AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY

LETTER OF NOTIFICATION

BRIM SUBSTATION EXPANSION PROJECT

OPSB CASE NO.: 19-1177-EL-BLN

June 10, 2019

American Transmission Systems, Incorporated
76 South Main Street
Akron, Ohio 44308
LETTER OF NOTIFICATION
BRIM SUBSTATION EXPANSION PROJECT

The following information is being provided in accordance with the procedures in the Ohio Administrative Code (OAC) Chapter 4906-6 for the application and review of Accelerated Certificate Applications. Based upon the requirements found in Appendix A to OAC Rule 4906-1-01, this Project qualifies for submittal to the Ohio Power Siting Board (“Board”) as a Letter of Notification application.

4906-6-05: ACCELERATED APPLICATION REQUIREMENTS

4906-6-05: Name

Name of Project: Brim Substation Expansion Project (“Project”).

4906-6-05 (B)(1): Brief Description of the Project

In this Project, American Transmission Systems, Incorporated (“ATSI”), a FirstEnergy company, is proposing to improve the transmission and sub-transmission systems in Wood County by expanding the Brim 69/138 kV Substation, adding a second 138-69 kV transformer, and converting the substation from a single bus into a 4-breaker 138 kV ring bus.

The existing substation footprint is approximately 25,200 sq. ft. (0.58 acre). The Project proposes to expand the substation to the east approximately 160 linear feet, and to the south approximately 125 linear feet. This proposed expansion area is approximately 68,600 sq. ft. (approximately 1.57 acres). The final footprint of the Brim Substation after the expansion will be approximately 93,800 sq. ft. (2.15 acres). The existing Brim Substation and proposed expansion area are located on property owned by Toledo Edison.

The Project is located at the northwest intersection of Brim Road and Bishop Road in Plain Township, Wood County, Ohio. The general location of the Project is shown in
Exhibit 1 on a topographical overlay. Exhibit 2 is a partial copy of aerial imagery provided by ESRI. The general layout of the proposed substation expansion is shown in Exhibit 3.

4906-6-05 (B)(1): Letter of Notification Requirement

The Project meets the requirements for a Letter of Notification because the Project is within the types of projects defined by Item (4)(b) of the Application Requirement Matrix for Electric Power Transmission Lines, Appendix A of OAC Rule 4906-1-01. This item states:

(4) Constructing additions to existing electric power transmission stations or converting distribution stations to transmission stations where:
   (b) There is a greater than twenty percent expansion of the fenced area.

The proposed Project is within the requirements of Item (4)(b) as it involves expanding the existing substation, which is approximately 25,200 sq. ft. (0.58 acre) to approximately 93,800 sq. ft. (2.15 acres). This expansion is an increase of approximately 68,600 sq. ft. (1.57 acres), which represents an increase of approximately 271%.

4906-6-05 (B)(2): Need For the Project

As described in more detail below, the Project is necessary to eliminate the single points of failure associated with the current substation configuration to improve the reliability of the transmission system serving the Project area. The proposed Brim Substation Expansion Project involves the proposed addition of a second 138/69 kV transformer at the Brim Substation, establishing a 4-Breaker 138 kV Ring Bus, and a 3-Breaker (future 4) 69 kV Ring Bus. Additionally, the Project is a component of a larger set of related projects, most notably the Wood County 138 kV Reinforcement Project (Case No. 18-1335-El-BTX), which are needed to improve the transmission and sub-transmission systems in Wood County with enhancements to efficiency, reliability and operational flexibility of the transmission system which serves approximately 16,000 customers.
Currently, the Brim substation is configured as a single bus with one 138/69 kV transformer. The single bus configuration is not as reliable as other configurations, such as a ring bus configuration, as it does not allow for isolation of a fault on the bus or between the bus and the circuit breaker. There are three single points of failure associated with the current configuration which could all result in the loss of the source of power from the Brim Substation to the Bowling Green service area:

1. A fault on the single bus would result in an outage of the entire bus and the existing single 138/69 kV transformer which would result in the loss of power to the Bowling Green area from the Brim substation;
2. A failure of a single circuit breaker will also result in an outage on the single bus and loss of the 138/69 kV transformer which would result in the loss of power to Bowling Green from the Brim Substation; and
3. Finally, a failure of the 138/69 kV transformer itself would result in the loss the source of power from the Brim substation to the Bowling Green service area.

Should the Brim Substation experience an outage from any of the three scenarios described above, the Bowling Green service area would only have two sources: the Midway-Bowling Green No2 69 kV Transmission Line and the Pemberville-Bowling Green No4 69 kV Transmission Line. If either the Midway-Bowling Green No2 69 kV Transmission Line or the Pemberville-Bowling Green No4 69 kV Transmission Line are also lost, a low voltage scenario with the potential for local voltage collapse occurs with potential impacts to not only the Bowling Green service area, but nearby FirstEnergy substations such as Tontogany, Weston, and Grand Rapids. This low voltage and potential local voltage collapse could potentially impact approximately 16,000 customers.

The solution to mitigate the potential for this scenario is to eliminate the single points of failure identified. These failure points are eliminated by expanding the 138 kV station at Brim into a 4-Breaker Ring Bus, expanding the 69 kV station at Brim into a 3-Breaker (future 4) Ring Bus and installing a second 138/69 kV transformer at Brim substation.
The ring bus configuration and additional 138/69 kV transformer allows for a faulted transmission line, transformer, or circuit breaker to be easily isolated without taking an outage of the entire 138 kV station or the 69 kV station. This allows for uninterrupted service to be provided to the Bowling Green service area. Additionally, in the event that one of the Brim substation transformers required maintenance, the second transformer offers the enhanced reliability of uninterrupted service from Brim substation by switching the breakers in the 138 kV and 69 kV Ring Bus to efficiently de-energize the transformer that requires maintenance thereby improving operational flexibility.

The proposed configuration for the 138/69 kV transformer and ring bus addition require the substation fence line be expanded. The ring bus configurations were chosen as they mitigate the single points of failure within the substation by allowing for faults to be isolated. A breaker-and-a-half configuration would also isolate the single points of failure; however, the breaker-and-a-half configuration would require a larger footprint and is generally more expensive. The substation expansion is also needed to ensure adequate clearances are met for the proposed ring bus installations.

The proposed Project is consistent with FirstEnergy’s ETF Methodology which includes a strategic review of present system conditions to identify areas where the addition of transformers and substation reconfigurations are warranted to improve reliability under contingency scenarios.

This proposed Project is independent of the proposed second 138 kV source that is the subject of Wood County 138 kV Reinforcement Project (Case No. 18-1335-El-BTX) as the proposed second 138 kV transmission line to the Brim Substation would not mitigate the single points of failure identified within the substation. The proposed 138 kV transmission line would not mitigate the loss of the existing 69/138 kV transformer, a fault on the 138 kV bus, or a failure of a circuit breaker. Consequently, although both the proposed Project and the Wood County 138 kV Reinforcement Project (Case No. 18-
1335-El-BTX) are necessary to improve the reliability of the transmission system in the Project area, and both Projects are complementary, the Projects are independent.

This Project was presented to PJM at the Sub-regional RTEP Committee – West meetings that were held August 31, 2018 and September 28, 2018. PJM assigned supplemental project number s1703 to the Project. A copy of the PJM slide is included as Exhibit 4.

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

Alternatives to the proposed Project included the following:

- **No Action** – Continued operation of the substation as a single bus with one 138/69 kV transformer results reduced reliability for approximately 16,000 customers served from the Brim Substation, reduced operational flexibility for FirstEnergy to perform maintenance activities, and potential load loss under contingency conditions.

- **Alternative Placement of the Ring Bus Substation** – A geographic alternative considered included moving the entire Brim Substation approximately 5 miles north adjacent to the existing Lemoyne-Midway 138 kV Transmission Line corridor and constructing the ring bus. While the alternative would eliminate the need for the additional 138 kV transmission line, which is the subject of the Wood County 138 kV Reinforcement Project (Case No. 18-1335-El-BTX), it would require approximately 5-7 miles of new 69 kV transmission line extensions instead. The cost associated with relocating the existing Brim Substation and constructing the new 69 kV transmission line extensions would be significantly greater than upgrading the Brim Substation at its present location.

- **Additional Substation Equipment** – An additional alternative reviewed included requiring Bowling Green Municipal Utility and Toledo Edison to add capacitor banks in the Project area. In addition to the capacitor banks, this scenario would rely on Bowling Green Municipal Utility generators to run when needed. The additional capacitor banks, when combined with the Bowling Green Municipal
Utility generators, would provide additional reactive power to alleviate potential voltage collapse when the transmission line loading reaches near max levels. However, the Bowling Green Municipal Utility generators are all behind the meter generators. These generators have no obligation to operate if called upon by PJM. FirstEnergy Transmission Operations does not dispatch these generators; and therefore, cannot guarantee that these generators will be running when requested. Without the generation, capacitor banks additions are not sufficient to prevent a potential local voltage collapse in the event of a loss of the existing 138/69 kV transformer at Brim Substation.

4906-6-05 (B)(5): Public Information Program
ATSI’s manager of External Affairs will advise local officials of features and the status of the proposed Transmission Line Project as necessary. ATSI will maintain a copy of this Letter of Notification on FirstEnergy’s website. Letters will be sent to affected property owners at least 7 days before construction begins on the project informing them of the Project’s start and a proposed timeframe of construction and restoration activities.

ATSI will publish a public notice of the Project in Newspaper with general circulation in the Project area. Additionally, letters will be sent to affected property owners when this Letter of Notification is submitted to the Board informing them of the project.

4906-6-05 (B)(6): Construction Schedule
The construction schedule for this Project is expected to begin as early as July 15, 2019 and completed by June 1, 2020.

4906-6-05 (B)(7): Area Map
Exhibit 1 depicts the general location of the Project on a topographical overlay. Exhibit 2 depicts the general location of the Project on aerial imagery provided by ESRI.
**4906-6-05 (B)(8): Property Owner List**

The Project is located on a parcel owned by Toledo Edison. Parcel details are noted below in Table 1.

**Table 1: Property Owner List**

<table>
<thead>
<tr>
<th>Parcel Number</th>
<th>Property Owner</th>
<th>Property Address</th>
<th>Easement Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>R63-510-120102029000</td>
<td>Toledo Edison Company</td>
<td>Northwest corner of the intersection of Brim Road and Bishop Road</td>
<td>Owned in Fee</td>
</tr>
</tbody>
</table>

**4906-6-05 (B)(9): TECHNICAL FEATURES OF THE PROJECT**

**4906-6-05 (B)(9)(a): Operating Characteristics**

The equipment and facilities described below will be located within the fenced area of the proposed Project once construction is complete:

- 138 kV Transformers - 2
- 138 kV Circuit Breaker – 4
- Relay Panel – 10
- 138 kV Switch – 12
- 138 kV Wave Trap – 1
- 138 kV Capacitive Voltage Transformer (“CCVT”) – 6
- 138 kV Station Service Voltage Transformer (“SSVT”) – 1
- Control House – 1

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

The subject of this Letter of Notification is the proposed expansion of the Brim Substation. This Project does not involve proposed transmission lines.

**4906-6-05 (B)(9)(c): Estimated Cost**

The estimated capital cost for the proposed project is approximately $6,832,300.
4906-6-05 (B)(10): SOCIAL AND ECOLOGICAL IMPACTS

4906-6-05 (B)(10)(a): Land Uses
The Project is located in Plain Township, Wood County, Ohio. The Project location consists of an existing substation and an area of maintained, grassy lawn. Residential properties are located to the north, agricultural land is located to the west and across Bishop Road to the south, and residential properties are located across Brim Road to the east. The proposed substation expansion will encompass the maintained, grassy lawn area adjacent to the east and southern extend of the existing substation.

4906-6-05 (B)(10)(b): Agricultural Land
No agricultural land is located with the proposed Project area.

4906-6-05 (B)(10)(c): Archaeological or Cultural Resources
As part of the investigation, a search of Ohio Historic Preservation Office (“OHPO”) online database was conducted to identify the existence of any significant archeological or cultural resource sites within 0.5 miles of the Project Area. The results of the search are shown in Exhibit 5. The specific location of any archeological resources are excluded from the map and are instead listed in Table 2.

The OHPO database includes all Ohio listings on the National Register of Historic Places (“NRHP”), including districts, sites, building, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The results of the search indicate that no listed NRHP sites or NRHP eligible sites were identified within 0.5 miles of the Project potential disturbance area.

The OHPO database also includes listing of the Ohio Archaeological Inventory (“OAI”), the Ohio Historic Inventory (“OHI”), previous cultural resource surveys, and the Ohio Genealogical Society (“OGS”) cemetery inventory. No OAI listed archeological resources or listed structural resources were located within 0.5 miles of the Project area.
Additionally, no records of previous cultural resource surveys or OSG cemeteries were located within 0.5 miles of the Project area.

Table 2. List of OAI Listed Archeological Resources

<table>
<thead>
<tr>
<th>OAI Number</th>
<th>Affiliation</th>
<th>Description</th>
<th>County</th>
<th>Quad Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>WO0409</td>
<td>Prehistoric</td>
<td>Paleolithic</td>
<td>Wood</td>
<td>Bowling Green North</td>
</tr>
</tbody>
</table>

Based upon the results of the OHPO online database there are no cultural resources within the Project’s area and no impacts are expected.

4906-6-05 (B)(10)(d): Local, State, and Federal Requirements

Table 3 shows the list of government agency requirements and the filing status at the time of filing.

Table 3. List of Government Agency Requirements to be Secured Prior to Construction

<table>
<thead>
<tr>
<th>Agency</th>
<th>Permit Requirement</th>
</tr>
</thead>
</table>
| City of Bowling Green | Heavy Haul Permit  
                        | SWPPP Review & Approval |
| Plain Township   | SWPPP Review & Approval                         |
| Wood County      | Heavy Haul Permit  
                        | Access Drive Permit/Right of Way Permit  
                        | SWPPP Review & Approval |
| Ohio EPA         | SWPPP Review & Approval                         
                        | Stormwater General Permit                       |

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

As part of the investigation, GPD Group, on behalf of ATSI, submitted a request to the Ohio Department of Natural Resources (“ODNR”) Office of Real Estate to conduct an Environmental Review on November 12, 2018 for the Wood County 138 kV Reinforcement Project. This Brim Substation Expansion Project disturbance area was included in the request to ODNR for comment for the Wood County 138 kV Reinforcement Project. As part of the Environmental Review, the ODNR Office of Real
Estate conducted a search of the ODNR Division of Wildlife’s Natural Heritage Database to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project area.

The ODNR’s Office of Real Estate’s response on January 7, 2019 indicated that a record of Brushy horseweed (Conyza ramosissima) is located within one-mile of the Project area. Brushy Horseweed is listed as state potentially threatened species typically found in dry, open, often disturbed areas: prairie remnants, fields, grazed pastures, along roadsides and railroads, and in waste places. The disturbance area associated with the proposed Brim Substation Expansion consists primarily of maintained, grassy lawn adjacent to an existing substation. The Indiana bat (Myotis sodalis) was also identified as a state endangered and federally endangered species. Several trees are located within the Project disturbance area and will be removed; however, no trees exhibiting suitable roost characteristics for the Indiana Bat will be removed as part of this project. Several other state threatened and endangered species were identified; however, the Project will have no effect on these species based on the lack of suitable habitat. A copy of ODNR’s Office of Real Estate’s response is included as Exhibit 6.

As part of the investigation, GPD Group, on behalf of ATSI, also submitted a request to the US Fish and Wildlife Service (“USFWS”) for an Ecological Review on November 12, 2018, to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project area. As noted above, the agency request was made for the Wood County 138 kV Reinforcement Project, which included the disturbance area of the Brim Substation Expansion Project. A copy of USFWS’s Ecological Review response is included as Exhibit 7. The USFWS’s response on November 19, 2019 indicated that they have no records of federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the Project area. The USFWS noted that State of Ohio lies within the rate of the federally endangered Indiana bat (Myotis sodalis) and federally threatened northern long-eared bat (Myotis septentrionalis). Several trees located within
the Project disturbance area will be removed; however, none of these trees were identified as suitable habitat for either of these bat species.

Adverse impacts to state listed wildlife and plant species are not anticipated to result from the Project based on the current land use, surrounding setting, and absence of potential habitat for these species within the Project Area. In addition, no significant vegetative clearing will be required to support this Project.

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

GPD Group, on behalf of ATSI, submitted a request to the Ohio Department of Natural Resources (“ODNR”) Office of Real Estate to conduct an Environmental Review on November 12, 2018. The ODNR Office of Real Estate researched the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forest, national wildlife refuges, or other protected natural areas within one (1) mile of the project area. The ODNR’s Office of Real Estate’s response on January 7, 2019 did not indicate the presence of any areas of ecological concern.

As part of the investigation, ATSI hired GPD Group to conduct a wetland and stream assessment of the Project area. The wetland and stream investigation included the proposed area of disturbance associate with the substation expansion. No wetlands or streams were identified within the disturbance area. Additionally, a review of the online FEMA Flood Insurance Rate Mapping was performed. The Project work limits are not located within a regulated floodplain.

**4906-6-05(B)(10)(g): Other Information**

Construction and operation of the proposed Project will be in accordance with the requirements specified in the latest revision of the National Electric Safety Code as adopted by the PUCO and will meet all applicable safety standards established by the Occupational Safety and Health Administration.
No other or unusual conditions are expected that will result in significant environmental, social, health or safety impacts.

4906-6-07: Documentation of Letter of Notification Transmittal and Availability for Public Review

This Letter of Notification is being provided concurrently with its docketing with the Board to the following officials in Plain Township, Wood County, Ohio.

**Wood County**

Board of County Commissioners  
Dr. Theodore Bowlus  
One Courthouse Square, 5th Floor  
Bowling Green, OH 43402

Wood County Engineer's Office  
Mr. John Musteric  
One Courthouse Square, 5th Floor  
Bowling Green, OH 43402

Board of County Commissioners  
Ms. Doris Herringshaw  
One Courthouse Square, 5th Floor  
Bowling Green, OH 43402

Wood County Planning Commission  
Mr. Dave Steiner, Director  
One Courthouse Square, 5th Floor  
Bowling Green, OH 43402

Board of County Commissioners  
Mr. Craig LaHote  
One Courthouse Square, 5th Floor  
Bowling Green, OH 43402

Wood County Soil & Water District  
Mr. Jim Carter, District Admin.  
1616 E. Wooster St., Suite 32  
Bowling Green, OH 43402

**Plain Township**

Plain Township Officials  
Mr. Donald Bechstein, Trustee  
16375 Sand Ridge Road  
Bowling Green, OH 43402

Plain Township Officials  
Mr. Jim Rossow, Trustee  
15821 Green Road  
Bowling Green, OH 43402

Plain Township Officials  
Mr. Gary Cromley, Trustee  
13370 Union Hill Road  
Bowling Green, OH 43402

Plain Township Officials  
Ms. Elizabeth Bostdorff, Fiscal Officer  
18617 Brim Road  
Bowling Green, OH 43402
Library

Wood County District Public Library
Mr. Michael Penrod, Director
251 N. Main Street
Bowling Green, OH 43402

Copies of the transmittal letters to these officials have been included with this application as proof of compliance under OAC Rule 4906-6-07 (B) to provide the Board with proof of notice to local officials as required by OAC Rule 4906-6-07 (A)(1) and to library per OAC Rule 4906-6-07 (A)(2).

Information is posted at www.firstenergycorp.com/about/transmission_project/ohio.html on how to request an electronic or paper copy of this Letter of Notification application. The link to this website is being provided to meet the requirements of OAC Rule 4906-6-07 (B) and to provide the Board with proof of compliance with the notice requirements in OAC Rule 4906-6-07 (A)(3).
Brim Substation Expansion Project

Reference:
USGS Topographical Overlay; ODOT
Coordinate System:
NAD 1983 State/Federal Ohio North FIPS 3401 Feet
Projection: Lambert Conformal Conic; Units: Foot US
Brim Substation Expansion Project

**LEGEND:**
- ▲ Substation
- Yellow Line: Existing Lemoyne-Midway (Brim) 138 kV Line
- — Roadway

**Reference:**
ESRI Imagery; ODOT

**Coordinate System:**
NAD 1983 StatePlane Ohio North FIPS 3401 Feet
 Projection: Lambert Conformal Conic; Units: Foot US

**EXHIBIT 2**

Brim Substation Location Map
Brim Substation Expansion Project

GENERAL LAYOUT

EXHIBIT 3
Previously Presented: 8/31/2018 SRRTEP

Problem Statement (Scope and Need/Drivers):
Operational Flexibility and Efficiency
- Improve operational flexibility during maintenance and restoration efforts.
- Improve system protection, coordination, and fault location under existing three-terminal line configuration.
- Reduce the amount of local load loss (Approaching 87 MWs) under contingency conditions.
- Mitigate non-planning criteria voltage concerns on the < 100 kV system under contingency (P6) condition.
  - Loss of Midway-Lemoyne 138 kV and Midway-Bowling Green 2 69 kV line
  - Results in potential low voltage or local voltage collapse in Bowling Green and other local distribution substations with load at risk approaching 87 MWs.

Selected Solution:
Brim 138/69 kV Substation Expansion (S1703)
- Eliminate the three terminal point on the Lemoyne-Midway 138 kV line.
- Construct a new diverse route 138 kV line (Approximately 5 miles) from Brim substation to a location near the three terminal point with 336 ACSS conductor.
- Add four (4) breaker 138 kV ring bus at Brim substation
- Add a 2nd 138/69 kV transformer.

Estimated Project Cost: $19.9 M
Projected IS Date: 6/1/2020
Status: Engineering
January 7, 2019

Ann Schweitzer
GPD Group
1801 Watermark Drive, Suite 210
Columbus, Ohio 43215

Re: 18-1222; Wood County 138kv Reinforcement Project

Project: The proposed project involves the construction of the Wood County 138kV Reinforcement Project to enhance electrical service within the county.

Location: The proposed project is located in Middleton Township, Wood County, Ohio.

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

Natural Heritage Database: The Natural Heritage Database has the following record at or within a one-mile radius of the project area:

Bushy horseweed (*Conyza ramosissima*), State potentially threatened

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity. Additional comments on some of the features may be found in pertinent sections below.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.
**Fish and Wildlife:** The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to 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 endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees to include: 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 roost trees consists of 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. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the pondhorn (*Uniomerus tetralasmus*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, this project is not likely to impact this species.

The project is within the range of the western banded killifish (*Fundulus diaphananus menona*), a state endangered fish. The DOW recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed, this project is not likely to impact these species.

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

The project is within the range of the northern harrier (*Circus cyaneus*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. Due to the location, the type of habitat at the project site, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. These summer residents normally migrate out of Ohio.
shortly after their young fledge or leaves the nest. Due to the location, the type of habitat at the project site, and the type of work proposed, 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. 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). Due to the location, the type of habitat at the project site, and the type of work proposed, this project is not likely to impact this species.

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

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

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.


ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or Sarah.Tebbe@dnr.state.oh.us if you have questions about these comments or need additional information.

John Kessler
Environmental Services Administrator
Dear Ms. Schweitzer,

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 U.S. Fish and Wildlife Service (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.

FEDERALLY LISTED SPECIES COMMENTS: All projects in the State of Ohio lie within the range of the federally endangered *Indiana bat* (*Myotis sodalis*) and the federally threatened *northern long-eared bat* (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed...
roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

Should the proposed site contain trees ≥3 inches dbh, we recommend that trees 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 portal surveys are warranted. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, we recommend that removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is being recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see http://www.fws.gov/midwest/endangered/mammals/nleb/index.html), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, summer surveys may be conducted to document the presence or probable absence of Indiana bats within the project area during the summer. If a summer survey documents probable absence of Indiana bats, the 4(d) rule for the northern long-eared bat could be applied. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Endangered Species Coordinator for this office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

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

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 ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the 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 Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

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

Sincerely,
Scott Pruitt
Acting Field Office Supervisor

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