

Legal Department

American Electric Power 1 Riverside Plaza Columbus, OH 43215-2373 AEP.com

Chairman Thomas W. Johnson The Public Utilities Commission of Ohio Ohio Power Siting Board 180 East Broad Street Columbus, Ohio 43215

June 27, 2014

RE: Letter of Notification for the East Amsterdam-Miller Switch 138 Kv Transmission Line Rebuild Project Case No. 14-0531-EL-BLN

Dear Chairman Johnson:

In accordance with rules 4906-5-02(A) and 4906-11-01, Ohio Administrative Code ("OAC"), AEP Ohio Transmission Company ("AEP Ohio Transco") submits this letter of notification. Construction of the project is scheduled to begin in October 2014 and the project is scheduled to be placed in-service in June 2015.

As required by rule 4906-11-01(D), O.A.C., AEP Ohio Transco has submitted a copy of the enclosed letter of notification to the chief executive officer of each municipal corporation and county and the head of each public agency charged with protecting the environment or of planning land use in the area in which the proposed project will be located. Attached to the letter of notification are copies of the letters that have been submitted.

Should you have any questions, please do not hesitate to contact me.

Respectfully submitted,

<u>/s/ Yazen Alami</u> Yazen Alami

Attachments

Yazen Alami, Esq. Regulatory Services (614) 716-2920 (P) (614) 716-2950 (F) yalami@aep.com

LETTER OF NOTIFICATION FOR THE

EAST AMSTERDAM-MILLER SWITCH 138 KV TRANSMISSION LINE REBUILD PROJECT

PUCO Case No. 14-0531-EL-BLN

Submitted pursuant to OAC 4906-11-01

AEP Ohio Transmission Company (AEP Ohio Transco)

June 2014

LETTER OF NOTIFICATION

East Amsterdam-Miller Switch 138 kV Transmission Line Rebuild Project

4906-11-01(B) GENERAL INFORMATION

1. The name of the project and applicant's reference number, if any, names and reference numbers(s) of resulting circuits and a brief description of the project, and why the project meets the requirements of a letter of notification.

The name of this project is the East Amsterdam - Miller Switch 138 kV Transmission Line Rebuild Project (Project) and the Ohio Power Siting Board Case number is 14-0531-BLN.

The Project consists of rebuilding 9.7 miles of existing 69 kV transmission line to 138 kV specifications between AEP Ohio Transco's Miller Switch Station and the East Amsterdam Station. This project is intended to meet the requirements of specific customers.

As proposed in this Letter of Notification, the transmission line work will be constructed within an existing right-of-way (ROW) corridor where approximately 50-foot width easements are currently held by AEP Ohio Transco in German and Springfield Townships in Harrison and Jefferson Counties, Ohio. AEP Ohio Transco is in the process of obtaining an expansion of the current easements (total of 100 feet in width) in order to accommodate the circuit's operation at 138 kV. Figure 1 shows the location of the 9.7-mile transmission line segment to be rebuilt in relation to the surrounding vicinity.

This transmission line rebuild meets the requirements for a Letter of Notification because it is within the types of projects defined by 4906-1-01 Appendix A of Attachment A (Interim Application Requirement Matrix) of the OPSB's Finding and Order, dated September 4, 2012 in Docket 12-1981-GE-BRO. This item states:

- (1) Rerouting or extension or new construction of single or multiple circuit electric power transmission lines(s):
 - (f) Line(s) primarily needed to attract or meet the requirements of a specific customer or customers.

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

With the recent customer load increases in the Dennison-Miller-Cadiz area, some facilities are seeing loadings over their permitted ratings. The loads in question are located at Crimm

Road, Adobe Switch and Jewett Switch. Momentum submitted a request for a load increase at their Harrison Plant (Crimm Road Station) to occur in September 2014 for a total 44.6 MVA (an increase of 22MVA from their original load). Adobe Station is to serve Access Midstream and the expected load during 2014 is 18MVA. In addition South Central Power submitted a request to increase load at Jewett from the present 5 MVA to 22 MVA. The manner in which power flows allows the East Amsterdam source to pick up more than it should and thus overloading the East Amsterdam-Miller SW 69kV circuit, part of the Dillonvale - Amsterdam 69kV line. With the loads above which are to occur by October 2014, the line is loaded at 117% of its rating under normal conditions. The line needs to be rebuilt in order to address this overload and criteria violation, but due to design and construction the line will not be completely rebuilt by then, in the meantime an operating procedure is in place until the line is completely rebuilt. The East Amsterdam-Miller SW 69kV circuit was originally built in 1918 on wood poles and 1/0 Copper conductor.

3. The location of the project in relation to existing or proposed lines and stations shown on maps and overlays provided to the public utilities commission of Ohio in the applicant's most recent long-term forecast report.

Due to recent additional customer load requests, the need for this project was not known at the time of filing the most recent Long Term Forecast Report. Therefore, this project has not yet been published in a Long Term Forecast Report at this time.

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

Other alternatives to meet the Project's objectives would involve the construction of 1) a new 138 kV transmission line adjacent to the existing East Amsterdam-Miller Switch transmission line, or 2) a new 138 kV transmission line within a separate and new ROW over a minimum approximate distance of nine miles. Both of these alternatives would result in significantly greater ecological impacts (e.g., forest and habitat loss, endangered species impacts) and socioeconomic impacts (number of residences and number of properties crossed, cultural resources, etc.) due to the added ROW or easements that would need to be acquired compared to the proposed rebuild approach. Furthermore, the Project's inservice date would not be met due to the time, effort and expense required to acquire either the easements through a new route corridor or the incrementally wider easements adjacent to the existing transmission line corridor.

5. The anticipated construction schedule and proposed in-service date of project.

Access road construction is scheduled to begin in late September 2014 and tree and vegetation clearing is scheduled to begin in October 2014. This allows AEP Ohio Transco to adhere to seasonal habitat clearing restrictions associated with the Indiana bat and northern long-eared bat requested by the Ohio Department of Natural Resources (ODNR) and the United States Fish and Wildlife Service (USFWS). The transmission line rebuild construction work will also begin in October 2014. The in-service date for the Project is June 2015.

6. An area map of not less than 1:24,000 scale clearly depicting the facility's centerline with clearly marked streets, roads, and highways, and clearly written instructions for locating and viewing the facility.

Figure 1 illustrates the proposed Project transmission line using a U.S. Geologic Service (USGS) 7.5-minute topographic quadrangle base map. Directions from Columbus, Ohio are as follows. Follow I-70E to I-77N (exit 180A). Take exit 47 (US-22 E) from I-77N, and continue to follow US-22 E for approximately 44 miles to the Hopedale/Smithfield exit (OH-151 E). Turn left onto OH-151, continue for approximately 2.6 miles and turn left at Cadiz Junction Road. Continue approximately 0.7 miles and the Miller Switch Station will be on the left.

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

AEP Ohio Transco is in the process of obtaining additional easement width to widen AEP Transco's existing 50-foot easements to 100 feet width total to accommodate the 138 kV transmission line's operational requirements for clearance to vegetation. All property owners crossed by the transmission line ROW will be notified prior to commencement of construction.

(C) TECHNICAL FEATURES OF THE PROJECT

1. Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

The 138 kV transmission line will be rebuilt to 138kV specifications using one 1233.6 kcmil Type 13 ACSS/TW conductor per phase. One 7#8 alumoweld overhead ground wire will be used as a shield wire. The insulator assemblies will consist of polymer braced-post insulators, polymer suspension insulators, and polymer deadend insulators. The 138 kV

transmission structures to be installed will include four (4) self-supporting galvanized steel pole structures with concrete foundations and 146 direct-embedded galvanized steel pole structures. Figure 2 (three sheets) show the structure types that will be installed for this Project.

2. For electric power transmission lines, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

(a) Calculated Electric and Magnetic Field Levels

Three loading conditions for the 69kV line voltage were examined: (1) normal maximum loading, (2) emergency line loading, and (3) winter normal conductor rating. Normal maximum loading represents the peak flow expected with all system facilities in service; daily/hourly flows fluctuate below this level. Emergency loading is the maximum current flow during unusual (contingency) conditions, which exist only for short periods of time. Winter normal (WN) conductor rating represents the maximum current flow that a line, including its terminal equipment, can carry during winter conditions. It is not anticipated that this line would operate at its WN rating in the foreseeable future. Loading levels used in the EMF calculations are presented below. These levels are based on the 2014 projected system conditions. The corresponding design, including the phase configuration, is shown in Figure 3.

Circuit	Normal Maximum	Emergency Loading	Winter Normal
	Loading (MW)	(MW)	Conductor Rating (MVA)
Wolf Run Substation – E. Amsterdam 69 kV Line	321	521	2,682

Line Loading and Rating

The calculated electric and magnetic fields are summarized below. Typical cross section profiles at normal maximum loading conditions are shown in Figures 2 and 3.

Calculated Electric and Magnetic Fields

		Magnetic Field (mG)		
Circuit (all circuits on same structure)	Electric Field (kV/m)	Normal Maximum Load	Emergency Load	Winter Normal Rating
Wolf Run Substation – E. Amsterdam 69 kV Circuit	0.1/0.4/0.1	9.2/21.7/9.5	15/35.2/15.4	83.3/231.7/88.2

Note: EMF levels (left ROW edge/maximum/right ROW edge) calculated one meter above ground assuming balanced currents and nominal voltages. Electric fields reflect normal and emergency operations; lower electric fields are expected during emergency conditions when one mutually-coupled line is out of service.

(b) Discussion of the Company's Design Alternatives Regarding EMF Levels

Design alternatives were not considered due to the scope of the project involving reconductoring of an existing transmission line capable of operating at 138 kV (currently 69 kV and the initial planned operating voltage) and the relatively low modeled EMF levels.

3. The estimated cost of the project by Federal Energy Regulatory Commission account, unless the applicant is not an electric light company, a gas company or a natural gas company as defined in Chapter 4905 of the Revised Code (in which case, the applicant shall file the capital costs classified in the accounting format ordinarily used by the applicant in its normal course of business).

The 2014 capital cost estimates for the proposed project have been tabulated by the Federal Energy Regulatory Commission (FERC) Electric Plant Transmission Accounts as follows:

FERC Accounts	Estimated Capital Cost	
355 Poles and Fixtures	\$12,755,941	
356 Overhead Conductors and Devices	\$8,208,186	
Total Cost	\$20,964,127	

(D) SOCIOECONOMIC DATA

 A brief, general description of land use within the vicinity of the proposed project, including: (a) a list of municipalities, townships, and counties affected; and (b) estimates of population density adjacent to rights-of-way within the study corridor (the U.S. census information may be used to meet this requirement).

On behalf of AEP Ohio Transco, GAI Consultants prepared a Socioeconomic, Land Use, and Agricultural District Review Report which is included as Attachment C. The current land use should not change as a result of the Project as the transmission line is being rebuilt within the same alignment at the existing line.

2. The location and general description of all agricultural land (including agricultural district land) existing at least sixty days prior to submission of the letter of notification within the proposed electric power transmission line right-of-way, or within the proposed electric power transmission substation fenced-in area, or within the construction site boundary of a proposed compressor station.

The transmission line ROW crosses agricultural land, including Ohio Agricultural District Land (eight landowners), as detailed in the Socioeconomic, Land Use, and Agricultural District Review Report in Attachment C. The Project crosses parcels that are designated as Agricultural District Land. Given that this is a transmission line rebuild project, no changes in agricultural practices or agricultural production is anticipated.

3. A description of the applicant's investigation (concerning the presence or absence of significant archeological or cultural resources that may be located within the area likely to be disturbed by the project), a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

A Phase I Cultural Resources Investigation of the Project Area was conducted by GAI Consultants. Once the findings and Phase I Report are finalized, a copy will be provided to the Ohio Power Siting Board under separate cover. No significant cultural material or artifacts have been recovered to date.

4. Documentation that the chief executive officer of each municipal corporation and county, and the head of each public agency charged with planning land use in the area in which any portion of the facility is to be located have been notified of the project and have been provided a copy of the letter of notification. The applicant shall describe the company's public information program used in the siting of the proposed facility. The information submitted shall include either a copy of the material distributed to the public or a copy of the agenda and summary of the meeting(s) held by the applicant.

June 2014

Copies of this Letter of Notification have been sent to the Harrison and Jefferson County Commissioners, the Trustees of Springfield and German Townships, the Director of the Jefferson County Regional Planning Commission, the Village of Amsterdam, the Puskarich Public Library (Cadiz, Harrison County), and the Public Library of Steubenville and Jefferson County. Copies of the letters to these officials and libraries are provided in Attachment B.

AEP Ohio Transco will advise local officials of the features and status of the transmission line rebuild Project as needed.

5. A brief description of any current or pending litigation involving the project known to the applicant at the time of the letter of notification.

There is no known current or pending litigation involving this Project.

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

AEP Ohio Transco plans to file a Notice of Intent with the Ohio Environmental Protection Agency to obtain authorization for stormwater discharges from construction activities that will occur in the Project area including any necessary access roads. AEP Ohio Transco has coordinated with the U.S. Fish and Wildlife Service and the Ohio Department of Natural Resources to verify that the Project complies with requirements to protect threatened and endangered species.

(E) ENVIRONMENTAL DATA

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

On behalf of AEP Ohio Transco, GAI Consultants prepared a Threatened and Endangered Species Report for the Project, which is included as Attachment D. The USFWS and the Ohio Department of Natural Resources (ODNR) were consulted regarding listed species within or near the Project vicinity. To avoid potential impacts to the Indiana bat and Northern long-eared bat, both the USFWS and the ODNR recommended that any necessary cutting of trees occur between October 1 and March 31. AEP Ohio Transco proposes to minimize tree cutting and adhere to these seasonal tree cutting restrictions.

There are no plans for construction activities within or immediately adjacent to streams, therefore no aquatic species should be affected by the Project. The ODNR reported that the upland sandpiper (Bartramia longicauda), a state endangered bird, may utilize a variety of dry grasslands for nesting. Although no statewide surveys have been performed for this species, nor has the upland sandpiper been confirmed present in the two counties, the ODNR recommends that construction in specific types of grasslands be avoided during the nesting period of April 15 to July 31. AEP will either perform presence/absence surveys during the nesting period or avoid impacts to this type of grassland habitat during the nesting period.

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

On behalf of AEP Ohio Transco, GAI prepared a Wetland Delineation and Stream Identification Report, which is included as Attachment E. No streams should be affected by construction activities as there are no plans for work immediately adjacent to or within streams (no equipment crossings). Wetland crossings with equipment, currently limited to two wetlands, will be performed using precautions and preventative measures (matting) to avoid temporary and permanent fills into a wetland.

There are no state forests or parks, wildlife management areas, etc. with the Project area. There are small sections of floodplains within the area but no effects on flood capacity are anticipated as a result of Project activities.

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

To the best of AEP Ohio Transco's knowledge, no unusual conditions exist that would result in environmental, social, health, or safety impacts. Construction and operation of the proposed Project will meet all applicable safety standards established by the Occupational Safety and Health Administration, and will be in accordance with the requirements specified in the latest revision of the National Electric Safety Code as adopted by the Public Utilities Commission of Ohio. A Stormwater Pollution Prevention Plan (SWPPP) will provide details and specifications for all construction areas where soil disturbance may occur including access roads. This Plan will be provided to the OPSB under separate cover.

June 2014









ATTACHMENT A

List of Property Owners and Parcels Requiring Expanded or New Easements

Parcel Number	County
34-03007000 11-0000679000 34-003006000 34-00693001	Harrison/Jefferson
34-01346000	Jefferson
34-00626000	Jefferson
34-00629000	Jefferson
34-00651000	Jefferson
34-01132000	Jefferson
34-00197000 34-00198000	Jefferson
34-00200000	Jefferson
34-01334000	Jefferson
34-00730000 34-00728000 34-00727000	Jefferson
34-00731000	Jefferson
34-00001000	Jefferson
34-00779000	Jefferson
34-00380000	Jefferson
34-01302000	Jefferson
34-01301000	Jefferson
34-00403000	Jefferson
34-00719000	Jefferson
34-00369000	Jefferson
34-01277000	Jefferson
34-01278000	Jefferson

Parcel Number	County	
34-00693000 34-00694000	Jefferson	
34-01261000	Jefferson	
34-00192000	Jefferson	
34-01338010 34-01338009	Jefferson	
34-01338-004	Jefferson	
34-01338003	Jefferson	
34-00309000 34-00307000	Jefferson	
34-00977000 34-00340000	Jefferson	
34-00491000 11-0000156000	Jefferson / Harrison	
11-0000170000 11-0000169000 11-0000171000 11-0000156001	Harrison	
11-0000155000	Harrison	
11-0000211002 11-0000211001 11-0000211000 11-0000687000 11-0000105000	Harrison	
11-0000687001 11-0000296001 11-0000232000 11-0000233000	Harrison	
11-0000573000	Harrison	
11-0000677000	Harrison	
11-0000163000 11-0000164000	Harrison	
11-0000142000 11-0000143000 11-0000140000	Harrison	
11-0000590000	Harrison	
11-0000084001	Harrison	
11-0000652000	Harrison	

ATTACHMENT B

LETTERS TO CHIEF EXECUTIVE OFFICERS OF MUNICIPAL CORPORATIONS AND COUNTIES, OTHER HEADS OF AGENCIES CHAREGED WITH PLANNING LAND USE, AND LIBRARIES



June 25, 2014

Green Township Trustee Mr. Vee Jay Beadling, Sr. 607 East Street Hopedale, Ohio 43976

RE:

Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Beadling:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely, 100

Brett E. Schmied, J.D. Project Outreach Specialist American Electric Power



June 25, 2014

Jefferson County Engineer Mr. James F. Branagan 598 State Route 43 Steubenville, Ohio 43952

RE:

Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Branagan:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch- East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely, Brett E. Schmied, J.D.

Project Outreach Specialist American Electric Power



June 25, 2014

German Township Trustee Mr. Walter Ray Carman 49781 Carman Road Hopedale, Ohio 43976

RE: Letter of Notification Miller Switch- East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Carman:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

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June 25, 2014

Public Library of Steubenville and Jefferson County Mr. Alan Hall, Director 407 South 4th Street Steubenville, Ohio 43952

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Hall:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

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We ask that this Letter of Notification be made available to the general public.

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June 25, 2014

Harrison County Board of Commissioners Mr. William H. Host, President Mr. Dale Ray Norris Mr. Don Rae Bethel 101 Market Street Cadiz, Ohio 43907

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Commissioners:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

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June 25, 2014

Jefferson County Board of Commissioners Mr. David C. Maple, Jr. Mr. Thomas G. Gentile Dr. Thomas E. Graham 301 Market Street, First Floor Steubenville, Ohio 43952

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

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Brett E. Schmied, J.D. Project Outreach Specialist American Electric Power



June 25, 2014

German Township Trustee Mr. Dale Franklin Kellar 87569 Amsterdam Road Jewett, Ohio 43986

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Kellar:

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June 25, 2014

RE:

German Township Trustee Mr. D. Ray Marker, Jr. 89510 Blue Ridge Road Bloomingdale, Ohio 42910

> Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Marker:

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Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely,

Brett E. Schmied, J.D. Project Outreach Specialist American Electric Power



June 25, 2014

German Township Fiscal Officer Ms. Carole D. Miller 90670 Mill Road Jewett, Ohio 43986

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Ms. Miller:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely,

Brett E. Schmied, J.D.

Project Outreach Specialist American Electric Power



June 25, 2014

Jefferson County Regional Planning Department Mr. Domenick Mucci, Jr., Director 500 Market Street, Suite 614 Steubenville, Ohio 43952

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Mucci:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely, Brett E. Schmied, J.D.

Project Outreach Specialist American Electric Power



June 25, 2014

Mayor Gary Pepperling Village of Amsterdam 103 Springfield Street Amsterdam, Ohio 43903

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mayor Pepperling:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely,

Brett E. Schmied, J.D.

Project Outreach Specialist American Electric Power



June 25, 2014

Green Township Trustee Mr. John Joseph Seleski 80495 Croskey Road Cadiz, Ohio 43907

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Seleski:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely,

Brett E. Schmied, J.D.

Project Outreach Specialist American Electric Power



June 25, 2014

Springfield Township Board of Trustees Mr. Joseph R. Kmatz Mr. Daniel E. Stone Mr. William H. Stewart Ms. Tracey Lynn Matta 722 Monroe Street Bergholz, Ohio 43908

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Trustees:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely,

Brett E. Schmied, J.D. Project Outreach Specialist American Electric Power



June 25, 2014

Harrison County Engineer Mr. Robert K. Sterling 32500 Cadiz-Dennison Road Scio, Ohio 43988

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Sterling:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely,

Brett E. Schmied, J.D

Project Outreach Specialist American Electric Power



June 25, 2014

Puskarich Public Library Ms. Sandi Thompson, Director 200 East Market Street Cadiz, Ohio 43907

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Ms. Thompson:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

We ask that this Letter of Notification be made available to the general public.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely,

Brett E. Schmied, J.D.

Project Outreach Specialist American Electric Power



June 25, 2014

Green Township Fiscal Officer Ms. Jacqueline Ann Tipton 528 Virginia Street Hopedale, Ohio 43976

> Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Ms. Tipton:

RE:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely,

Brett E. Schmied, J.D.

Project Outreach Specialist American Electric Power



June 25, 2014

Green Township Trustee Mr. James E. Ward 308 Hilltop Street Hopedale, Ohio 43976

RE: Letter of Notification Miller Switch-East Amsterdam 138-kV Transmission Line Rebuild Project Case Number: 14-0531-EL-BLN

Dear Mr. Ward:

In accordance with Rules 4906 of the Ohio Administrative Code (OAC), AEP Ohio Transmission Company (AEP Ohio Transco) is required to submit a Letter of Notification to the State of Ohio Power Siting Board (OPSB) whenever certain upgrades are made to our transmission facilities.

The proposed Miller Switch-East Amsterdam 138-kilovolt (kV) Transmission Line Rebuild Project, Public Utilities Commission of Ohio (PUCO) Case Number 14-0531-EL-BLN, consists of the upgrade of a 69-kV transmission line with 138-kV specifications, but will operate at 69-kV. The Miller Switch-East Amsterdam transmission line will be approximately 10 miles long. The project will traverse through Springfield Township in Jefferson County and German and Green townships in Harrison County. This rebuild project will provide electric service for Momentum, Access Midstream and South Central Power, and is not identified in any Long-Term Forecast Reports.

In compliance with Rule 4906-11-01 of the OPSB Rules and Regulations, we have prepared and filed the attached Letter of Notification. This Notice contains details on the line location, project description and construction schedule, and is submitted for your information.

Please feel free to contact me at 614-552-1929 and I would be happy to answer any questions concerning this project.

Sincerely,

Brett E. Schmied, J.D.

Project Outreach Specialist American Electric Power




Socioeconomic, Land Use, and Agricultural District Review Report

American Electric Power

East Amsterdam-Miller Switch 138 kV Rebuild Project

German and Springfield Townships, Harrison and Jefferson Counties, Ohio

GAI Project Number: C091118.47, Task 002

June 2014

Prepared for: American Electric Power 700 Morrison Road Gahanna, OH 43230

Prepared by: GAI Consultants, Inc. Pittsburgh Office 385 East Waterfront Drive Homestead, Pennsylvania 15120-5005



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Figure 1 Land Use within the Study Area

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1.0 Project Description

American Electric Power (AEP) is proposing to rebuild an electric transmission line which is referred to as the East Amsterdam–Miller Switch 138 Kilovolt (kV) Rebuild Project (Project), located in Harrison and Jefferson Counties, Ohio (OH). The Project involves the rebuild of an approximately 9.7-mile overhead 69 kV electric transmission line, beginning at the East Amsterdam Substation near Amsterdam, OH and terminating at the Miller Switch Station, north of the town of Hopedale, OH.

Construction of this rebuild Project will involve the replacement of approximately 200 existing wooden poles with new pole structures consisting of approximately 123 pre-engineered wood pole equivalent (WPE) (steel single-pole) structures, 15 WPE steel single-pole running angle structures, 12 WPE steel pole deadend structures, and two switch structures. The new line will be capable of being energized to 138 kV. Construction of this rebuild Project will also include the clearing and widening of AEP's existing 50-foot right-of-way (ROW) to a 100-foot wide ROW.

The Project is located in German and Springfield townships, and Harrison and Jefferson Counties, OH. A Project Location Map is included as Figure 1 as part of the Letter of Notification document.

As part of the OH Power Siting Board Letter of Notification requirements, AEP is required to assess and report the socioeconomic, land use, and agricultural district characteristics potentially affected by the Project, as stated in OH Administrative Code Rule 4906-11-01(D)(1) and (2). These rules state:

- (D) Socioeconomic data. Describe the social and ecological impacts of the project. This description shall contain the following information:
 - (1) A brief, general description of land use within the vicinity of the proposed project, including: (a) list of municipalities, townships, and counties affected; and (b) estimates of population density adjacent to rights-of-way within the study corridor (the U.S. census information may be used to meet this requirement).
 - (2) The location and general description of all agricultural land (including agricultural district land) existing at least sixty days prior to submission of the letter of notification within the proposed electric power transmission line right-of-way, or within the proposed electric power transmission substation fenced-in area, or within the construction site boundary of a proposed compressor station.

GAI Consultants, Inc. (GAI) conducted a desktop review of socioeconomic, land use, and agricultural district land characteristics. A Study Area was established extending 1,000 feet on either side of the 9.7- mile transmission line, resulting in a 2,300-acre study area. In conjunction with ecological field surveys for the Project, GAI observed and recorded land uses within this study area. This report will be used to assist AEP's efforts to avoid or minimize impacts to socio economic characteristics and land uses potentially present in the study area during construction activities.

2.0 General Land Use Description

Land use within the Study Area is shown on the Figure 1 maps. Current land use characteristics were obtained through Google Earth aerial imagery; the United States Geological Survey 7.5-minute topographic quadrangle maps of Cadiz, OH and Amsterdam, OH; and a field reconnaissance conducted over a period of several weeks in April-June 2014.

Land uses within the Study Area include wooded parcels with scattered residences, agricultural land, commercial/industrial land including a waste landfill, natural gas drilling, transportation, and utility corridors. Approximately 21 percent of the land within the study area is cultivated, 55 percent is forested, 5 percent is industrial, 3 percent is residential, 15 percent is undeveloped, 0.05 percent is open water, and 1 percent is transportation.



One church was noted within 1,000 feet of the line. No institutional uses such as schools, government buildings and cemeteries were observed. Within the Study Area 65 residences were identified, 15 of which are within 250 feet of the transmission line, none of which are within the Project ROW. The Project crosses one active railroad, formerly owned by Penn Central, near the town of Amsterdam, OH. The Project crosses county and state roads, including State Routes OH-4, OH-43, OH-46, and OH-646.

3.0 Population Density Estimate

The Project is located within Springfield Township, Jefferson County and German Township, Harrison County, OH. Population density estimates for land within the Study Area were calculated by direct estimation based on the number of residences identified within the study area, and the average number of persons per household in the counties. The estimated population within the study area is 154 based on the number of residences observed and the U.S. Census Bureau's 2010 Census Data. The population estimate was based on 65 residences identified within the Study Area and the average household size being 2.41 people per household (2.46 Harrison County, 2.35 Jefferson County). The population density is 382, this equates to an average population density of 0.16 persons per acre (0.06 Harrison County, 0.26 Jefferson County). The above estimates are limited by available 2010 census statistics and generalizations across the county. Total populations for the two counties and two townships are summarized in Table 1.

Table 1

Study Area Census Population Estimates

Government Unit	2010 Census
Harrison County	15,864
German Township	805
Jefferson County	69,709
Springfield Township	1,192

Source: U.S. Census Bureau, Census 2010 Summary File.

4.0 Agricultural District Land

GAI contacted the county Auditors' Offices of the two counties regarding parcels registered in the Ohio Agricultural District Land Program. The Jefferson County and Harrison County Auditor's Offices reviewed their records on May 8 and May 13, 2014, respectively to report the information.

There are 12 Agricultural District Land parcels or tracts within the 2,000-foot corridor Study Area owned by eight individual landowners. The construction, operation and maintenance of this transmission line are not expected to affect the viability of or use of these Agricultural District Lands within the Study Area. Efforts to minimize soil disturbance during construction will be employed by AEP and its contractors. AEP will compensate property owners for any monetary losses due to the Project through the ROW settlement in accordance with its easement agreements and policy. AEP has and will continue to work with each owner to avoid and minimize damages to property.



County	Within Study Area	Crossed by the Project
Harrison County	4	3
Jefferson County	8	8

Table 2Ohio Agricultural District Lands in Study Area

5.0 Conclusion

The Project is not expected to significantly impact current socioeconomic characteristics, land use, and agricultural district land in the vicinity. The Project is within an electrical transmission line corridor and the characteristics of the Project are not significantly different from the existing transmission line. The Project is not expected to impact any future land use plans for the area.



Socioeconomic, Land Use, and Agricultural District Review Report American Electric Power East Amsterdam-Miller Switch 138 kV Rebuild Project, German and Springfield Townships, Harrison and Jefferson Counties, Ohio

















Threatened and Endangered Species Assessment

American Electric Power East Amsterdam-Miller Switch 138 kV Rebuild Project German and Springfield Townships, Harrison and Jefferson Counties, Ohio

GAI Project Number: C091118.47, Task 002

June 2014

Prepared for: American Electric Power 700 Morrison Road Gahanna, OH 43230

Prepared By: GAI Consultants, Inc. Greater Cincinnati Office 1830 Airport Exchange Boulevard, Suite 220 Erlanger, Kentucky 41018



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1.0 Project Description

GAI Consultants, Inc. (GAI) conducted a threatened and endangered species assessment for American Electric Power's (AEP's) proposed East Amsterdam–Miller Switch 138 Kilovolt (kV) Rebuild Project (Project). The Project involves the rebuild of an approximately 9.7-mile overhead 69 kV electric transmission line, beginning at the East Amsterdam Substation near Amsterdam, Ohio (OH) and terminating at the Miller Switch Station, north of the town of Hopedale, OH. Construction of this Project will involve the replacement of existing wooden poles with new pole structures consisting of approximately 123 pre-engineered wood pole equivalent (WPE) (steel single-pole) structures, 15 WPE steel single-pole running angle structures, 12 WPE steel pole deadend structures, and two switch structures. The new line will be capable of being energized to 138 kV. Construction of this Project will also include the clearing and widening of AEP's existing 50-foot right-of-way (ROW) to a 100-foot wide ROW. The Project is located in German and Springfield townships, and Harrison and Jefferson Counties, OH. A Project Location Map is included as Figure 1.

As part of the OH Power Siting Board Letter of Notification requirements, AEP is required to investigate and report the presence or absence of federal and state listed species and assess potential impacts by the Project, as stated in OH Administrative Code Rule 4906-11-01(E)(1). These rules state:

- (E) Environmental data. Describe the environmental impacts of the project. This description shall contain the following information:
 - (1) A description of the applicant's investigation concerning the presence of absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, ad species of special interest) that may be located within the area likely to be disturbed by the project, a statement of the findings of the investigation, and a copy of any documents produced as a result of the investigation.

This document will assist AEP's efforts to avoid impacts to federal and state listed species.

2.0 Methods

GAI Consultants, Inc. conducted a threatened and endangered species review and field habitat survey within a study area that encompassed the 100-foot wide Project corridor. GAI reviewed online data from the State of OH Department of Natural Resources (ODNR) and the United States Fish and Wildlife Service (USFWS). In addition, GAI requested GIS records from the ODNR Biodiversity Database for species of concern in proximity to the Project and submitted initial consultation letters soliciting technical assistance on the Project from the ODNR and the USFWS. Copies of response letters provided by the ODNR and the USFWS are included as Appendix A. GAI reviewed agency identified species and available species-specific information to determine the various habitat types the listed species are known to frequent. This information was used during the field survey to assess the potential for these species of concern in or near the Project study area.

GAI biologists conducted habitat assessments on April 7 through 9, 2014, May 7, and June 19, 2014, in conjunction with stream and wetland field surveys. Due to the anticipated concern for federally listed and proposed bats within forested habitat along the project, the survey primarily focused on identifying and marking potential bat roosting habitat within the Project ROW. Findings from this survey are included in Appendix B. In addition, GAI biologists searched for listed plant or animal species (or their habitat) with the potential to be present in the vicinity of the study area.



3.0 Results

3.1 State Species of Concern

GAI conducted a web-based literature review of ODNR State Listed Endangered, Threatened, Species of Concern, and Special Interest. GAI also contacted ODNR to request information regarding state listed species that could potentially occur within the vicinity of the proposed Project area. The ODNR send a consultation letter dated June 12, 2014. Table 1 lists the species identified during the literature review and the species identified in ODNR's consultation letter (Appendix A).

Table 1

Common Name	Scientific Name	State Status	
Mammals			
Indiana bat	Myotis Sodalis	Endangered	
Bobcat	Lynx rufus	Threatened	
Black Bear	Ursus americanus	Endangered	
Upland Sandpiper	Bartramia longicauda	Endangered	
Amphibians			
Eastern Hellbender	Cryptobranchus alleganiensis	Endangered	
Fish			
Channel Darter	Percina copelandi	Threatened	
Insects			
Riffle Snaketail	Ophiogomphus carolus	Threatened	
Plants			
Bowman's Root	Porteranthus trifoliatus	Threatened	

State of Ohio Species that Could Inhabit the Project Area

Indiana Bat: This endangered species utilizes a variety of trees during the summer roosting period including dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark or hollow areas formed from broken branches or tops. If suitable habitat occurs and trees must be cut, the ODNR recommends cutting occur between October 1 and March 31. The ODNR also provided direction on net surveys if tree cutting during summer months is necessary.

Upland sandpiper: This endangered avian species utilizes a variety of dry grasslands including grazed and ungrazed pastures, and hayfields. The ODNR recommended that, if this type of habitat will be impacted, then construction should be avoided during the species' nesting period of April 15 to July 31. AEP plans to further coordinate with the ODNR to avoid impacts to the upland sandpiper.

Black Bear and Bobcat: The black bear and bobcat are highly mobile and wide-ranging species. Due to the fact that the project will utilize and expand an existing corridor and reduce the potential for increased fragmentation, the Project is not likely to impact this species.

Eastern Hellbender: This aquatic salamander lives entirely within the waters of perennial streams with large, flat rocks. As no in-water work or work on the adjacent slope of any stream or creek is proposed, the Project will not have an impact on this species. The ODNR concurs with this conclusion based on their consultation letter.



Channel Darter: This fish lives in large, perennial streams within riffles and large substrates. As no in-water work or work on the adjacent slope of any stream or creek is proposed, the Project will not have an impact on this species.

Riffle Snaketail: Due to the nature of the construction tasks and the short-term activity for this Project, no impact to this species is anticipated.

Plants: Much of the construction will be performed at localized structure locations and will not require extensive ground-disturbing access road improvements. To the extent possible, off-site access routes to the structures will follow existing improved roads and driveways. Additionally, tree cutting along the edge of the existing right-of-way is planned to be performed in a manner that avoids grubbing the stumps and roots. With minimization of ground-disturbing activities and SWPPP compliance, the Project is not likely to impact these species. Per the ODNR's recommendation, AEP will contact the ODNR's representative concerning Bowman's root and discuss their recommendations on how to avoid and/or minimize impacts to this plant, if potentially present.

3.2 Federal Species of Concern

GAI conducted a web-based literature review of USFWS Federally Listed Threatened, Endangered, Proposed, and Candidate Species' County Distribution, Revised 2014, to identify the species that may potentially occur in Harrison and Jefferson Counties. In addition, GAI contacted the USFWS to request technical assistance on the Project and received their informal consultation letter dated June 10, 2014 (Appendix A).

Table 2

Common Name	Scientific Name	State Status	
Mammals			
Indiana Bat	Myotis sodalist	Endangered	
Northern Long-Eared Bat	Myotis septentrionalis	Proposed Endangered	

Federal Species that Could Inhabit the Project Area

Indiana Bat and Northern Long-eared Bat: Both bat species listed utilize forested habitat and may occur within the Project area. The northern long-eared bat typically roosts singly or in colonies under bark, in cavities, and in crevices in live and dead trees during summer. The species may also summer roost in cooler locations such as caves and mines. Individuals have also been found roosting under eaves on houses, behind window shutters, in bat-houses, and in open and enclosed buildings. They are documented to enter hibernation in caves, mines, and tunnels within 60 miles of their summer roosts. The Indiana bat utilizes dead or dying trees with exfoliating bark for cover, roosts, and breeding/nursery activities during the warmer months of the year. Males generally spend the summer alone or in small groups. The females may form nursery colonies ranging from a few individuals to 100 or more. During the colder winter months, individuals migrate to hibernate in caves and mines; therefore, they are not present in the Project area during that time.

The USFWS provided an informal consultation letter to GAI dated June 10, 2014 (refer to Appendix A). The agency recommended that, if trees must be cut in order to construct the project, then cutting should occur between October 1 and March 31 to avoid impacts to the Indiana bat and northern long-eared bat.



The Project area will take place within an existing, maintained 50-foot ROW, with construction plans to widen the ROW to 100 feet, requiring the removal of trees. GAI biologists conducted a bat habitat survey and identified potentially suitable roosting trees for Indiana bats and northern long-eared bats within the planned 100-foot ROW and along any access roads that may need widening. Results from this habitat assessment are documented in the *Potential Bat Roost Tree Identification Survey along East Amsterdam – Miller Switch 69 kV Rebuild, Harrison and Jefferson Counties, Ohio* Letter Report in Appendix B. Potential roost trees will not be removed between April 1 and September 30 in order to avoid impacts to these bat species. Removal of potential bat trees will be done between October 1 and March 31.

4.0 Summary

GAI conducted a threatened and endangered species review for areas located in the vicinity of the proposed Project's transmission line, including both a field review within the 100-foot Project corridor and a literature review. This report will assist AEP's efforts to avoid impacts to threatened and endangered species potentially present in the study area. GAI biologists conducted a field habitat assessment in conjunction with the stream and wetland field surveys on April 7-9, 2014, May 7, and June 19, 2014. The Project does contain potential habitat for two endangered bat species. Additionally, the endangered (Ohio) upland sandpiper and the threatened (Ohio) Bowman's root may exist in the Project area solely based on suitable habitat or occurrences were observed or no impacts are anticipated in light of the rebuild construction activity.

5.0 Conclusion

Based upon the nature of the Project, review of available current literature, review of federal and state records of species of concern, and field observations conducted April-June 2014, GAI has determined that although the Project study area does contain habitat for some species, compliance with anticipated recommendations from USFWS and ODNR will reduce or avoid the potential for impacts to these species. The following summarizes AEP's planned actions:

- AEP plans to follow the recommendations of the USFWS and the ODNR and perform necessary tree cutting between October 1 and March 31 to avoid impacts to the two bat species.
- Conduct further coordination with the ODNR regarding recommendations in specific suitable habitat areas to avoid construction activities during the upland sandpiper's potential nesting period of April 15 to July 31.
- Contact the ODNR to obtain additional information on Bowman's root (Ohio threatened plant species) and any avoidance measures to avoid impacts.



APPENDIX A Ohio Department of Natural Resources and United States Fish and Wildlife Service Correspondence



From: susan_zimmermann@fws.gov [mailto:susan_zimmermann@fws.gov]
Sent: Tuesday, June 10, 2014 2:27 PM
To: Tyler Rankin; Jason Duffey
Cc: nathan.reardon@dnr.state.oh.us; Jenny Norris
Subject: East Amsterdam - Miller Switch 69 kV Line (Please forward to Mr. Reese)

TAILS# 03E15000-2014-TA-1134

Dear Mr. Reese,

We have received your recent correspondence requesting information about the subject proposal. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. The following comments and recommendations will assist you in fulfilling the requirements for consultation under section 7 of the Endangered Species Act of 1973, as amended (ESA).

The Service recommends that proposed developments avoid and minimize water quality impacts and impacts to high quality fish and wildlife habitat (e.g., forests, streams, wetlands). Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. All disturbed areas should be mulched and revegetated with native plant species. Prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

LISTED SPECIES COMMENTS: All projects in the State of Ohio lie within the range of the **Indiana bat** (*Myotis sodalis*), a federally listed endangered species. Since first listed as endangered in 1967, their population has declined by nearly 60%. Several factors have contributed to the decline of the Indiana bat, including the loss and degradation of suitable hibernacula, human disturbance during hibernation, pesticides, and the loss and degradation of forested habitat, particularly stands of large, mature trees. Fragmentation of forest habitat may also contribute to declines. During winter, Indiana bats hibernate in caves and abandoned mines. Summer habitat requirements for the species are not well defined but the following are considered important:

(1) dead or live trees and snags with peeling or exfoliating bark, split tree trunk and/or branches, or cavities, which may be used as maternity roost areas;

(2) live trees (such as shagbark hickory and oaks) which have exfoliating bark;

(3) stream corridors, riparian areas, and upland woodlots which provide forage sites.

Should the proposed site contain trees or associated habitats exhibiting any of the characteristics listed above and/or the site contains any caves or abandoned mines, we recommend that the habitat and surrounding trees be saved wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if surveys are warranted. Any survey should be designed and conducted in coordination with the Endangered Species Coordinator for this office. If no caves or abandoned mines are present and tree removal is unavoidable, any tree removal should only occur between October 1 and March 31.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing on any portion of the parcel should occur until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend that the federal action agency submit a determination of effects to this office, relative to the Indiana bat, for our review and concurrence.

PROPOSED SPECIES COMMENTS: The proposed project lies within the range of the **northern long-eared bat** (*Myotis septentrionalis*), a species that is currently proposed for listing as federally endangered under the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). The final listing decision for the northern long-eared bat may occur as soon as October 2014. No critical habitat has been proposed at this time. Recently white-nose syndrome (WNS), a novel fungal pathogen, has caused serious declines in the northern long-eared bat population in the northeastern U.S. WNS has also been documented in Ohio, but the full extent of the impacts from WNS in Ohio is not yet known.

During winter, northern long-eared bats hibernate in caves and abandoned mines. Summer habitat requirements for the species are not well defined but the following are considered important:

(1) Roosting habitat in dead or live trees and snags with cavities, peeling or exfoliating bark, split tree trunk and/or branches, which may be used as maternity roost areas;

(2) Foraging habitat in upland and lowland woodlots and tree lined corridors;

(3) Occasionally they may roost in structures like barns and sheds.

Pursuant to section 7(a)(4) of the ESA, federal action agencies are required to confer with the Service if their proposed action is likely to jeopardize the continued existence of the northern long-eared bat (50 CFR 402.10(a)). Federal action agencies may also voluntarily confer with the Service if the proposed action may affect a proposed species. Nevertheless, species proposed for listing are not afforded protection under the ESA; however as soon as a listing becomes effective, the prohibition against jeopardizing its continued existence and "take" applies regardless of an action's stage of completion. If the federal agency retains any discretionary involvement or control over on-the-ground actions that may affect the species after listing, section 7 applies.

The proposed project is in the vicinity of one or more confirmed records of northern long-eared bats. Therefore, we recommend that trees exhibiting any of the characteristics listed above, as well as any wooded areas or tree lined corridors be saved wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring surveys are warranted. If no caves or abandoned mines are present and trees must be cut, we recommend that <u>any</u> tree removal occur between October 1 and March 31 to avoid impacts to northern long-eared bats. Incorporating these conservation measures into your project at this time may avoid significant future project delays should the listing become official.

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

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (ESA), as amended, and are consistent with the intent of the National Environmental Policy Act of 1969 and the U. S. Fish and Wildlife Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Division of Wildlife due to the potential for the project to affect state listed species. Contact Nathan Reardon, Environmental Review Coordinator with the Division of Wildlife, at (614) 265-6741 or at nathan.reardon@dnr.state.oh.us.

Sincerely,

mary thapp

Mary Knapp, Ph.D.

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Jennifer Norris, ODNR-DOW

Ohio Department of Natural Resources



JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Office of Real Estate Paul R. Baldridge, Chief 2045 Morse Road – Bldg. E-2 Columbus, OH 43229 Phone: (614) 265-6649 Fax: (614) 267-4764

June 12, 2014

Mike A. Frank GAI Consultants, Inc. 1830 Airport Exchange Blvd, Suite 220 Erlanger, Kentucky 41018

Re: 14-334; American Electric Power - East Amsterdam - Miller Switch 69 kV Rebuild- Request for Technical Assistance Regarding Threatened and Endangered Species and Critical Habitat

Project: AEP is proposing to rebuild an approximately 9.7-mile overhead 69 kV electric transmission line in Harrison and Jefferson Counties, beginning at the East Amsterdam Substation near Amsterdam, Ohio and terminating at the Miller Switch Station north of Hopedale

Location: The project is located in German and Springfield Townships, Harrison and Jefferson Counties, Ohio.

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

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

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

The project is within the range of the Indiana bat (*Myotis sodalis*), a state and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: Shagbark hickory (*Carya ovata*), Shellbark hickory (*Carya laciniosa*), Bitternut hickory (*Carya cordiformis*), Black ash (*Fraxinus nigra*), Green ash (*Fraxinus pennsylvanica*), White ash (*Fraxinus americana*), Shingle oak (*Quercus imbricaria*), Northern red oak (*Quercus rubra*), Slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), Eastern cottonwood (Populus deltoides), Silver maple (*Acer saccharinum*), Sassafras (*Sassafras albidum*), Post oak (*Quercus stellata*), and White oak (*Quercus alba*). Indiana bat habitat consists of suitable trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. If suitable trees occur within the project area, the Division of Wildlife recommends that these trees be conserved. If suitable habitat occurs on the project area and trees must be cut, the Division of Wildlife recommends cutting

occur between October 1 and March 31. If suitable trees must be cut during the summer months, the Division of Wildlife recommends a net survey be conducted between June 1 and August 15, prior to 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, the project is not likely to impact this species.

The project is within the range of the black bear (*Ursus americanus*), a state endangered species, and the bobcat (*Lynx rufus*), a state threatened species. Due to the mobility of these species, this project is not likely to impact these species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. This long-lived, entirely aquatic salamander inhabits perennial streams with large flat rocks. In-water work in hellbender streams can reduce availability of large cover rocks and can destroy hellbender nests and/or kill adults and juveniles. The contribution of additional sediment to hellbender streams can smother large cover rocks and gravel/cobble substrate (used by juveniles), making them unsuitable for refuge and nesting. Projects that contribute to altered flow regimes (e.g., by increasing areas of impervious surfaces or modifying the floodplain) can also adversely affect hellbender habitat. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. A statewide survey has not been completed for this species. A lack of records does not indicate the species is absent from the area. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, the project is not likely to impact this species.

The ODNR Natural Heritage Database has records within one mile of the project route for Bowman's root (*Porteranthus trifoliatus*), a state threatened plant. Please contact Tom Arbour, Ecological Management Coordinator with the Division of Parks at tom.arbour@dnr.state.oh.us for recommendations on how to avoid and/or minimize impacts to Bowman's root.

The ODNR Natural Heritage Database has no records, other than those already mentioned, for endangered or threatened species at this project site. We are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges or other protected natural areas within the project area. Our inventory program does not provide a complete survey of Ohio wildlife, and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area.

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

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler ODNR Office of Real Estate 2045 Morse Road, Building E-2 Columbus, Ohio 43229-6693 John.Kessler@dnr.state.oh.us

APPENDIX B Species Habitat Survey





June 20, 2014 Project C091118.47

Ms. Rebekah Hovermale Transmission Line Siting Specialist American Electric Power 700 Morrison Road Gahanna, Ohio 43230

Potential Bat Roost Tree Identification Survey along East Amsterdam – Miller Switch 69 kV Rebuild, Harrison and Jefferson Counties, Ohio

Dear Ms. Hovermale:

American Electric Power (AEP) contracted GAI Consultants, Inc. (GAI) to perform a potential roost tree identification survey along the East Amsterdam – Miller Switch 69 kV Rebuild Project in Harrison and Jefferson Counties, Ohio (Project). In accordance with GAI's scope of work, GAI bat biologists evaluated and inventoried all potential bat roost trees in the Project area suitable for use by the federally endangered Indiana bat (*Myotis sodalis*) and the federally proposed endangered northern long-eared bat (*Myotis septentrionalis*). The location of each tree was recorded and the tree was marked with red flagging tape.

1.0 Project Information

AEP proposes to rebuild an approximately 9.7-mile overhead 69 kV electric transmission line in Harrison and Jefferson counties, beginning at the East Amsterdam Substation near Amsterdam, Ohio, and terminating at the Miller Switch Station, north of the town of Hopedale, Ohio. Project construction includes replacing approximately 200 existing wooden poles with approximately 123 steel single-pole tangent structures, 15 steel single-pole running angle structures, 12 steel pole dead-end structures, and 2 switch structures. The proposed Project will help secure current and future electric reliability for customers in the area.

Project construction includes increasing the width of the existing right-of-way (ROW) from 50 feet to 100 feet. Based on GIS-based calculations and field observations (not a land survey), approximately 27 acres of forest will be cleared during the widening of the ROW. Approximately one mile of access roads may be constructed outside of the existing ROW, but along former logging roads or other unimproved access roads, which may require clearing an approximated additional one acre of forest. The final total acreage of trees to be cleared is pending the final determination of access roads. Figures 1 and 2 within Attachment A show the Project location based on aerial imagery.

2.0 Methods

From April 7 to 9, 2014, two GAI biologists (including Mr. Jason Duffey, a federally permitted bat biologist, and Tyler Rankin, a GAI bat technician) searched on foot within forested portions of the proposed ROW and evaluated all potential bat roost trees that were encountered. Surveys of the access roads were completed on May 7, 2014 and June 19, 2014 by Mr. Rankin or Mr. Duffey, using the same methods. Where applicable, trees that appeared to be on or just outside (but adjacent to) the proposed ROW boundary were also evaluated, in the event they will be removed for safety or constructability purposes. The proposed ROW boundaries were located in the field using a handheld, sub-meter-accurate GPS receiver (Trimble Corporation, Sunnyvale, California).

Species, diameter at breast height (dbh), status, roost type, roost quality, and location of each potential roost tree were recorded on standardized data sheets (Attachment B). A photograph was taken of each potential roost tree (Attachment C), and then a length of red flagging tape was tied around the trunk. Each potential roost tree was assigned an identification number which was written on the flagging tape and recorded on the data sheet.

Potential roost trees were identified based on information available in the literature and in current state and federal guidelines; however, the biologists' experience tracking bats to known roosts across the range of the species was also considered.

2.1 Indiana Bat

The United States Fish and Wildlife Service (USFWS) defines¹ Indiana bat roost trees as live trees and/or snags \geq 5 inches dbh that have exfoliating bark, cracks, crevices, and or hollows. Because there were many trees that met the above criteria but had no potential to support roosting bats, the biologists considered potential roost trees to be those that met the above criteria and could be suitable for roosting bats.

Each potential roost tree was assigned a subjective roosting potential value of high, moderate, or low based on whether or not the tree could support Indiana bats. Factors taken into consideration for assigning roost potential values included: tree diameter, amount of exfoliating bark, solar exposure, location/height of exfoliating bark or other potential roosting feature, tree health or status, slope, aspect, susceptibility of roost to predators, etc. Multiple factors were used to subjectively determine roost potential values; therefore, it is difficult to describe rigid classification criteria that fit all compounding variables associated with different trees. The following describes general qualitative guidelines that were used to subjectively determine rankings:

- <u>High</u> High potential roost trees are those that are highly likely to contain multiple bats, including maternity individuals. Primary maternity roost trees would fit within this category. These trees are generally dead or dying and contain abundant roosting opportunities under exfoliating bark; however, certain live trees (such as large shagbark hickories) can also possess significant roosting opportunities. These trees also typically (but not always) have high solar exposure, little to no canopy coverage, and (if applicable) are often on a southerly aspect. These trees are generally large (> 16 inches) in diameter, thus making them reach above the canopy but also provide some heat retention at night. Potential roosting crevices, cavities, or bark on these trees would not make individuals vulnerable to predation.
- Herrore Moderate potential roost trees could contain one or several roosting bats if they are present in the area; however, the overall features or microhabitat of roosting locations are not ideal for one reason or another. For example, shagbark hickories often fit into this category, since they can possess abundant physical roosting opportunities; however, available roosting locations on the tree trunk are often small in surface area and under shaded canopy. Moderate potential roost trees do not make good primary maternity roosts; however, they could be used by bats as secondary maternity roosts if other high potential roosts are in the immediate vicinity. Moderate potential roost trees might only contain very few individual roosting features. Alternatively, they could contain one or multiple types and quantities of potential roosting features; however, aspect, solar exposure, risk of predation, or some other factor(s) may reduce the overall suitability from being high potential.



¹ USFWS. 2014. 2014 range-wide summer survey guidelines. USFWS, Bloomington, Indiana. 41 pp.

Low – Low potential roost trees may occasionally serve as roosts for one or more bats, but likely only on a temporary basis if nothing better is available nearby. These trees typically do not make good maternity roosts; however, they may be occupied by single males or bachelor colonies. These trees may be small in diameter or they have only one or a few small potential roosting spots. If suitable roosting features are available, microhabitat conditions or other factors greatly reduce the suitability or probability of bat roosting. Examples could include trees with partially-dead limbs, small shagbark hickories, snags with very little remaining bark, hollow trees under canopy, etc.

Certain live trees, including shagbark hickory (*Carya ovata*) and white oak (*Quercus alba*) have exfoliating bark that may provide suitable roost sites. Suitability of these trees may vary, depending on size of tree, amount of exfoliating bark, degree to which bark is exfoliating, and other factors. All trees were evaluated on their ability to provide suitable roosts, regardless of species.

2.2 Northern Long-eared Bat

USFWS recently provided guidance² describing roost habitat for northern long-eared bats. While the guidance predominantly describes suitable roosts for northern long-eared bats in comparison to Indiana bats, it defines a suitable roost tree for northern long eared-bats as live trees and/or snags \geq 3 inches dbh that have exfoliating bark, cracks, crevices, and or hollows. The guidance describes the roosting behavior of northern long-eared bats as more flexible than Indiana bats, utilizing more cavities and shorter, live trees, and exhibiting more variability in use of small dbh trees. Based on the guidance for northern long-eared bats, roost potential values were similar to those described for Indiana bats in Section 2.1 above; however, the flexible roosting habits of the species and its tendency to form smaller groups was considered.

3.0 Results

A total of 204 potential roost trees was identified in the Project area, including 187 potential roost trees in the proposed ROW (Table 1, Attachment D), and 17 potential roost trees within proposed access road boundaries (Table 2, Attachment D). Figure 2 (Attachment A) shows the location of each tree within the Project Area. Potential roost trees included 54 white oak, 36 red maple (*Acer rubrum*), 24 wild black cherry (*Prunus serotina*), 24 American elm (*Ulmus americana*), 15 shagbark hickory, 14 white pine (*Pinus strobus*), 12 black locust (*Robinia pseudoacacia*), 8 black walnut (*Juglans nigra*), 7 loblolly pine (*Pinus taeda*), 4 northern red oak (*Quercus rubra*), 2 red elm (*Ulmus rubra*), 1 osage orange (*Maclura pomifera*), 1 bigtooth aspen (*Populus grandidentata*), 1 sugar maple (*Acer saccharum*) and 1 American beech (*Fagus grandifolia*). Fifty-eight (28.4%) potential roost trees were live, 98 (48.0%) were dead, and 48 (23.5 %) were partially dead.

3.1 Indiana Bat

A total of 200 of the 204 potential roost trees found in the Project area were considered suitable for Indiana bats. Of these, 4 potential roost trees (2.0 %) were considered to be of high value to Indiana bats, while 34 potential roost trees (16.7 %) were considered to be of moderate value, and 162 potential roost trees (79.4 %) were considered to be of low value. Four additional trees not considered potentially suitable for Indiana bats were considered potentially suitable for northern long-eared bats.

² USFWS. 2014. Northern long-eared interim conference and planning guidance. USFWS, New Franken, Wisconsin. 67 pp.



3.2 Northern Long-eared Bat

All of the 204 potential roost trees in the Project area were considered suitable for northern long-eared bats. Of these, 17 potential roost trees (8.3 %) were considered to be of high value to northern long-eared bats, while 68 potential roost trees (33.3 %) were considered to be of moderate value, and 119 potential roost trees (58.3 %) were considered to be of low value. Four trees considered potentially suitable for northern long-eared bats were not considered potentially suitable for Indiana bats.

4.0 Conclusion

A total of 204 potential roost trees were found in the proposed Project Area, including four trees that were not considered potentially suitable for Indiana bats but were considered potentially suitable for northern long-eared bats. Overall, the proposed Project area was of moderate to low value for roosting Indiana bats, and of moderate value to roosting northern long-eared bats.

If you have any questions, please contact me at (859) 647-6647, ext. 4229 or 937-554-8488.

Sincerely, GAI Consultants, Inc.

Jason A. Duffey Senior Project Environmental Specialist

JAD

Enclosure: Attachment A. Figures 1 and 2 Attachment B. Roost Tree Data Sheets Attachment C. Photographs (available on CD upon request) Attachment D. Tables 1 and 2

cc: Mr. Mike Horn, P.E., GAI Consultants, Inc. Mr. George Reese, C.E., GAI Consultants, Inc.



June 20, 2014 East Amsterdam – Miller Switch 69 kV Rebuild

ATTACHMENT A

Figures





REFERENCE: 7.5-Minute USGS Topographic Quadrangle Maps: Cadiz, OH; Amsterdam, OH; Richmond, OH; Smithfield, OH. P:\CIN\GIS\Projects\AEP_East_Amsterdam_Miller\mxd\Figure1_Project_Vicinity_Map.mxd



P:\CIN\GIS\Projects\AEP_East_Amsterdam_Miller\mxd\11x17index.mxd














	REFERENCE: WORLD IMAGERY 2012, ESRI, MICROSOFT CORPORATION AND ITS DATA SUPPLIERS, ACCESSED 5/2014	LEGEND Access Road Roost Tree Score Existing/Proposed Transmission Line High Study Area	Northern Long-Eared Bat Score	FIGURE 2 ROOST TREE LOCATION MAP SHEET 7 OF 18
		Low None	Indiana Bat Score	EAST AMSTERDAM - MILLER SWITCH 138 kV REBUILD PROJECT AEP
JEFFERSON AND HARRISON COUNTIES, OH		0 150 300	600 Feet	DRAWN BY: TER DATE: 6/20/2014 CHECKED: JAD APPROVED: MAF











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6/27/2014 12:24:35 PM

in

Case No(s). 14-0531-EL-BLN

Summary: Application In the Matter of the Letter of Notification for the East Amsterdam-Miller Switch 138 Kv Transmission Line Rebuild Project Part 1 of 4 electronically filed by Mr. Yazen Alami on behalf of AEP Ohio Transmission Company