical soil borings be conducted. Engineering design and geotechnical test drilling will be completed as part of the final engineering design. At a minimum, geotechnical soil borings will provide the following information to be used for developing final engineering designs as needed:

- Subsurface Soil Properties
- Static Water Level
- Rock Quality Description
- Percent Recovery
- Depth and Description of Bedrock contact

The Company anticipates that foundations will only be required at some angle structures that will be ultimately determined during the engineering design. When required, foundations will be engineered based on the results of geotechnical soil borings to ensure they are in locations considered suitable based on soil and rock properties and surface slope.

(3) Geohazard Considerations

Neither the Alternate Route or the Preferred Route occur within any karst regions. In addition, no karst topography or karst features points occur within 5 miles of either the Alternate Route or Preferred Route centerlines (ODNR 2023a).

(E) ENVIRONMENTAL AND AVIATION REGULATION COMPLIANCE

(1) Licenses, Permits, and Authorizations Required for the Facility

The Company anticipates submitting a Notice of Intent for coverage under the OEPA General National Pollutant Discharge Elimination System (“NPDES”) Permit. Coverage under the USACE’s Nationwide Permit 57 for wetland and waterbody impacts associated with Electric

Utility Line Activities may be required but will be determined once the construction plan is finalized and impacts to waters can be determined. It is also anticipated that multiple local permits will be required.

(2) Construction Debris

While construction work is ongoing, the construction work area will be kept clean of all rubbish and debris resulting from the work. Debris associated with construction of the proposed transmission line will likely include conductor scrap, construction material packaging including cartons, crates, conductor reels and wrapping, and use stormwater erosion control materials. Conductor reels and other materials with salvage value will be removed from the construction area for reuse or salvage. Construction debris will be disposed of in accordance with state and federal requirements in an OEPA-approved landfill or other appropriately licensed and operated facility. Where vegetation must be cleared, the resulting brush will be removed or placed nearby as requested by individual property owners.

(3) Stormwater and Erosion Control

The Storm Water Pollution Prevention Plan (“SWPPP”) will be developed following the OEPA General Permit Authorization for Storm Water Discharge Associated with Construction Activity (OHC000006 (pending update April 22, 2023)). The SWPPP will include the following General Conditions at a minimum:

Erosion and Sediment Controls: Implementation of erosion and sediment control practices will be based on the OEPA General Permit OH000006 (effective April 22, 2023) using standards from the ODNR *Land Development Rainwater and Land Development Manual*, Third Edition 2006, or current edition) for the potential discharge of stormwater from construction sites.

Wetlands, streams, and other environmentally sensitive areas will be clearly marked before the start of clearing or construction. No construction or access will be permitted in these areas unless clearly specified in the SWPPP.

Inlet Protection: Stormwater inlets will be protected using either filter sock barrier or a geotextile-rock barrier to prevent sediment and debris from entering the stormwater system. The following installation and maintenance guidelines will be followed:

- Inlet protection BMPs will be installed in active construction areas no earlier than 7 days prior to construction to prevent premature debris build up.
- Inlet protection BMPs will be inspected at least once every 7 days and within 24 hours after any storm event greater than 0.5 inch of rain per 24-hour period to ensure debris and sediment does not clog the inlet and that stormwater is still able to enter the inlet. Any debris is to be removed immediately on discovery.

Soil stabilization: Disturbed areas that were vegetated prior to construction and that are planned to be unworked for more than 21 calendar days will be stabilized with seed and mulch no later than 14 days after the last construction in that area.

Maintenance and Inspection: Erosion and sediment control practices will be inspected at least once every 7 calendar days and within 24 hours after any storm event greater than 0.5 inch or rain per 24-hour period.

The Company will maintain erosion control measures in good working order. If repair is necessary, it will be initiated within 24 hours of report. Silt fencing and filter sock will be inspected for depth of sediment, for tears, to ensure fabric is securely attached to the fence posts, and to ensure that the fence posts are firmly in the ground. Seeded areas will be inspected for evidence of bare spots or washouts. Permanent records of the maintenance and inspection must be maintained throughout the construction period. Records will include, at a minimum, the name of the inspector, major observations, date of inspection, certification of compliance, and corrective measures taken.

(4) Disposition of Contaminated Soil and Hazardous Materials

All materials stored onsite will be kept in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure. Products will be kept in their original containers with the original manufacturer's label. Manufacturer's recommendations for proper use and disposal will be followed. Material Safety Data Sheets ("MSDS") or Safety Data Sheets ("SDS") will be retained and available onsite at all times.

The following General Conditions will also be included in the SWPPP to address disposition of contaminated soil and hazardous materials generated or encountered during construction.

Spill Prevention

The following spill prevention methods and procedures are proposed:

- All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers, which are clearly labeled.
- Secondary containment will be provided for all onsite fuel storage tanks required during construction.
- All sanitary waste will be collected in portable units and emptied regularly by a licensed sanitary waste management contractor, as required by local regulations.
- All spills will be cleaned up immediately after discovery. Manufacturer's recommended methods for spill cleanup will be followed. Materials and equipment necessary for spill cleanup will be kept in a designated storage area onsite.
- Spills will be reported to the appropriate government agency as required.

- Suspected hazardous materials encountered during construction will be reported to the regional environmental coordinator by the transmission construction representative. In addition, the Project Manager will be notified.

This Spill Prevention Plan will cover proper handling techniques for all electrical equipment, materials and construction equipment that require a MSDS. The Company also requires its employees and contractors to follow all federal and state-mandated material-handling requirements.

The Company follows an internal Spill Prevention Notification Plan that is closely aligned to the Company Spill Response and Cleanup - Field Guide. This Spill Response and Cleanup - Field Guide covers the following procedures:

- Oil/Polychlorinated Biphenyl (PCB) Spill Response and Cleanup Procedure
- When to Report an Oil/Polychlorinated Biphenyl (PCB) Spill to the Region Environmental Coordinator
- Hazardous Substance Spill Response Procedure
- Region Environmental Coordinator Contact List

This field guide outlines spill response and cleanup procedures as well as the reporting that is required. The Spill Response and Cleanup - Field Guide will be available upon request.

(5) Maximum Height of Above Ground Structures

The height of the tallest anticipated aboveground structure and construction equipment is designed to be approximately 100 feet. The nearest airport, White Oak Field (OH87), is a private-use airport located 1.9 miles north of the Project. Only one other airport is located within 5 miles of the Project. Chapman Memorial Field (6CM) is open to the public and is located approximately two miles east of the Project area (OH Airports 2023).

The Federal Aviation Administration (FAA) Form 7460-1, "Notice of Proposed Construction or Alteration," is used for FAA notification. This can be filed electronically or by standard U.S. mail. A 7.5-minute quadrangle topographic map showing the proposed construction must be attached to the completed Form 7460-1. The Form 7460-1 must be submitted 45 days prior to the proposed start of construction.

Additionally, a permit from the ODOT, Office of Aviation, must be obtained prior to the start of any construction on or near airports in Ohio that are open to the public. A duplicate of the federal filing fulfills the state permit application requirements as set forth in O.A.C. 5501:1-10-06.

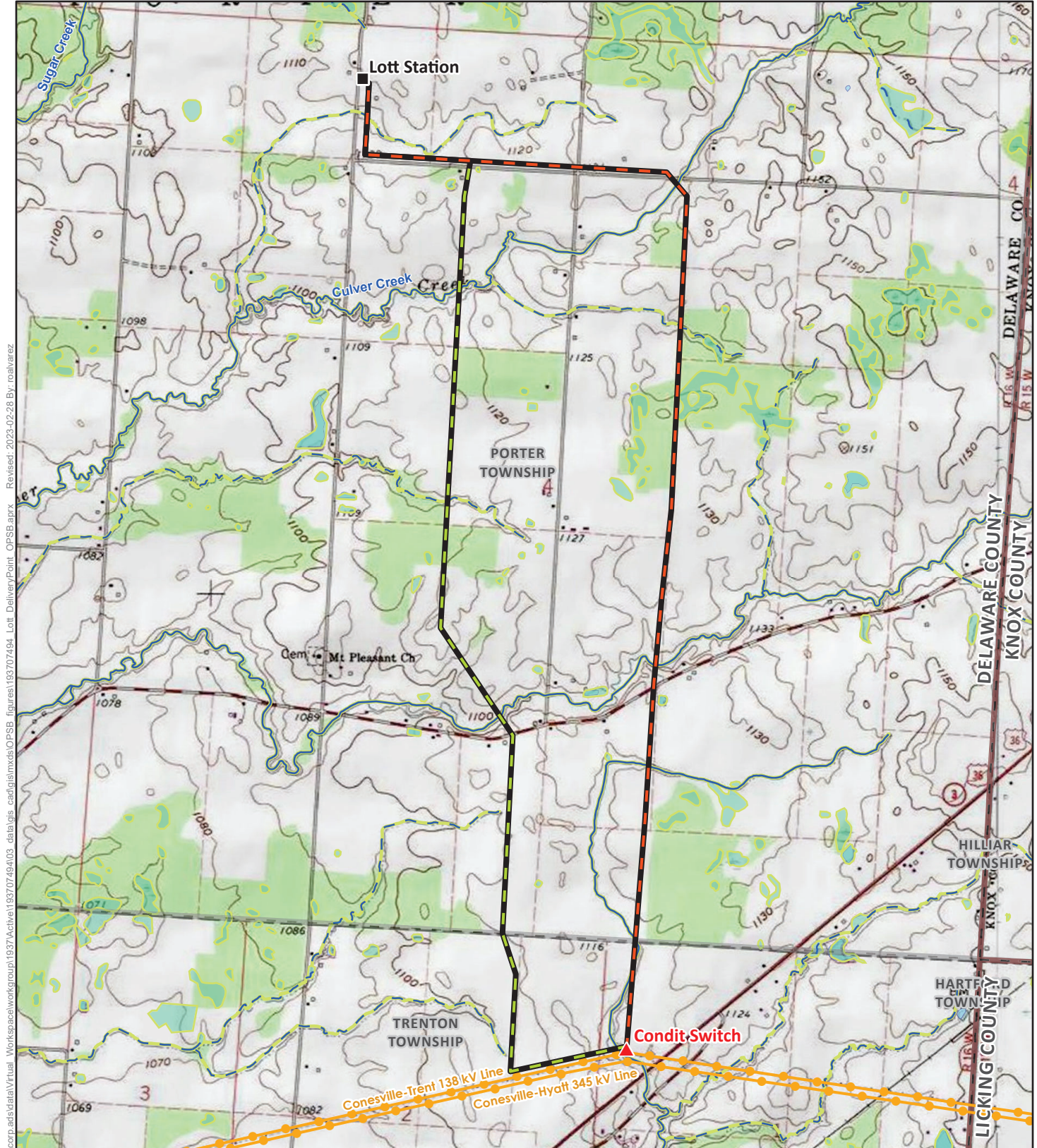
(6) Dusty or Muddy Conditions Plan

Dust Control

The site and surrounding areas will be kept free from dust nuisance resulting from site activities. During excessively dry periods of active construction, dust suppression will be implemented where necessary through irrigation, mulching, or application of tackifier resins.

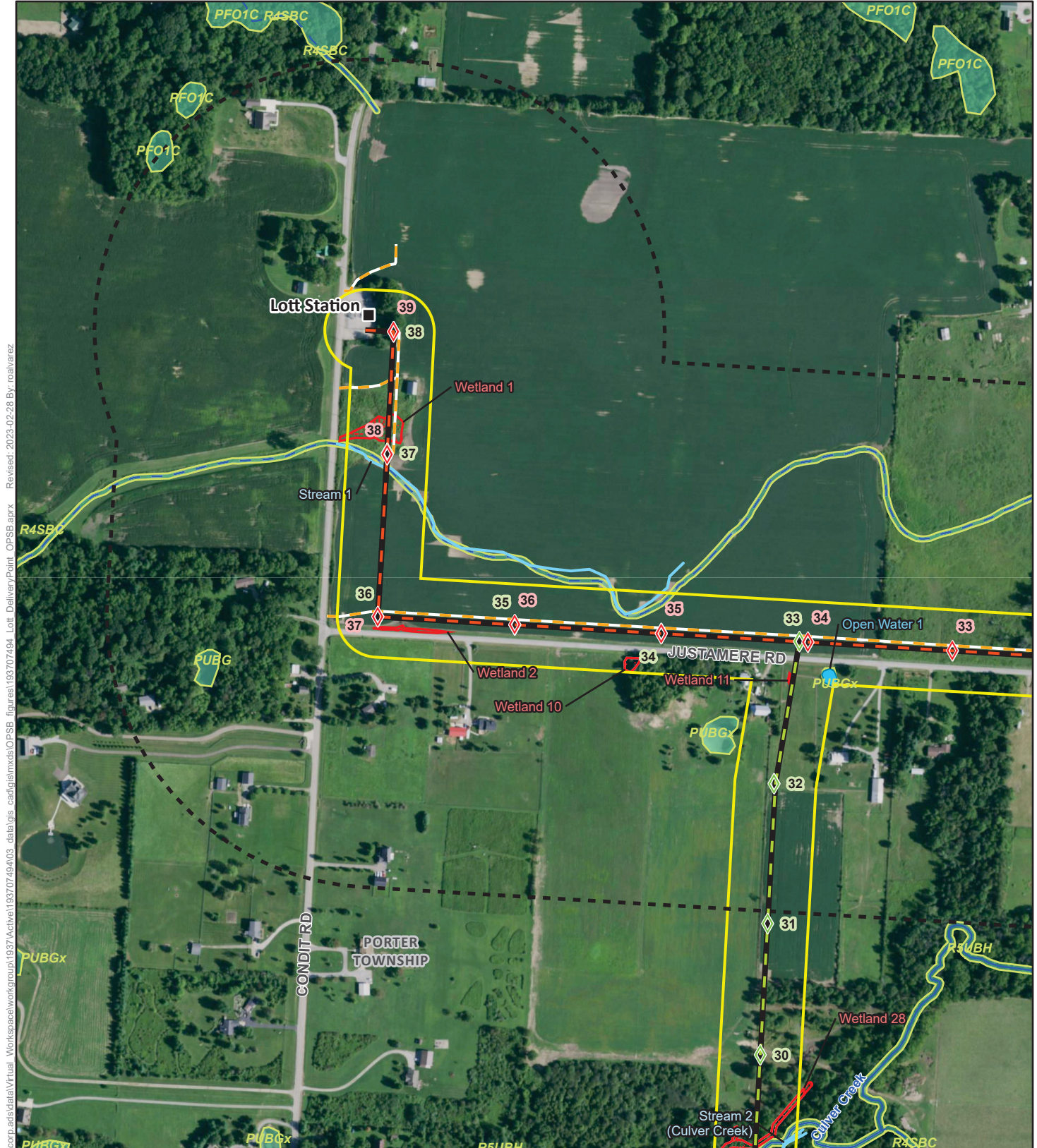
Excessive Muddy Soil Conditions

Construction entrances will be established and maintained to a condition that will prevent tracking or flowing of sediment onto public road ROW. Accumulated sediment spilled, dropped, washed, or tracked onto public road ROWs will be removed as soon as practical.



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| <p>Legend</p> <ul style="list-style-type: none"> ■ Existing Substation ▲ Proposed Condit Switch — Preferred Route — Alternate Route — Existing Transmission Line ○ National Wetlands Inventory Feature — National Hydrography Dataset — Perennial Stream — Intermittent Stream — Waterbody | <p>Data Sources: AEP, Stantec, ESRI, USGS, USFWS, USGS 7.5' Topographic Quadrangles</p> <p>Coordinate System and Datum NAD 1983 State Plane Ohio North</p> <p>February 28, 2023</p> | <p>Locator Map</p> | <p>FIGURE 8-1 Overview Map</p> <p>AEP OHIO <small>An AEP Company</small></p> <p>Lott 138kV Transmission Line Project</p> <p>0 0.25 0.5 Miles</p> |
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| Legend | |
|--------------------------------------|---------------------------------------|
| ■ Existing Substation | ○ Delineated Open Water |
| ▲ Proposed Condit Switch | ■ Slope > 12% |
| ◇ Preferred Route Proposed Structure | ○ National Wetlands Inventory Feature |
| ◇ Alternate Route Proposed Structure | ○ National Hydrography Dataset |
| — Preferred Route | — Perennial Stream |
| — Alternate Route | — Intermittent Stream |
| — Survey Corridor | — Waterbody |
| — 1,000-Foot Buffer | — Delineated Wetland |
| — Existing Transmission Line | ○ Palustrine Emergent (PEM) |
| — Proposed Access Road | ○ Palustrine Forested (PFO) |
| — Delineated Waterway | ○ Palustrine Scrub-Shrub (PSS) |

Data Sources:
 AEP, Stantec, USGS, USFWS,
 OGRIP, NAIP 2019

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 NAD 1983 State Plane
 Ohio North

February 28, 2023

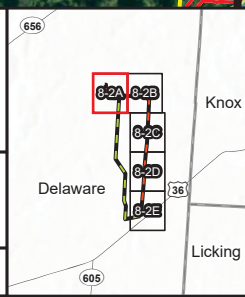
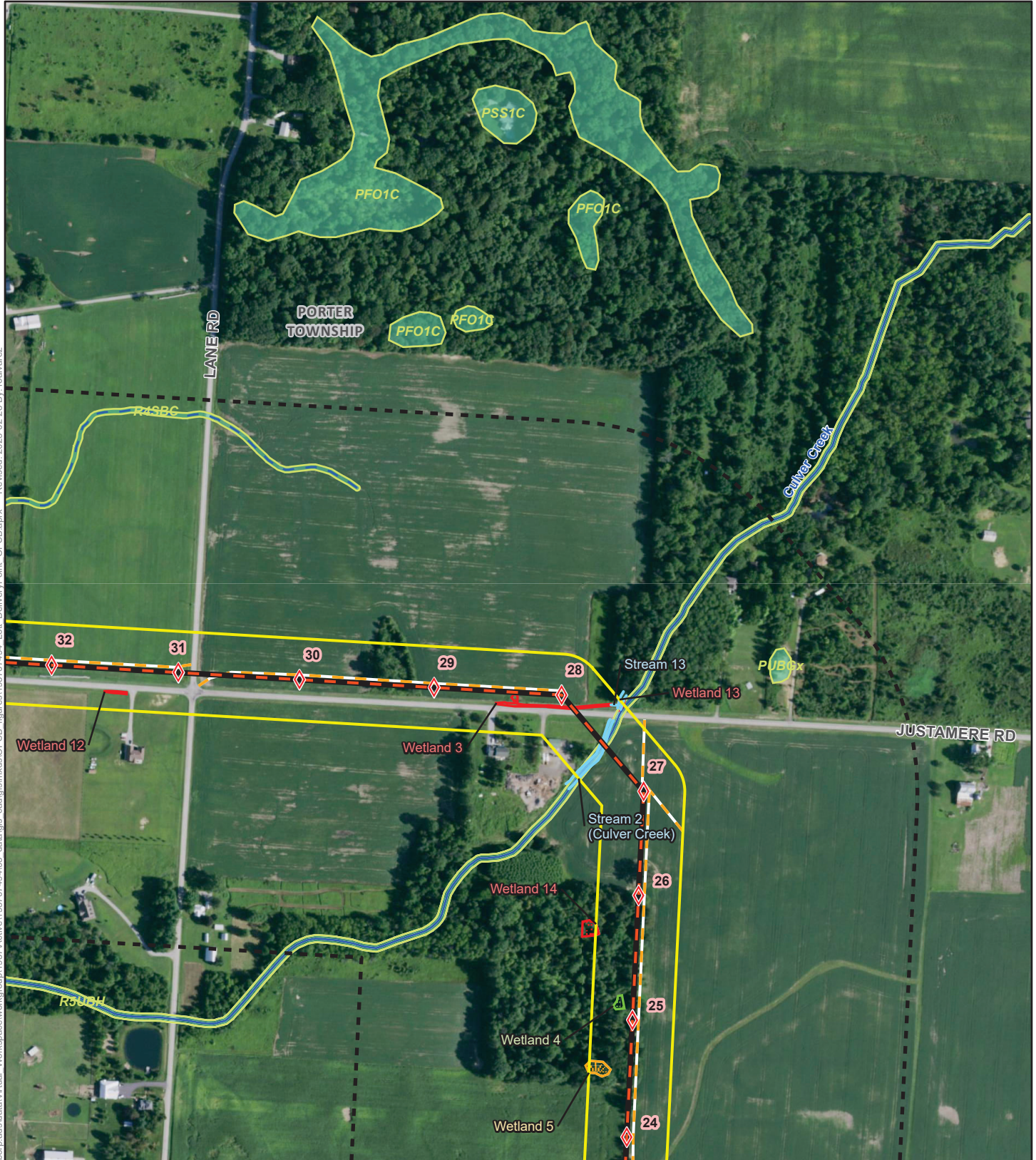


FIGURE 8-2A
Preferred Route Details Map

Lott 138kV Transmission Line Project

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| Legend | |
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| ■ Existing Substation | ● Delineated Open Water |
| ▲ Proposed Condit Switch | ■ Slope > 12% |
| ◇ Preferred Route Proposed Structure | ○ National Wetlands Inventory Feature |
| ◇ Alternate Route Proposed Structure | ○ National Hydrography Dataset |
| — Preferred Route | — Perennial Stream |
| — Alternate Route | — Intermittent Stream |
| — Survey Corridor | — Waterbody |
| — 1,000-Foot Buffer | — Delineated Wetland |
| — Existing Transmission Line | — Palustrine Emergent (PEM) |
| — Proposed Access Road | — Palustrine Forested (PFO) |
| — Delineated Waterway | — Palustrine Scrub-Shrub (PSS) |

Data Sources:
 AEP, Stantec, USGS, USFWS,
 OGRIP, NAIP 2019

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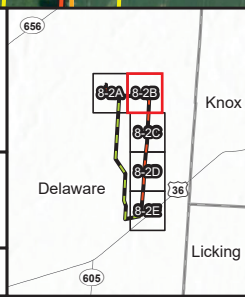


FIGURE 8-2B

Preferred Route Details Map

Lott 138kV Transmission Line Project
An AEP Company
BOUNDLESS ENERGY

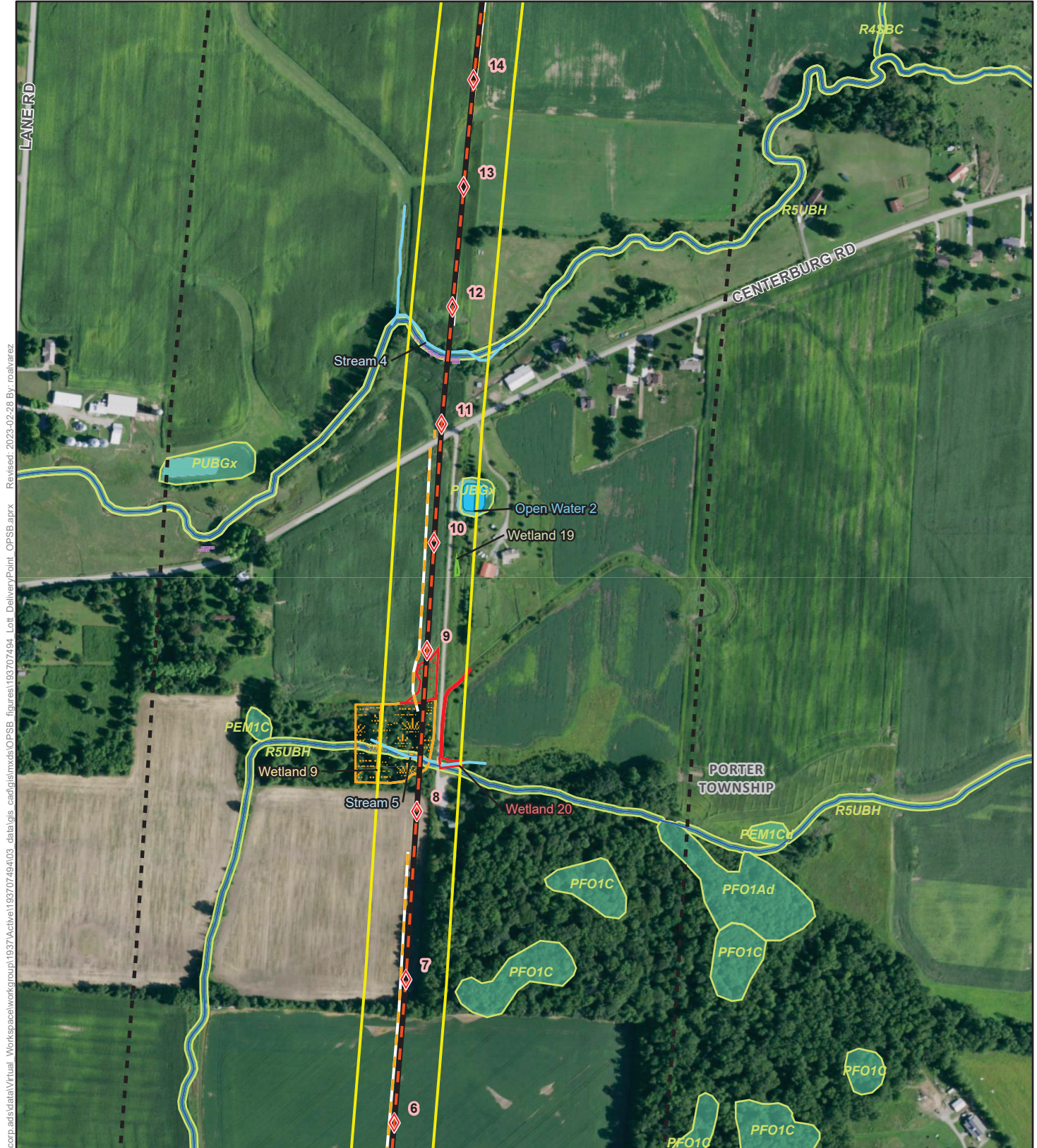
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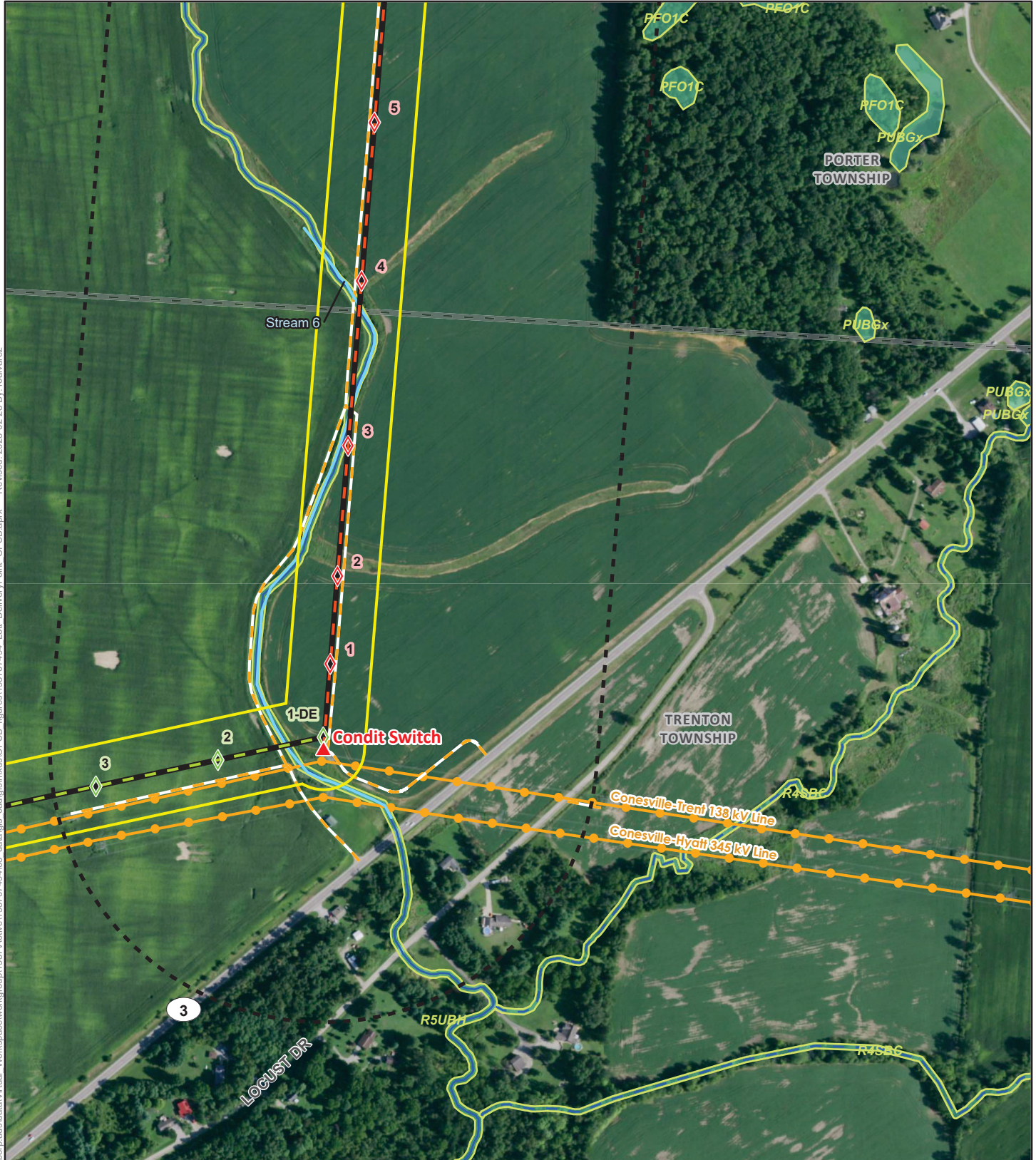
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| <p>Legend</p> <ul style="list-style-type: none"> ■ Existing Substation ▲ Proposed Condit Switch ◇ Preferred Route Proposed Structure ◇ Alternate Route Proposed Structure — Preferred Route — Alternate Route ▭ Survey Corridor ▭ 1,000-Foot Buffer — Existing Transmission Line — Proposed Access Road — Delineated Waterway ○ Delineated Open Water ■ Slope > 12% — National Wetlands Inventory Feature — National Hydrography Dataset — Perennial Stream — Intermittent Stream — Waterbody — Delineated Wetland ○ Palustrine Emergent (PEM) ○ Palustrine Forested (PFO) ○ Palustrine Scrub-Shrub (PSS) | <p>Data Sources: AEP, Stantec, USGS, USFWS, OGRIP, NAIP 2019</p> <p>Coordinate System and Datum NAD 1983 State Plane Ohio North</p> <p>February 28, 2023</p> | | <p align="center">FIGURE 8-2C Preferred Route Details Map</p> <p align="center"> Lott 138kV Transmission Line Project </p> <p align="center"> </p> |
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| <p>Legend</p> <ul style="list-style-type: none"> ■ Existing Substation ▲ Proposed Condit Switch ◇ Preferred Route Proposed Structure ◇ Alternate Route Proposed Structure — Preferred Route — Alternate Route ▭ Survey Corridor ▭ 1,000-Foot Buffer — Existing Transmission Line — Proposed Access Road — Delineated Waterway | <ul style="list-style-type: none"> ○ Delineated Open Water ▭ Slope > 12% ▭ National Wetlands Inventory Feature ▭ National Hydrography Dataset — Perennial Stream — Intermittent Stream — Waterbody ▭ Delineated Wetland ○ Palustrine Emergent (PEM) ○ Palustrine Forested (PFO) ○ Palustrine Scrub-Shrub (PSS) | <p>Data Sources: AEP, Stantec, USGS, USFWS, OGRIP, NAIP 2019</p> <p>Coordinate System and Datum NAD 1983 State Plane Ohio North</p> <p>February 28, 2023</p> | | <p align="center">FIGURE 8-2D Preferred Route Details Map</p> <p align="center"> Lott 138kV Transmission Line Project <small>An AEP Company</small> BOUNDLESS ENERGY </p> <p align="center"> 0 250 500 Feet </p> |
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| ■ Existing Substation | ● Delineated Open Water |
| ▲ Proposed Condit Switch | ■ Slope > 12% |
| ◇ Preferred Route Proposed Structure | ○ National Wetlands Inventory Feature |
| ◇ Alternate Route Proposed Structure | ○ National Hydrography Dataset |
| — Preferred Route | — Perennial Stream |
| — Alternate Route | — Intermittent Stream |
| — Survey Corridor | — Waterbody |
| — 1,000-Foot Buffer | — Delineated Wetland |
| — Existing Transmission Line | ● Palustrine Emergent (PEM) |
| — Proposed Access Road | ● Palustrine Forested (PFO) |
| — Delineated Waterway | ● Palustrine Scrub-Shrub (PSS) |

Data Sources:
 AEP, Stantec, USGS, USFWS,
 OGRIP, NAIP 2019

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 Ohio North

February 28, 2023

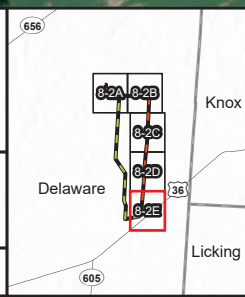


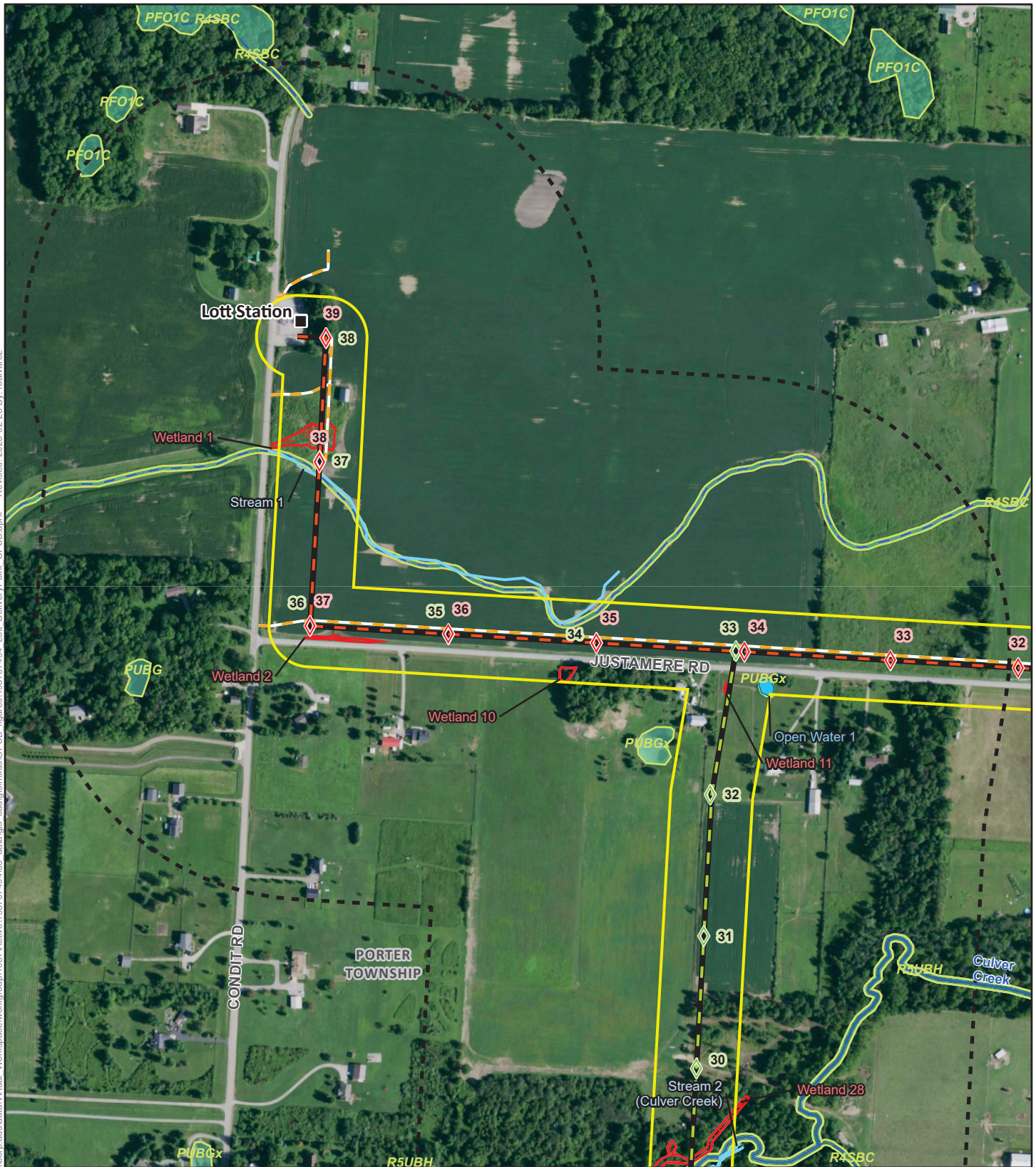
FIGURE 8-2E

Preferred Route Details Map

AEP Company
Lott 138kV Transmission Line Project

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| ■ Existing Substation | ○ Delineated Open Water |
| ▲ Proposed Condit Switch | ■ Slope > 12% |
| ◇ Preferred Route Proposed Structure | ○ National Wetlands Inventory Feature |
| ◇ Alternate Route Proposed Structure | ○ National Hydrography Dataset |
| — Preferred Route | — Perennial Stream |
| — Alternate Route | — Intermittent Stream |
| — Survey Corridor | — Waterbody |
| — 1,000-Foot Buffer | — Delineated Wetland |
| — Existing Transmission Line | — Palustrine Emergent (PEM) |
| — Proposed Access Road | — Palustrine Forested (PFO) |
| — Delineated Waterway | — Palustrine Scrub-Shrub (PSS) |

Data Sources:
AEP, Stantec, USGS, USFWS,
OGRIP, NAIP 2019

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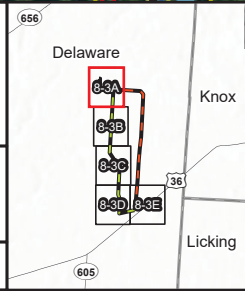
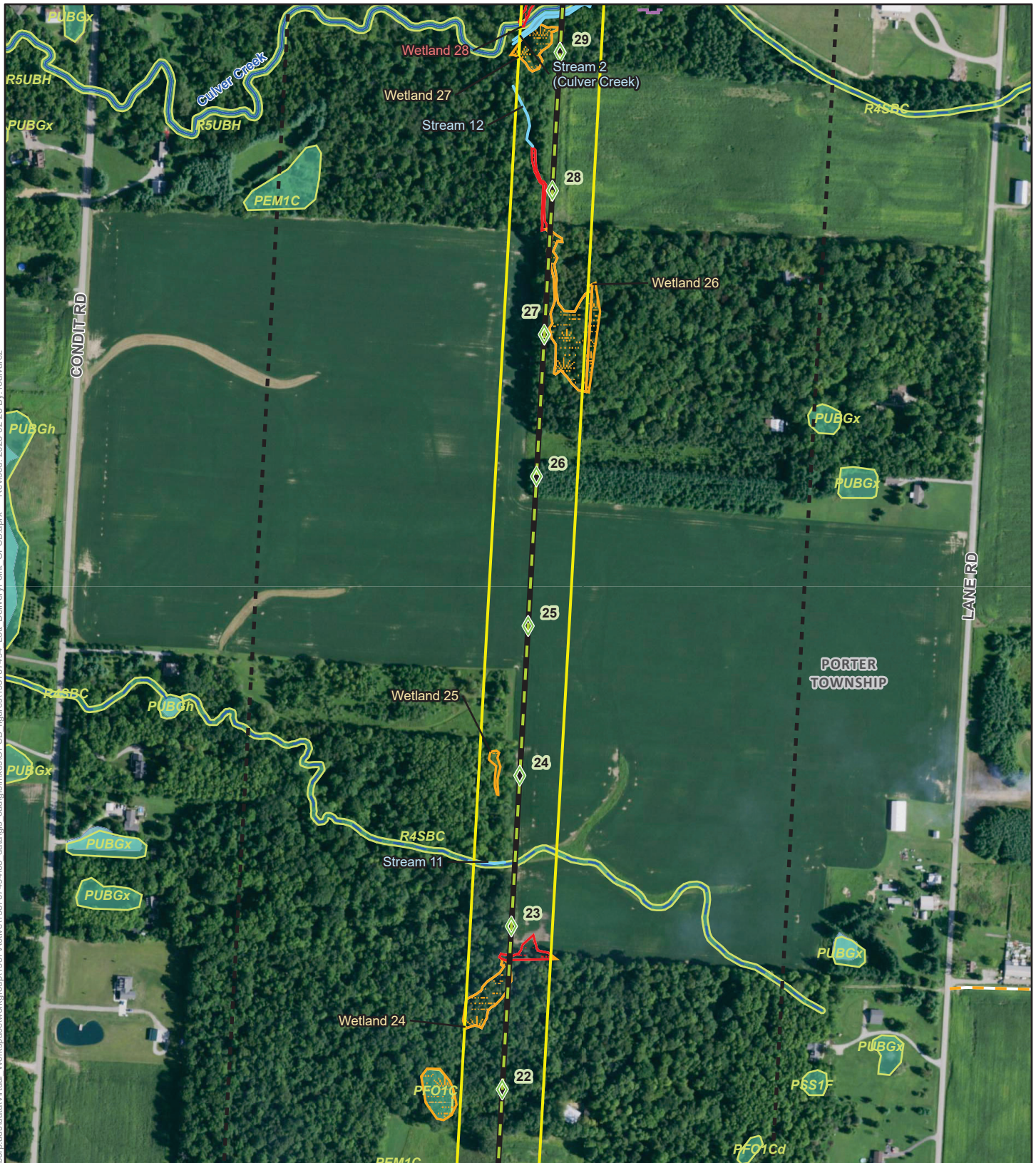


FIGURE 8-3A
Alternate Route Details Map

AEP OHIO
An AEP Company
Lott 138kV Transmission Line Project

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| | Preferred Route |
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| | Survey Corridor |
| | 1,000-Foot Buffer |
| | Existing Transmission Line |
| | Proposed Access Road |
| | Delineated Waterway |
| | Delineated Open Water |
| | Slope > 12% |
| | National Wetlands Inventory Feature |
| | Perennial Stream |
| | Intermittent Stream |
| | Waterbody |
| | Delineated Wetland |
| | Palustrine Emergent (PEM) |
| | Palustrine Forested (PFO) |
| | Palustrine Scrub-Shrub (PSS) |

Data Sources:
 AEP, Stantec, USGS, USFWS,
 OGRIP, NAIP 2019

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February 28, 2023

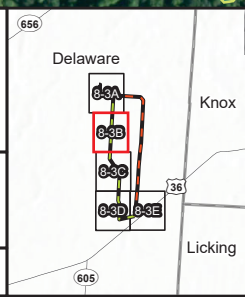
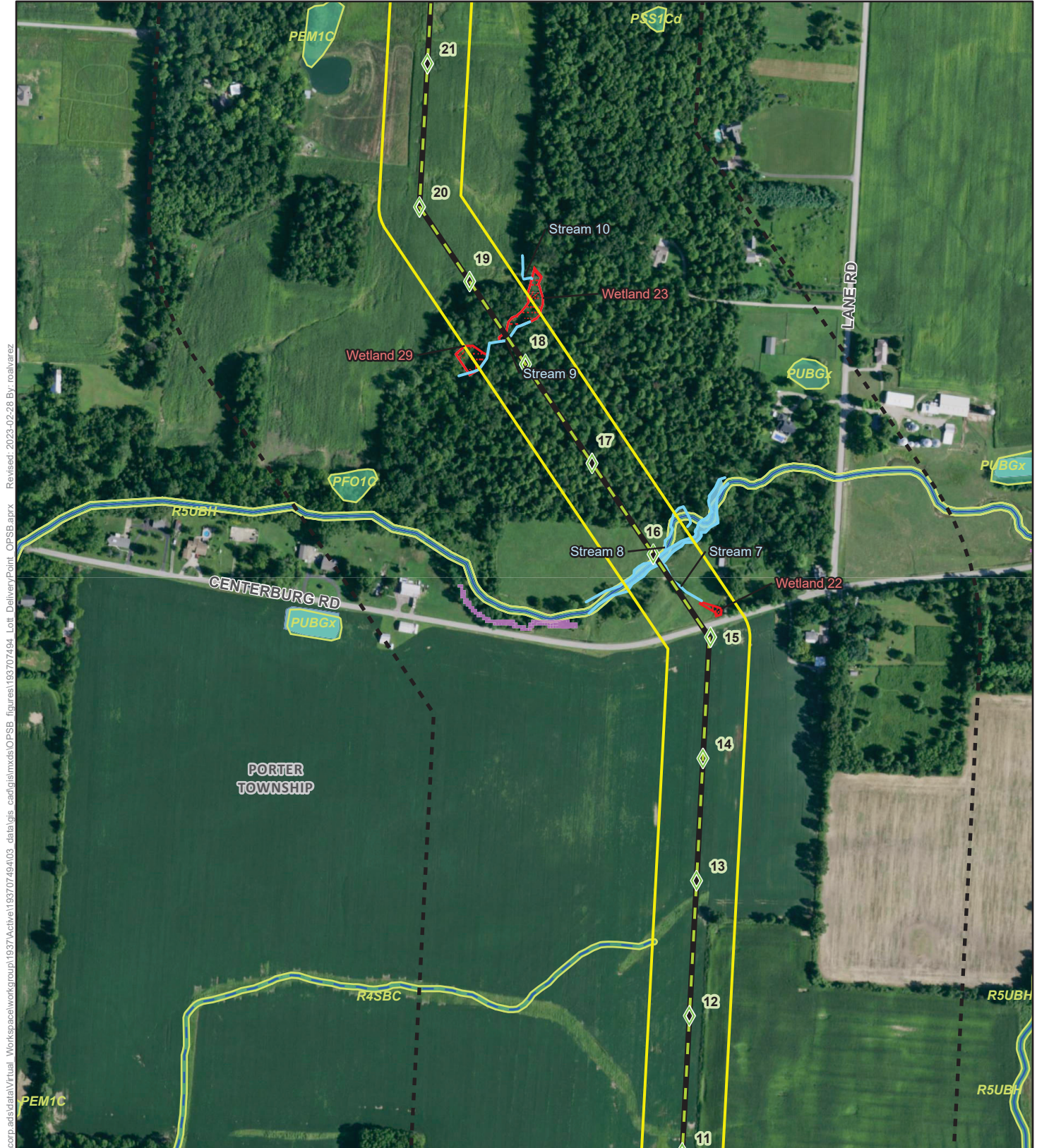


FIGURE 8-3B

Alternate Route Details Map

Lott 138kV Transmission Line Project
An AEP Company
BOUNDLESS ENERGY

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| ■ Existing Substation | ● Delineated Open Water |
| ▲ Proposed Conduit Switch | ■ Slope > 12% |
| ◇ Preferred Route Proposed Structure | ○ National Wetlands Inventory Feature |
| ◇ Alternate Route Proposed Structure | ○ National Hydrography Dataset |
| — Preferred Route | — Perennial Stream |
| — Alternate Route | — Intermittent Stream |
| — Survey Corridor | — Waterbody |
| — 1,000-Foot Buffer | — Delineated Wetland |
| — Existing Transmission Line | ● Palustrine Emergent (PEM) |
| — Proposed Access Road | ● Palustrine Forested (PFO) |
| — Delineated Waterway | ● Palustrine Scrub-Shrub (PSS) |

Data Sources:
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February 28, 2023

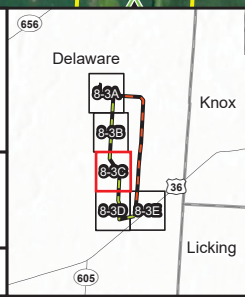
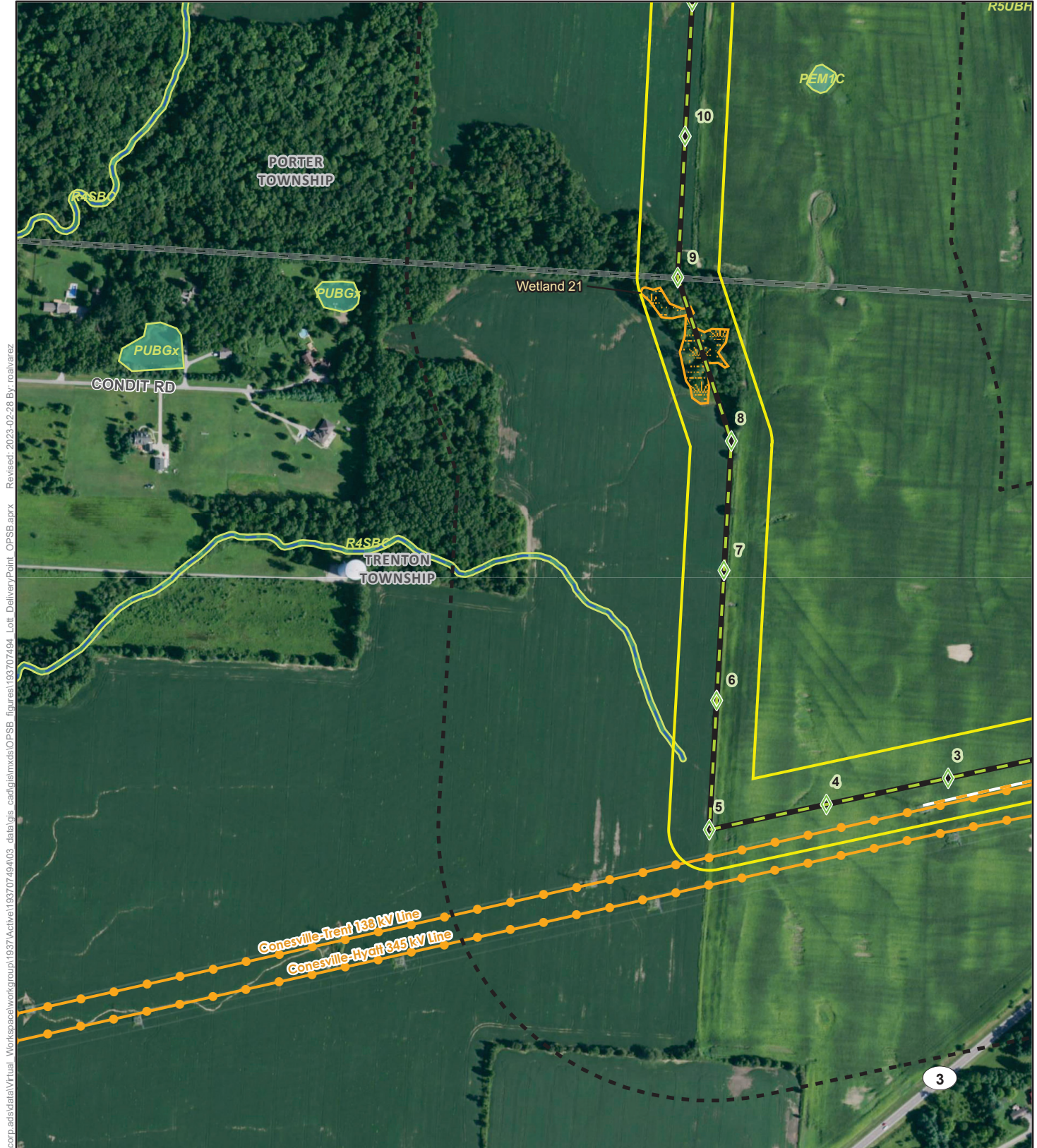


FIGURE 8-3C
Alternate Route Details Map

AEP OHIO
 An AEP Company
BOUNDLESS ENERGY

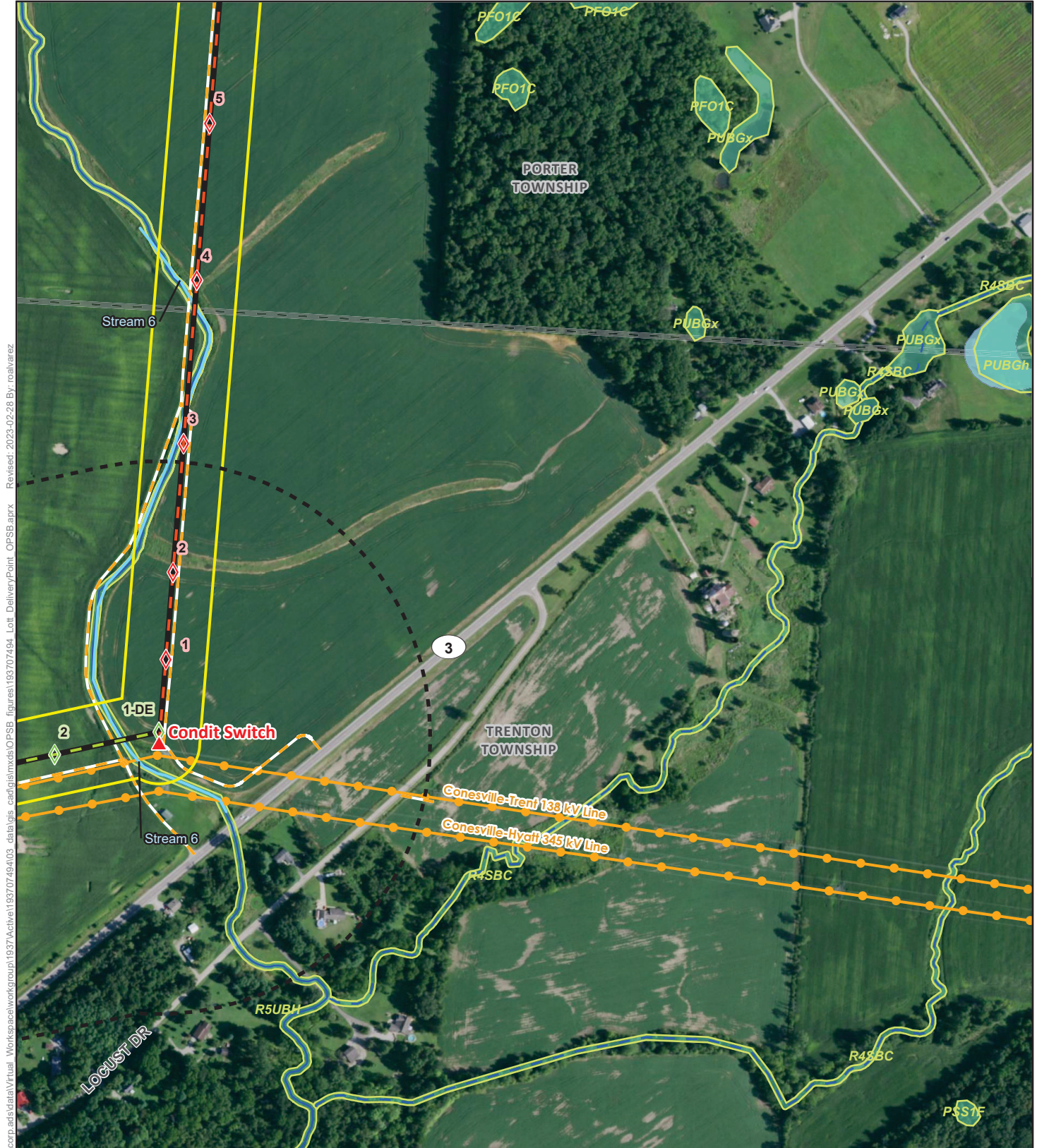
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| <p>Legend</p> <ul style="list-style-type: none"> ■ Existing Substation ▲ Proposed Condit Switch ◇ Preferred Route Proposed Structure ◇ Alternate Route Proposed Structure — Preferred Route — Alternate Route ▭ Survey Corridor ▭ 1,000-Foot Buffer — Existing Transmission Line — Proposed Access Road — Delineated Waterway ○ Delineated Open Water ■ Slope > 12% — National Wetlands Inventory Feature — National Hydrography Dataset — Perennial Stream — Intermittent Stream — Waterbody — Delineated Wetland ○ Palustrine Emergent (PEM) ○ Palustrine Forested (PFO) ○ Palustrine Scrub-Shrub (PSS) | <p>Data Sources: AEP, Stantec, USGS, USFWS, OGRIP, NAIP 2019</p> <p>Coordinate System and Datum NAD 1983 State Plane Ohio North</p> <p>February 28, 2023</p> | | <p align="center">FIGURE 8-3D Alternate Route Details Map</p> <p align="center"> Lott 138kV Transmission Line Project <small>An AEP Company</small> BOUNDLESS ENERGY </p> <p align="center"> 0 250 500 Feet </p> |
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| <p>Legend</p> <ul style="list-style-type: none"> ■ Existing Substation ▲ Proposed Condit Switch ◇ Preferred Route Proposed Structure ◇ Alternate Route Proposed Structure — Preferred Route — Alternate Route ▭ Survey Corridor ▭ 1,000-Foot Buffer — Existing Transmission Line — Proposed Access Road — Delineated Waterway ○ Delineated Open Water ▭ Slope > 12% — National Wetlands Inventory Feature — National Hydrography Dataset — Perennial Stream — Intermittent Stream — Waterbody — Delineated Wetland ○ Palustrine Emergent (PEM) ○ Palustrine Forested (PFO) ○ Palustrine Scrub-Shrub (PSS) | <p>Data Sources: AEP, Stantec, USGS, USFWS, OGRIP, NAIP 2019</p> <p>Coordinate System and Datum NAD 1983 State Plane Ohio North</p> <p>February 28, 2023</p> | | <p align="center">FIGURE 8-3E Alternate Route Details Map</p> <p align="center"> Lott 138kV Transmission Line Project </p> <p align="center"> </p> |
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REFERENCES

- Brack, Virgil Jr., Dale W. Sparks, John O. Whitaker Jr., Brianne L. Walters, and Angela Boyer. 2010. Bats of Ohio. Indiana State University Center for North American Bat Research and Conservation.
- City-Data. 2022. City-Data.com. Available at <http://www.city-data.com/city/Ohio.html>. Accessed January 2023.
- International Agency for Research on Cancer (IARC). 2001. IARC Finds Limited Evidence that Residential Magnetic Fields Increase Risk of Childhood Leukemia. Press Release No. 136, 27 June 2001.
- International Commission for Non-Ionizing Radiation Protection (ICNIRP). 2001. Review of the epidemiologic literature on EMF and Health. *Environ Health Perspect.* 2001 Dec;109 Suppl 6:911-33.
- Institute of Electrical and Electronics Engineers (IEEE). 2002. IEEE Standard for Safety Levels with Respect to Human Exposure to Electromagnetic Fields, 0-3 kHz. C95.6-2002.
- Gordon, M.E., and J.B. Layzer. 1989. Mussels (BIVALVIA: UNIONOIDEA) of the Cumberland River: review of life histories and ecological relationships. U.S. Fish and Wildlife Service Report No. 89 (15). 99 pp.
- Harvey, Michael J., J. Scott Altenbach, and Troy L. Best. 1999. Bats of the United States. Arkansas Game & Fish Commission, Little Rock, Arkansas. 64 pp.
- Healthy Canadians. 2012. Electric and magnetic fields from power lines and electrical appliances. Available at <http://healthycanadians.gc.ca/healthy-living-vie-saine/environnement-environnement/homemaison/emf-cem-eng.php>.
- Mack, J.J. 2001. Ohio Rapid Assessment Method for Wetlands, Manual for Using Version 5.0. Ohio EPA Technical Bulletin Wetland/2001-1-1. Ohio Environmental Protection Agency, Division of Surface Water, 401 Wetland Ecology Unit, Columbus, Ohio.
- NatureServe. 2021. NatureServe Explorer [web application]. NatureServe, Arlington, Virginia. Available at <https://explorer.natureserve.org/>. Accessed: March 2021.
- National Institute of Environmental Health Sciences (NIEHS). 1999. Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields. NIH Publication No. 99-4493.
- Ohio Airports. 2023. Available at <https://ourairports.com/airports/US-0838/>. Accessed January 2023.

- Ohio Environmental Protection Agency (OEPA). 2006. Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI).
- OEPA. 2020. Field Methods for Evaluating Primary Headwater Streams in Ohio. Version 4.1. Ohio EPA Division of Surface Water, Columbus, Ohio. 130 pp.
- Ohio Department of Natural Resources (ODNR) Division of Geological Survey (DGS). 1998. Physiographic regions of Ohio: Ohio Department of Natural Resources, Division of Geological Survey, page-size map with text. 2 pp.
- ODNR Division of Wildlife (ODNR-DOW). 2016. Mammals of Ohio Field Guide. Publication 5344. ODNR DOW, Columbus, OH.
- ODNR Division of Wildlife. 2020. Species Guide Index. Available at <http://wildlife.ohiodnr.gov/species-and-habitats/species-guide-index/>. Accessed January 2020.
- ODNR Division of Wildlife. 2022. State Listed Wildlife and Plant Species by County. Available at <https://ohiodnr.gov/discover-and-learn/safety-conservation/about-odnr/wildlife/documents-publications/wildlife-plants-county>. Accessed August 2022.
- ODNR Division of Geological Survey. 2023a. Karst Interactive Map. Available online at Karst Interactive Map Viewer (ohiodnr.gov). Accessed February 2023.
- ODNR Division of Mineral Resources and Division of Geological Survey. 2023b. Mines of Ohio. Available online at ODNR Mines of Ohio Viewer (ohiodnr.gov). Accessed February 2023.
- ODNR and USFWS. 2022. Ohio Mussel Survey Protocol. Available at <https://ohiodnr.gov/static/documents/wildlife/permits/dow-protocol-ohio-mussel-survey.pdf>. Accessed January 2023.
- Parmalee, P. W. and A. E. Bogan. 1998. The Freshwater Mussels of Tennessee. University of Tennessee Press: Knoxville, Tennessee. 328 pp.
- Sparks, Dale W., Curtis J. Schmidt, and Jerry R. Choate. 2011. Bats of Kansas. Indiana State University Center for North American Bat Research and Conservation, Terre Haute, Indiana. 60 pp.
- United States Army Corps of Engineers (USACE), Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual, Technical Report Y 87 1, U.S. Army Engineer Waterway Experiment Station, Vicksburg, Mississippi.
- United States Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. EDRC/EL TR-10-16. Vicksburg, MS: Army Engineer Research and Development Center.

United States Department of Agriculture (USDA). 2001. Soil Survey of Delaware County, Ohio. United States Department of Agriculture, Natural Resource Conservation Service, in cooperation with the Ohio Department of Natural Resources, Division of Soil and Water Conservation.

USDA. 2022. Web Soil Survey. Retrieved from: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed January 2023.

U.S. Fish and Wildlife Service (USFWS). 2007. Indiana bat (*Myotis sodalis*) draft recovery plan: First revision. U.S. Fish and Wildlife Service, Ft. Snelling, Minnesota. 258 pp.

USFWS. 2016. NWI Decoder. Available online at <https://fwsprimary.wim.usgs.gov/decoders/wetlands.aspx>. Accessed January 2023.

USFWS. 2018. Federally-Listed Threatened, Endangered, Proposed, and Candidate Species County Distribution, updated January 29, 2018. Available at <https://www.fws.gov/midwest/endangered/lists/ohio-cty.html>. Accessed January 2021.

USFWS. 2020. Northern Long-eared Bat (*Myotis septentrionalis*). Available online at <https://www.fws.gov/midwest/Endangered/mammals/nleb/nlebFactSheet.html>. Accessed January 2023.

USFWS. 2022a. National Wetlands Inventory, Web Mapper. Retrieved from: <http://www.fws.gov/wetlands/Data/Mapper.html>.

USFWS. 2022b. 2022 Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines, March 2022. Available at: https://www.fws.gov/sites/default/files/documents/USFWS_Range-wide_IBat_%26_NLEB_Survey_Guidelines_2022.03.29.pdf.

World Health Organization (WHO). 2007. Extremely Low Frequency (ELF) Fields. Environmental Health Criteria, Vol. 238. Geneva, Switzerland, ISBN 978-92-4-157238-5. Published under the joint sponsorship of ILO, ICNIRP and WHO.

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