AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY

LETTER OF NOTIFICATION

LONDON-TANGY 138 kV TRANSMISSION LINE TAP TO MITCHELL DELIVERY POINT SUBSTATION PROJECT

OPSB CASE NO.: 22-0007-EL-BLN

January 21, 2022

American Transmission Systems, Incorporated
76 South Main Street
Akron, Ohio 44308

LETTER OF NOTIFICATION
LONDON-TANGY 138 kV TRANSMISSION LINE TAP TO
MITCHELL DELIVERY POINT SUBSTATION 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 ("OPSB") as a Letter of Notification application.

4906-6-05: ACCELERATED APPLICATION REQUIREMENTS

4906-6-05: Name and Reference Number

Name of Project: London-Tangy 138 kV Transmission Line Tap to Mitchell Delivery Point Substation Project ("Project") (Line Code 3216).

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

In this Project, American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, proposes to extend a tap from the existing London-Tangy 138 kV Transmission Line approximately 400 feet (0.08 mile) to a new substation for the Union Rural Electric Cooperative ("UREC"), referred to as the Mitchell Delivery Point Substation. The transmission line tap will require removal of one (1) existing wood structure and installation of four (4) new, embedded single-pole wood structures; specifically, one (1) tap structure and three (3) switch structures.

The general location of the Project is shown in Exhibit 1, a partial copy of the United States Geologic Survey, Union County OH, Quad Map. Exhibit 2 is a partial copy of ESRI aerial imagery. The general layout is shown in Exhibit 3. The Project is located in Jerome Township, Union County, Ohio.

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

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

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

The proposed Project involves construction of an approximately 400 feet (0.08 mile) tap consisting of four (4) new structures. The new structures will be placed within existing and new right-of-way. New right-of-way will be obtained from a property owner other than the specific customer (UREC) or applicant.

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

The proposed Project is needed to provide 138 kV service to a new wholesale load interconnection requested by UREC – a customer that ATSI is obligated to serve. Consistent with plans for expansion of the electric grid and interconnected utility systems, this Project requires tapping the existing London-Tangy 138 kV Transmission Line and constructing two spans to UREC's new Mitchell Delivery Point Substation, located at 9910 Mitchell-Dewitt Rd, Jerome Township, OH. ATSI understands that UREC will utilize the new delivery point to serve its retail customers. Therefore, the new delivery point will serve interests of electric system economy, as well as provide capacity for future load growth. The extension of

transmission service will require the installation of two transmission SCADA controlled in-line switches, a tap switch, relay settings changes at London and Tangy 138 kV substations, revenue metering equipment, and an extension of approximately 400 feet (0.08 mile) into UREC's substation. The switches will provide the means to sectionalize the transmission line in the event of a maintenance need or sustained outage. This will enable ATSI to provide reliable service to the customers connected to the London-Tangy 138 kV Line and will also provide operational flexibility for the benefit of the transmission system.

ATSI performed a detailed load study for the expected load addition and did not identify any thermal or voltage issues on the ATSI transmission system that would be caused by adding the proposed tap to UREC's Mitchell Delivery Point Substation.

The Project solution was presented at the PJM Subregional RTEP-Western Committee on August 16, 2021. The presentation slides are attached as Exhibit 4. PJM assigned the Project supplemental upgrade identification number s2648.

4906-6-05 (B)(3): Location of the Project Relative to Existing or Proposed Lines

The location of the Project relative to existing or proposed lines is shown in the ATSI Transmission Network Map, included as part of the confidential portion of the FirstEnergy Corp. 2021 Long-Term Forecast Report ("LTFR"). This map was submitted to the PUCO in Case No. 21-0504-EL-FOR under Rule 4901:5-5:04 (C)(2)(b) of the Ohio Administrative Code. The map is incorporated by reference only. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations including the London-Tangy 138 kV Transmission Line. The general location and layout of the Project area are shown in Exhibits 1 through 3.

The Project was not included in ATSI's LTFR filed in 2021 because it had not yet been identified at the time of filing.

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

Due to the nature of the Project and the specific customer need, there are no reasonable or practical alternatives to the proposed Project.

4906-6-05 (B)(5): Public Information Program

ATSI will issue a public notice in a newspaper of general circulation in the Project area, Marysville Journal Tribune, within 7 days of filing this Letter of Notification application. The public notice will comply with OAC Rule 4906-6-08(A)((1)-(6). In addition to the public notice (and also within 7 days of filing this Letter of Notification Application), ATSI will mail letters in accordance with OAC Rule 4906-6-08(B) explaining the Project to affected landowners and tenants. The letters will also inform affected landowners and tenants of the Project's start and a proposed timeframe for construction/restoration activities.

ATSI will maintain a copy of this Letter of Notification Application, along with other Project information, on FirstEnergy's website: https://www.firstenergycorp.com/about/transmission_projects/ohio.html .

During all phases of this Project, the public may contact ATSI with questions/comments relating to the Project through the transmission projects hotline at 1-888-311-4737 or via email at: transmissionprojects@firstenergycorp.com.

4906-6-05 (B)(6): Construction Schedule

Construction of this Project is expected to occur in April 2022 with completion by April 30, 2022.

4906-6-05 (B)(7): Area Map

Exhibit 1 depicts the general location of the Project which provides a partial copy of the United States Geological Survey, Union County OH, Quad Map. Exhibit 2 provides a partial copy of ESRI aerial imagery of the project area.

4906-6-05 (B)(8): Property List

The Project is located on existing and new right-of-way. Table 1 contains a list of properties for which ATSI has obtained necessary easement/right-of-way/land rights and for which such agreements have not yet been obtained.

Table 1: Property Owner List

Parcel Number	Easement Status
1500200100010	Previously Obtained
1500260010020	Will be Obtained

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

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

The transmission line construction will have the following characteristics:

Voltage:	138 kV
Conductors:	605 kcmil 24/7 ACSR (re-use existing - between Structures 13727 and 13727B)
	795 kcmil 26/7 ACSR (new - from Str. 13727A to Substation)
Static Wire:	7#8 Alumoweld
Insulators:	Porcelain, with polymer horizontal posts to support conductor jumpers
ROW Width:	65-100 feet
Structure Types:	Exhibit 5: Single Pole Wood Switch Structure Exhibit 6: Single Pole Wood Tap Structure Exhibit 7: Single Pole Wood Switch Mounted Transformer Structure

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

The closest occupied residence or institution is approximately 440 feet (0.08 mile) from the proposed transmission line centerline. Therefore, no Electric and Magnetic Field ("EMF") calculations are required by this code provision.

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

ATSI's estimated capital cost for the proposed Project is approximately $1,400,000.

4906-6-05 (B)(10): SOCIAL AND ECOLOGICAL IMPACTS

4906-6-05 (B)(10)(a): Land Uses

The Project is located in Jerome Township, Union County, Ohio. The main land use around the Project is agricultural. No significant changes or impacts to the current land use is anticipated.

4906-6-05 (B)(10)(b): Agricultural Land

Agricultural land exists within the Project's disturbance area. Minimal impacts are expected to the agricultural land. A list of all agricultural land and acreage, including agricultural district land, is provided in Table 2.

Table 2: Agricultural Lands within the Project's Disturbance Area

Parcel Number	Acreage	Agricultural District	Agricultural District Expiration
1500200100010	5.43	Yes	2014 (not renewed)
1500260010020	72.2	No	N/A

4906-6-05 (B)(10)(c): Archaeological or Cultural Resources

As part of the investigation, a search of the Ohio Historic Preservation Office's ("OHPO") online database was conducted to identify the existence of any significant archeological or cultural resource sites within 0.5 miles of the Project's potential disturbance area. The results of the search are shown in Exhibit 8.

The OHPO database includes all Ohio listings on the National Register of Historic Places ("NRHP"), such as districts, sites, buildings, 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 and no 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. There are no OAI listed archeological resources have been previously inventoried within 0.5 miles of the Project's potential disturbance area. One (1) OHI listed structural resource is located within 0.5 miles of the Project area and is shown in Table 3. The closest OHI structure is located approximately 0.25 mile from the proposed Project's potential disturbance area. Two (2) previous cultural resource surveys were conducted within 0.5 miles of the Project area and are provided in Table 4. No OSG cemeteries are located within 0.5 miles of the Project's potential disturbance area.

Table 3. List of OHI Listed Structural Resources

OHI Number	Present Name	Historic Use	County	Municipality
UNI0051412	Long Property/ Farmhouse	Single Dwelling/ Agricultural Outbuildings	Union	Township of Jerome

Table 4. List of Previous Cultural & Historic Resource Survey

Year	Name	County	Municipality
2014	(Addendum 1) Phase I Archaeological Survey for the London-Tangy Electric Transmission Line Project, (Segments 6-14 in Canaan, Darby, Deer Creek, Jefferson, & Monroe Twps.) Madison County and (Jerome Twp.) Union County Ohio	Union	Township of Jerome
2014	Addendum 3: Phase I Archaeological Survey for the London-Tangy Electric Transmission Line Project, Union and Delaware Counties, Ohio	Union	N/A

Because the proposed Project involves installation of four (4) transmission structures next to UREC's substation, the Project is not expected to have any impacts to archaeological and cultural resources.

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

No additional government agency authorizations are expected to be needed for this Project.

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

The proposed Project's work limits are located on property currently used for agriculture. The construction site will be accessible via an existing maintained transmission line corridor associated with the London-Tangy 138kV Transmission Line.

TRC Environmental Corporation ("TRC"), on behalf of ATSI, submitted a request to the Ohio Department of Natural Resources ("ODNR") Office of Real Estate to conduct an Environmental Review of the Project area on December 2, 2021. As part of the Environmental Review, the ODNR Office of Real Estate will conduct a search of the ODNR-Division of Wildlife's (DOW) 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, dated January 6, 2022, concludes that, due to the current active agricultural land use and no proposed in-water work, this Project is not likely to impact these species. A copy of ODNR's Office of Real Estate's response is included as Exhibit 9.

TRC also submitted a request to the U.S. Fish and Wildlife Service ("USFWS") for an Ecological Review within one (1) mile of the Project area on December 2, 2021. At the time of filing, ATSI has not received USFWS' response. The response will be forwarded to the OPSB upon receipt. In the interim, the USFWS site was reviewed for federally listed species potentially occurring in Union County, Ohio, and those species are provided in Table 5.

Table 5. List of Endangered, Threatened, and Rare Species listed for Union County, Ohio[1]

Common Name	Scientific Name	Federal Listing Status	Habitat Description
Indiana bat	*Myotis sodalis*	Endangered	Hibernacula = Caves and mines; Maternity and foraging habitat = small stream corridors with well developed riparian woods; upland forests
Northern long-eared bat	*Myotis septentrionalis*	Threatened	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. During late spring and summer roosts and forages in upland forests.
Scioto madtom	*Noturus trautmani*	Endangered	Stream riffles of moderate flow over sandy gravel bottom
Clubshell	*Pleurobema clava*	Endangered	Found in coarse sand and gravel areas of runs and riffles within streams and small rivers
Northern riffleshell	*Epioblasma torulosa rangiana*	Endangered	Large streams and small rivers in firm sand of riffle areas; also occurs in Lake Erie
Rabbitsfoot	*Quadrula cylindrica cylindrica*	Threatened	Little Darby Creek
Rayed bean	*Villosa fabalis*	Endangered	Smaller, headwater creeks, but they are sometimes found in large rivers
Snuffbox	*Epioblasma triquetra*	Endangered	Small to medium-sized creeks and some larger rivers, in areas with a swift current

[1] https://www.fws.gov/midwest/endangered/lists/ohio-cty.html

In response to the DOW's recommendation, TRC performed a desktop habitat assessment for potential hibernaculum in the project area. The assessment concluded that no caves, cliffs or mine openings occur in the project area and the project is unlikely to impact hibernating bats. Their findings were shared with DOW and DOW

concurs with the assessment. A copy of that email correspondence, dated January 10, 2022, is included as Exhibit 10.

No impacts to these species are expected due to the Project's location, the type of habitat at the Project site and within the vicinity of the Project area, and the type of work proposed. Any tree clearing will be conducted before April 1 or after October 1 to avoid and potential adverse effects to listed bat species. If for any reason this schedule cannot be achieved, such that the clearing of trees outside of this window is deemed necessary, consultation and coordinated with ODNR and USFWS will be completed prior to clearing.

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

As part of the Environmental Review, 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 January 6, 2022, response indicates that there are no unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the project area.

AllStar Ecology, LLC conducted a wetland and stream delineation of the Project area in November 2020 to support the construction of UREC's Mitchell Delivery Point Substation. The investigation focused on an approximately 7.52-acre study area encompassing the Project Area. One (1) palustrine emergent (PEM) wetland (ASE_Wetland01) was delineated within the Project Study Area. Wetland ASE_Wetland01 was scored using the Ohio Rapid Assessment for Wetlands (v. 5.0). The resulting score was 10 which corresponds to a Category 1 wetland. This feature is illustrated on Exhibit 11.

If access to this area is needed, construction matting will be used to minimize disturbance within the delineated wetland. Otherwise, this wetland will be avoided during construction.

The Project work limits do not include any in-stream activities or encroach on any regulated flood plains based on a review of online FEMA Flood Insurance Rate Mapping. From a review of the FEMA floodplain mapping, ATSI determined that the project area is not located in a mapped floodplain. As such, ATSI does not anticipate the need to contact the local floodplain coordinator.

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 Electrical 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 application is being provided concurrently with its docketing with the Board to the following officials in Jerome Township, Union County Ohio.

Union County

Ms. Christiane Schmenk,
President
Union County Commissioner
233 West Sixth Street
Marysville, OH 43040

Mr. Dave Burke,
Union County Commissioner
233 West Sixth Street
Marysville, OH 43040

Mr. Steve Robinson,
Vice President
Union County Commissioner
233 West Sixth Street
Marysville, OH 43040

Mr. Tim Hansley,
Union County Administrator
233 West Sixth Street
Marysville, OH 43040

Mr. Eric Phillips,
Executive Director
Union County Economic
Development
227 East Fifth Street
Marysville, OH 43040

Mr. Jeff Stauch, P.E., P.S.
Union County Engineer
233 West Sixth Street
Marysville, OH 43040

Jerome Township

Mr. Joe Craft, Trustee
Jerome Township
8770 Brock Road
Plain City, OH 43064

Ms. Megan Sloat, Trustee
Jerome Township
10251 Mitchell Dewitt Road
Plain City, OH 43064

Mr. CJ Lovejoy, Trustee
Jerome Township
8495 SR 736
Plain City, OH 43064

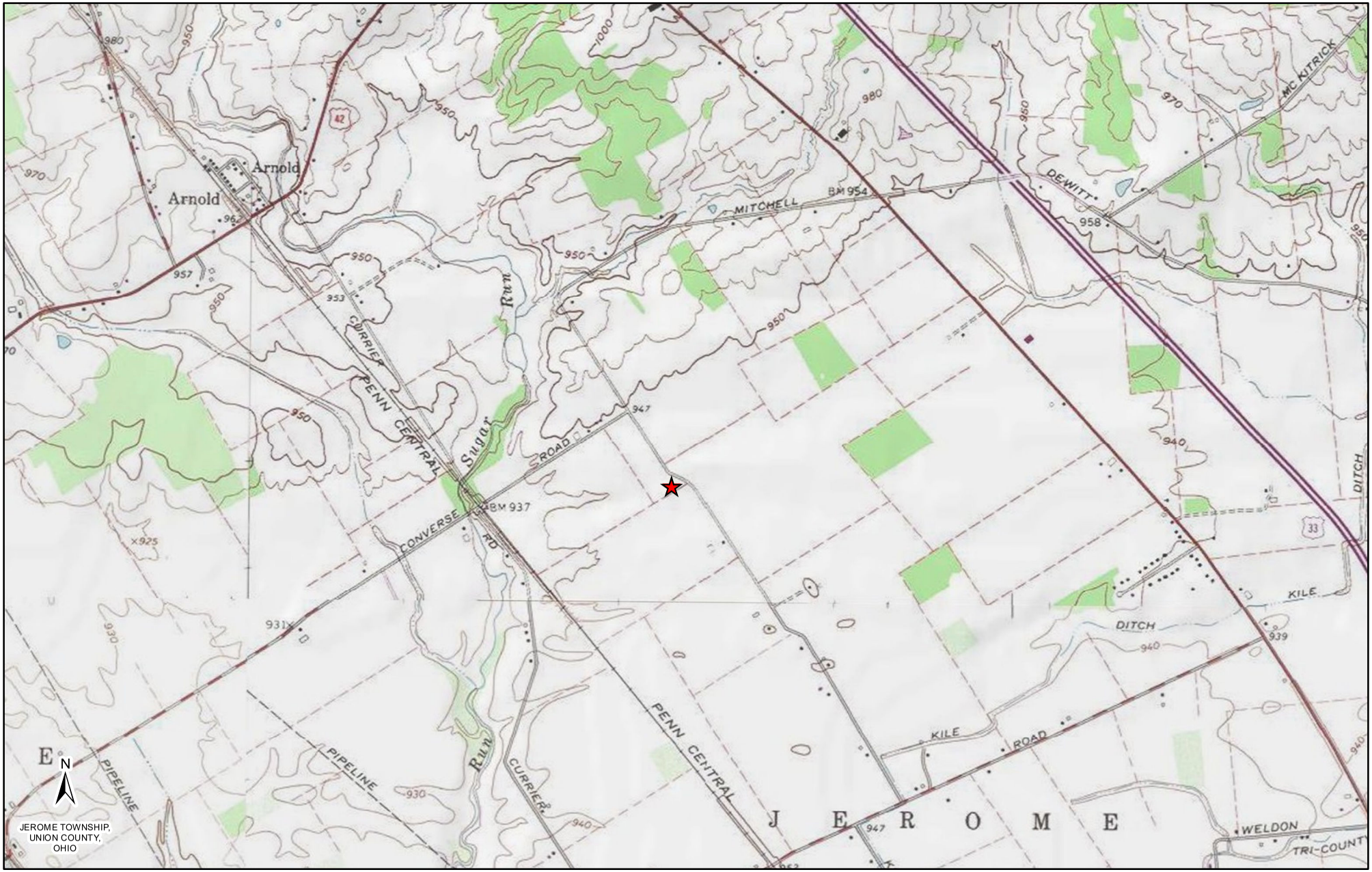
Mr. Robert Caldwell,
Fiscal Officer
Jerome Township
8770 Brock Road
Plain City, OH 43064

Library

Ms. Chris Long, Library Director
Plain City Public Library
305 West Main Street
Plain City, Ohio 43064

Copies of the transmittal letters to these officials have been included with this application as proof of compliance pursuant to OAC Rule 4906-6-07 (B) and to provide the OPSB with proof of notice to local officials as required by OAC Rule 4906-6-07 (A)(1) and to libraries 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 OPSB with proof of compliance with the notice requirements in OAC Rule 4906-6-07 (A)(3).



LEGEND:

★ Project Location

0 1,000 2,000 4,000

Feet

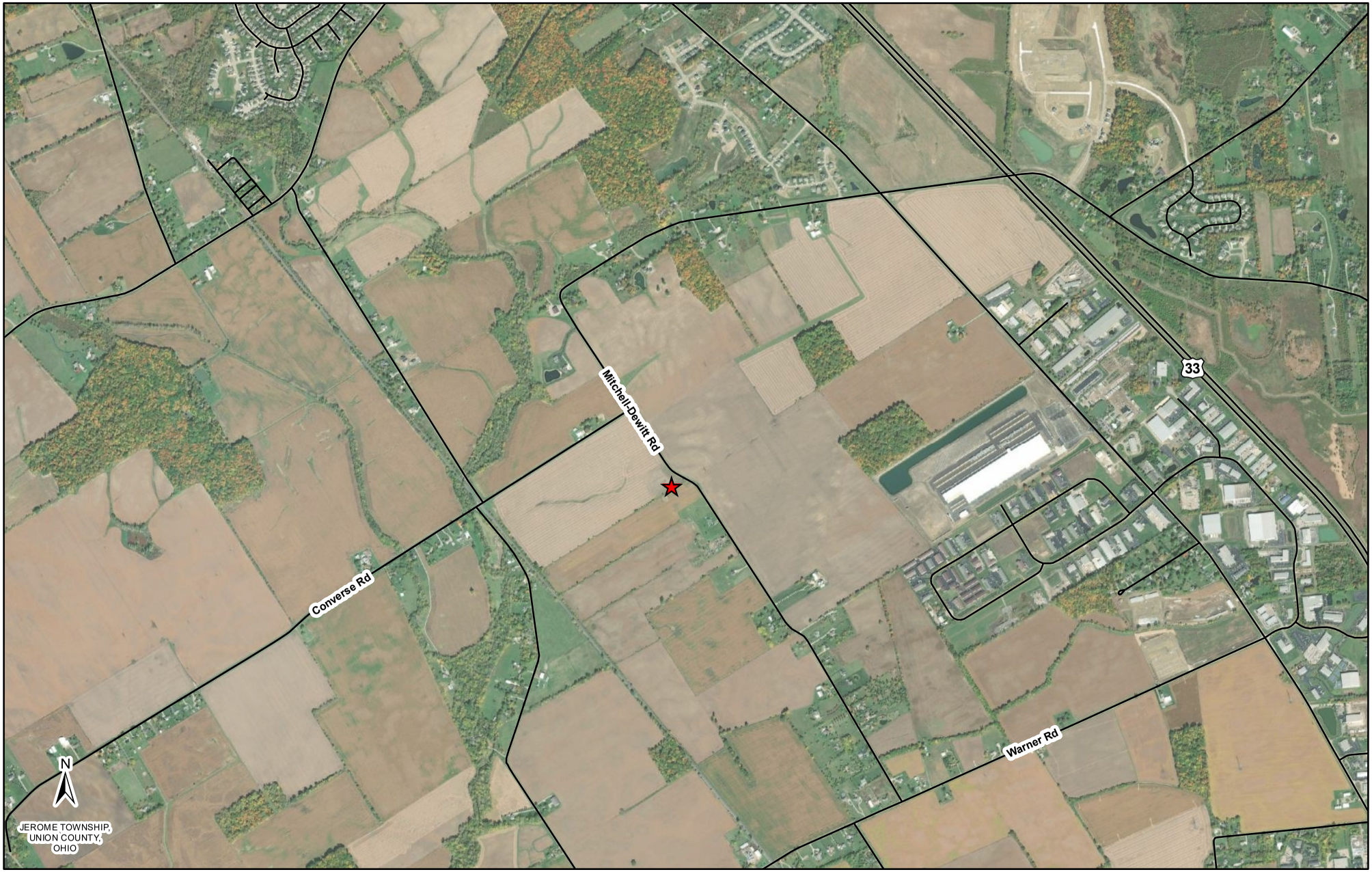
Reference:
USGS Topographical Overlay

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

EXHIBIT 1

ATSI®
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

London-Tangy 138 kV Transmission Line
Tap to Mitchell Delivery Point



LEGEND:

★ Project Location

— Roads

0 1,000 2,000 4,000

Feet

Reference:
ESRI Imagery, ODOT

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

EXHIBIT 2

ATSI®
American Transmission Systems, Inc.
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London-Tangy 138 kV Transmission Line
Tap to Mitchell Delivery Point

JEROME TOWNSHIP
UNION COUNTY
STATE OF OHIO

LEGEND

- PROPOSED TRANSMISSION STRUCTURE
- EXISTING TRANSMISSION STRUCTURE TO REMAIN
- EXISTING TRANSMISSION STRUCTURE TO BE REMOVED
- NON FE OWNED DISTRIBUTION POLES
- 138KV SWITCH
- PROPOSED SUB
- PROPOSED TRANSMISSION LINE
- EXISTING TRANSMISSION LINE
- DISTRIBUTION
- PROPERTY LINE
- ROADWAY
- FENCE
- PROPOSED FE ROW
- EXISTING FE ROW
- DELINEATED WETLAND

MITCHELL SUBSTATION

CUSTOMER OWNED DELIVERY POINT

NEW POLE WITH POLE MOUNTED TRANSFORMER

#1 SW A-585

MITCHELL DEWITT RD

#13730

TANGY SUBSTATION

#13727 SW A-583

LONDON-TANGY 138KV

#13727A

#13727B SW A-584

#13728

#13729

#13726

LONDON SUBSTATION

STRUCTURE #13727 TO BE REMOVED

0' 100' 200'

HORIZONTAL SCALE IN FEET

LONDON-TANGY 138KV, MITCHELL DELIVERY POINT- PROVIDE 138KV SERVICE PROJECT EX. 1

ATSI
American Transmission Systems, Inc.
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LONDON-TANGY 138 KV TRANSMISSION LINE
TAP TO MITCHELL DELIVERY POINT
SUBSTATION PROJECT

GENERAL LAYOUT

EXHIBIT 3

EXHIBIT 4

FirstEnergy

ATSI Transmission Zone M-3 Process
London-Tangy 138 kV Line - New Customer

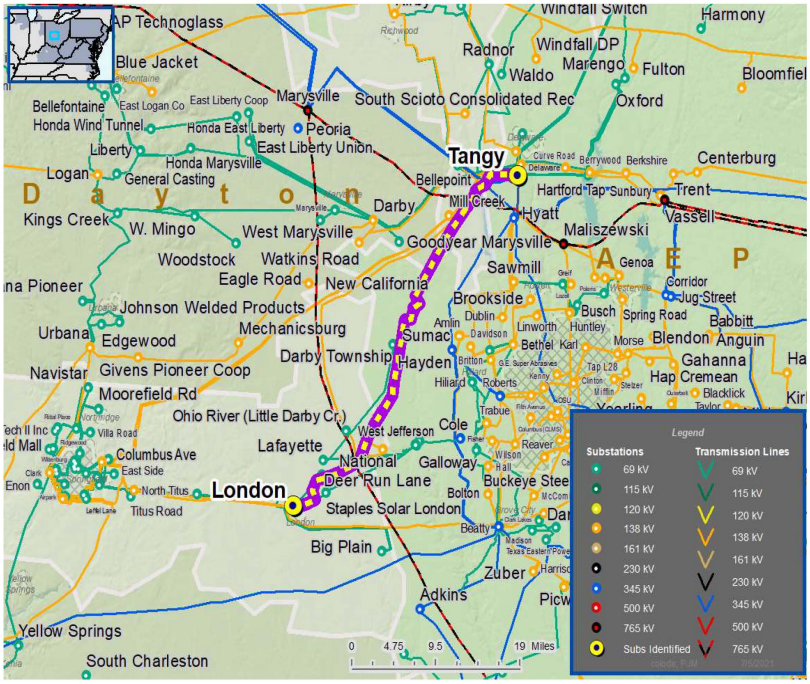
Need Number: ATSI-2021-017
Process Stage: Solution Meeting – 08/16/2021
Previously Presented: Need Meeting – 07/16/2021

Supplemental Project Driver(s):
Customer Service

Specific Assumption Reference(s)
Customer connection request evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement
New Customer Connection – A customer requested 138 kV transmission service for approximately 23 MVA of total load near the London-Tangy 138 kV Line.

Requested In-Service Date: April 30, 2022



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ATSI Transmission Zone M-3 Process
London-Tangy 138 kV Line - New Customer

Need Number: ATSI-2021-017
Process Stage: Solution Meeting – 08/16/2021
Previously Presented: Need Meeting – 07/16/2021

Proposed Solution:

Mitchell Delivery Point 138 kV Transmission Line Tap

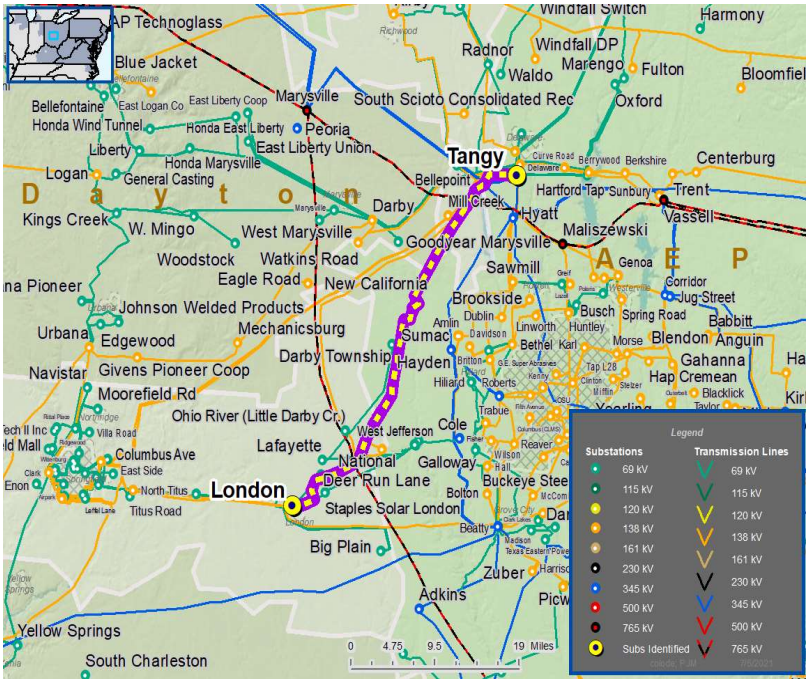
- Construct a 138 kV tap (approximately 1-2 spans) off the London-Tangy 138 kV Line. Tap location is approximately 15 miles from the Tangy Substation.
- Add two SCADA control switches at transmission line tap location and one tap switch
- Adjust relay settings at London and Tangy substations

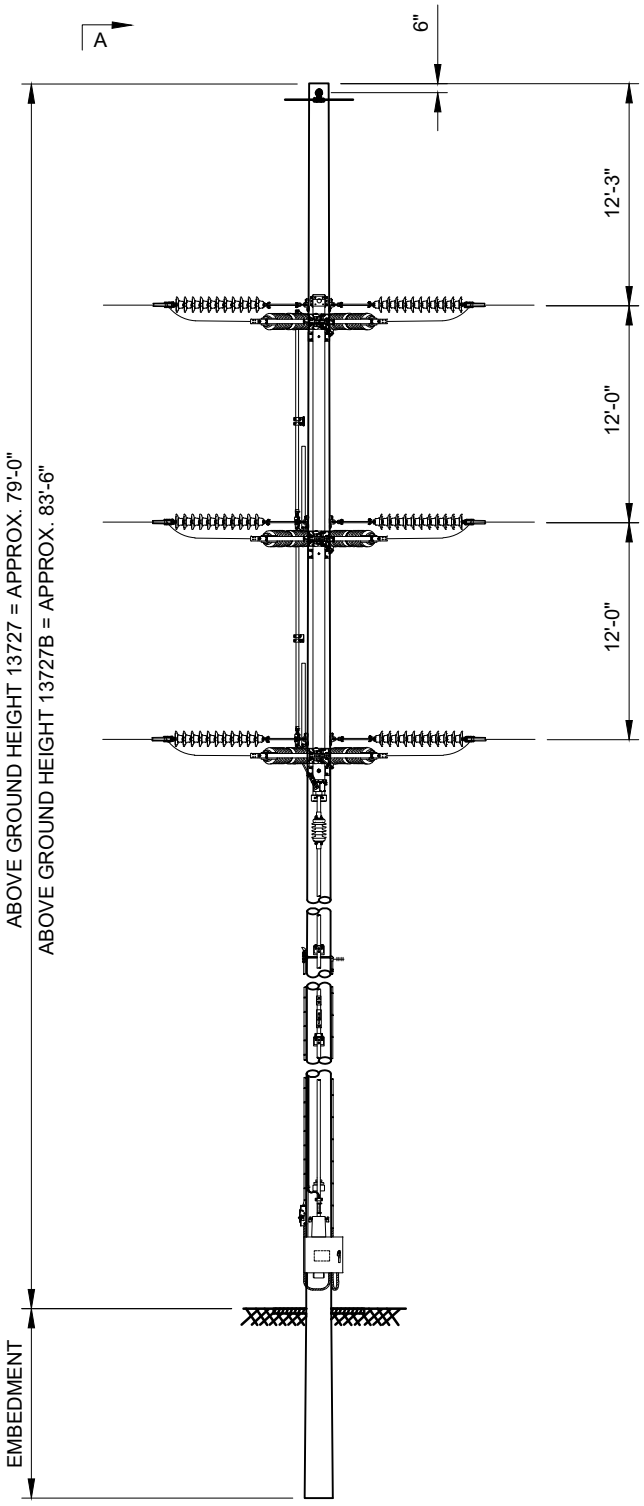
Alternatives Considered:

- No alternatives considered for this project

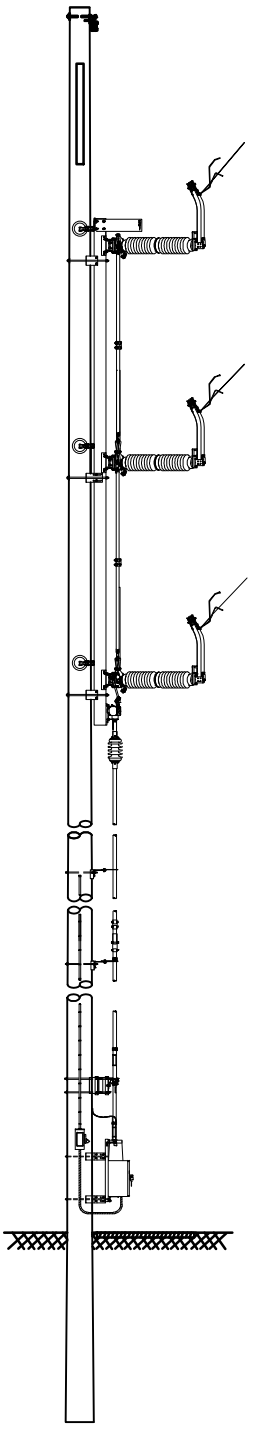
Estimated Project Cost: $1.4 M

Projected In-Service: 4/30/2022
Status: Engineering
Model: 2020 Series 2025 Summer RTEP 50/50





ELEVATION



SECTION A-A

LONDON-TANGY 138KV, MITCHELL DELIVERY POINT- PROVIDE 138KV SERVICE PROJECT EX. 2

**NOT TO SCALE

ATSI®
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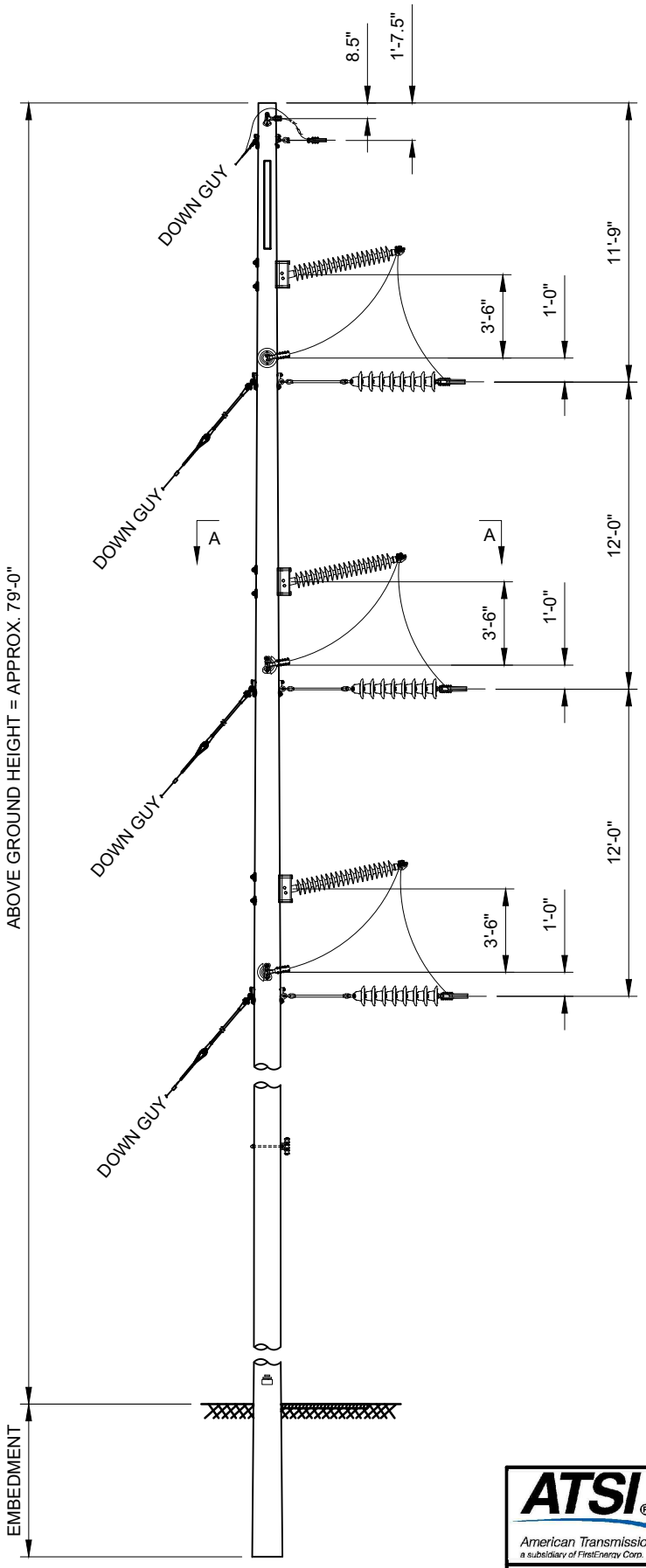
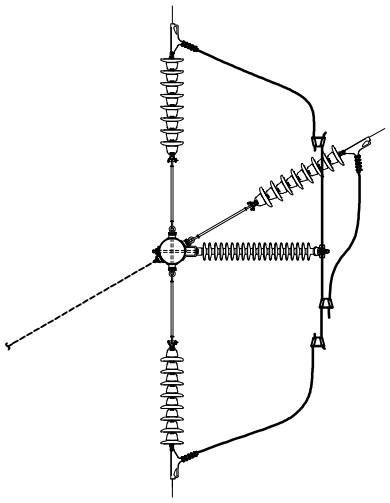
LONDON-TANGY 138KV TRANSMISSION LINE
TAP TO MITCHELL DELIVERY POINT
SUBSTATION PROJECT

138KV SINGLE CIRCUIT-WOOD-UNITIZED
1200A SWITCH STRUCTURE WITH WHIP AND MOAB
STRUCTURE #13727 AND #13727B

EXHIBIT 5



ELEVATION



SECTION A-A

**NOT TO SCALE

LONDON-TANGY 138KV, MITCHELL DELIVERY POINT- PROVIDE 138KV SERVICE PROJECT EX. 3

ATSI®
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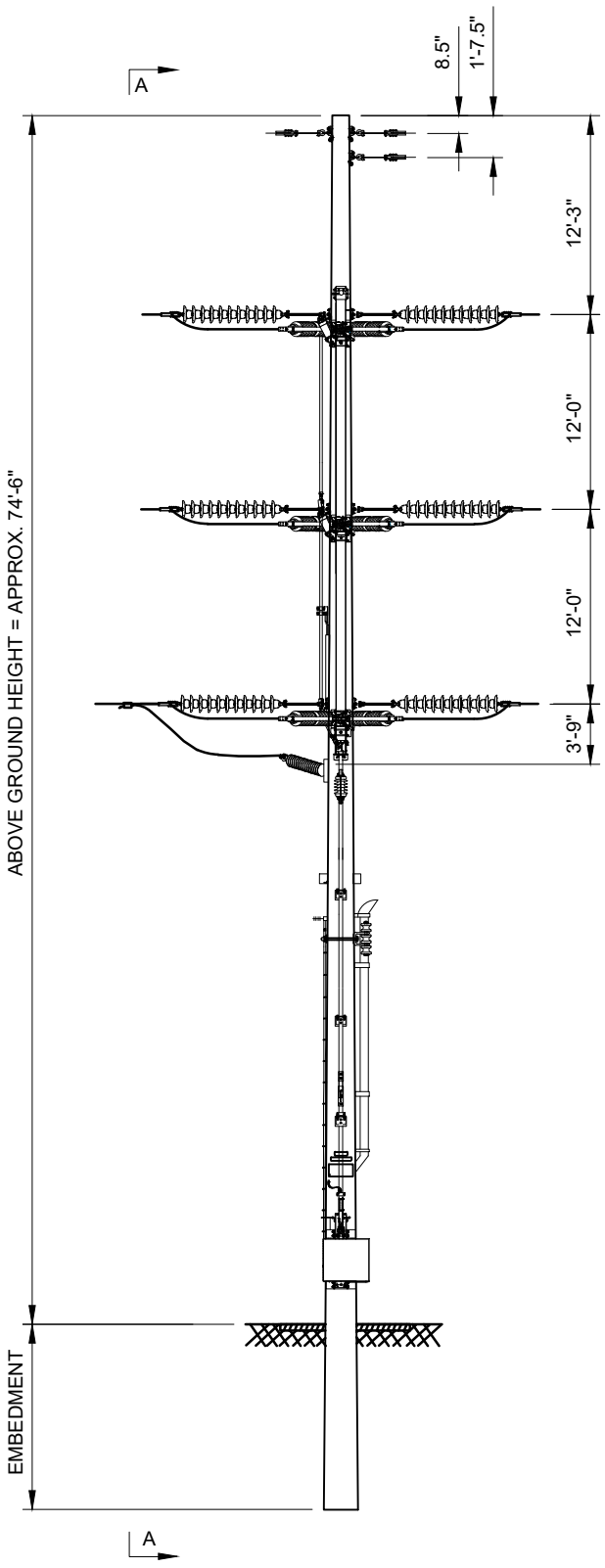
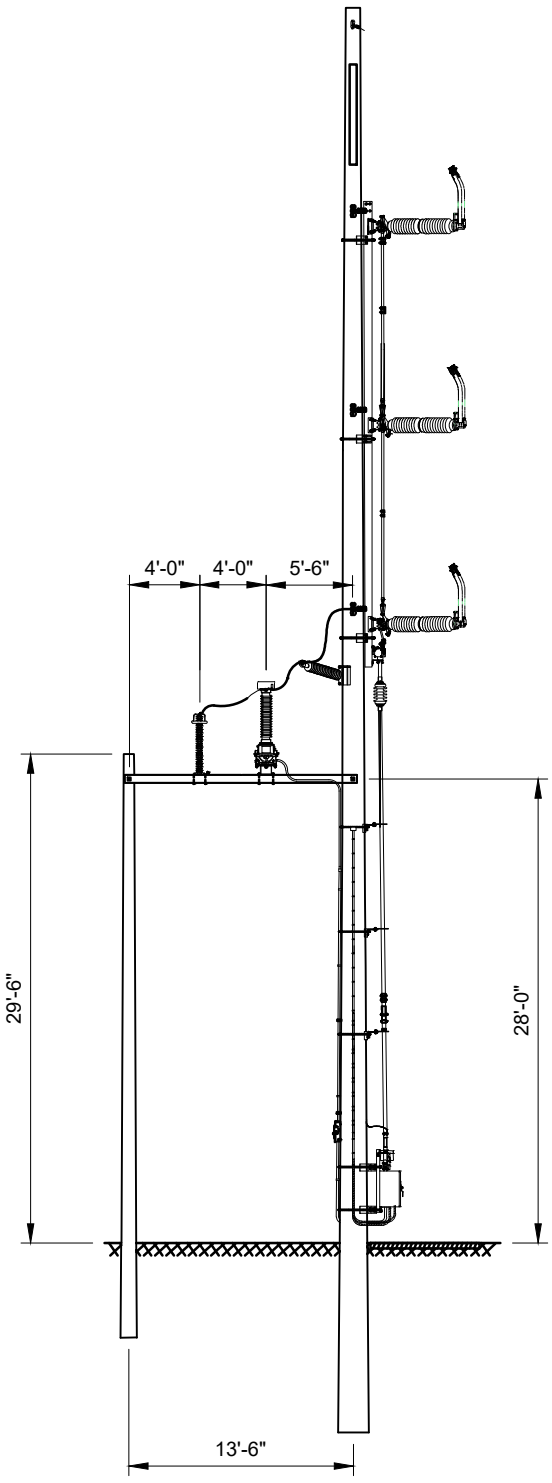
LONDON-TANGY 138KV TRANSMISSION LINE
TAP TO MITCHELL DELIVERY POINT
SUBSTATION PROJECT

138KV SINGLE CIRCUIT WOOD TAP STRUCTURE
VERTICAL SINGLE POLE
STRUCTURE #13727A

EXHIBIT 6



ELEVATION



SECTION A-A

**NOT TO SCALE

ATSI®
American Transmission Systems, Inc
a subsidiary of FirstEnergy Corp.

LONDON-TANGY 138KV TRANSMISSION LINE
TAP TO MITCHELL DELIVERY POINT
SUBSTATION PROJECT

138KV SINGLE CIRCUIT-WOOD-UNITIZED
1200A SWITCH STRUCTURE WITH WHIP AND
PT POWERED MOAB
STRUCTURE #1

EXHIBIT 7

LONDON-TANGY 138KV, MITCHELL DELIVERY POINT- PROVIDE 138KV SERVICE PROJECT EX. 4

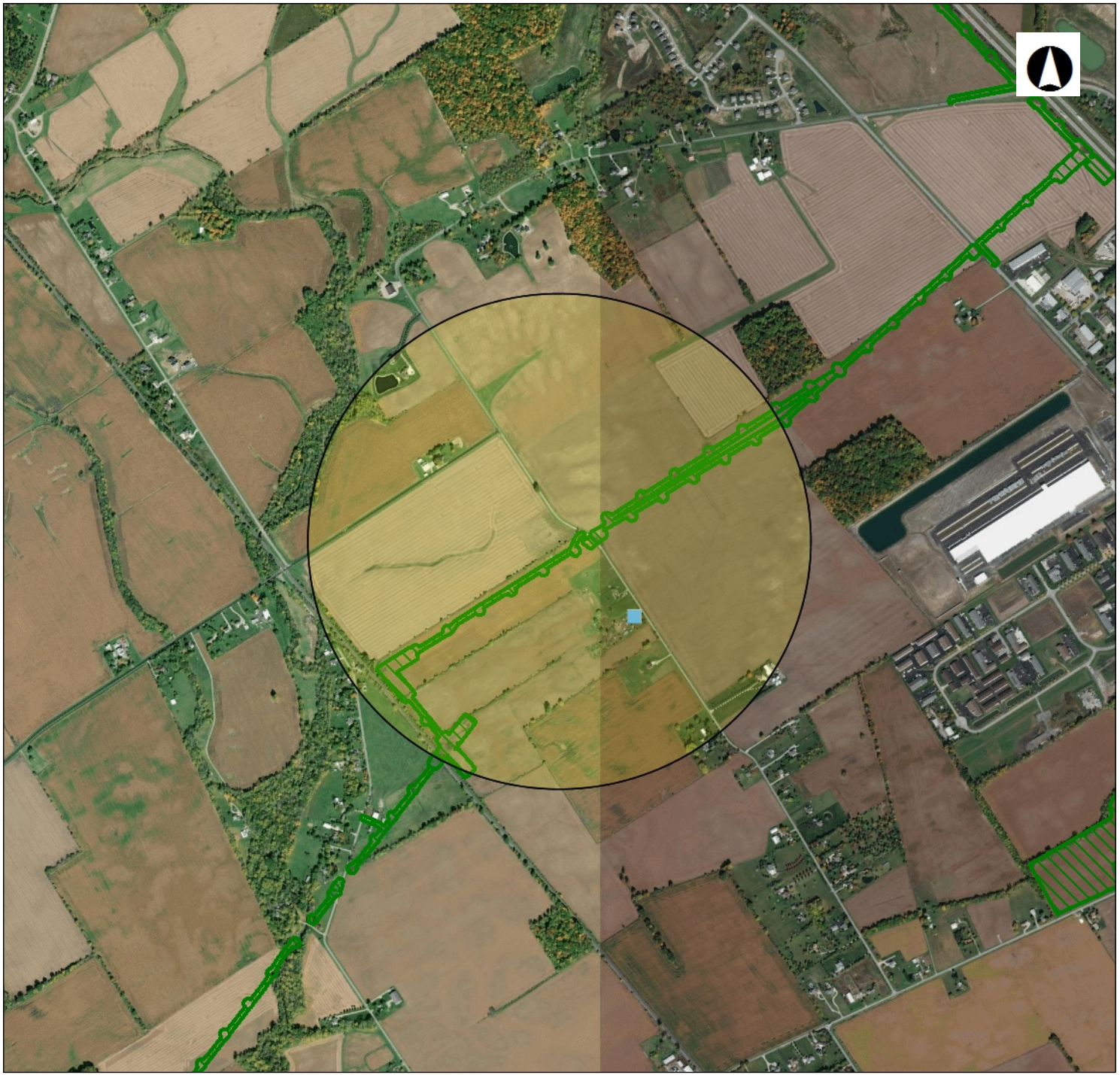


EXHIBIT 8

OHIO HISTORY CONNECTION

State Historic Preservation Office

Legend

- NR Listings
  - Listed
  - National Historic Landmark
  - Delisted
- Determinations of Eligibility
  - DOE
  - Demolished
- Historic Structures
- Historic Bridges
- Historic Tax Credit Projects
- Local Designations
- OGS Cemeteries
  - Confident
  - Not Confident
- Historic Markers
- Dams
- UTM Zone Split
- NR Boundaries

0 0.30 0.61 Miles

1: 24,000

Copyright/Disclaimer

Datum: [Datum]

Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

EXHIBIT 9

Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR MARY MERTZ, DIRECTOR

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

January 6, 2022

Brad Falkinburg
TRC Companies
1382 West Ninth Street, Suite 400
Cleveland, OH 44113

Re: 21-1085; Mitchell Delivery Point Project

Project: The proposed project involves tapping the London-Tangy 138kV line and constructing a new line from the tap location to the customer substation.

Location: The proposed project is located in Jerome Township, Union 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 no records at or within a one-mile radius of the project area.

A review of the Ohio Natural Heritage Database indicates there are no other records of state endangered or threatened plants or animals within the project area. There are also no records of state potentially threatened plants, special interest or species of concern animals, or any federally listed species. In addition, we are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the project area. 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.

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 Fish and Wildlife has the following comments.

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

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

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH $\geq$ 20 if possible.

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

The project is within the range of the following listed mussel species.
Federally Endangered
nuffbox (*Epioblasma triquetra*)
clubshell (*Pleurobema clava*)
Northern riffleshell (*Epioblasma torulosa rangiana*)
rayed bean (*Villosa fabalis*)

Federally Threatened
rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Endangered
elephant-ear (*Elliptio crassidens crassidens*)

State Threatened
pondhorn (*Uniomerus tetralasmus*)

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the following listed fish species.
State Threatened
Tippecanoe darter (*Etheostoma Tippecanoe*)

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, the project is not likely to impact this species.

The project is within the range of the king rail (*Rallus elegans*), a state endangered bird. Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh vegetation. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If no wetland habitat will be impacted, the 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. In the Oak Openings area west of Toledo, lark sparrows occupy open grass and shrubby fields along sandy beach ridges. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

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

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

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species'

nesting period of April 15 through July 31. If this habitat will not be impacted, the project is not likely to impact this species.

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

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

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

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

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

Mike Pettegrew
Environmental Services Administrator (Acting)

EXHIBIT 10

Bryksenkova, Nataliya

From: Molnar, Maggie <MMolnar@trccompanies.com>
Sent: Monday, January 10, 2022 1:09 PM
To: Ruggiero, Augustine
Cc: Falkinburg, Brad
Subject: [EXTERNAL] FW: RE: Desktop Hibernacula Assessment: London-Tangy 138 kV Transmission Line, Tap to Mitchell Delivery Point Substation Project

Auggie,

Please see Erin Hazelton's response below. She concurs with our assessment that no caves, cliffs, or mine openings occur in the project area and the project is not likely to impact hibernating bats.

Thanks,

Maggie Molnar, PWS
Ecologist

TRC

781 Science Boulevard, Suite 200, Gahanna, Ohio 43230
D 614.423-6342| **C** 614.949.2437
LinkedIn | Twitter | Blog | TRCcompanies.com

Please note that our address has changed.

From: Erin.Hazelton@dnr.ohio.gov <Erin.Hazelton@dnr.ohio.gov>
Sent: Monday, January 10, 2022 1:05 PM
To: Molnar, Maggie <MMolnar@trccompanies.com>
Cc: Falkinburg, Brad <BFalkinburg@trccompanies.com>
Subject: [EXTERNAL] RE: Desktop Hibernacula Assessment: London-Tangy 138 kV Transmission Line, Tap to Mitchell Delivery Point Substation Project

Hi Maggie,

Per review of the desktop survey provided for the London-Tangy Project, the Ohio Division of Wildlife concurs with your assessment that no caves, cliffs, or mine openings occur in the project area and the project is not likely to impact hibernating bats.

Should any reported conditions change before or during construction, please contact me for additional guidance.

Thank you,
Erin

Erin Hazelton (she/her/hers)
Wind Energy Administrator
ODNR Division of Wildlife
2045 Morse Rd. Bldg G-3
Columbus, OH 43229
1-800-WILDLIFE
Office: 614-265-6349
Email: erin.hazelton@dnr.ohio.gov

Support Ohio's wildlife. Buy a license or stamp at wildohio.gov.

From: Molnar, Maggie <MMolnar@trccompanies.com>
Sent: Monday, January 10, 2022 11:43 AM
To: Hazelton, Erin <Erin.Hazelton@dnr.ohio.gov>
Cc: Falkinburg, Brad <BFalkinburg@trccompanies.com>
Subject: Desktop Hibernacula Assessment: London-Tangy 138 kV Transmission Line, Tap to Mitchell Delivery Point Substation Project

Erin,
In response to the ODNR's DOW recommendations (attached), TRC Companies, Inc. (TRC) completed a desktop habitat assessment, on behalf the ATSI, a FirstEnergy Company, to determine if potential hibernaculum is present within the proposed London-Tangy 138 kV Transmission Line, Tap to Mitchell Delivery Point Substation Project (Project) Study Area (attached). The proposed Project is located in the Jerome Township, Union County, Ohio.

Please let us know if you have any questions on the provided desktop assessment.

Thanks in advance for your time.

Regards,

Maggie Molnar, PWS
Ecologist

781 Science Boulevard, Suite 200, Gahanna, Ohio 43230
D 614.423-6342| **C** 614.949.2437
LinkedIn | Twitter | Blog | TRCcompanies.com

Please note that our address has changed.

EXHIBIT 11

WETLAND DELINEATION AND STREAM IDENTIFICATION REPORT FOR THE UNION RURAL ELECTRIC MITCHELL SUBSTATION

JEROME TOWNSHIP, UNION COUNTY, OHIO

PREPARED FOR:

POWER SYSTEM ENGINEERING, INC.

SUBMITTED TO:

MS. MARTHA LAMP
PROJECT COORDINATOR & ADMINISTRATIVE ASSISTANT
POWER SYSTEM ENGINEERING, INC.
2327A STATE ROUTE 821
MARIETTA, OH 45750
OFFICE (740) 760-1654 MOBILE (304) 834-8855

PREPARED BY:

ALLSTAR ECOLOGY LLC
1582 MEADOWDALE ROAD
FAIRMONT, WV 26554
OFFICE (304) 816-3490

NOVEMBER 5, 2020

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EXECUTIVE SUMMARY

On behalf of Power System Engineering, Inc., AllStar Ecology LLC developed this Wetland Delineation and Stream Identification Report for the Union Rural Electric Mitchell Substation located in Union County, Ohio. AllStar Ecology reviewed a 7.52-acre area of interest to identify potentially jurisdictional aquatic features and special aquatic sites. An environmental field survey was conducted on November 2nd, of 2020.

A total of one palustrine emergent wetland was identified within the area of interest.

1.0 INTRODUCTION

AllStar Ecology LLC (ASE) was retained by Power System Engineering, Inc. (PSE) to conduct an environmental field investigation for the proposed Union Rural Electric Mitchell Substation (Mitchell Substation) located near Plain City in Union County, Ohio (OH). The purpose of the field review was to identify potentially environmentally sensitive areas within a 7.52-acre area of interest (AOI).

The center of the site was located approximately 2.6 miles northeast of Plain City, OH, in southeastern Union County, OH. From Huntington, West Virginia (WV), take WV-527 North entering Ohio. Continue onto OH-527 North for 0.2 mile. Merge onto OH-7 South and continue 37.1 miles. Take US-23 North and continue 16.9 miles. Keep right to continue onto State Route 823 and continue 16.3 miles. Keep right and merge onto US-23 North and continue 34.2 miles. Keep right to stay on US-23 North toward Columbus and continue 37.1 miles. Merge onto Interstate (I) 270 North and continue 20.1 miles. Merge onto OH-161 West/US-33 West and continue 2.8 miles. Take exit 106 toward I-61 West and continue 0.7 mile. Make a slight right onto Industrial Parkway/Old US-33 and continue 1.1 miles. Turn left onto Warner Road and continue 1.1 miles. Turn right onto Mitchell-Dewitt Road and continue 1.1 miles to reach the AOI (40.129855°, -83.225698°). The AOI is located on the United States Geological Survey (USGS) topographical map of the Shawnee Hills 7.5-minute (') Quadrangle (Figure 1).

The stream and wetland delineation of the Mitchell Substation found one potentially jurisdictional feature, one palustrine emergent (PEM) wetland.

2.0 METHODS

Prior to the field evaluation, a desktop analysis was conducted to identify areas which may contain potential waters of the United States (WoUS) and wetland habitats. Current and historical aerial photographs, existing databases, and other public resources were reviewed including US Geological Survey 7.5' topographic maps, US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, National Hydrology Dataset (NHD) stream data, and soil maps from the Natural Resources Conservation Service (NRCS).

A desktop analysis was performed to establish potential presence of federal and state listed rare, threatened, and endangered species. Public resources were utilized and included Information, Planning and Consultation (IPaC) website developed by the USFWS.

Streams and wetlands were named alphabetically by field personnel in the order they were identified and were then renamed for mapping purposes. Wetland delineations were conducted by qualified personnel in accordance with the US Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory, 1987) and the applicable Regional

Supplement to the Corps of Engineers Wetland Delineation Manual (USACE, 2012). Streams were classified in accordance with the USACE Jurisdictional Determination Form Instructional Guidebook (2007).

Streams were categorized in accordance with indices developed by the Ohio Environmental Protection Agency (OEPA) in order to assess physical habitat. Headwater streams and streams with a drainage area less than 1.0 square mile were categorized using the Headwater Habitat Evaluation Index (HHEI), while wadeable streams were categorized using the Qualitative Habitat Evaluation Index (QHEI). Wetlands were also categorized in accordance with the OEPA Division of Surface Water's Ohio Rapid Assessment Method (ORAM) for Wetlands v. 5.0. ORAM was used to assess the quality of wetlands under the Wetland Antidegradation Rule, OAC Rule 3745-1-54.

2.1 Date of Field Work and Personnel

Fieldwork was conducted by Justin DeVault of ASE on November 2nd, of 2020. ASE field personnel have completed a 40-hour wetland delineation training and have completed a four-year degree in a related field and/or equivalent work experience.

2.2 Scope of Work

ASE was retained by PSE to provide environmental consulting services for the Mitchell Substation, including conducting stream and wetland delineations, and providing GIS analysis and mapping.

2.3 USACE Jurisdictional Statement

Stream and wetland delineations were conducted in accordance with the 1987 delineation manual and applicable regional supplements. Findings presented in this report represent the best professional judgment and opinion of AllStar Ecology LLC. Formal jurisdictional status can only be determined by the USACE through submittal of a jurisdictional determination request by the proponent.

3.0 FINDINGS

The Mitchell Substation site drains to Sugar Run of Big Darby Creek. Big Darby Creek is a tributary of Scioto River (HUC# 05060001), a traditional navigable waterway. Jurisdictional features located within the AOI included one PEM wetland (Tables 1 & 2, Figure 2). USACE Wetland Determination Data Forms were completed to characterize wetlands and associated upland areas (Appendix A). Photos of delineated features are also included (Appendix B).

3.1 Desktop Findings

The proposed project is in southeastern Union County, OH. The project AOI is located near rural residential and agricultural properties and is adjacent to an existing road, Mitchell-Dewitt Road (Twp Hwy 9). Land use surrounding the project is largely agricultural.

According to a desktop review of available USFWS NWI digital data for the project, there are no mapped wetlands within the AOI. An examination of the USGS mapping and NHD stream data indicated no streams are present within the AOI.

USDA soil mapping indicated two soil units are within the AOI, one of which has a hydric soil rating, and one soil unit contained a minor component with a hydric soil rating. Topography within the AOI consists of predominately flat areas with elevations ranging from 940 feet to 950 feet above mean sea level.

The Mitchell Substation site drains to Sugar Run of Big Darby Creek. Big Darby Creek is a tributary of Scioto River (HUC# 05060001), a traditional navigable waterway. A review of FEMA FIRM mapping Panel 39159C0388D, with an effective date of December 16, 2008, revealed that no portion of the AOI is within the limits of a designated regulatory floodplain. The project falls within an eligible zone for blanket coverage for 401 Water Quality Certification (WQC) with the OEPA, assuming limitations and conditions of the Nationwide Permit (NWP) are met.

According to the IPaC report, Rare, Threated, or Endangered (RTE) species of concern in proximity to the AOI include the Indiana bat (*Myotis sodalis*), the northern long-eared bat (*Myotis septentrionalis*), and the Scioto madtom (*Noturus trautmani*). The AOI is outside critical habitat for the Indiana bat, and no critical habitat has been designated for the northern long-eared bat or the Scioto madtom. IPaC also notes that there are no critical habitats for RTE species within the AOI. [See Appendix C for desktop findings, including NWI map, soil report, and IPaC report for project AOI.]

3.2 Climate and Site Conditions

Union County receives an average of 35.72 inches of precipitation annually. The average growing season in Union County is from April to September. See the table below for general climate and localized weather conditions for Union County prior to and during the site visit.

Site Visit (MM/DD/YY)	Average Monthly Precipitation for Month of Site Visit (inches)	Site Visit Month-To-Date Precipitation (inches)	Total Precipitation During Previous 72 hours (inches)	Precipitation on Day of Site Visit	Average Daytime Temperature for Day (actual °F)
11/2/2020	2.96	0.02	0.02	0	36.5

3.3 Field Findings

The Mitchell Substation AOI was situated along an existing road (Mitchell-Dewitt Road/Twp Hwy 9) and within existing agricultural fields. The surrounding land was primarily agricultural fields and rural residences. Significant portions of the AOI were dominated by herbaceous vegetation including Japanese bristle grass (*Setaria faberi*), spiny-leaf sow-thistle (*Sonchus asper*), common dandelion (*Taraxacum officinale*), yellow bristle grass (*Setaria pumila*), eastern daisy fleabane (*Erigeron annuus*), and velvetleaf (*Abutilon theophrasti*). The AOI contained remnants of plantings of corn (*Zea mays*) and soybean (*Glycine max*). Jurisdictional feature findings are discussed in the following sections.

Table 1 Potentially Jurisdictional Waters Identified in the Project AOI

Waters Name[1]	Cowardin Code[2]	HGM Code[2]	Measurement Type	Amount	Units	Waters Types[2]	Latitude[3]	Longitude[3]	Local Waterway	OH WQ Class[4]	PHWH Class[5]	HHEI Score[5]	QHEI Score[6]	ORAM Score[7]	ORAM CATEGORY
Wetlands															
ASE_Wetland01	PEM	Depress	Area	0.092	Acre	RPWWN	40.129358	-83.227203	Sugar Run	N/A	N/A	N/A	N/A	10	1

NOTES:

1 AllStar Ecology, LLC's naming convention.
2 As determined by the USACE's Waters Upload Sheet (pers. comm.)
3 North American Datum. 1983
4 As defined by OAC Chapter 3745-1 Water Quality Standards, Water use designations and statewide criteria (OAC 3745-1-07). http://www.epa.ohio.gov/dsw/rules/3745_1.aspx.
5 Scoring for OEPA Headwater Habitat Evaluation Index (HHEI) Primary Headwater Habitats (PHWH). Class I = 0 - 29.9 and include "normally dry channels with little or no aquatic life present"; Class II = 30 - 69.9 and are equivalent to "warm water habitat"; Class III = 70 – 100 and typically have perennial flow with cool-cold water adapted native fauna. Streams classified as Class III PHWH by a Level 1 or Level 2 Assessment are assumed Class IIIB PHWH unless disproved by Level 3 Assessment.
6 Streams with drainage areas >1 sq. mi., which have not received a water use designation under OAC 3745-1 were scored based on OEPA's Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI), June 2006. http://www.epa.state.oh.us/portals/35/documents/qheimanualjune2006.pdf. Scoring: >75 = Excellent stream habitat; 60 – 74 = Good; 45 – 59 = Fair; 30 – 44 = Poor; <30 = Very Poor.
7 Scoring for ORAM v 5.0: Category 1 = 0 - 29.9; Category 1 or 2 Gray Zone = 30 - 34.9; Category Modified 2 = 35 - 44.9; Category 2 = 45 - 59.9; Category 2 or 3 = 60 - 64.9; Category 3 = 65 - 100. ORAM v. 5.0 Quantitative Score Calibration, Last Revised: August 15, 2000. http://epa.ohio.gov/portals/35/401/oram50sc_s.pdf

3.3.1 *Potentially Jurisdictional Wetlands*

ASE identified and delineated one potentially jurisdictional PEM wetland within the AOI (Tables 1 & 2, Figure 2). Data obtained for the delineated wetland indicated that soils, vegetation, and hydrology parameters met the criteria of a jurisdictional wetland. See individual wetland narrative below. USACE Wetland Determination Data Forms for this wetland and associated upland are included in Appendix A. ORAM was completed for the wetland and is also included in Appendix A.

Table 2 Potentially Jurisdictional Wetland Descriptions

Wetland Name	Wetland Type	Wetland Hydrology Indicators	Dominant Vegetation Species	Hydric Soil Indicators	Associated Data Point	Upland Comparison Data Point	Comments	ORAM Category
ASE_Wetland01	PEM	Sediment Deposits, Oxidized Rhizospheres on Living Roots, Stunted or Stressed Plants	*Setaria pumila*	Redox Dark Surface	ASE_DP02	ASE_DP01	Depressional wetland within an agricultural field adjacent to a power transmission line.	1

4.0 CLOSING

ASE was retained by PSE to conduct an environmental field review within a 7.52-acre AOI for the Union Rural Electric Mitchell Substation located in Union County, OH. One palustrine emergent wetland was identified and delineated within the AOI.

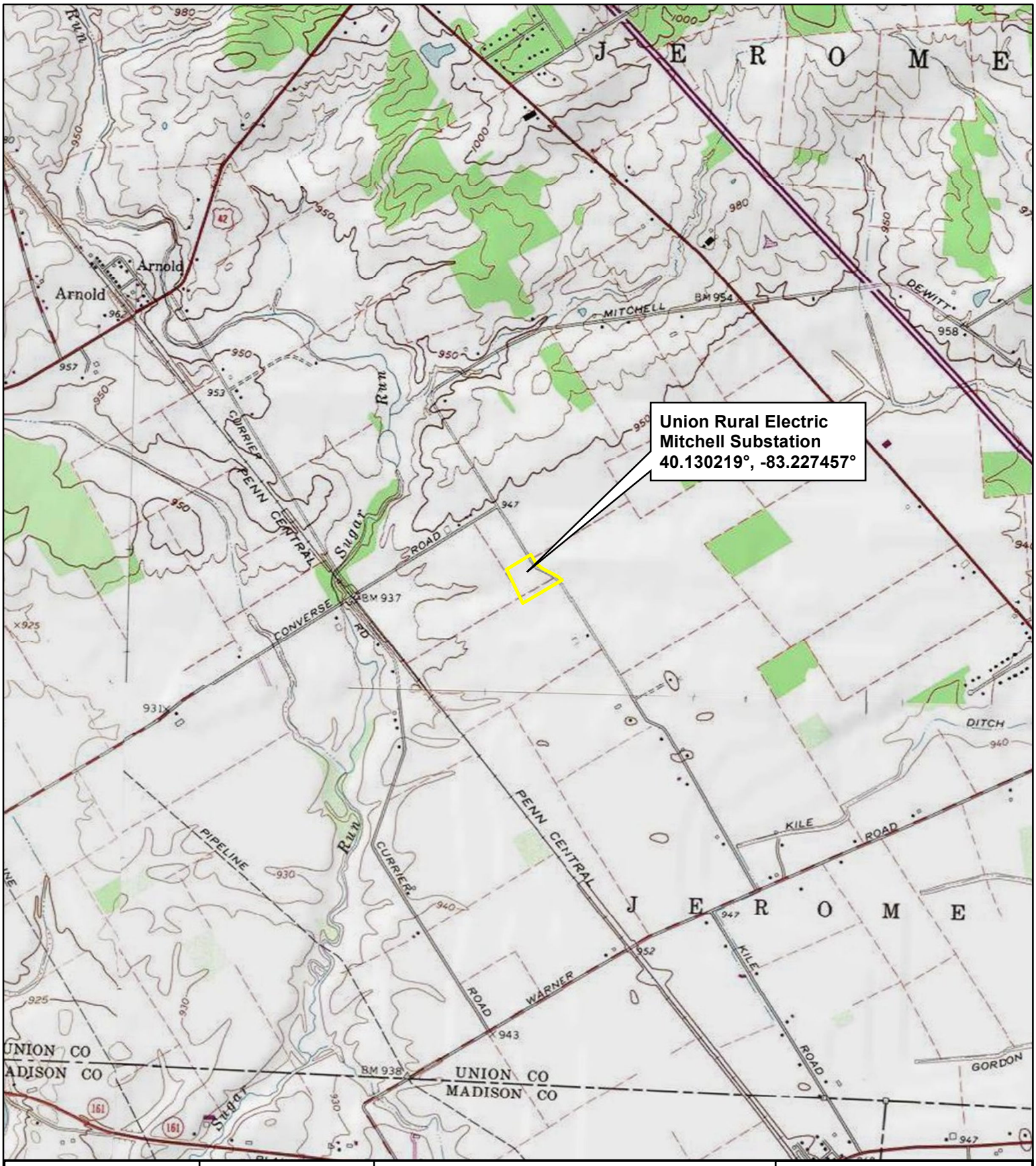
All comments or questions regarding the findings of this report should be directed to Anna Runner with AllStar Ecology LLC at (304) 816-349 (office) or (304) 627-7229 (cell).

Respectfully submitted,

Anna Runner
Environmental Scientist III/Project Manager
AllStar Ecology LLC

FIGURE 1

Vicinity Map



ALLSTAR ECOLOGY
Natural Resource Specialists

Union County, Ohio

USGS 7.5' Quads: Shawnee Hills & Hilliard

Power System Engineering, Inc.

Figure 1
Vicinity Map
Union Rural Electric
Mitchell Substation

Date: 11/03/2020

Version: #1

FIGURE 2

Potentially Jurisdictional Waters Map

Notes:
1. Background is ESRI Aerial Imagery.
2. Potentially jurisdictional waters were delineated by AllStar Ecology LLC on November 2, 2020.
3. Based on FEMA FIRM Panel 39159C0388D, with an effective date of December 16, 2008, no portion of the AOI is within an identified flood hazard area.
4. Southeastern edge of AOI is defined by an existing power transmission line.

ALLSTAR ECOLOGY
Natural Resource Specialists

N
W E
S

0 50 100 200 ft

Union County, Ohio

AOI
APPROXIMATE LOD
PEM
DITCH (NON-JURISDICTIONAL)
EXISTING CULVERT
DATA POINT (DP)
FEATURE CONTINUES
FLOW DIRECTION

Power System Engineering, Inc.

Figure 2
Union Rural Electric
Mitchell Substation
Potentially Jurisdictional Waters

Date: 11/03/2020

Sheet 1 of 1

APPENDIX A

ORAM and USACE Wetland Determination Data Forms (Electronic Attachment)

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

Instructions

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

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

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

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

Background Information

Name:	Justin DeVault
Date:	11/2/2020
Affiliation:	AllStar Ecology LLC
Address:	1582 Meadowdale Road, Fairmont, WV 26554
Phone Number:	304 816 3490
e-mail address:	Justin@AllStarEcology.com
Name of Wetland:	ASE_Wetland01
Vegetation Communit(ies):	PEM
HGM Class(es):	Depressional

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

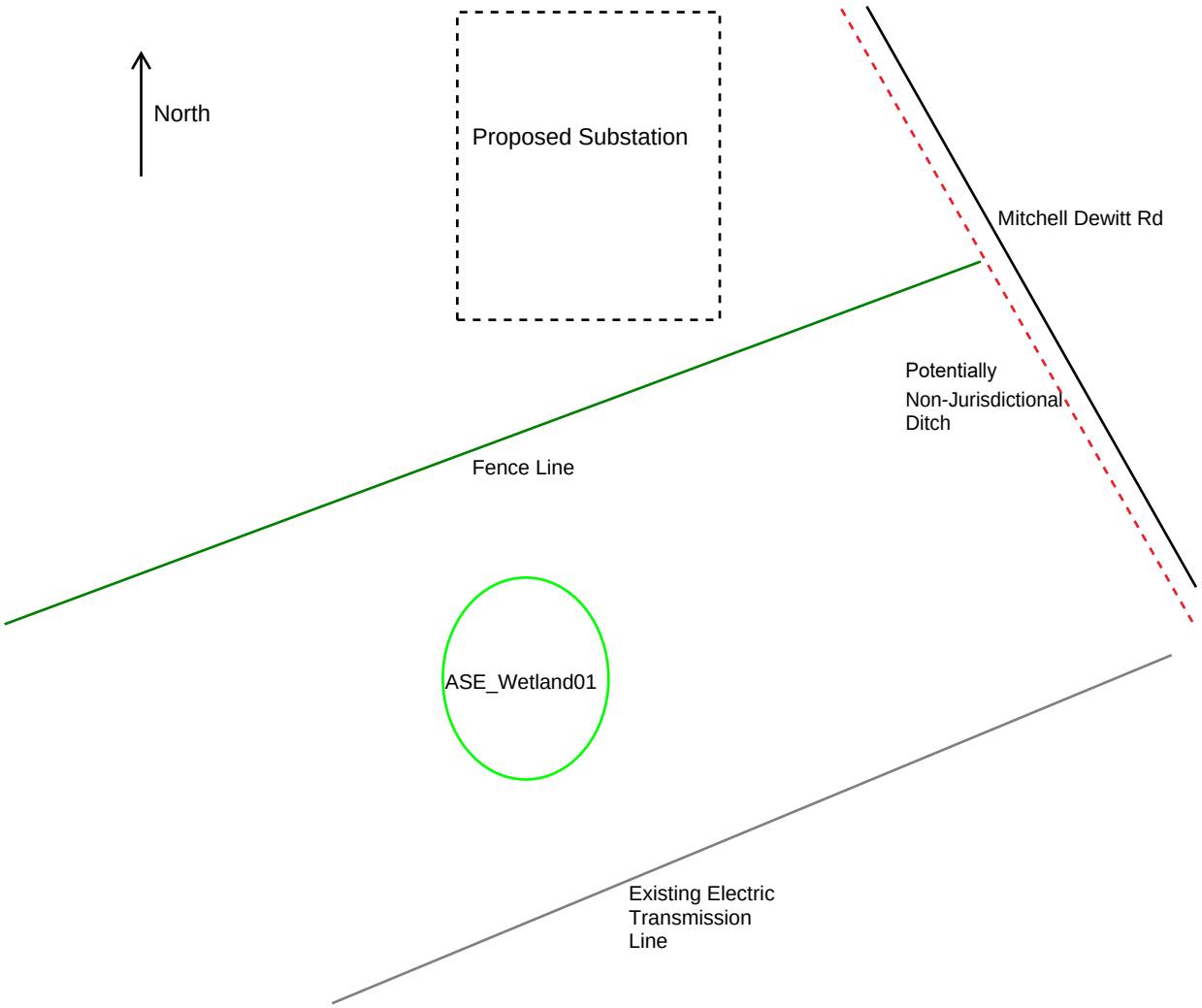
See Figure 2

Lat/Long or UTM Coordinate	40.129358°, -83.227203°	
USGS Quad Name	Shawnee Hills	
County	Union	
Township	Jerome	
Section and Subsection		
Hydrologic Unit Code	05060001 - Upper Scioto	
Site Visit	11/2/2020	
National Wetland Inventory Map	Appendix C	
Ohio Wetland Inventory Map	Appendix C	
Soil Survey	Appendix C	
Delineation report/map	Figure 2	

Name of Wetland: ASE_Wetland01

Wetland Size (acres, hectares): 0.092 acres

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



Comments, Narrative Discussion, Justification of Category Changes:

PEM wetland located in an agricultural field. Area appears to have been avoided during planting and harvesting of row crops (corn and soybean). Sediment deposits visible on matted vegetation indicate recent inundation.

Final score : 10 **Category:** 1

Scoring Boundary Worksheet

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

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

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

Narrative Rating

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

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

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

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site: Union Rural Electric Mitchell Substation	**Rater(s):** J. DeVault	**Date:** 11/2/2020

Metric 1. Wetland Area (size).

0 (max 6 pts.) | 0 (subtotal)

Select one size class and assign score.

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

Metric 2. Upland buffers and surrounding land use.

1 (max 14 pts.) | 1 (subtotal)

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

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

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

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

Metric 3. Hydrology.

4 (max 30 pts.) | 5 (subtotal)

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

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

3b. Connectivity. Score all that apply.

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

3c. Maximum water depth. Select only one and assign score.

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

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

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

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

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

Check all disturbances observed

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

Metric 4. Habitat Alteration and Development.

3 (max 20 pts.) | 8 (subtotal)

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

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

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

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

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

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

Check all disturbances observed

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

8 (subtotal this page)

last revised 1 February 2001 jjm

Site: Union Rural Electric Mitchell Substation	**Rater(s):** J. DeVault	**Date:** 11/2/2020

8
subtotal first page

Metric 5. Special Wetlands.

0 max 10 pts. | 8 subtotal

Check all that apply and score as indicated.

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

Metric 6. Plant communities, interspersion, microtopography.

2 max 20 pts. | 10 subtotal

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

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

6b. horizontal (plan view) Interspersion.
Select only one.

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

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

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

6d. Microtopography.
Score all present using 0 to 3 scale.

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

Vegetation Community Cover Scale

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

Narrative Description of Vegetation Quality

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

Mudflat and Open Water Class Quality

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

Microtopography Cover Scale

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

10

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

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

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

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

Final Category

Choose one	(Category 1)	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Union Rural Electric Mitchell Substation City/County: Union County Sampling Date: 11/2/2020

Applicant/Owner: Power System Engineering, Inc. State: OH Sampling Point: ASE_DP01

Investigator(s): J. DeVault Section, Township, Range:

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None

Slope (%): 0 Lat: 40.130214 Long: -83.227448 Datum: NAD83

Soil Map Unit Name: CrA - Crosby silt loam, 0 to 2 percent slopes NWI classification: Not Indicated

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Upland plot located in an agricultural field (row crop - corn and soybean). Plot is approximate center of LOD for proposed electric substation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None	0	N/A	N/A
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None	0	N/A	N/A
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. Sonchus asper	5	X	FACU
2. Taraxacum officinale	5	X	FACU
3. Setaria pumila	5	X	FAC
4. Setaria faberi	10	X	FACU
5. Erigeron annuus	5	X	FACU
6. Abutilon theophrasti	5	X	FACU
7.			
8.			
9.			
10.			
	35	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None	0	N/A	N/A
2.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16.6% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	35 (A)		135 (B)

Prevalence Index = B/A = 3.857

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No X

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

No hydrophytic vegetation indicators present. See photo #'s 1-4 in Appendix B.

SOIL

Sampling Point: ASE_DP01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No wetland hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Union Rural Electric Mitchell Substation City/County: Union County Sampling Date: 11/2/2020

Applicant/Owner: Power System Engineering, Inc. State: OH Sampling Point: ASE_DP02

Investigator(s): J. DeVault Section, Township, Range:

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None

Slope (%): 0 Lat: 40.129395 Long: -83.227177 Datum: NAD83

Soil Map Unit Name: CrA - Crosby silt loam, 0 to 2 percent slopes NWI classification: Not Indicated

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks: PEM wetland (ASE_Wetland01) plot located in an agricultural field adjacent to an existing electric transmission line. Area is avoided during planting of row crops (corn and soybean).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None	0	N/A	N/A
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. None	0	N/A	N/A
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. Typha latifolia	10		OBL
2. Scirpus cyperinus	10		OBL
3. Glycine max	10		UPL
4. Setaria pumila	70	X	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft radius)			
1. None	0	N/A	N/A
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	70	x 3 =	210
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	100 (A)		280 (B)

Prevalence Index = B/A = 2.800

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

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

Hydrophytic vegetation indicators present. See photo #'s 5-8 in Appendix B.

SOIL

Sampling Point: ASE_DP01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	95	2.5Y 4/6	5	C	PL	Silt Loam	
6-18	10YR 3/1	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
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- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

One hydric soil indicator present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
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- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Wetland hydrology indicators present.

APPENDIX B

Potentially Jurisdictional Aquatic Features and Data Point Photos

Appendix B: Union Rural Electric Mitchell Substation
Photo Exhibit

Photos taken by AllStar Ecology LLC on November 2, 2020

Photo 1. A view to the north of ASE_DP01 (Upland).

Photo 2. A view to the south of ASE_DP01 (Upland).

Photo 3. A view to the east of ASE_DP01 (Upland).

Photo 4. A view to the west of ASE_DP01 (Upland).

Appendix B: Union Rural Electric Mitchell Substation
Photo Exhibit

Photos taken by AllStar Ecology LLC on November 2, 2020

Photo 5. A view to the north of ASE_DP02 (ASE_Wetland01)(PEM).

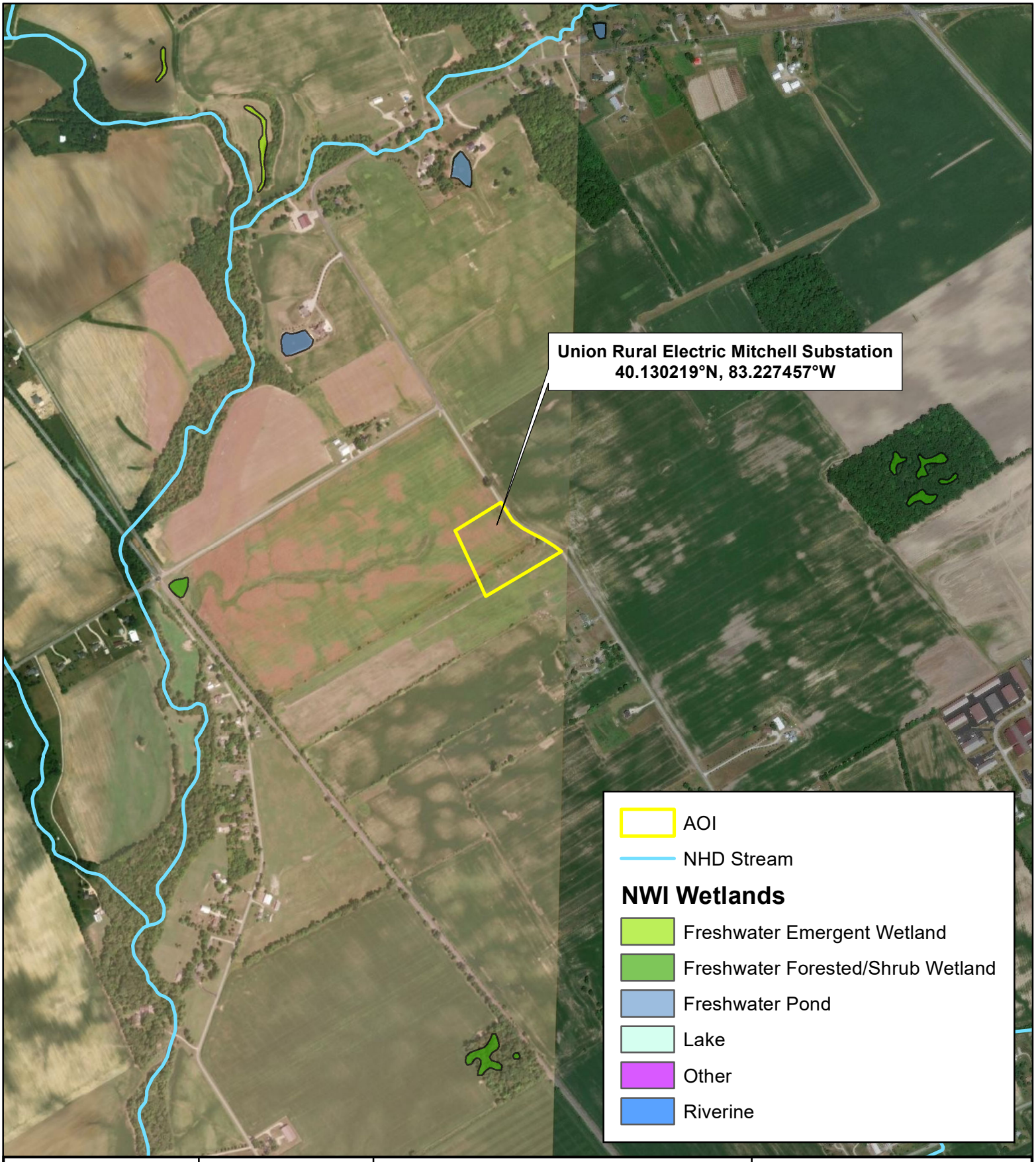
Photo 6. A view to the south of ASE_DP02 (ASE_Wetland01)(PEM).

Photo 7. A view to the east of ASE_DP02 (ASE_Wetland01)(PEM).

Photo 8. A view to the west of ASE_DP02 (ASE_Wetland01)(PEM).

APPENDIX C

Desktop Findings: Desktop Findings Map, Soil Map, IPaC Report



ALLSTAR ECOLOGY
Natural Resource Specialists

N
W E
S

0 500 1,000 ft

Union County, Ohio

Power System Engineering, Inc.

Appendix C
Desktop Findings Map
Union Rural Electric
Mitchell Substation

Date: 11/04/2020

Version: #1

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Union County, Ohio

Union Rural Electric Mitchell Substation

November 4, 2020

Custom Soil Resource Report
Soil Map

Map Scale: 1:1,990 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 25 50 100 150

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Union County, Ohio
Survey Area Data: Version 19, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 12, 2009—Dec 26, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Bs	Brookston silty clay loam, fine texture, 0 to 2 percent slopes	2.4	31.3%
CrA	Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	5.2	68.7%
Totals for Area of Interest		**7.5**	**100.0%**

Summary: Application Letter of Notification Application (Part 2) electronically filed by Ms. Devan K. Flahive on behalf of American Transmission Systems Incorporated