AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY

CONSTRUCTION NOTICE

Cloverdale 138 kV
Interconnection Project

Case No. 24-0990 -EL-BNR

November 18, 2024

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

CONSTRUCTION NOTICE
Cloverdale 138 kV Interconnection Project

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

4906-6-05: ACCELERATED APPLICATION REQUIREMENTS

4906-6-05 (B)(1): Name and Reference Number

Name of Project: Cloverdale 138 kV Interconnection Project ("Project")

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

American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, is proposing to construct a 0.1 mile long 138 kV transmission line to the new B&D Power Solutions d/b/a White Tail Creek, LLC ("Customer") Substation. The proposed transmission line will extend from the existing Cloverdale Substation to the Customer substation. To construct this Project, ATSI will install two new, single-steel monopole structures with concrete foundations and approximately 525 feet of new conductor. Also, as a part of this Project, ATSI will install a 2000 A 138 kV circuit breaker and standard relay panel at Cloverdale Substation.[1]

The general location of the Project is shown in Exhibit 1, a partial copy of the United States Geologic Survey Topographic Map, Stark County, OH, Quad Map**.** Exhibit 2 is a partial copy of ESRI aerial imagery showing the Project area. The general layout is shown in Exhibit 3. The Project is located in the city of Massillon, Stark County, Ohio.

[1] The Proposed substation work is non-jurisdictional as there is no fence expansion required to install the identified substation equipment.

4906-6-05 (B)(1): Construction Notice Requirement

The Project meets the requirements for a Construction Notice because the Project is within the types of projects defined by Items (1)(d)(i) of the Application Requirement Matrix for Electric Power Transmission Lines, Appendix A of OAC 4906-101. Item (1)(d)(i) 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 operation 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:*
> >
> > > *(i) The line is completely on property owned by the specific customer or the applicant.*

The Project is within the requirements of Item (1)(d)(i) because the proposed line is completely on property owned by the specific customer or the applicant.

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

The Project is needed to provide a new, 138 kV retail delivery point to the Customer. The Customer requested the proposed delivery point for electric service to a new data center facility. The proposed load addition is approximately 200 MVA. The Project is not part of a larger project/initiative and is solely needed to provide the requested new 138 kV retail delivery point.

The need for the proposed Project was presented at the August 18, 2023, Subregional Regional Transmission Expansion Plan ("RTEP") Committee – Western meeting. The solution for the proposed Project was presented at the October 20, 2023, Subregional RTEP

Committee – Western meeting. The proposed project has been assigned PJM supplemental RTEP number s3106.1. The PJM SSRTEP-Western presentation slide is included as Exhibit 4.

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. 2024 Long-Term Forecast Report ("LTFR"). This map was submitted to the Public Utilities Commission of Ohio ("PUCO") in Case No. 24-0504-EL-FOR under Rule 4901:5-5:04 (C)(2)(b) of the Ohio Administrative Code. This map is incorporated by reference only. The Project is included on page 35 in the 2024 LTFR. The general location of the Project area is shown in Exhibits 1 and 2. The Project layout is shown in Exhibit 3

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

One alternative considered was to create a transmission line tap from the existing Cloverdale-Harmon #2 138 kV Transmission Line. This option was not selected due to the amount of construction and outage risks associated with the required work. The Proposed project offers the most direct and economical solution with the least environmental impacts, for the transmission connection to the Customer substation.

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

ATSI's manager of External Affairs will advise local officials of features and the status of the proposed Project as necessary. ATSI will maintain a copy of this Construction Notice, 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 ask questions, submit comments or contact ATSI 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 for this Project is expected to begin as early as January 27, 2025, and completed by April 2025

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

Exhibit 1 provides a partial copy of the United States Geologic Survey, Stark County, OH, Quad Map. **Exhibit 2** provides a partial copy of ESRI aerial imagery of the Project area.

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

The proposed Project is located wholly within property that was secured by the Customer (parcel number 500198) and property that is owned by the Ohio Edison Company (parcel number 500187).

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:	795 kcmil "Drake" ACSR
Static Wire:	7#8 Alumoweld
Insulators:	Glass
ROW Width:	100 ft
Structure Types:	**Exhibit 5**: 138 kV Single Circuit Tubular Steel Structure Deadend Single Pole **Exhibit 6**: Custom 138 kV and 69 kV Double Circuit Tubular Steel Structure Deadend Single Pole

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

There are no occupied residences or institutions within 100 feet from the proposed transmission line centerline and therefore no Electric and Magnetic Field ("EMF") calculations are required by this subsection.

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

The estimated cost for the proposed Project is $4,107,614. These costs will be allocated between the Customer and Ohio Edison.

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

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

The Project is located in the city of Massillon, Stark County, Ohio. The Project area is in an area of industrial use.

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

There is no agricultural land in the project area.

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

As part of the investigation for this Construction Notice, AECOM Technical Services, Inc. ("AECOM"), submitted a request to the Ohio Historic Preservation Office (SHPO) on August 30, 2024, to identify the presence of previously recorded significant historic properties, including above-ground historic resources and/or archeological sites, mapped within one (1)-mile (mi) of the Project Study Area (Area of Potential Effect or APE). On September 27, 2024, SHPO replied to the request attached as Exhibit 7. SHPO concurred that the Project, as proposed, will not affect any historic properties or cultural resources. No further coordination is required unless the scope of work changes or new/additional archaeological deposits are discovered during construction.

4906-6-05 (B)(10)(d): Construction Filings with Local, State and Federal Governmental Agencies

Table 1 shows the list of government agency requirements for the Project.

Table 1. List of Government Agency Requirements.

Agency	Documents
City of Massillon	Road Access and Crossing Permit

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

AECOM submitted a request to the Ohio Department of Natural Resources ("ODNR") Office of Real Estate to conduct an Environmental Review of the Project area. As part of the Environmental Review, the ODNR Office of Real Estate conducted a search of the ODNR Division of Wildlife's Natural Heritage Database to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project Study Area. The ODNR's response on July 25th, 2024, stated that there are no records of state or federally listed plants or animals within one mile of the specified Project area. A copy of ODNR's Office of Real Estate's response is included as Exhibit 8. A list of all endangered, threatened, and rare species, as identified by ODNR, within the range of the Project is provided in Table 2.

Table 2. List of Endangered, Threatened, and Rare Species Within Range of Project Study Area

Common Name	Scientific Name	State Listed Status	Federal Listed Status	Affected Habitat
Bird				
Northern harrier	*Circus hudsonius*	Endangered	N/A	Large marshes and grasslands.
Mammals				
Indiana Bat	*Myotis sodalis*	Endangered	Endangered	Trees and forests.
Little Brown Bat	*Myotis lucifugus*	Endangered	N/A	Trees and forests.
Northern Long-eared Bat	*Myotis septentrionalis*	Endangered	Endangered	Trees and forests.
Tricolored Bat	*Perimyotis subflavus*	Endangered	N/A	Trees and forests.
Mussels				
Long Solid	*Fusconaia maculata*	N/A	Endangered	Perennial Streams
Fish				
Iowa Darter	*Etheostoma exile*	N/A	Endangered	Perennial Streams

AECOM also submitted a request to the US Fish and Wildlife Service ("USFWS") for an Ecological Review to research the presence of any endangered, threatened, rare, or designated species within one (1) mile of the Project Area. A copy of USFWS's Ecological Review response, dated July 8, 2024, is included as Exhibit 9**.** The response states that due

to the Project, type, size, and location, no adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat are anticipated.

The response also indicated that the Project 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 endangered species; the little brown bat (*Myotis lucifugus*), a state endangered species; and the tricolored bat (*Perimyotis subflavus*), a state endangered species. Currently as proposed, no tree clearing is anticipated within the Project Study Area; therefore, the Project will not impact these bat species. The DOW recommended a desktop bat hibernaculum assessment be completed for the Project, which AECOM completed for ATSI and submitted to ODNR for concurrence on September 6, 2024. ODNR responded on September 11, 2024, attached as Exhibit 10, concurring that no caves, cliffs, or mine openings occur in the Project Area. Therefore, the Project is not likely to impact hibernating bats. No tree cutting or subsurface impacts to a hibernaculum are proposed, therefore this Project will not impact these species.

The ODNR DOW requested no in-water work in perennial streams of sufficient size to avoid impacts to several listed or non-listed mussel species in accordance with the Ohio Mussel Survey Protocol. In addition, ODNR DOW requested no in-water work in perennial streams between March 15 and June 30 to reduce impacts to a fish species (Table 2). One stream observed in the Study Area was determined to be outside of the Project impact area; stream crossing will be via existing paved road. Given that no in-water work is proposed for this Project nor any perennial streams being identified, the Project aligns with ODNR DOW's conclusion of "project is not likely to impact these or other aquatic species."

The ODNR DOW indicated that the Project is within range of the Norther Harrier (*Circus hudsonius*). For the Northern Harrier, the ODNR DOW commented that impacts to large marshes and grasslands should be avoided during the nesting period of May 15 to August 1. Northern harriers often nest in loose colonies and hunt over grasslands. Due to the

surrounding industrial land use and a lack of suitable habitat within the Project Study Area, this species is not likely present, and impacts are not anticipated.

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

AECOM conducted a wetland and stream delineations on July 11, 2024. During the delineation, AECOM did not identify any wetlands within the survey area. One representative upland data point was taken to characterize the area, and one was taken to characterize a floodplain adjacent to an NWI feature.

One intermittent stream was identified within the Project area. This stream was classified using the Headwater Habitat Evaluation Index methodology, which determined it to be a Class 2 stream. Crossing of this stream would be only through the existing paved road crossing and will not result in a disturbance. Therefore, no wetlands and/or streams will be impacted by the Project and ATSI will be compliant with non-reporting conditions of the Nationwide Permit 57. Moreover, no further coordination required for Section 404/401 approval with regulatory agencies is warranted. Lastly, the Project work limits do not encroach upon any regulated flood plains based on a review of online FEMA Flood Insurance Rate Mapping. A copy of the wetland and waterbody delineation results is included in Exhibit 11.

A review of the National Conservation Easement Database (www.conservationeasement.us) revealed no conservation easements in the Project Study Area.

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 Construction Notice Transmittal and Availability for Public Review

This Construction Notice is being sent concurrently with docketing to the following officials in Massillon, Stark County, Ohio. A copy will also be provided to the Massillon Public Library for public review/reference.

Stark County

Janet Weir
Stark County Commissioner
110 Central Plaza South, Suite 240
Canton, Ohio 44702
jwcreighton@starkcountyohio.gov

Keith Bennett, P.E., P.S.
Stark County Engineer
5165 Southway St. S.W.
Canton, OH 44706
engineer@starkcountyohio.gov

Richard Regula
Stark County Commissioner
110 Central Plaza South, Suite 240
Canton, Ohio 44702
rregula@starkcountyohio.gov

Stark Soil and Water Conservation District
2650 Richville Drive SE, Suite 100
Massillon, OH 44646
infosw@starkswcd.org

Bill Smith
Stark County Commissioner
110 Central Plaza South, Suite 240
Canton, Ohio 44702
bcsmith@starkcountyohio.gov

Massillon

Jamie Slutz
Mayor
151 Lincoln Way East,
Massillon, OH 44646
lreed@massillonohio.gov (assistant)

Mike Slater
City Council President
1 James Duncan Plaza,
Massillon, OH 44646
councilpresident@massillonohio.gov

Sarita Cunningham
City Council at Large
1 James Duncan Plaza,
Massillon, OH 44646
atlargecunningham@massillonohio.gov

Ed Lewis IV
City Council at Large
1 James Duncan Plaza,
Massillon, OH 44646
atlargelewis@massillonohio.gov

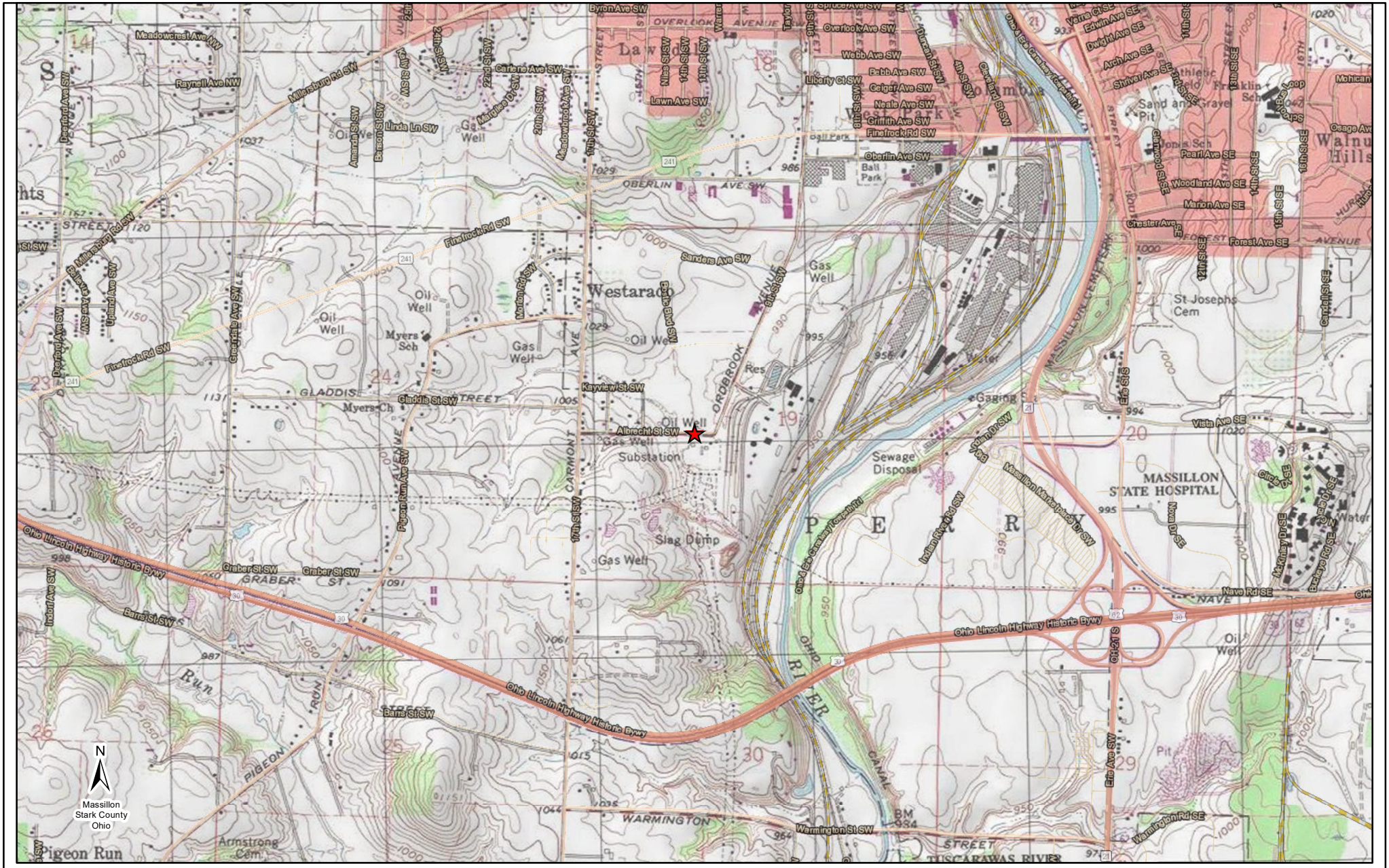
Holy Bryan-Huth
City Council at Large
1 James Duncan Plaza,
Massillon, OH 44646
atlargebryan-huth@massillonohio.gov

Library

Jeff Kreger
Director
Massillon Public Library
208 Lincoln Way East
Massillon, OH 44646
kregerje@massillonlibrary.org

Pursuant to OAC Rule 4906-6-07(B), exemplar copies of notice letters sent to local government officials and to the library have been included with this application as proof of compliance with OAC Rules 4906-6-07(A)(1) and 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 Construction Notice application. The link to this website is being provided in accordance with OAC Rule 4906-6-07(B), which requires ATSI to provide the Board with proof of compliance for OAC Rule 4906-6-07(A)(3).



LEGEND:

★ Project Location

0 1,000 2,000 4,000

Feet

Reference:

ESRI Aerial Imagery

Coordinate System:

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

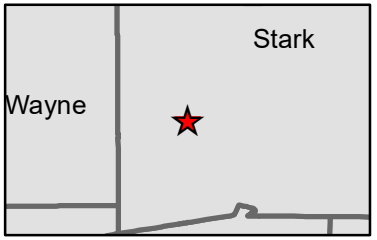
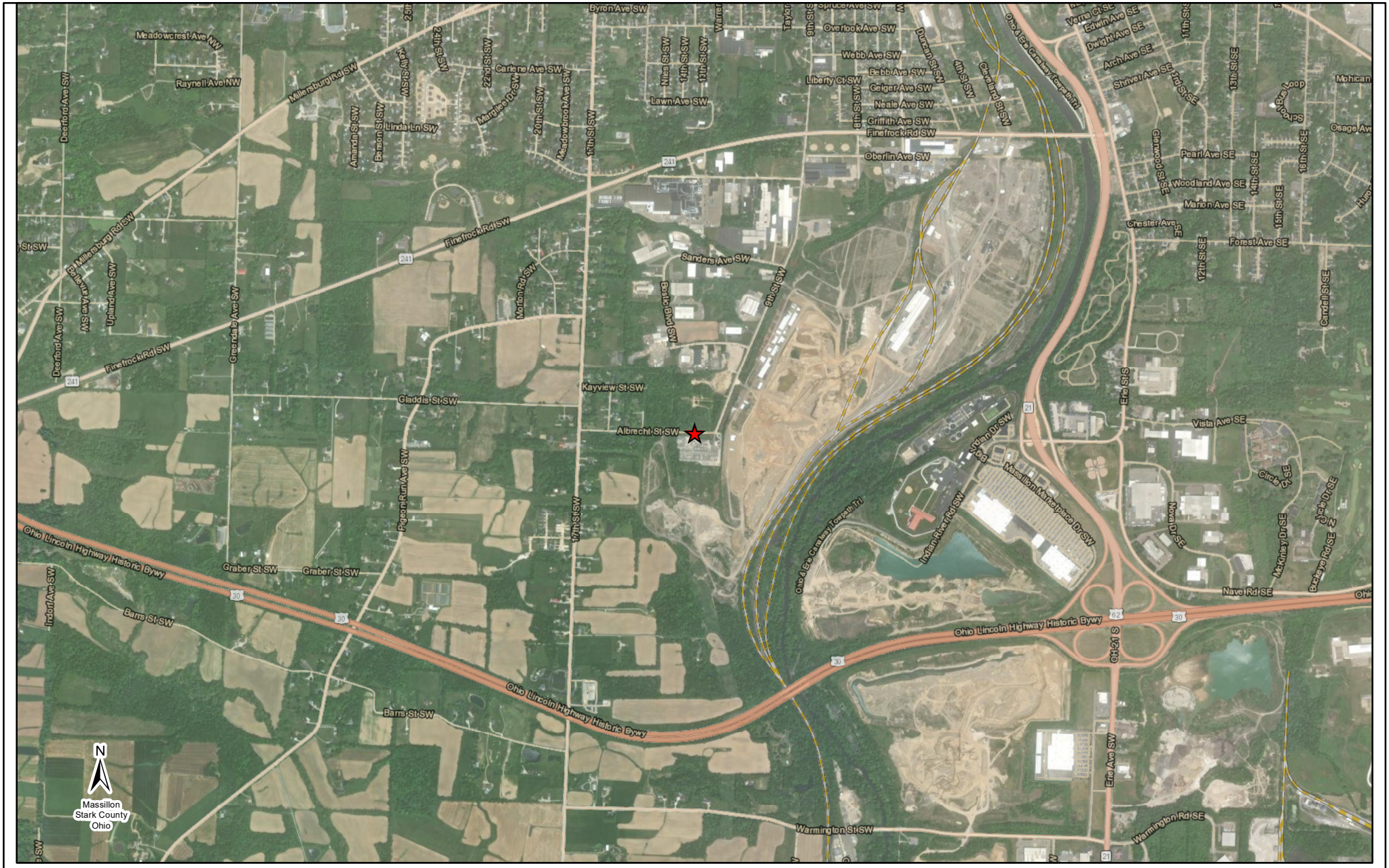


EXHIBIT 1

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

Cloverdale 138 kV
Interconnection Project



LEGEND:

★ Project Location

0 1,000 2,000 4,000

Feet

Reference:

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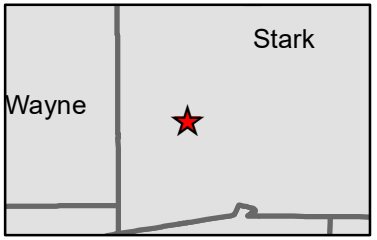
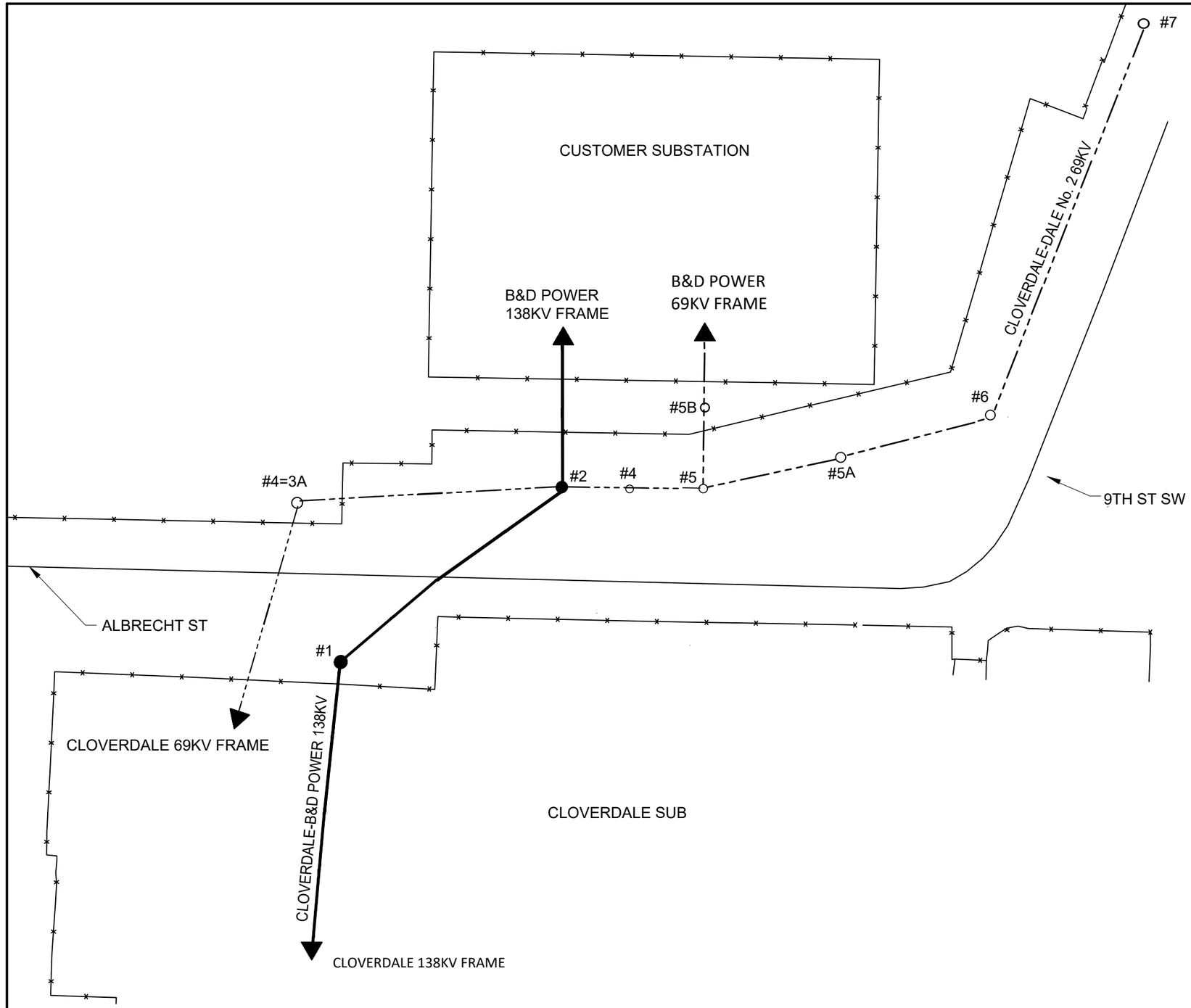
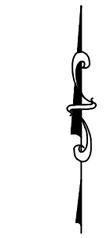


EXHIBIT 2

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

Cloverdale 138 kV
Interconnection Project





LEGEND

- NEW 138 kV STRUCTURE
- EXISTING 69 kV STRUCTURE
- SUBSTATION
- 69 kV Transmission Line
- 138 kV TRANSMISSION CENTERLINE
- FENCE

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

Cloverdale 138 kV
Interconnection Project

GENERAL LAYOUT

Exhibit 3

PAPER SIZE: 17X11

Exhibit 4

ATSI Transmission Zone M-3 Process
Cloverdale 138 kV Customer Connection

Need Number: ATSI-2023-022

Process Stage: Need Meeting – 08/18/2023

Supplemental Project Driver(s):

Customer Service

Specific Assumption Reference(s):

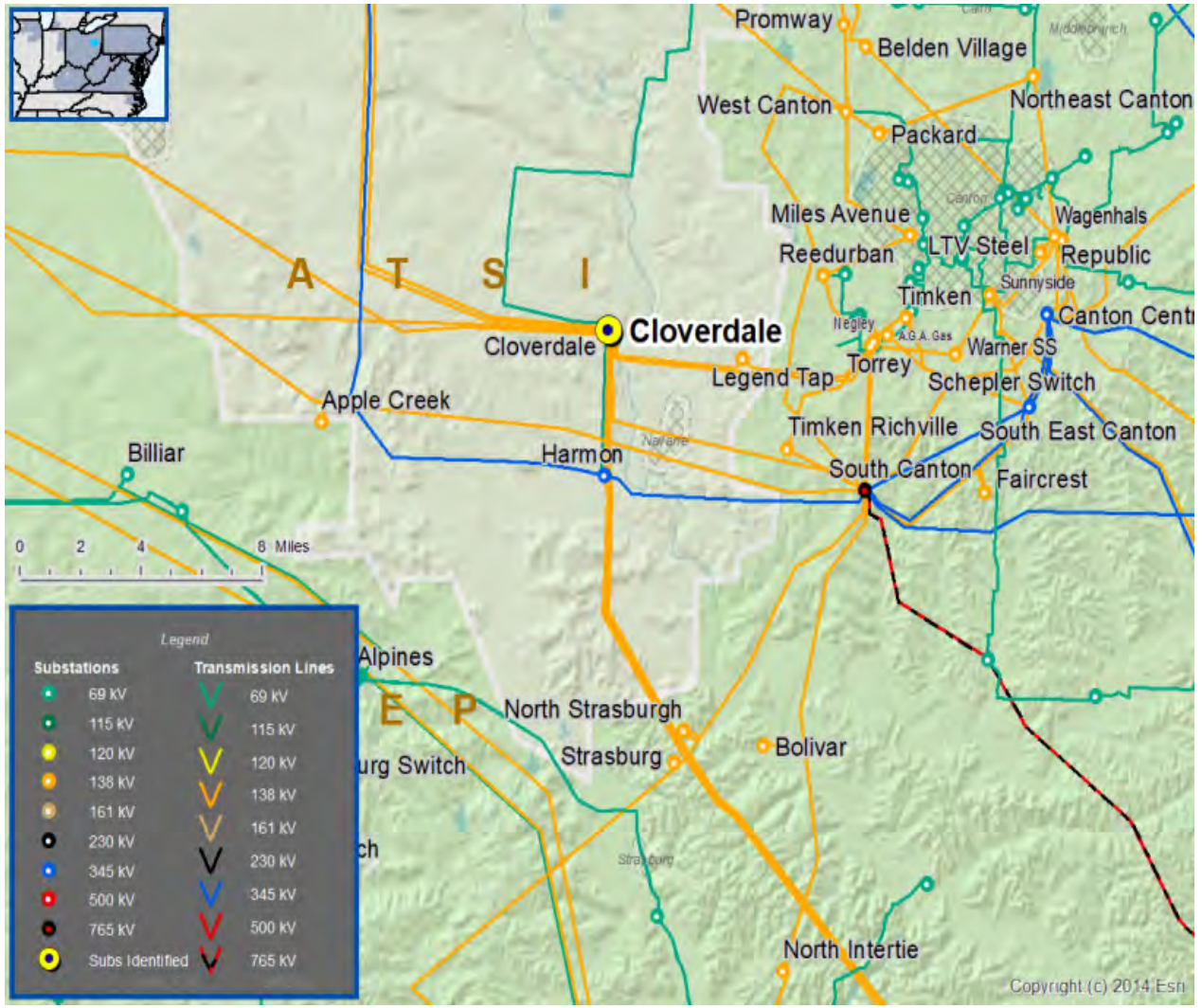
New customer connection request will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement

New Customer Connection – Customer has requested a new 138 kV delivery point from the Cloverdale 138 kV Substation. The anticipated load of the new customer connection is 200 MVA.

Requested In-Service Date:

October 1, 2022



ATSI Transmission Zone M-3 Process
Cloverdale 138 kV Customer Connection

Need Number: ATSI-2023-022
Process Stage: Solution Meeting – 10/20/2023
Previously Presented: Need Meeting – 8/18/2023

Supplemental Project Driver(s):
Customer Service

Specific Assumption Reference(s):
New customer connection request will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement
New Customer Connection – has requested a new 138 kV delivery point from the Cloverdale 138 kV Substation. The anticipated load of the new customer connection is 200 MVA.

Requested In-Service Date:
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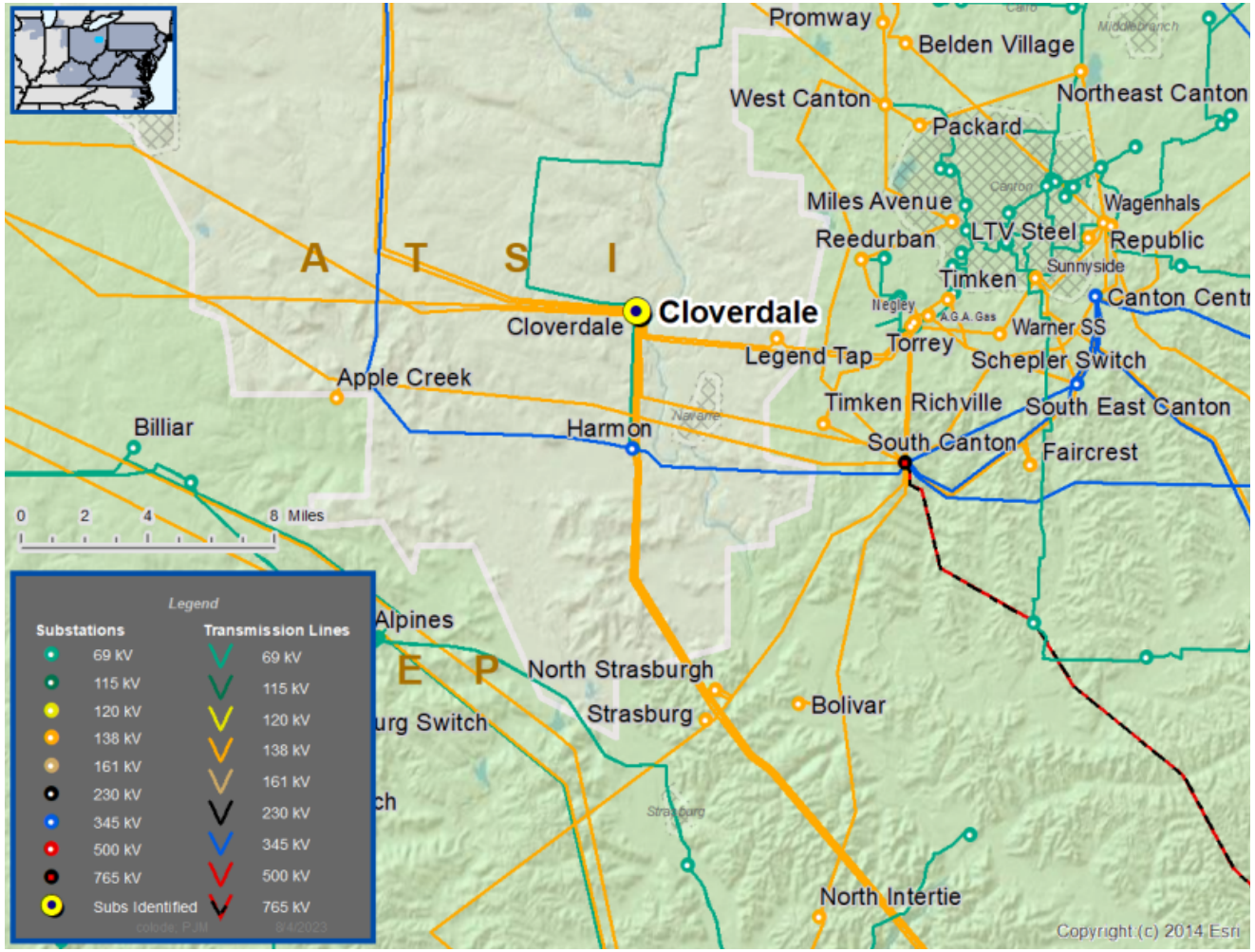


ATSI Transmission Zone M-3 Process
Cloverdale 138 kV Customer Connection

Need Number: ATSI-2023-022
Process Stage: Solution Meeting – 10/20/2023
Previously Presented: Need Meeting – 8/18/2023

Proposed Solution:

138 kV Direct Substation Delivery Point

- Install a 138 kV circuit breaker at the Cloverdale 138 kV North bus.
- Construct approximately 0.1 miles of transmission line from the Cloverdale Substation to the customer substation.
- Install one SCADA controlled transmission line switch.

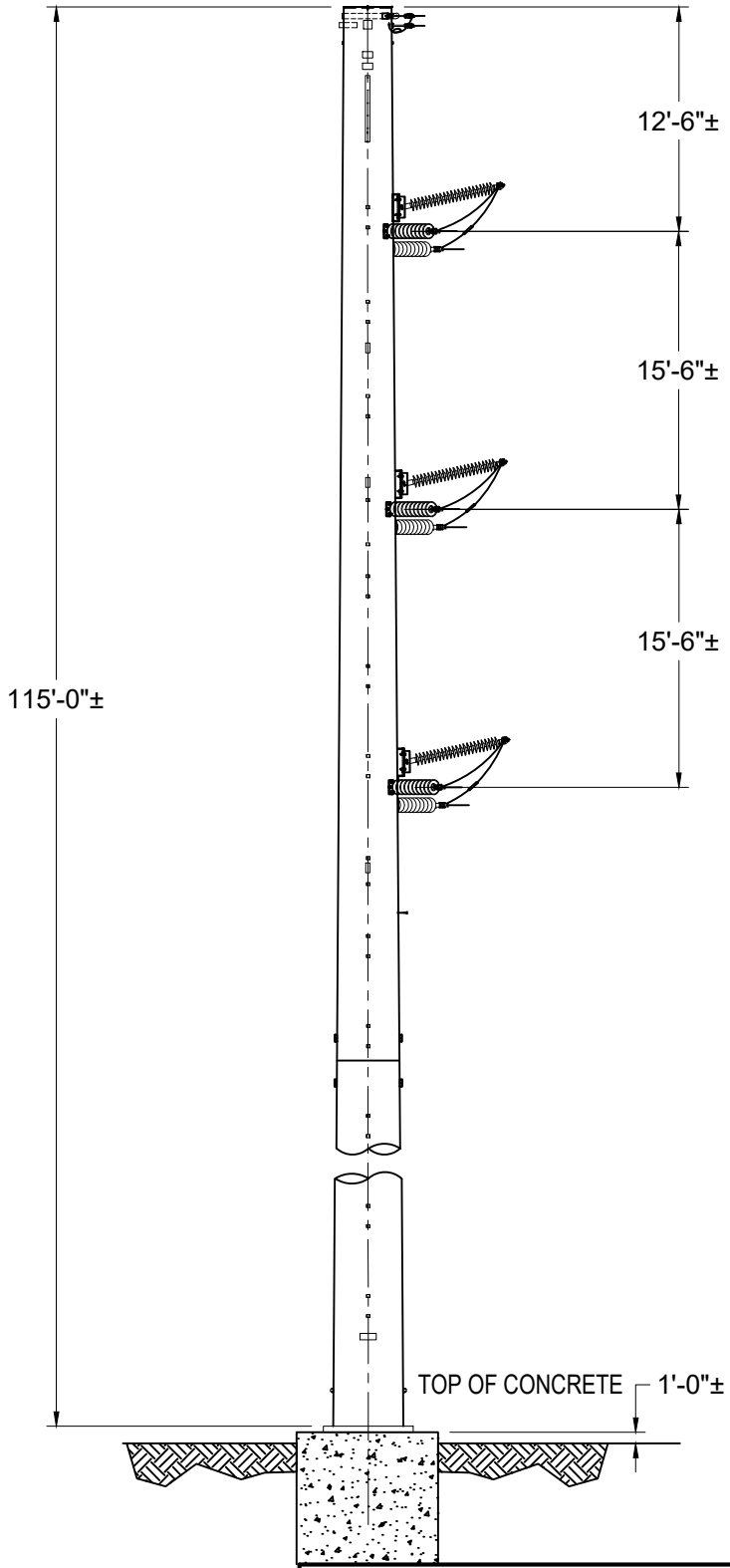
Alternatives Considered:

- No other feasible alternatives to serve the customer's load.

Estimated Project Cost: $0.0

Projected In-Service: 12/1/2025

Status: Engineering



ATSI
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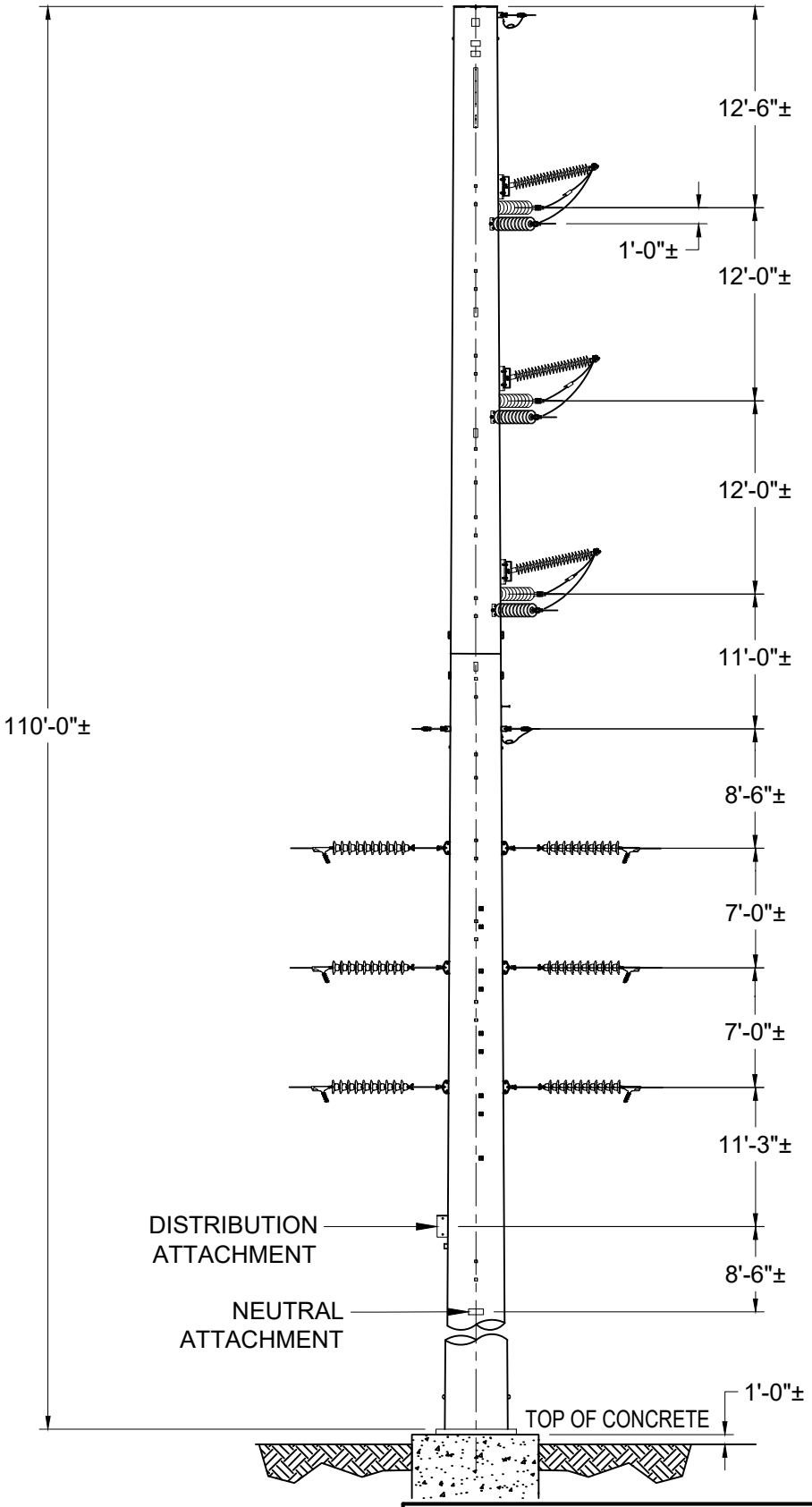
Cloverdale 138 kV
Interconnection Project

STANDARD 138KV SINGLE CIRCUIT
TUBULAR STEEL STRUCTURE DEADEND SINGLE POLE
STRUCTURE 1

Exhibit 5

PAPER SIZE: 8.5X11

SCALE: NTS



Cloverdale 138 kV
Interconnection Project

CUSTOM 138KV AND 69KV DOUBLE CIRCUIT TUBULAR STEEL STRUCTURE DEADEND SINGLE POLE STRUCTURE 2

Exhibit 6

PAPER SIZE: 8.5X11

SCALE: NTS

In reply refer to:
2024-STA-62247

September 27, 2024

Tammy Seiter, MA, RPA
AECOM
525 Vine Street, Suite 1900
Cincinnati, Ohio 45202
Email: tammy.seiter@aecom.com

RE: Section 106 Review-Cloverdale to B&D Power Solutions Transmission Tap Project, Stark County, Ohio

Dear Ms. Seiter:

This letter is in response to the correspondence received on August 30, 2024, regarding the above-referenced project in Stark County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code (O.R.C.) and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

American Transmission Systems, Inc. (ATSI), a FirstEnergy company, plans to construct a new transmission tap line from the Cloverdale Substation to the B&D Power substation. This will involve the modification of approximately 0.14 miles of 138 kV and 69 kV transmission lines. A desktop literature review was completed for the project. According to this review, no historic properties, districts, previously recorded archaeological sites, or resources fifty years of age or older were identified within the Area of Potential Effects (APE). Therefore, it is our opinion that there will be no effect on historic resources as a result of the project. No further cultural resource investigations or consultation are warranted for the APE unless the scope of work changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted as required by 36 CFR § 800.13. If you have any questions, please contact me by e-mail at sbiehl@ohiohistory.org or Ms. Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Stephen M. Biehl

Stephen M. Biehl, Project Reviews Manager-Archaeology
Resource Protection and Review
State Historic Preservation Office

RPR Serial No. 1104663

"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs."

AECOM
525 Vine Street, Suite 1800
Cincinnati, OH 45202
aecom.com

August 30, 2024

Ms. Diana Weller
State Historic Preservation Officer
Ohio State Historic Preservation Office
800 E. 17th Ave.
Columbus, Ohio 43211

Subject: FirstEnergy Company
Cloverdale to B&D Power Solutions Transmission Tap Project
Stark County, Ohio
Massillon, Ohio 7.5-minute—Quadrangle, Tuscarawas Township

Ms. Weller,

The purpose of this desktop assessment is to solicit comments regarding American Transmission Systems, Incorporated's (ATSI), a FirstEnergy Company (FirstEnergy) intent to construct a new transmission tap line to establish a connection with the new B&D Power substation. By this letter, AECOM Technical Services Inc. (AECOM) is initiating consultation with your office pursuant to section 106 of the National Historic Preservaon` Act (NHPA; 54 U.S. Code § 306108) and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800) "Protecon of Historic Properties".

I. Introduction

Undertaking Background

The proposed new tap line will be constructed beginning at the existing Cloverdale Substaon` to a new customer substation, which results in the modification of approximately 0.14-mile of 138 kV and 69 kV lines. The interconnection with B&D Power will include an approximately 50 . connecon running east/west from the Cloverdale Line's northward bend to the north/south oriented B&D lines. The proposed Undertaking will incorporate a 50 right-of-way (ROW) around transmission line and 100 ft ROW around access roads. However, sub-surficial disturbances are expected to be limited as the majority of the engineering design is centered around modificaons to exis ng lines, meaning that sub-surface impacts are even further limited than the normally strictly delineated horizontal Area of Effects.

Area of Potential Effects

The Area of Potenal Effects (APE), as defined in 36 CFR 800.16(d), is "the geographic area or areas within which an undertaking may directly or indirectly cause alteraon in the character or use of historic properes i f such proper es exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." The APE for cultural resources includes the 'limits of proposed subsurface disturbance.' The APE for the Cloverdale Substao n

The APE for the Cloverdale Substaon is defined by the ROW established for the proposed exisng and new construcon, including the access roads. As defined above, within the current Undertaking this includes a 50 ROW around new transmission and a 100 ROW around access roads. It is expected that all necessary equipment can be maneuvered within the ROW, and storage is immediately adjacent to the proposed ROW. The installao n of new

towers will require subsurface disturbances, however these are limited to the horizontal footprint of the proposed tower design, and the range of designs vary significantly in the depth of the disturbance. As the installaon or rehabilitaon of any towers will cause disturbance to the target soils, the APE can be safely established as encompassing the ROW for the transmission lines.

II. Methodology

To assess the potenal for the presence of historic resources within the APE, AECOM conducted a desktop cultural resource review of available informa on. This research focused on a 1 miles Archival Study Area (ASA). The following resources were ulize d in the acquision of these data:

- Na onal Registry of Historic Places (NRHP) listed resources
- Previous Cultural Resource Reports
- Ohio Archaeological Inventory (OAI) recorded Archaeological Sites
- Ohio Historic Inventory (OHI) recorded Historic Places (including pending resources)
- Ohio Genealogical Society (OGS) recorded cemeteries
- U.S. Geological Survey (USGS) Eros Archive for historic aerials
- USGS TopoView for historic 7.5" – Topographic Quadrangles
- Historic Map Works for historical maps

The results of the data collected from these sources is presented in the secons below. Wherever possible all data available, including redundant files, was queried whenever the Project Area appeared in a data source; despite this the original survey/site forms and more detailed descripons of resources are not provided by the Ohio State Historic Preservaon Office (SHPO) through data requests, and therefore the following descrip ons should be considered general overviews of each of the resources compiled from all publicly available data.

III. Results of Literature Review

Queries of the OAI revealed the presence of seven (7) documented cultural resources within the ASA. These are as follows: 1) Four (4) sub-surface prehistoric archaeological sites; 2) Two (2) Historic Places inventoried by SHPO 3) One (1) historic cemetery inventoried by the OGS; 4) Two (2) NRHP resources currently under evaluao n, one of which is eligible under Criterion C (disnct historic style); and no NRHP listed Historic Places. The results of this inquiry are summarized below in Table 1.

Table 1. Archival Research Data Relative to the Project

Cultural Data Set	Frequency Relative to the Undertaking Location			
	Within 1.0 mile (1.6 kilometer)	Within 0.5 mile (0.8 kilometer)	Within 1,000 feet (300 meters)	Within Undertaking Boundaries
NRHP Properties and Districts	0	0	0	0
OAI-Listed Archaeological Sites	4	0	0	0

Cultural Data Set	Frequency Relative to the Undertaking Location			
	Within 1.0 mile (1.6 kilometer)	Within 0.5 mile (0.8 kilometer)	Within 1,000 feet (300 meters)	Within Undertaking Boundaries
Cemeteries	1	0	0	0
OHI-Listed Above-Ground Resources	4	1	0	0
Previous Cultural Resources Reports	4	1	1	0

Previous Cultural Resource Reports

There are six (6) cultural resource surveys that have been conducted and reported within a one-mile study area around the Project. Of these six, one (1) survey was conducted less than 0.5 miles from the Project, and another was conducted less than 1,000 feet from the Project Area. These reports are summarized below in Table 2.

Table 2. Previous Cultural Resources Surveys Located Within One Mile of the Project

OAI LOG	NADB	TITLE	AUTHOR	YEAR
987767	14753	*Archaeological Records Review and Phase I Field Reconnaissance for Pigeon Run Site (W.O. #3145.15863D), Tuscarawas Township, Stark County, Ohio*	Martin, Andrew V.	2001
000000	15633	*A Report on the Archaeological Survey for the Proposed SR241-3.23 Highway Project, Massillon, Stark County, Ohio.*	Brown, Jeffery D.	1978
951593	15658	*Reconnaissance Survey for the Proposed State Route 21 Indian River Road Interchange in the City of Massillon, Perry Township, Stark County, Ohio.*	Mustain, Chuck	1994
1053158	19334	*Archaeological Survey of the Proposed Burger- Cloverdale #1, #2, and #3 Transmission Line Rebuild and Reconductoring Project, Bethlehem & Perry Townships, Stark County, Ohio*	Fiedel, Stuart et al.	2014
1052709	19311	*Phase I Archaeological Survey for the Massillon Downtown II Wireless Cellular Tower in the City of Massillon, Stark County, Ohio*	Meyer, Elaine	2014
1057558	19899	*Addendum Archaeological Survey As Part of a Cultural Resource Survey for the Proposed Burger-Cloverdale #1, #2, and #3 Transmission Line Rebuild and Reconductoring Project, City of Massillon, Stark County, Ohio*	Fiedel, Stuart & Jones, Tracey	2015

Previous Cultural Resource Report Summaries:

- OAI LOG: 987767 (NADB: 14753)
  Phase I inves gao ns along Pigeon Run Rd. were conducted in 2001 by Sagamore Environmental Services, Inc. on behalf of Tectonic Engineering Consultants in Stark County. The survey covered approximately 1.1 acres (ac) of surveyable land in Tuscarawas Township.
- OAI LOG: 000000 (NADB: 15633)
  Archaeological inves gao ns were carried out in 1978 by Jeffrey D. Brown on behalf of Massillon Community Development Planners. The survey was intended to inves gate for cultural resources along SR241-3. The survey covered 51.8 ac of surveyable land in Massillon.
- OAI LOG: 951593 (NADB: 15658)
  Ahead of rehabilitaon f or the intersecon of SR -21 and Indian River Route, archaeological reconnaissance was performed in the vicinity in 1994 by ASC Group, Inc. on behalf of URS Consultants, Inc. The survey covered 29 acres in Perry Township.
- OAI LOG:1053158 (OHPOID: 2013STA24174)/OAI LOG: 1057558 (OHPOID: 2013STA24174)
  These two reports address Phase I surveys carried out in an cipaon of the Burger-Cloverdale Transmission Line Rebuild and Reconductering Project, carried out by The Louis Berger Group on behalf of ATSI in 2014 and 2015. The survey covered 42.3 ac inia lly, and then 5.5 ac of supplemental survey in Massillon, Stark County, Ohio. Although SHPO does not roun ely provide cultural resource reports as part of data requests, it can be inferred that this survey is the one which most closely abuts the Project Area (to the south), due to the nature of its inves gaons .
- OAI LOG: 1052709 (OHPOID: 2013STA24174)
  Phase I inves gao ns carried out in 2014 in downtown Massillon were performed by EMH&T Inc. on behalf of CTL Engineering, Inc. These surveys were carried out in ancip ao n of cell-tower construcon, and therefore was limited to a study area of 0.2 ac in downtown Massillon.

NRHP Historic Properties

There are no NRHP properes or districts located within one mile of the Project. The nearest NRHP property is the Massillon Cemetery Building, approx. 1.33 mi to the northeast of the Project.

OAI Archaeological Sites

There are four (4) OAI archaeological sites within the one (1) mile ASA for the Undertaking. None are within 0.5 mile or 0.25 mi radius of the Undertaking, and none are located within the Project itself. All four of these sites are precontact in nature, and one (1) of the sites contains diagnos c arf acts which allow for a secure temporal restricon to the Early Woodland period. The archaeological sites provided by OAI are summarized in Table 3:

Table 3. OAI Archaeological Sites Located within One Mile of the Project

SITE ID	COUNTY	CULTURAL AFFILIATION	TEMPORAL RANGE	NRHP ELIGIBLE	DISTANCE TO PROJECT
ST0041	Stark	Precontact	Indeterminate	No	0.7 MI NW
ST0042	Stark	Precontact	Indeterminate	No	0.8 MI NW
ST0043	Stark	Precontact	Indeterminate	No	0.8 MI NW
ST0979	Stark	Prehistoric	Early Woodland	No	1 MI NW

Site Descriptions

- Site ST0041
  40.77851615, -81.54788024
  Site ST0041 represents a prehistoric site in Stark County on a glaciated plateau in the drainages of the Muskingum and Tuscarawas Rivers, approximately 0.7 mi northwest from the nearest boundary of the project APE along Finefrock Rd. It is located in an upland sloped environment on a hill/ridgetop, approximately 308 meters (m; 1,010.5 ft) above sea level (asl) and covering an area of 1,641 square meters (m^2; 0.4 acres). It cannot be bounded to any specific temporal range as none of the recovered artifacts are diagnostic, however the site is located only 127 m (416.7 ft) from a permanent stream, and therefore could have hosted habitations over a long temporal range. ST0041 has not been evaluated for entry into the NRHP, although it is maintained in the OAI inventory; however, due its distance from the Project Area and the limited nature of the proposed ground disturbances, it is unlikely to be impacted by Project Activities.
- Site ST0042
  40.77753504, -81.5512724
  Site ST0042 represents a prehistoric site in Stark County on a glaciated plateau in the drainages of the Muskingum and Tuscarawas Rivers, approximately 0.8 mi northwest from the nearest boundary of the project APE along Finefrock Rd. It is located in an upland sloped environment on an unknown terrace, approximately 308 m (1,010.5 ft) asl and covering an area of 729 m^2 (0.2 ac). It cannot be bounded to any specific temporal range as none of the recovered artifacts are diagnostic, however the site is located only 220 m (722 ft) from a permanent stream, and therefore could have hosted habitations over a long temporal range. ST0042 has not been evaluated for entry into the NRHP, although it is maintained in the OAI inventory; however, due its distance from the Project Area and the limited nature of the proposed ground disturbances, it is unlikely to be impacted by Project Activities.
- Site ST0043
  40.77727824, -81.55246222
  Site ST0043 represents a prehistoric site in Stark County on a glaciated plateau in the drainages of the Muskingum and Tuscarawas Rivers, approximately 0.8 mi northwest from the nearest boundary of the project APE along Finefrock Rd. It is located in an upland sloped environment on an unknown terrace, approximately 314 m (1,030.2 ft) asl and covering an area of 2,917 m^2 (0.7 ac). It cannot be bounded to any specific temporal range as none of the recovered artifacts are diagnostic, however the site is located only 212 m (695.5 ft) from a permanent stream, and therefore could have hosted habitations over a long temporal range. ST0043 has not been evaluated for entry into the NRHP, although it is maintained in the OAI inventory; however, due its distance from the Project Area and the limited nature of the proposed ground disturbances, it is unlikely to be impacted by Project Activities.
- Site ST0979
  40.7632149, -81.52710852
  Site ST0979 represents a prehistoric site in Stark County approximately 1 mi northwest from the nearest boundary of the project APE along Finefrock Rd. It is located on a remnant terrace, covering an area of 42,363 m^2 (10.5 ac). Diagnostic artifacts recovered from the site bound it to the Early Woodland period. ST0979 has not been evaluated for entry into the NRHP, and is maintained as unreported in the OAI inventory; however, due its distance from the Project Area and the limited nature of the proposed ground disturbances, it is unlikely to be impacted by Project Activities.

OHI Historic Resources

There are four (4) OHI-listed above-ground resources within the one (1) mile ASA for the Undertaking. Only one of these four are located within 0.5 mile of the Project (a ca. 1885 house situated 0.4 mile to the NW). These resources summarized below, in table 4.

Table 4. OHI Above-Ground Resources Located Within One Mile of the Project

SITE NO	ADDRESS	TYPE	YEAR	SURVEY YEAR	NRHP STATUS	DISTANCE FROM PROJECT AREA
STA0051509	SWC Pigeon Run St & Carmont St	House	1885	N/A	Unevaluated	0.4 MI NW
STA0339810	Warmington St to Wastwater Treatment Plant	Infrastructure (Canal)	1827	N/A	Unevaluated	0.7 MI SE
988103	2590 Pigeon Run Rd. SW	Barn	N/A	2020	Unevaluated	0.8 MI W/NW
988103	2517 Pigeon Run Rd. SW	School	N/A	20202	Unevaluated	0.9 MI W

OHI **Descriptions**

- STA0051509
  40.7717828466, -81.5466213745 (converted from UTM)
  STA0051509 (Indorf House; Wefler House) is an historic single-family dwelling of the Vernacular style located in Tuscarawas Township, Stark County, Ohio, approximately 0.4 mi northwest of the Project APE. It is located on the southwestern corner of Pigeon Run St. and Carmont St. As men oned, it is an exemplar of the Vernacular style and was constructed in 1885. Although the Indorf House is not listed on the NRHP, it is recognized by OIA as an Historic Place.
- STA00339810
  40.75972506, -81.5340828248 (converted from UTM)
  STA00339810 is a stretch of the Ohio & Erie Canal south of Massillon in Perry Township in Stark County, approximately 0.7 mi southeast of the Project Area. The Historic Place registered seco n stretches from Warmington St. to the wastewater treatment plant. It was originally constructed in 1827. Although this stretch of the Ohio & Erie Canal is not listed on the NRHP, it is recognized by the OIA as an Historic Place.
- 2590 Pigeon Run Rd. SW
  40.77177806, -81.55353127
  2590 Pigeon Run Rd. SW is a barn in Massillon, Stark County, Ohio, approximately 0.8 mi west by northwest of the Project APE. It was inial ly discovered as a result of surveys in ancip ao n of a cell-tower installa on at 2890 Pigeon Run St. The surveyors determined that the barn was both eligible to the NRHP under criterion C; embodying dis nc ve characteris cs of a type, period, or method of construcon, or that represent the work of a *master*, or that possess high ars c values, or that represent a significant and disnguishab le enty whose components may lack individual dis ncon. It remains unevaluated for entry into the NRHP.
- 2517 Pigeon Run Rd. SW
  40.77317551, -81.5542367
  2517 Pigeon Run Rd. SW is a school building in Massillon, Stark County, Ohio, approximately 0.9 mi west of the Project APE. It was inia lly discovered as a result of surveys in anc ipaon of a cell-tower installaon at 2890 Pigeon Run St. Although it is not clearly documented in the OAI, it is likely that the same NHRP eligibility evaluaon (36 CFR 63.2; criterion C) applies to the school as does to the barn that constu tes the Pigeon Run Rd. property. It remains unevaluated for entry into the NRHP.

OSG Inventoried Historic Cemeteries

There is one (1) historic cemetery within the one (1) mile ASA for the Undertaking, and it is not located within the site boundaries, nor within a 0.5 mi radius of the project APE. Known as the Myers' Cemetery, this locaon is situated approximately 0.7 mi from the Project, as described below:

Historic Cemetery Descriptions:

- Myers Cemetery
  40.77036584, -81.55414482
  Myers cemetery lies 0.7 mi west by northwest of the project APE within the township of Tuscarawas in Stark County, Ohio. It is located at the intersection of Gladdis Rd. SW and Pigeon Run Rd. SW, occupying the southeastern section of the intersection. Although OGS does not have much information about the cemetery in its inventory record, supplemental information was provided by an informal query of web resources, which produced a database of Ohio cemeteries maintained by a private organization at Shelbyohiohistory.com. This database provided the following information; established in 1837, the Myers cemetery is so named for Henry Myers, a transplant to Stark and later Richardson County from Adams County, Pennsylvania, who donated the land for the cemetery to the Elders of the Lutheran German Reformed Church after burying his wife there in 1837. The Myers cemetery currently is not registered in the NRHP, however it is categorized as an historic cemetery within the OGS inventory and remains an active cemetery currently. Due to the distance of Myers Cemetery from the proposed project location, as well as the limited ground disturbances produced by Project Activities, it is not expected that Myers Cemetery will experience any impacts from the current Undertaking.

Archival Maps and Aerials

A comprehensive review of digitally available historic maps and aerials of the Project Area was conducted in order to ascertain the historic nature of the project's sen g. This review produced 41 historic aerials, eight (8) historic maps, and 14 USGS provided Historic Topographic 7.5" Quadrangles.

Historic Aerials

Historic Aerials are available for the Project Area from the USGS via their EarthExplorer GIS interface. Forty-one (41) images of the project area were produced upon query of EarthExplorer, although two (2) of these images do not depict the project Area. The USGS historic aerials reviewed for this project are inventoried below, in Table 6:

Table 6. Aerial Photographs Consulted for the Project.

Date	Associated Photographs	Source	Information Depicted
April 21st, 1951	*1PH0000040106*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
April 15th, 1957	*1VPI000010019, 1VPI000010020, 1VPI000010021, 1VPI000010022*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
April 24th, 1960	*1VZJ000040185, 1VZJ000040196*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
June 4th, 1960	*B593511511452, B593511511453*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
June 6th, 1960	*B593511711617, B593511711618*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.

Date	Associated Photographs	Source	Information Depicted
April 5th, 1970	*1VCLH00020125, 1VCLH00020126, 1VCLH00020127, 1VCLH00020131, 1VCLH00020132, 1VCLH00020133*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
April 16th, 1971	*6171000104131*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
May 17th, 1971	*6166001505342, 6166001608340*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
June 18th, 1971	*6173000306252*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
July 3rd, 1971	*6174000607736, 6174000607737*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
July 21st, 1971	*6175000609157, 6175000609158*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
August 29th, 1971	*6178000408321, 6178000408322*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
September 22nd, 1971	*6180000700367, 6180000700368*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
April 3rd, 1976	*1VEBF00010083, 1VEBF00010084*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.
October 29th, 1976	*1VEBF00050006, 1VEBF00050007*	USGS	Tuscarawas River southwest of Massillon, southwest Massillon, and Tuscarawas Twp.

The earliest available photo dates to 1952, while the most recent dates the 1976. Although this is a limited temporal range to observe changes to the Project Area, there was an intense program of aerial photography performed over the Project Area between 1970 and 1976.

Generally, the character of the Project Area does not change much between 1952 and 1976. As the Project Area sits on the outskirts of Massillon in an industrial area, it has remained a cleared and heavily disturbed secon of land set back approximately 0.6 mi from the west bank of the Tuscarawas River. Seated on the edge of the industrial zone, Cloverdale Substao n could be considered in a mixed use residenal/ industrial zone. Beginning in 1952, evidence of cleared and lled pasture and arable land is evident on the banks of the Tuscarawas; it can be inferred that in the post-War seng, Massillon was primarily agrarian on its outskirts. However, by 1960, the large sandy clearing that

demarcates the sand and gravel mine appears, and the seng of the Cloverdale Substaon loses all greenery and conforms to its present cons tuon .

Archival Map Review

Historic Maps are available for the Project Area from Historic Map Works between 1855 and 1953, on maps depicng Stark County, Massillon, and Tuscarawas Township. The eight (8) maps available depicng the ASA are summarized below, in Table 7:

Table 7. Archival Mapping Consulted for the Project

Date	Title	Author/Publisher	Information Depicted
1855/185x	*Stark County, 1855*	William Schuchman, Williams Dorr & Co.	General map of Stark County, showing individual parcel owners, railways, major geographical elements, major roads, and township lines.
1870	*Stark County Map*	F. W. Beers & Co.	General map of Stark County, showing major geographical features including, State Routes, Railways, Rivers, Lakes, and Townships
1875	*Stark County Map*	Frank Krause, L.H. Everts & Co.	General map of Stark County, showing major geographical features, natural topography (in places), Rivers, Creeks, Lakes, Railroads, Town Halls, Churches, Industrial Features and Townships
1910	*Stark County*	State Highway Department of Ohio	General map of Stark County, showing major roadways including State Routes and main Roads, major geographical features including railways and rivers, and administrative designations such as Townships.
1915	*History – Stark County & Stark `County*	Fred J. Hear	General map of Stark County, showing major roadways and geographical features, such as railways and rivers, with archaeological sites demarcated over the general map. Associated historical overview page was reviewed in conjunction.
192x	*Stark County Map*	W.W. Hixson and Co.	General map of Stark County, showing major geographical features, including state routes, main roads, railways, rivers, lakes, creeks and administrative boundaries including Townships.
1936 *rev.* 1953	*Stark County Highway Map 1*	Luther K. Zerbe, Sidwell Studio	Highway map of Stark County, showing major highways, state routes, roads, geographic features including lakes and rivers, and points of interest, including state hospitals, churches, police stations, and country clubs/golf courses

Date	Title	Author/Publisher	Information Depicted
1936 *rev.* 1953	*Stark County Highway Map 2*	Luther K. Zerbe, Sidwell Studio	Highway map of Stark county, showing major highways, state routes and geographic features including lakes, rivers, and railways.

The Project Area is first depicted on a map from 1855, published by William Schuchman (this entry is duplicated in the database). According to the map, the Project Area was under private ownership to W.J. Welmere, and by 1875, it was the site of a coal mine. Also depicted on the 1875 map is a church on Pigeon Run Rd., likely the Elders of the Lutheran German Reformed Church associated with Meyers Cemetery (Sec 3.6.1). The Project Area is clearly discernable on these maps, as the unique trajectory of SR-241 in conjuncon w ith the topography of the Tuscarawas River, make the site of the Cloverdale Substao n disnct, even on maps with sparse informa on. The characterisc of the Project Area in the mid to late 19th century, for which there is data available, appears to be inial ly agrarian and then industrial in nature; with the later coal mining industry potenally be ginning earlier than 1875.

Beginning in 1910, there are historic maps available for every decade except for the 1940s. The 1910 map, published by the State Highway Department, provides bearings as the bend in Albrecht St. that denotes the Undertaking locaon is clearly discernable between the railroad tracks and SR-241. In 1915, Fred J. Heer produced an historical Atlas for Ohio State, a par cularly useful resource for the current scope of this work. The 1915 archaeological overview notes four (4) mound sites and one (1) village site in Tuscarawas Township, all of which are depicted on the Stark County page of the atlas. None of these are in proximity, with the nearest site lying approximately 1.4 mi to the northwest of the Project Area, near the bifurcaon of Main Street as it enters Massillon. The available map from the 1920s (specific year unavailable), contains less detail than the archaeological atlas, but does note a school (labelled "24 Ch School") on the map west of the Project Area.

The 1936 maps, both of which were produced by Sidwell Studios and reproduced in 1953, depict the Project Area, although in lile detail. The only Geographic element of note on these maps are a Church located southwest of the Project Area on Pigeon Run Rd. This is likely the Elders of Lutheran German Reformed Church that is associated with Myers Cemetery (Sec 3.6.1). The overall character of the Project Area, based on review of historical map data, is that of a mixed residenal, agricultural and industrial zone in a sub-Urban seng.

Historic USGS 7.5" Topographic Quadrangles

Historic 7.5-Minute Topographic Quadrangles are available from the USGS via their topoView GIS interface. Fourteen (14) Quadrangles were produced when the Project Area was queried within topoView. The USGS provided 7.5-Minute Topographic Quadrangles are inventoried below, in Table 8:

Table 8. USGS Quadrangles Reviewed for the Project

Date	Title	Agencies Involved	Scale
1901	*Ohio Massillon Quadrangle-N4045—W8130*	United States Department of Interior, Geological Survey; State of Ohio Governor's Office	1:62,500
1903	*Ohio Massillon Quadrangle-N4045—W8130*	United States Department of Interior, Geological Survey; State of Ohio Governor's Office	1:62,500

Date	Title	Agencies Involved	Scale
1951	*Ohio Canton Quadrangle-N4000—W8000 (AMS Series V501)*	Army Map Service, Corps of Engineers	1:250,000
1953	*Ohio Canton Quadrangle-N4000—W8000 (AMS Series V501)*	Army Map Service, Corps of Engineers	1:250,000
1957	*Canton, Ohio; PA; W. Va Quadrangle-N4000—W8000 (AMS Series V501)*	Army Map Service, Corps of Engineers	1:250,000
1961	*Massillon Quadrangle; Ohio—Stark Counties, 7.5-minute series, Topographic-N4045—W8130*	United States Department of Interior, Geological Survey; State of Ohio Department of Transportation; State of Ohio Department of Natural Resources, Division of Geological Survey	1:24,000
1962	*Canton, Ohio; PA; W. Va Quadrangle*	Army Map Service, Corps of Engineers	1:250,000
1986	*Canton, Ohio 40081-E1-TM-100, 30 x 60 Minute Series (Topographic)*	United States Department of the Interior, Geological Survey	1:100,000
1994	*Massillon Quadrangle; Ohio—Stark Counties, 7.5-minute series, Topographic*	United States Department of Interior, Geological Survey; State of Ohio Department of Transportation; State of Ohio Department of Natural Resources, Division of Geological Survey	1:24,000
2010	*Massillon Quadrangle, Ohio, 7.5-minute series, Topographic and Satellite*	United States Department of Interior, Geological Survey	1:24,000
2013	*Massillon Quadrangle, Ohio—Stark Counties, 7.5-minute series, Topographic and Satellite*	United States Department of Interior, Geological Survey	1:24,000
2016	*Massillon Quadrangle, Ohio—Stark Counties, 7.5-minute series, Topographic and Satellite*	United States Department of Interior, Geological Survey	1:24,000
2019	*Massillon Quadrangle, Ohio—Stark Counties, 7.5-minute series, Topographic and Satellite*	United States Department of Interior, Geological Survey	1:24,000
2023	*Massillon Quadrangle, Ohio—Stark Counties, 7.5-minute series, Topographic and Satellite*	United States Department of Interior, Geological Survey	1:24,000

The earliest available quadrangle dates to 1901, while the most recent dates to 2023. The general vicinity of the Project Area, topographically speaking, has remained rela vely unchanged since the earliest available USGS 7.5" Topographic Quadrangles. The site lies on a northeasterly facing terrace, at an elevao n of approximately 940 , on what appears to be a natural plateau.

While the topographic nature of the Project Area has not changed since recordao n of topography was available in the region, the industrial character of the area has changed tremendously. Beginning in 1957, those quadrangles which record commercial/industrial/infrastructural features of the landscape note the establishment of the

substaon , amongst other features of the industrial area, including; oil wells, gas wells and a slag dump which likely became the sand and gravel mine which currently abuts the Project Area. Although the oil and gas wells are not visible, orthophotos and modern topographic maps s ll record the area of the substaon and slag dump, as these leave visible residues on the earth's surface that are visible from aerial images.

IV. Desktop Review Summary

The archival research outlined above provides a context for assessing the potena l of the Undertaking to contain significant undocumented prehistoric and historic-era archaeological deposits, and the potenal to visually impact surrounding aboveground resources. The Project is situated in suburban Stark County, Ohio in an industrial sen g abung residenal properes.

Four (4) OAI-inventoried archaeological sites are located in a 1-mi radius of the Project Area, two (2) historic resources are in the same ASA, as well as one (1) documented historic cemetery. None are located within the Undertaking APE. Review of aerial imagery reveals the residen al and industrial character of the ASA, and archival maps reveal that the area was the site of a coal mine in the 19th century. These data, along with the distances observed from the Undertaking of extant cultural resources, suggests low potenal for archaeological deposits in undisturbed sen gs in this part of Stark County. Further, due to the Undertaking consisng primarily of reuliz ed and rehabilitated transmission lines, it is expected that ground disturbances will be minimal and totally contained to the project APE. No NRHP-listed or eligible cultural resources, either archaeological or above-ground, are known to exist within the limits of the Undertaking. Review of state databases revealed no cultural resources within the APE for the proposed Project Acv ies, and only one potenal ly eligible cultural resource within a 0.5 mile radius of the Undertaking.

V. Conclusions

ATSI is seeking input from your Agency regarding any informaon or potenal environmental concerns associated with the Proposed Aco n, in accordance with Secon 106 of the Nao nal Historic Preservao n Act (36 CFR Part 800). Please provide any comments, concerns, informaon, studies, or other data you may have regarding the Proposed Acon within thirty (30) day's receipt of this leer to enable us to complete this phase of the Undertaking within the scheduled meframe. We look forward to and welcome your parci paon in this analysis.

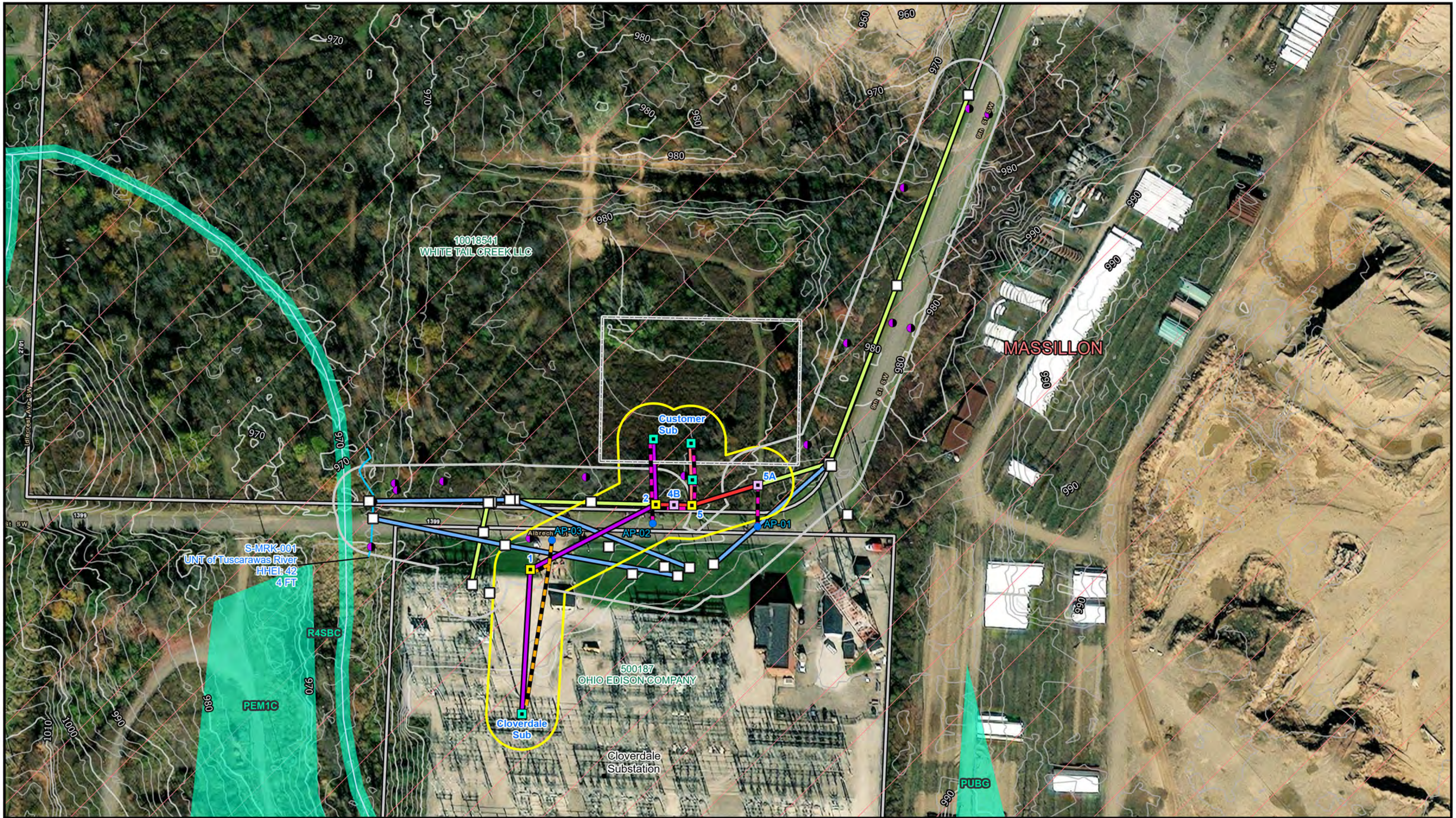
Sincerely,

Ghavin Deonarain, MA, RPA
Archaeologist

cc: Adrianna Stolarski, FirstEnergy Corp.
Brian Bielfelt, AECOM
Tammy Seiter, MA, RPA, AECOM

Attachments
A: Mapping Figures

Attachment A
Mapping



Legend

- Existing Substation
- Proposed DE Structure
- Proposed Structure
- Proposed Switch Structure
- Existing Structure
- Access Entrance
- Existing Gravel Access
- Proposed Temporary Access
- Proposed Cloverdale-Dale No2 69kV Transmission Line
- Proposed Cloverdale-Dale No2 69kV Tap to B&D Power Transmission Tap Line
- Proposed Cloverdale 138kV Transmission Line
- Existing 23kV Transmission Line
- Existing 69kV Transmission Line
- Proposed Right-of-Way (100-ft Corridor)
- Existing Right-of-Way (100-ft Corridor)
- Existing Culvert
- Delineated HHEI Stream
- 2-ft Contour
- 10-ft Contour
- Customer Substation
- City or Town
- NHD Stream
- NWI Wetland
- Parcel Boundary

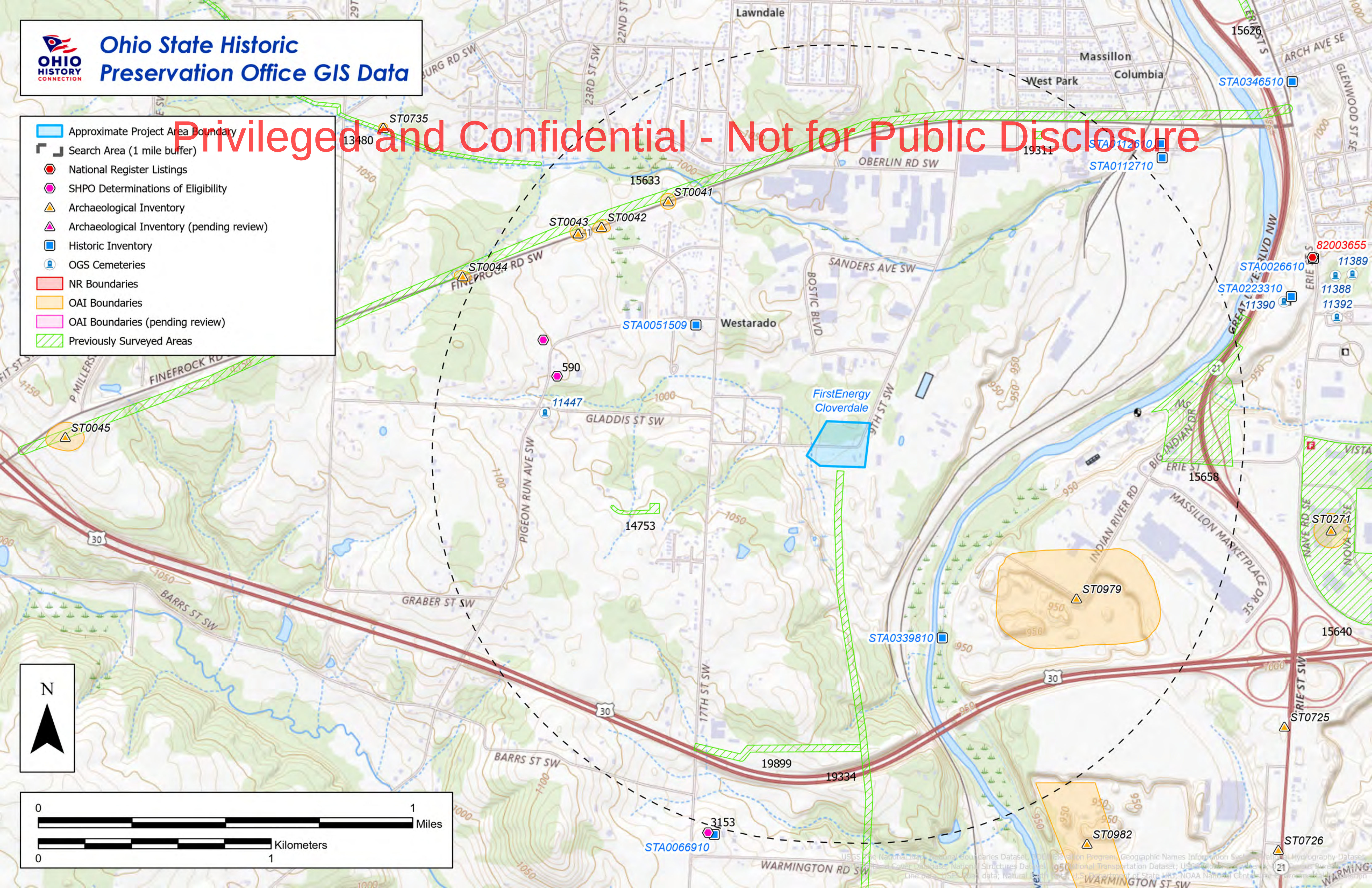
N

0 62.5 125 250
Feet

ATSI
American Transmission Systems, Inc.
Cloverdale - B&D Power Solutions Tap
Access Map
Figure 2-1 of 1

Source: BMCD, ESRI, FEMA, NWI, NHD, Bing Map Hybrid

Issued: July 31, 2024



OHIO HISTORY CONNECTION
Ohio State Historic Preservation Office GIS Data
Privileged and Confidential - Not for Public Disclosure
Approximate Project Area Boundary
Search Area (1 mile buffer)
National Register Listings
SHPO Determinations of Eligibility
Archaeological Inventory
Archaeological Inventory (pending review)
Historic Inventory
OGS Cemeteries
NR Boundaries
OAI Boundaries
OAI Boundaries (pending review)
Previously Surveyed Areas
N
0
1
Miles
Kilometers
0
1
FirstEnergy Cloverdale
Lawndale
Massillon
West Park
Columbia
Westarado
ST0735
13480
19311
15626
STA0346510
STA0112610
STA0112710
15633
ST0041
ST0043
ST0042
ST0044
82003655
11389
STA0026610
STA0223310
11388
11390
11392
STA0051509
590
11447
ST0045
15658
14753
ST0271
ST0979
STA0339810
15640
ST0725
19899
19334
3153
STA0066910
ST0982
ST0726
OBERLIN RD SW
SANDERS AVE SW
BOSTIC BLVD
GLADDIS ST SW
FINEFROCK RD SW
PIGEON RUN AVE SW
GRABER ST SW
BARRS ST SW
17TH ST SW
WARMINGTON RD SW
WARMINGTON ST SW
INDIAN RIVER RD
MASSILLON MARKETPLACE DR SE
ERIE ST S
GLENWOOD ST SE
ARCH AVE SE
23RD ST SW
22ND ST SW
NAVE RD SE
30
21

Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR MARY MERTZ, DIRECTOR

Office of Real Estate
Tara Paciorek, Chief
2045 Morse Road – Bldg. E-2
Columbus, Ohio 43229
Phone: (614) 265-6661
Fax: (614) 267-4764

July 25, 2024

Brian Bielfelt
AECOM
525 Vine Street, Suite 1900
Cincinnati, Ohio 45202

Re: 24-0961 - Cloverdale to B&D Power Solutions Tap

Location: The proposed project is located in Perry Township, Stark 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: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. 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.

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

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

The 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 endangered 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 species of bats 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. If trees are present within the project area, and trees must be cut, the DOW recommends 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. If trees are present

within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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 & NORTHERN LONG-EARED 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 Eileen Wyza 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 long-solid (Fusconaia maculata maculata), a state endangered mussel. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, this project is not likely to impact this species.

The project is within the range of the Iowa darter (Etheostoma exile), a state endangered fish. The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this or other aquatic species.

The project is within the range of the northern harrier (Circus hudsonius), 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, this project is not likely to impact this species.

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

Thank you for affording us the opportunity to comment.

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.

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

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

July 8, 2024

Project Code: 2024-0109703

Dear Brian J. Bielfelt:

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

Federally Threatened and Endangered Species: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*), and the proposed endangered tricolored bat (*Perimyotis subflavus*) we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant

species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

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

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

Sincerely,

Erin Knoll
Field Office Supervisor

AECOM

AECOM
525 Vine Street, Suite 1900
Cincinnati, Ohio 45202

September 6, 2024

Ohio Department of Natural Resources
Environmental Review Services
2015 Morse Road
Columbus, Ohio 43229

Re: 24-0961 Cloverdale to B&D Power Solutions Tap Project
American Transmission Systems, Inc., a FirstEnergy Company
Stark County, Ohio

Dear ODNR Staff,

AECOM Technical Services, Inc. (AECOM), on behalf of American Transmission Systems, Inc. (ATSI), a FirstEnergy Company, submitted an Ohio Natural Heritage Database (NHD) and Environmental Review request for the Cloverdale to B&D Power Solutions Tap Project (Project) in the City of Massillon, Stark County, Ohio on June 28, 2024 to determine potential impacts to state threatened or endangered species. The Project includes the building of a tap to a new customer substation from the existing Ohio Edison Cloverdale Substation resulting in modifications to the 138 kV and 69 kV line covering about 0.14 miles in Stark County, Ohio. ATSI anticipates that work activities will be completed within the existing right-of-way (ROW). A response was received from the Ohio Department of Natural Resources (ODNR) on July 25, 2024. AECOM has prepared this memo to address recommendations made in the NHD for bat and bird species (**Table 1**).

Table 1: Responses to ODNR Comments

ODNR Recommendation / Requirement	AECOM Response	Conclusion
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 & NORTHERN LONG-EARED 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 [ODNR].	AECOM completed a desktop review of publicly available data and aerial imagery to identify the potential for known bat winter hibernacula within 0.25 miles of the Project area. The data sources utilized include USGS topographical maps and ODNR's Division of Mineral Resources and Geological Survey Data for Known Mining Activity and Karst Geology/Sinkholes. Based on the available desktop resources, there are no karst features located within 0.25-mile of the Project (**Attachment 2**). Two mine openings and an underground mine are located north of the Project within 0.25-mile; however, neither opening exist currently. One opening is within a paved parking lot and the second is within a cultivated agricultural field. A second mine is located to the west within a residential housing area and there are no mine openings within 0.25 mile. It is unlikely that mine openings exist due to the areas being residential or heavy active industrial use. AECOM conducted a field survey on July 11, 2024; no mine openings were identified within the Project area.	Potential hibernaculum are not expected.

If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species	No tree trimming is planned for this project. AECOM observed the parcel north of the project has been cleared of vegetation.	Project is unlikely to result in adverse impacts to bat species.
If this type of [harrier] 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, this project is not likely to impact this species.	No open field or marshes of any sort are present within or near the Project area. The work associated with the Project will be located along public roadways and within a previously disturbed and cleared ROW.	No habitat present.

Based on the desktop assessment and lack of habitat within the Project area, the project in unlikely to result in adverse impacts to bat species or the Northern Harrier. Therefore, no further coordination with ODNR is required.

Sincerely,

Brian Bielfelt
Environmental Project Manager
AECOM

Enclosures:
Attachment 1: Photos of Project Site
Attachment 2: Bat Hibernacula Map

Attachment 1: Photos of Project Site

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name:	Site Location:	Project No.
ATSI	Cloverdale to B&D Power Solutions Tap Project	60732701

PH-1 **Date:** July 11, 2024 **Description:** Representative photo within the Project corridor facing North	

PH-2 **Date:** July 11, 2024 **Description:** Representative photo within the Project corridor facing South	

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name:	Site Location:	Project No.
ATSI	Cloverdale to B&D Power Solutions Tap Project	60732701

PH-3 **Date:** July 11, 2024 **Description:** Representative photo within the Project corridor facing East	

PH-4 **Date:** July 11, 2024 **Description:** Representative photo within the Project corridor facing West	

Attachment 2: Bat Hibernacula Map

LEGEND

- Proposed Cloverdale-Dale No2 69kV Transmission Line
- Proposed Cloverdale-Dale No2 69kV Tap to B&D Power Transmission Tap Line
- Proposed Cloverdale 138kV Transmission Line
- Quarter Mile Buffer
- Survey Area
- Abandoned Underground Mine Entries (Unknown Extent)
- Abandoned Underground Mine Entries
- Disturbed Reclamation Land
- Industrial Minerals Mine Operation
- Abandoned Underground Mine (Unknown Extent)
- Abandoned Underground Mines

0 700 1,400

Feet

BASE MAP SOURCE:
ArcGIS Online, ESRI World Imagery (Clarity)

ATSI

Cloverdale to B&D Power Solutions Transmission Tap Project

BAT HIBERNACULA ASSSESSMENT MAP

JOB NO. 60732701

Date Saved: 23-Aug-24
Document Path: L:\DOCS\Projects\MSI\FIRSTENERGY\OHIO_Projects\60732701_Cloverdale\a2_MAPS\FE_Cloverdale.aprx

CLOVERDALE TO B&D POWER SOLUTIONS TRANSMISSION TAP PROJECT

WETLAND DELINEATION AND STREAM ASSESSMENT REPORT

Prepared for:
American Transmission Systems, Incorporated
a FirstEnergy Company
76 South Main Street
Akron, Ohio 44308

707 Grant Street, 5th Floor
Pittsburgh, Pennsylvania 15219, USA

August 2024

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Appendix

A United States Army Corps of Engineers Wetland Determination Data Forms
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C Upland and Stream Photographs

1.0 INTRODUCTION

American Transmission Systems, Incorporated (ATSI), a FirstEnergy Company (FirstEnergy), Is proposing the construction of a new tap line, spanning from the existing Cloverdale Substation to a new customer substation, which results in the modification of approximately 0.14-mile of 138 kV and 69 kV lines, within Stark County, Ohio. ATSI anticipates that work activities will only be completed within the proposed right-of-way (ROW) of the lines proposed for modification, as displayed on the *Massillon, Ohio* United States Geological Survey (USGS) 7.5-minute topographic quadrangles. The approximate coordinates for the start and termination points are 40.768358, -81.539697 and 40.76923, -81.53849, respectively.

AECOM Technical Services, Inc. (AECOM) was retained by ATSI to complete the initial wetland delineation and stream assessment within the new ROW for the 0.14-mile of lines proposed for modification as further defined in **Section 2.0**. The purpose of the field survey was to assess for the presence of wetlands, streams, and other waterbodies that may occur within the Project's survey boundary. Additionally, this report has been prepared to preliminarily identify the aquatic features that would likely be considered as either jurisdictional and/or non-jurisdictional waters of the United States (WOTUS). However, determination of jurisdictional status of any aquatic features are solely the opinion of AECOM and only the United States Army Corps of Engineers (USACE) are authorized to determine any jurisdiction over potential WOTUS.

2.0 METHODOLOGY

The wetland delineation and stream assessment was completed within a 50-foot survey corridor centered along the existing Ohio Edison Cloverdale Substation resulting in about 0.14 miles of modifications to the 138 kV and 69 kV lines, a 100-foot survey corridor centered along proposed temporary access roads, and a 25-foot offset of all pull sites, laydown yards, and other ancillary sites.

On July 11, 2024, AECOM ecologists walked the 4.8-acre survey area, access roads, and work areas to conduct the wetland delineation and stream assessment. During the field survey, the physical boundaries of observed water features, if identified, were recorded using sub-meter capable Trimble Global Positioning System (GPS) units or equivalent sub-meter capable GPS units. The GPS data was imported into ArcMap Geographic Information System (GIS) software where the data was then reviewed, edited for accuracy, and compiled in a format suitable for inclusion on figures within this report.

2.1 BACKROUND AND EXISTING DATA REVIEW

Prior to conducting field surveys, digital and available published information were reviewed to identify the potential occurrence and location of wetlands and other WOTUS, general land use, stream classifications, and watershed characteristics within the Project's survey area. The digital and available published information includes:

- Natural Resources Conservation Service (NRCS) soil surveys
- Aerial imagery (past and present)
- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps
- USGS 7.5-minute topographic maps
- Aquatic Life Habitat Use Designation under Ohio Administrative Code (OAC) Chapter 3745-1
- Section 401 Water Quality Certification (WQC) for Nationwide Permit and Stream Eligibility Web Map

2.2 WETLAND DELINEATION

AECOM completed the wetland delineation in accordance with the USACE *1987 Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Northcentral and Northeast Region* (*Version 2.0;* USACE 2012) Wetlands were identified due to the presence of three environmental criteria: wetland hydrology, hydrophytic vegetation, and hydric soils. If a wetland was identified, AECOM completed a USACE Wetland Determination Data Form (USACE Data form) within each unique wetland habitat to serve as a representative of the wetland hydrology, vegetative community, and soil characteristics. The unique wetland habitats were classified as palustrine emergent, palustrine forested, palustrine unconsolidated bottom, palustrine scrub-shrub, or other classifications as defined by adhering to the methodology within the *Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979). At each wetland data point, AECOM collected photographs in each cardinal direction and of the soil profile. Adjacent to each wetland complex, AECOM completed an additional USACE Data form as a representative of the upland community. Additionally, USACE Data forms and representative photographs were also taken to represent upland communities where areas indicated the potential presence of an aquatic feature based on aerial imagery, two or less wetland criteria were observed, and/or an absence of an aquatic feature was observed for areas mapped by USFWS NWI and/or National Hydrology Dataset (NHD).

In accordance with the Ohio Environmental Protection Agency (OEPA), all wetlands were also classified during the wetland delineation utilizing the *Ohio Rapid Assessment Method for Wetlands*

v. 5.0 (ORAM) and the associated 10-page ORAM forms were completed for each wetland community. Wetlands that score from 0 to 29.9 on the ORAM are Category 1, from 30 to 59.9 are Category 2, and from 60 to 100 are Category 3, which is the most pristine. However, according to the OEPA, if the wetland score falls into the transitional range, it must be given the higher category unless scientific data can prove it should be in a lower category (Mack 2001). The ORAM scoring boundaries of the assessed wetlands were identified during the site assessment and separate portions of the same wetland complex scored together in accordance with the ORAM manual. The limits of these ORAM scoring boundaries within this report are scored on the 10-page ORAM forms.

Additionally, AECOM completed the initial coordination with the Ohio Division of Natural Resources (ODNR) to identify the potential of any state and/or federally listed endangered and/or threatened species known to occur within the wetland habitats. Upon receipt of these agencies' technical assistance, AECOM reviewed the agencies responses with the delineated resources and updated the ORAM forms regarding the agencies' responses. The formal coordination letters from the USFWS and the ODNR can be provided upon request.

2.3 STREAM CROSSINGS

Streams were identified by the presence of a defined bed and bank, and evidence of an ordinary high-water mark (OHWM). The USACE defines the OHWM as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (USACE 2005). Upon identification of a stream, it was assessed using the methods described in the OEPA's *Methods for Assessing Habitat in Flowing Waters: Using OEPA's Qualitative Habitat Evaluation Index* (Rankin 2006) and *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams, Version 4.1* (OEPA 2020). Streams associated with a watershed area less than or equal to 1.0 mi^2 (259 ha), ***and*** a maximum depth of water pools equal to or less than 15.75 inches (40 cm) were evaluated utilizing the Headwater Habitat Evaluation Index (HHEI) methodology and all other streams assessed using the Qualitative Habitat Evaluation Index (QHEI; OEPA 2020).

2.4 UPLAND DRAINAGE FEATURES

An upland drainage feature (UDF) is a non-jurisdictional drainage that does not meet the criteria of either a jurisdictional stream and/or wetland community. A UDF generally lacks an OHWM (USACE, 2005) and is equivalent to a swale or an erosional feature as described by the USACE

as a generally shallow feature in a landscape that may convey water across upland areas during and/or following storm events (USACE 2007). A roadside ditch may also be documented as a UDF if it meets the not potentially jurisdictional characterization as described in the *Office of Environmental Services Roadway Ditch Characterization Flowchart* (Ohio Department of Transportation 2014). Areas identified during the wetland delineation and stream assessments as UDFs were photographed and documented utilizing a GPS unit and provided within this report, if observed.

3.0 RESULTS

3.1 BACKGROUND AND EXISTING DATA REVIEW

3.1.1 Description of Project Area's Land Use, Watershed, and Existing Use Classifications

Land uses of the survey area were assigned a general classification based upon the principal land characteristics as observed through aerial photography review and observations during the field surveys. Based on aerial imagery, general land use types within the immediate vicinity of the proposed Project includes roadways, residential and commercial properties, wooded lots, and maintained transmission line ROW (**Figure 3**). Existing transmission line ROW, and commercial properties (including the existing substation and nearby sand/gravel mine) are the dominant land uses in the vicinity of the Project.

The Project area generally drains to the south towards the Tuscarawas River based on topography **(Figure 1**). The watershed identified in the Project area is the City of Massillon – Tuscarawas River [Hydrologic Unit Code 12: 050400011202]. As per the OEPA Section 401 WQC for Nationwide Permit and Stream Eligibility Web Map (OEPA, 2017), the Project is located within an eligible watershed and impacts to streams, if required, could be authorized by the USACE under the Nationwide Permit Conditions. Tuscarawas River has an OAC Chapter 3745-1 aquatic life habitat use designation of Warmwater Habitat.

3.1.2 USFWS National Wetlands Inventory and National Hydrology Dataset Review

According to the NWI mapped wetlands and NHD streams located within the Massillon USGS quadrangles, one NWI mapped wetland and one NHD mapped stream were identified within the survey area (see **Figure 2**). The NHD mapped stream feature was field verified as S-MRK-001 **Appendix A**).

3.1.3 Growing Season

The *Regional Supplement* states that if onsite data gathering is not practical, the growing season can be approximated by the number of days between the average (five years out of 10, or 50 percent probability) date of the last and first 28°F air temperature in the spring and fall, respectively. The National Weather Service data obtained from the NRCS showed that in Stark County the growing season in an average year lasts from April 28 to October 13, or about 168 days. In the Project area, five percent of the growing season equates to approximately 8 days.

3.1.4 Preliminary Soils Evaluation

According to the United States Department of Agriculture (USDA) SSURGO Soil Survey Database (USDA, NRCS 2023), a total of five map units are identified within the survey area (**Table 1**; **Figure 2**). Of these five soil map units, none are identified as hydric soils, however one soil map unit possesses hydric inclusions within specific landforms. During the field assessment of the survey boundary, AECOM evaluated the locations of hydric soils and inclusions to document the potential of wetlands, waterbodies, and streams.

TABLE 1
SOIL MAP UNITS AND DESCRIPTIONS WITHIN PROJECT SURVEY BOUNDARY

Soil Series[1]	Symbol[1]	Map Unit Description[1]	Topographic Setting[1]	Hydric[2]	Hydric Component (%)
Fitchville	FcA	Fitchville silt loam, 0 to 2 percent slopes	Lakebeds (relict), terraces	Yes*	Sebring 10%
Urban Land	Ur	Urban Land	-	Unranked	-
Weinbach	WhB	Weinbach silt loam, 2 to 6 percent slopes	Terraces	No	-
Wheeling	WrA	Wheeling silt loam, 0 to 3 percent slopes	Terraces	No	-
	WrB	Wheeling silt loam, 3 to 8 percent slopes	Terraces	No	-

NOTES:
(1) Data sources include: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: http://websoilsurvey.sc.egov.usda.gov/. Accessed 07/31/2024.
(2) Soils that are identified as hydric with an asterisk represent soils with hydric inclusions within terraces.

3.2 WETLAND DELINEATION AND STREAM ASSESSMENT

3.2.1 Delineated Wetlands

During the delineation, AECOM did not identify any wetlands within the survey area. One representative upland data point was taken to characterize the area and one was taken to

characterize a floodplain adjacent to an NWI feature. Both upland data points did not meet wetland soil or hydrology characteristics (**Appendix A**).

The USFWS and ODNR provided their responses regarding "known" occurrences of state and/or federal listed endangered and/or threatened species on July 8 and July 25, 2024, respectively. Based on the review of the ODNR Natural Heritage Database and the USFWS response, there are no records of known listed species within the delineated resources or Project area.

3.2.2 STREAM CROSSINGS

AECOM identified one intermittent stream within the survey area (**Table 2**; **Figure 3**). This stream (S-MRK-001) was classified as a Modified Class 2 Primary Headwater (PHW) stream utilizing the HHEI methodology (**Appendix B**; **Appendix C)**. AECOM has preliminarily determined that the assessed stream within the survey area appears to be non-jurisdictional because it has no downstream connectivity to a jurisdictional feature based on NHD and NWI data.

TABLE 2
DELINEATED STREAMS WITHIN PROJECT SURVEY AREA

Report Name	Latitude	Longitude	Watercourse Name	Flow Regime	Form Used[1]	Score	Class or Narrative Description[2]	Ordinary High Water Width (feet)	Bank Full Width (feet)	Maximum Pool Depth (inches)	OEPA 401 WQC Eligibility for Nationwide Permits[3]	Linear Feet Surveyed
S-MRK-001	40.76921	-81.54045	Unnamed Tributary	Intermittent	HHEI	42	Class II PHW	1.5	4	3	Eligible	166*

Notes:
1. HHEI = Headwater Habitat Evaluation Index
2. Class or Narrative Description provides the designated beneficial uses for assessed resources identified within the Ohio Administrative Code Chapter 3745-1 Water Quality Standards. In absence of a listed designation for a resource, AECOM included the Classification assessment identified by the OEPA's Qualitative Habitat Evaluation Index (Rankin, 2006) or Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams, Version 4.1.
3. As defined by OEPA Division of Surface Water Stream Eligibility Map. Available online at: https://geo.epa.ohio.gov/portal/apps/sites/#/ohio-epa-gis/apps/fbfb3929c51f459a91531da1bc306b43/explore

Flow Regime	HHEI Class 1	HHEI Class II	HHEI Class III	QHEI	Chapter 3745-1 Warmwater Habitat	Line Feet Surveyed
Intermittent	0	1	0	0	0	166
Perennial	0	0	0	0	0	0
Ephemeral	0	0	0	0	0	0
Total	0	1	0	0	0	166

*Stream extends outside of Project Survey Area.

3.2.3 UPLAND DRAINAGE FEATURE

No UDFs were identified within the survey area at the time of survey.

3.2.4 PONDS

No ponds were identified within the survey area at the time of survey.

3.3 THREATENED & ENDANGERED SPECIES

On July 8, 2024, a response was received from the USFWS recommending seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*M. septentrionalis*), and the proposed endangered tricolored bat (*Perimyotis subflavus*).

On July 25, 2024, a response was received from the ODNR stating there are no records of known listed species within the delineated resources or survey area.

4.0 SUMMARY

The wetland delineation and stream assessment was completed on July 11, 2024. During the survey, one intermittent stream was identified within the survey area and was assessed using the HHEI methodology as a Modified Class 2 PHW.

The State of Ohio is currently under the regulatory regime governed by Pre-2015 (Rapanos) Consistent with Sackett decision. Final jurisdictional determination of WOTUS can only be established by the USACE. AECOM has preliminarily determined that the assessed stream within the survey area appears to be non-jurisdictional because it has no downstream connectivity to a jurisdictional feature based on NHD and NWI data.

The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of AECOM's assessment. These results cannot apply to any possible future site changes of which AECOM is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due to natural processes or human impacts at the Project site or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the expansion of knowledge over time. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond the control of AECOM.

5.0 REFERENCES

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FIGURES

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LEGEND

- Proposed Cloverdale-Dale No2 69kV Transmission Line
- Proposed Cloverdale-Dale No2 69kV Tap to B&D Power Transmission Tap Line
- Proposed Cloverdale 138kV Transmission Line

0 0.1 0.2
Miles

BASE MAP SOURCE:
ArcGIS Online, USA Topo Maps

ATSI
Cloverdale to B&D Power Solutions Transmission Tap Project

FIGURE 1
UNITED STATES
GEOLOGICAL SURVEY MAP

JOB NO. 60732701

AECOM

WrB
WrA
WrB
PUBG
FcA
R4SBC
WhB
UPL-MRK-002
S-MRK-001
UNT of Tuscarawas River
HHEI: 42
4 FT
Customer Sub
2
4B
5
5A
AP-03
AP-02
AP-01
UPL-MRK-001
1
CdC2
Ur
Cloverdale Sub
PEM1C
PUBG
CdB

LEGEND

- Proposed Station
- Proposed Dead End Structure
- Proposed Structure
- Proposed Switch Structure
- Proposed Cloverdale-Dale No2 69kV Transmission Line
- Proposed Cloverdale-Dale No2 69kV Tap to B&D Power Transmission Tap Line
- Proposed Cloverdale 138kV Transmission Line
- Existing 23kV Transmission Line
- Existing 69kV Transmission Line
- Upland Data Point
- Access Entrance
- NHD Streams
- Delineated HHEI Stream
- Soil Map Unit
- National Wetlands Inventory (NWI)
- Proposed Right-of-Way
- Survey Area

0 150 300
Feet

BASE MAP SOURCE:
ArcGIS Online, ESRI World Imagery (Clarity)

ATSI

Cloverdale to B&D Power Solutions Transmission Tap Project

FIGURE 2
SOIL MAP UNIT AND NATIONAL WETLANDS INVENTORY MAP

JOB NO. 60732701

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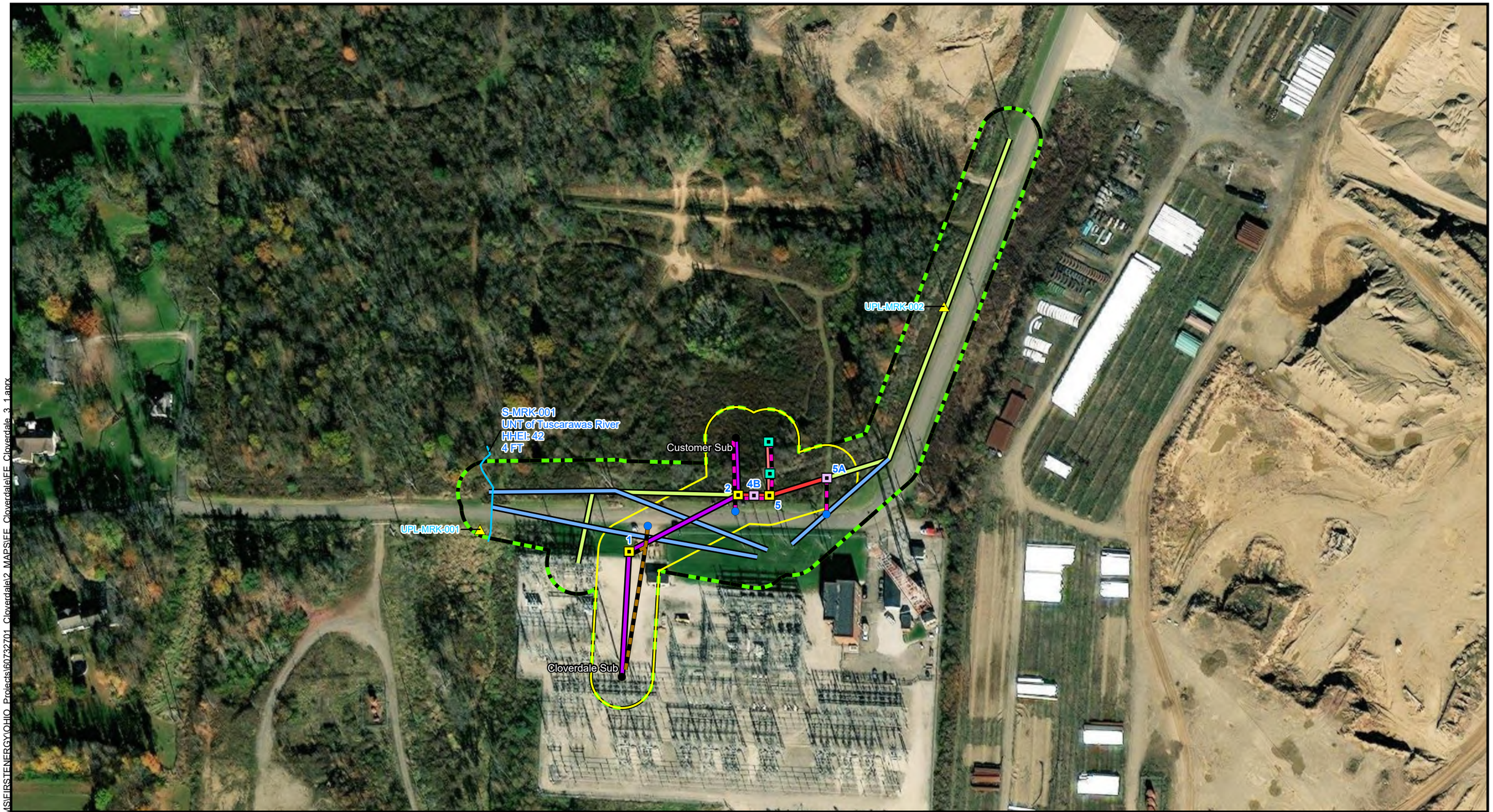


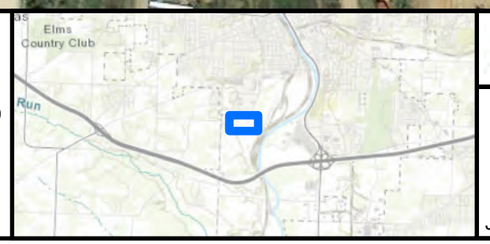
LEGEND

- Proposed Cloverdale-Dale No2 69kV Transmission Line
- Proposed Cloverdale-Dale No2 69kV Tap to B&D Power Transmission Tap Line
- Proposed Cloverdale 138kV Transmission Line
- Existing 23kV Transmission Line
- Existing 69kV Transmission Line
- Upland Data Point
- Delineated HHEI Stream
- Access Entrance
- Existing Gravel Access
- Proposed Temporary Access
- Proposed Right-of-Way
- Survey Area

0 150 300

Feet

BASE MAP SOURCE:
ArcGIS Online, ESRI World Imagery (Clarity)



ATSI

Cloverdale to B&D Power Solutions Transmission Tap Project

FIGURE 3
WETLAND DELINEATION AND STREAM ASSSESSMENT MAP

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APPENDIX A

UNITED STATES ARMY CORPS OF ENGINEERS WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cloverdale BD Tap **City/County:** Stark **Sampling Date:** 11-Jul-24

Applicant/Owner: FirstEnergy **State:** OH **Sampling Point:** **UPL-MRK-001**

Investigator(s): MRK, AJH **Section, Township, Range:** **S.** 19 **T.** 10N **R.** 9W

Landform (hillslope, terrace, etc.): Floodplain **Local relief (concave, convex, none):** concave **Slope:** 1.0 % / 0.6 °

Subregion (LRR or MLRA): LRR R **Lat.:** 40.769028 **Long.:** -81.540519 **Datum:** NAD83

Soil Map Unit Name: FcA: Fitchville silt loam, 0 to 2 percent slopes **NWI classification:** NA

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

Are Vegetation ☑ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ 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 ○	
Hydric Soil Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks: (Explain alternative procedures here or in a separate report.)

Upland data point collected on a floodplain. Vegetation does meet hydrophytic criteria but soils and hydrology do not meet wetland criteria. Area is highly disturbed by current and past industrial activity.

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of 2 required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches):	
Water Table Present?	Yes ○	No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches):	**Wetland Hydrology Present?** Yes ○ No ◉

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

NA

Remarks:

No source of hydrology was observed.

VEGETATION - Use scientific names of plants

Sampling Point: UPL-MRK-001

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
5.	0	☐	
6.	0	☐	
7.	0	☐	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
5.	0	☐	
6.	0	☐	
7.	0	☐	
	0	**= Total Cover**	
Herb Stratum (Plot size: 5' radius)			
1. *Phalaris arundinacea*	80	☑	FACW
2. *Parthenocissus quinquefolia*	20	☐	FACU
3. *Verbesina alternifolia*	10	☐	FACW
4. *Dipsacus fullonum*	10	☐	FACU
5.	0	☐	
6.	0	☐	
7.	0	☐	
8.	0	☐	
9.	0	☐	
10.	0	☐	
11.	0	☐	
12.	0	☐	
	120	**= Total Cover**	
Woody Vine Stratum (Plot size: 30' radius)			
1.	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
	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	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	120 (A)		300 (B)

Prevalence Index = B/A = 2.500

Hydrophytic Vegetation Indicators:

- ☑ **Rapid Test for Hydrophytic Vegetation**
- ☑ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **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.**

Definitions of Vegetation Strata:

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

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

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

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ◉ No ○

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

Vegetation does meet hydrophytic criteria.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: UPL-MRK-001

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
0-16	10YR	3/3	100					Silt Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated 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)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)
- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils : [3]

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (F21)
- ☐ 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 ◉

Remarks:

Soil does not meet hydric criteria.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Cloverdale BD Tap **City/County:** Stark **Sampling Date:** 11-Jul-24

Applicant/Owner: FirstEnergy **State:** OH **Sampling Point:** **UPL-MRK-002**

Investigator(s): MRK, AJH **Section, Township, Range:** **S.** 19 **T.** 10N **R.** 9W

Landform (hillslope, terrace, etc.): Flat **Local relief (concave, convex, none):** flat **Slope:** 1.0 % / 0.6 °

Subregion (LRR or MLRA): LRR R **Lat.:** 40.769994 **Long.:** -81.537799 **Datum:** NAD83

Soil Map Unit Name: WrB: Wheeling silt loam, 3 to 8 percent slopes **NWI classification:** NA

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

Are Vegetation ☑ **, Soil** ☐ **, or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ◉ 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 ◉	**Is the Sampled Area within a Wetland?**	Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉		
Wetland Hydrology Present?	Yes ○ No ◉		

Remarks: (Explain alternative procedures here or in a separate report.)

Upland data point collected to characterize the area which is landscaped/new construction.

Hydrology

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of 2 required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○ No ◉	Depth (inches):	
Water Table Present?	Yes ○ No ◉	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ○ No ◉	Depth (inches):	**Wetland Hydrology Present?** Yes ○ No ◉

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

NA

Remarks:

No source of hydrology was observed.

VEGETATION - Use scientific names of plants

Sampling Point: UPL-MRK-002

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
5.	0	☐	
6.	0	☐	
7.	0	☐	
	0	**= Total Cover**	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
5.	0	☐	
6.	0	☐	
7.	0	☐	
	0	**= Total Cover**	
Herb Stratum (Plot size: 5' radius)			
1. *Poa pratensis*	60	☑	FACU
2. *Cichorium intybus*	25	☑	FACU
3. *Solanum carolinense*	15	☐	FACU
4. *Coronilla varia*	15	☐	UPL
5. *Parthenocissus quinquefolia*	15	☐	FACU
6. *Plantago major*	5	☐	FACU
7.	0	☐	
8.	0	☐	
9.	0	☐	
10.	0	☐	
11.	0	☐	
12.	0	☐	
	135	**= Total Cover**	
Woody Vine Stratum (Plot size: 30' radius)			
1.	0	☐	
2.	0	☐	
3.	0	☐	
4.	0	☐	
	0	**= Total Cover**	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

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

Prevalence Index worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	120	x 4 =	480	
UPL species	15	x 5 =	75	
Column Totals:	135	(A)	555	(B)

Prevalence Index = B/A = 4.111

Hydrophytic Vegetation Indicators:

- ☐ **Rapid Test for Hydrophytic Vegetation**
- ☐ **Dominance Test is > 50%**
- ☐ **Prevalence Index is ≤3.0** [1]
- ☐ **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.**

Definitions of Vegetation Strata:

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

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

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

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ○ No ◉

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

Vegetation does not meet hydrophytic criteria.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: UPL-MRK-002

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
0-2	10YR	4/4	100					Silt Loam	
2-16	10YR	5/8	100					Sandy Loam	

[1] Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated 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)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)
- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils : [3]

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (F21)
- ☐ 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 ◉

Remarks:

Soil does not meet hydric criteria.

APPENDIX B

OEPA HEADWATER HABITAT EVALUTAION INDEX STREAM FORMS

Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) **42**

SITE NAME/LOCATION: **FirstEnergy Cloverdale BD Tap**

SITE NUMBER: **N/A** RIVER BASIN: **Tuscarawas River** DRAINAGE AREA (mi²): **0.09**

LENGTH OF STREAM REACH (ft): **170** LAT.: **40.76921** LONG.: **-81.54045** RIVER CODE: **N/A** RIVER MILE: **N/A**

DATE: **07/11/24** SCORER: **MRK, AJH** COMMENTS: **Active construction and regrading in the area.**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☑ RECENT OR NO RECOVERY

1. SUBSTRATE (Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate *TYPE* boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

TYPE		PERCENT	TYPE		PERCENT
☐	BLDR SLABS [16 pts]	0	☑	SILT [3 pt]	35
☐	BOULDER (>256 mm) [16 pts]	0	☐	LEAF PACK/WOODY DEBRIS [3 pts]	0
☐	BEDROCK [16 pt]	0	☐	FINE DETRITUS [3 pts]	0
☐	COBBLE (65-256 mm) [12 pts]	0	☐	CLAY or HARDPAN [0 pt]	0
☐	GRAVEL (2-64 mm) [9 pts]	30	☐	MUCK [0 pts]	0
☑	SAND (<2 mm) [6 pts]	35	☐	ARTIFICIAL [3 pts]	0

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: **0** (A)

Substrate Percentage Check: 100 (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**

TOTAL NUMBER OF SUBSTRATE TYPES: **3**

HHEI Metric Points

Substrate Max = 40: **12**

A + B

2. Maximum Pool Depth ***(Measure the maximum pool depth within the 61 meter (200 ft)*** evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

- ☐ > 30 centimeters [20 pts]
- ☐ > 22.5 - 30 cm [30 pts]
- ☐ > 10 - 22.5 cm [25 pts]
- ☑ > 5 cm - 10 cm [15 pts]
- ☐ < 5 cm [5 pts]
- ☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30: **15**

COMMENTS: Isolated pools, no flow **MAXIMUM POOL DEPTH** (Inches): **3.00**

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

- ☐ > 4.0 meters (> 13') [30 pts]
- ☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]
- ☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]
- ☑ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
- ☐ ≤ 1.0 m (<=3' 3") [5 pts]

Bankfull Width Max=30: **15**

COMMENTS: **AVERAGE BANKFULL WIDTH** (Feet): **4.00**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		L	R	
☐	☐	Wide >10m	☐	☐	Mature Forest, Wetland	☐	☐	Conservation Tillage
☐	☐	Moderate 5-10m	☐	☐	Immature Forest, Shrub or Old Field	☑	☑	Urban or Industrial
☐	☐	Narrow <5m	☐	☐	Residential, Park, New Field	☐	☐	Open Pasture, Row Crop
☑	☑	None	☐	☐	Fenced Pasture	☐	☐	Mining or Construction

COMMENTS: Recent ground disturbance

FLOW REGIME *(At Time of Evaluation)* (Check *ONLY* one box):

- ☐ Stream Flowing
- ☐ Subsurface flow with isolated pools (Interstitial)
- ☑ Moist Channel, isolated pools, no flow (Intermittent)
- ☐ Dry channel, no water (Ephemeral)

COMMENTS: No flow but pools of water observed within the channel

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

- ☐ None
- ☐ 0.5
- ☐ 1.0
- ☐ 1.5
- ☑ 2.0
- ☐ 2.5
- ☐ 3.0
- ☐ >3

STREAM GRADIENT ESTIMATE

☐ Flat (0.5 ft/100 ft) ☑ Flat to Moderate ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? - ☐ Yes ☑ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☑ WWH Name: **Tuscarawas River** Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: **Massillon** NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: **Stark** Township / City: **Massillon**

MISCELLANEOUS

Base Flow Conditions? (Y/N): **N** Date of last precipitation: **07/10/24** Quantity: **0.10**

Photograph Information: **Upstream, downstream, substrate**

Elevated Turbidity? (Y/N): **N** Canopy (% open): **100** **Overall Stability of BOTH Stream Banks (check one)**: Stable ☐ Moderately Stable ☑ Unstable ☐

Were samples collected for water chemistry? (Y/N): **N** (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) **Y** If not, please explain: _____

Additional comments/description of pollution impacts: **Sedimentation from recent ground diturbance**

BIOTIC EVALUATION

Performed? (Y/N): **Y** (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) **N** Voucher? (Y/N) **N** Salamanders Observed? (Y/N) **N** Voucher? (Y/N) **N**

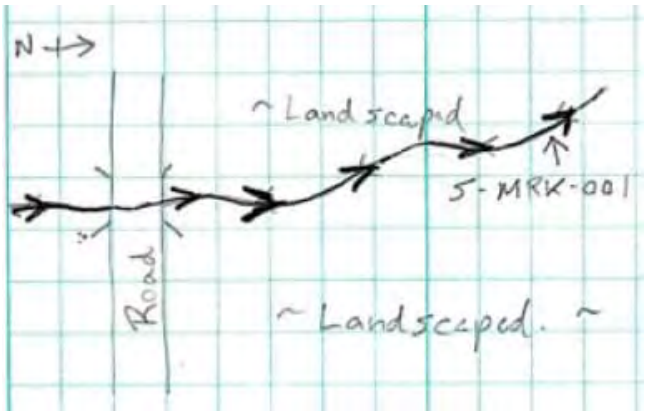
Frogs or Tadpoles Observed? (Y/N) **N** Voucher? (Y/N) **N** Aquatic Macroinvertebrates Observed? (Y/N) **N** Voucher? (Y/N) **N**

Comments Regarding Biology: **None observed**

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW →



Save as pdf Reset Form

APPENDIX C

REPRESENTATIVE UPLAND AND STREAM PHOTOGRAPHS

AECOM

PHOTOGRAPHIC RECORD
Uplands and Streams

Client Name:	Site Location:	Project No.
American Transmission Systems, Inc, a FirstEnergy Company	Cloverdale to B&D Power Solutions Transmission Tap Project	60732701

Date:

July 11, 2024

Description:

UPL-MRK-001

Upland

North

Date:

July 11, 2024

Description:

UPL-MRK-001

Upland

South

AECOM

PHOTOGRAPHIC RECORD
Uplands and Streams

Client Name:	Site Location:	Project No.
American Transmission Systems, Inc, a FirstEnergy Company	Cloverdale to B&D Power Solutions Transmission Tap Project	60732701

Date:

July 11, 2024

Description:

UPL-MRK-001

Upland

East

Date:

July 11, 2024

Description:

UPL-MRK-001

Upland

West

AECOM

PHOTOGRAPHIC RECORD
Uplands and Streams

Client Name:	Site Location:	Project No.
American Transmission Systems, Inc, a FirstEnergy Company	Cloverdale to B&D Power Solutions Transmission Tap Project	60732701

Date:

July 11, 2024

Description:

UPL-MRK-001

Upland

Soil

Date:

July 11, 2024

Description:

UPL-MRK-002

Upland

North

AECOM

PHOTOGRAPHIC RECORD
Uplands and Streams

Client Name:	Site Location:	Project No.
American Transmission Systems, Inc, a FirstEnergy Company	Cloverdale to B&D Power Solutions Transmission Tap Project	60732701

Date:
July 11, 2024

Description:

UPL-MRK-002

Upland

South

Date:

July 11, 2024

Description:

UPL-MRK-002

Upland

East

AECOM

PHOTOGRAPHIC RECORD
Uplands and Streams

Client Name:	Site Location:	Project No.
American Transmission Systems, Inc, a FirstEnergy Company	Cloverdale to B&D Power Solutions Transmission Tap Project	60732701

Date:
July 11, 2024

Description:

UPL-MRK-002

Upland

West

Date:

July 11, 2024

Description:

UPL-MRK-002

Upland

Soil

AECOM

PHOTOGRAPHIC RECORD
Uplands and Streams

Client Name:	Site Location:	Project No.
American Transmission Systems, Inc, a FirstEnergy Company	Cloverdale to B&D Power Solutions Transmission Tap Project	60732701

Date:
July 11, 2024

Description:

S-MRK-001

INT

Upstream

Date:

July 11, 2024

Description:

S-MRK-001

INT

Downstream

AECOM

PHOTOGRAPHIC RECORD
Uplands and Streams

Client Name:	Site Location:	Project No.
American Transmission Systems, Inc, a FirstEnergy Company	Cloverdale to B&D Power Solutions Transmission Tap Project	60732701

Date:
July 11, 2024

Description:

S-MRK-001

INT

Substrate