Construction Notice for the Lamping-Rouse 138 kV Transmission Line Temporary Relocate Project

AEP OHIO TRANSMISSION COMPANY℠

An AEP Company

BOUNDLESS ENERGY℠

PUCO Case No. 25-0332-EL-BLN

Submitted to:
The Ohio Power Siting Board
Pursuant to Ohio Administrative Code
Section 4906-6-05

Submitted by:
AEP Ohio Transmission Company, Inc.

April 7, 2025

Construction Notice

AEP Ohio Transmission Company, Inc.

Lamping-Rouse 138 kV Transmission Line Temporary Relocate Project

4906-6-05 Accelerated Application Requirements

AEP Ohio Transmission Company, Inc. (the "Company") provides the following information to the Ohio Power Siting Board ("OPSB") in accordance with the accelerated application requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

The name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Letter of Notification.

The Company proposes to construct the Lamping-Rouse 138 kV Transmission Line Temporary Relocate Project (the "Project"), in the city of Graysville and Washington Township, Monroe County, Ohio. The Project involves installing 4 temporary structures on the south side of State Route 26 ("SR-26"). The existing Lamping-Rouse 138 kV Transmission Line (approved in Case No. 16-0701-EL-BTX) has experienced slips approximately 1 mile northeast of the Company's Rouse Station. Due to the poor condition of the existing right-of-way in this area, the Company needs to relocate 0.2-miles of the existing transmission line to the south side of SR-26. The Company will seek a 70-foot-wide temporary right-of-way for the Project. The Project work will allow the Lamping-Rouse 138 kV Transmission Line to remain energized while a permanent solution (which would be the subject of a future separate application) is engineered. The location of the Project is shown on Figures 1 and 2 in Appendix A.

The Project meets the requirements for a Construction Notice ("CN") as defined by Items 1(a) of Appendix A to Ohio Administrative Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

> *(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:*
>
> *(a) Line(s) not greater than 0.2 miles in length.*

The Project has been assigned Case No. 25-0332-EL-BNR.

B(2) Statement of Need

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

The Project is required to ensure continued operation of the existing transmission line. Failure to construct the Project will significantly increase the risk of outages to area customers. The Project's proposal to construct temporary poles on the existing line will mitigate this risk.

As this Project results in no operational, modeling, or topology changes, the Project will not be brought through the PJM M-3 process.

B(3) Project Location

The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the Project area.

The location of the Project in relation to existing transmission lines and substations is shown on Figure 1, in Appendix A. Figure 2, in Appendix A, identifies the Project components on a 2023 aerial photograph.

B(4) Alternatives Considered

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

The Project proposes to temporarily relocate structures along an existing 138 kV electric transmission line. The location of the new poles is the most suitable solution for the Project, as the poles are located on flat terrain and do not impact additional property owners. In addition, the proposed Project is not anticipated to impact wetlands, streams, or any known cultural resource areas eligible for the National Register of Historic Places (NRHP). Therefore, the Project represents the most suitable location and is the most appropriate solution for meeting the Company's needs in the area.

B(5) Public Information Program

The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

The Company maintains a website (http://aeptransmission.com/ohio/) on which an electronic copy of this CN is available. An electronic copy of the CN will be served to the public library in each political subdivision

affected by this Project. The Company also retains land agents who will discuss project timelines, construction and restoration activities with affected owners and tenants.

B(6) Construction Schedule

The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.

Construction of the Project is planned to begin in April 2025 with an anticipated in-service date of April 2025.

B(7) Area Map

The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.

Figure 1, in Appendix A, identifies the location of the Project area on a United States Geological Survey 1:24,000 Rinard Mills quadrangle map. Appendix A, Figure 2 displays the Project area on a 2023 aerial photograph.

B(8) Property Agreements

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

A list of properties required for the Project are provided in the table below.

Property Parcel Number	Agreement Type	Easement or Option Obtained (Yes/No)
29-021005.0000	Temporary Agreement	Yes

B(9) Technical Features

The applicant shall describe the following information regarding the technical features of the project:

B(9)(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

The Lamping-Rouse 138 kV Transmission Line Temporary Relocate is estimated to include the following:

Voltage: 138 kV
Conductors: (3), 795 kcmil 26/7 ACSR (Drake)
Static Wire: (1) 7#8 Alumoweld

Insulators:	Polymer
ROW Width:	70 feet
Structure Types:	Two (2) Single Pole Steel Deadends, One (1) Single pole steel Running Angle, One (1) Single pole steel tangent

B(9)(b) Electric and Magnetic Fields

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

B(9)(b)(i) Calculated Electric and Magnetic Field Strength Levels

i) Calculated Electric and Magnetic Field Levels

Not applicable. No occupied residences or institutions are located within 100 feet of the Project.

B(9)(b)(ii) Design Alternatives

A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

Not applicable. No occupied residences or institutions are located within 100 feet of the Project.

B(9)(b)(ii)(c) Project Cost

The estimated capital cost of the project.

The cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately $400,000 using a Class 4 estimate.

B(10) Social and Ecological Impacts

The applicant shall describe the social and ecological impacts of the project:

B(10)(a) Operating Characteristics

Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

The Project is located in the city of Graysville and Washington Township, Monroe County, Ohio. Land use in the Project area is predominantly agricultural vacant land or residential land, as classified by the Monroe County Auditor. No schools, parks, places of worship, cemeteries, wildlife management areas, or nature preserve lands were identified in proximity to the Project.

B(10)(b) Agricultural Land Information

Provide the acreage and a general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.

No properties registered as agricultral district land are located in the Project area based on coordination with the Monroe County Auditor's Office on April 7, 2025. Additionally, the Project area does not contain any active agricultural row crop land

B(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant's investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The Project was covered under previous cultural resource surveys conducted for the Lamping-Rouse 138 kV Transmission Line Project in 2018 and 2019, an addendum was provided specific to the slip repair portion in October 2024 (see Appendix C). The survey concluded that no adverse effects are expected as a result of this Project.

B(10)(d) Local, State, and Federal Agency Correspondence

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

A Storm Water Pollution Prevention Plan ("SWPPP") for the temporary Lamping-Rouse 138 kV Transmission Line Project has been prepared for the Project. A Notice of Intent was filed with the Ohio Environmental Protection Agency for authorization of construction stormwater discharges under General Permit OHC000006, and the Company will implement and maintain best management practices (BMPs), as outlined in the project-specific SWPPP, to minimize erosion and control sediment to protect surface water quality during storm events.

The Project, as currently planned, would not impact any wetlands or waterways.

The Project is not located within a Federal Emergency Management Agency (FEMA) 100-year floodplain area, however, associated guy wires will have minimal impact to the floodplain. Therefore, the Company has applied for a floodplain permit for the Project, which will be docketed to the case once recieved.

There are no other known local, state, or federal requirements that must be met prior to commencement of the Project.

B(10)(e) Threatened, Endangered, and Rare Species

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

Coordination letters were submitted to the United State Fish and Wildlife Service (USFWS) and the Ohio Department of Natural Resources (ODNR) Ohio Natural Heritage Program (ONHP) and Division of Wildlife (DOW), seeking an environmental review of the Project for potential impacts to state and/or federally protected species. ODNR and USFWS provided responses on May 13, 2024 and April 23, 2024, respectively. Copies of the agencies' responses are presented in **Appendix B**.

Table 4, in **Appendix C** lists the federal and state threatened or endangered species in the Project area.

Based on the nature of the proposed Project activities and habitat characteristics of the surrounding vicinity, construction impacts to protected species are not anticipated.

B(10)(f) Areas of Ecological Concern

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

In April 2024, the Company's consultant conducted wetland and stream delineation surveys for an approximately 18-acre survey area encompassing the Project (see **Appendix C**). As a result of these surveys, one stream (Straight Fork Steam) was identified within the Project survey area. However, the Project will not impact the identified stream. No wetlands were identified within the Project survey area. No other areas of ecological concern were identified within the Project area.

Based on a review of the Protected Areas Database of the United States as well as the Conservation Easement Database, there are no state or national parks, forests, wildlife areas or mapped conservation easements in the vicinity of the Project.

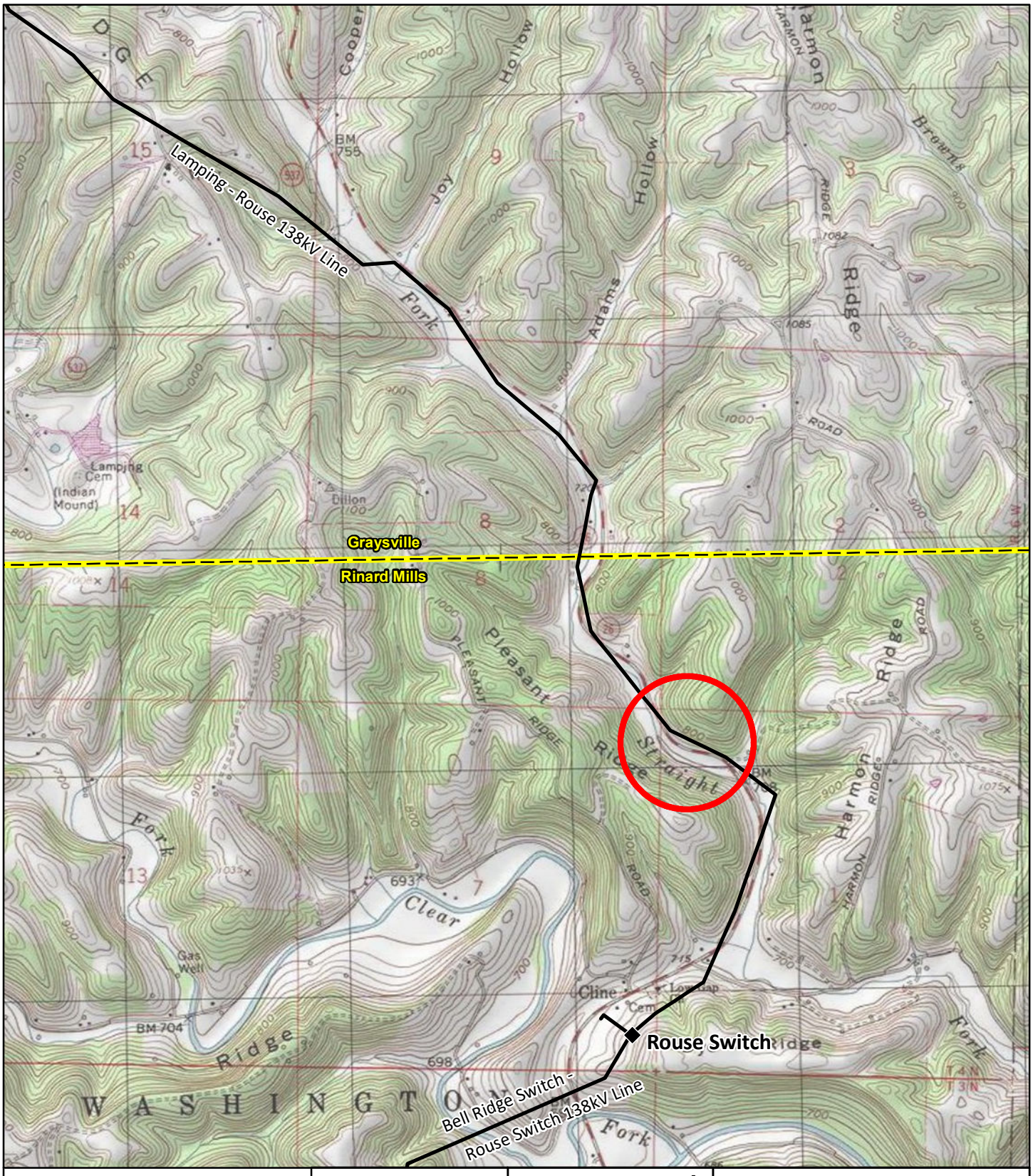
The FEMA Flood Insurance Rate Map (map number 39111C0300C) was reviewed to check for the presence of floodplains/flood hazard areas within the Project area. No mapped FEMA floodplains are located in the Project area.

B(10)(g) Unusual Conditions

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

To the best of the Company's knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts.

Appendix A Project Maps



▲ Existing Substation

— Existing Transmission Line

▭ US Topographic Lines

○ Project Area

Data Sources: AEP, USGS 7.5' Topographic Quandrangles (Rinard Mills)

Coordinate System and Datum: NAD 83 State Plane Ohio South, Feet

April 04, 2025

FIGURE 1
TOPOGRAPHIC OVERVIEW

AEP OHIO TRANSMISSION COMPANY

Lamping-Rouse 138 kV Transmission Line Temporary Relocate Project

0 1,000 2,000 3,000 4,000

Feet

Proposed Temporary Centerline
Existing Transmission Line
Proposed Temporary 70' ROW
Parcel Boundary

Data Sources: AEP, Corelogic & NAIP Imagery, 2023

Coordinate System and Datum:
NAD 83 State Plane Ohio South, Feet

April 04, 2025

FIGURE 2
AERIAL OVERVIEW

AEP OHIO TRANSMISSION COMPANY

Lamping-Rouse 138 kV Transmission Line Temporary Relocate Project

0 100 200 300 400
Feet

Appendix B Agency Coordination Letters

In reply, refer to
2024-MOE-61410

June 21, 2024

Mr. Ryan J. Weller
Weller & Associates, Inc.
1395 West Fifth Avenue
Columbus, Ohio 43212

RE: Lamping-Rouse Slip Repair Project, Washington Township, Monroe County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received on May 23, 2024, regarding the proposed Lamping-Rouse Slip Repair Project, Washington Township, Monroe 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 and the Ohio Power Siting Board (OPSB) rules for siting this project (OAC 4906-4 & 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]).

The following comments pertain to the *Phase I Archaeological Investigations for the 6.7 ha (17.2 ac) Lamping-Rouse Slip Repair Project in Washington Township, Monroe County, Ohio* by Ryan J. Weller (Weller & Associates, Inc. 2024). The goal of this project is for slip repair to address slip issues and landform failures in two locations along the existing Lamping-Rouse transmission line corridor. A literature review, visual inspection, and shovel test unit excavations were completed as part of the investigations. Portions of the project area have been previously surveyed. Visual inspection noted areas of disturbance and steeply sloping conditions that precluded testing within portions of the project area. No previously identified archaeological sites are located within the project area and no new archaeological sites were identified during the survey. Our office agrees no additional archaeological investigation is needed.

Based on the information provided, our office agrees the project, as proposed, will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional archaeological resources are discovered during the implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me by e-mail at cgullett@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Catherine Gullett, Project Reviews Coordinator - Archaeology
Resource Protection and Review
State Historic Preservation Office

RPR Serial No: 1103327

In reply, refer to
2024-MOE-61410

October 28, 2024

Mr. Ryan J. Weller
Weller & Associates, Inc.
1395 West Fifth Avenue
Columbus, Ohio 43212

RE: Lamping-Rouse Slip Repair Project, Washington Township, Monroe County, Ohio – Addendum 1

Dear Mr. Weller:

This letter is in response to the correspondence received on September 30, 2024, regarding the proposed Lamping-Rouse Slip Repair Project, Washington Township, Monroe 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 and the Ohio Power Siting Board (OPSB) rules for siting this project (OAC 4906-4 & 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]).

The following comments pertain to the *Addendum 1 – Additional Archaeological Investigations for the Lamping-Rouse Slip Repair Project in Washington Township, Monroe County, Ohio (PO 81302589; BPID A21111069; WO T10646281002)* by Ryan J. Weller (Weller & Associates, Inc. 2024). The goal of this project is to address proposed access roads for the Lamping-Rouse Slip Repair Project. A literature review and visual inspection were completed as part of the investigations. Portions of the addendum project area have been previously surveyed. Visual inspection noted areas of disturbance, inundated soils, and steep slopes that precluded testing within the addendum project area. No previously identified archaeological sites are located within the addendum project area and no new archaeological sites were identified during the survey. Our office agrees no additional archaeological investigation is needed.

Based on the information provided, our office agrees the project, as proposed, will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional archaeological resources are discovered during the implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me by e-mail at cgullett@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Catherine Gullett, Project Reviews Coordinator - Archaeology
Resource Protection and Review
State Historic Preservation Office

RPR Serial No: 1105049

Appendix C Ecological Report

LAMPING ROUSE T LINE FAILURE PROJECT

MONROE COUNTY, OHIO

ECOLOGICAL REPORT

Prepared for:
American Electric Power Ohio Transmission Company
8600 Smiths Mill Road
New Albany, Ohio 43054

Prepared by:

525 Vine Street, Suite 1900
Cincinnati, Ohio 45202

Project #: 60729560

May 2024

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1.0 INTRODUCTION

American Electric Power, Ohio Transmission Company (AEP Ohio Transco) is proposing to repair two slips associated with the existing Lamping Rouse Transmission line right of way. The slip locations are located near Structures 49, 50, and 51, and Structure 56 in Rinard Mills, Monroe County, Ohio (OH). The Project Survey Area associated with this Ecological Report is located on Rinard Mills, OH United States Geological Survey (USGS) 7.5-minute topographical quadrangle as displayed on the Project Overview (**Figure 1**).

The purpose of the field survey was to assess the presence of wetlands and possible "waters of the United States" (WOTUS) that occur within the proposed Project Survey Area. Secondarily, land uses were also recorded to classify and characterize potential habitat for threatened and endangered species. This report will be used to assist AEP Ohio Transco's efforts to identify potential WOTUS as well as threatened and endangered species habitat present within the proposed Project Survey Area to avoid or minimize impacts during construction activities.

2.0 METHODOLOGY

The field survey was completed within the Project Survey Area totaling approximately 17.27 acres, which encompasses the proposed work areas as well as the existing transmission line 100-ft wide right-of-way (ROW) one structure in each direction of the proposed work. Prior to conducting field surveys, digital United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey data, United States Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) data, USGS National Hydrography Dataset (NHD), Federal Emergency Management Agency (FEMA) 100-year floodplain data, and USGS 7.5-minute topographic maps were reviewed to identify the occurrence and location of potential wetland areas and/or streams.

Field survey activities included recording the physical boundaries of observed water features using sub-meter capable EOS Arrow Global Positioning System (GPS) units in conjunction with the ArcGIS Field Maps application on iPad tablets. The GPS data was imported into ArcMap Geographic Information System (GIS) software, where the data was reviewed, edited for accuracy, and compiled in a format suitable for transfer and use by AEP Ohio Transco. Water features were delineated and assessed based upon the appropriate procedures detailed below. Land uses observed within the Project Survey Area were assigned a general classification based upon the principal land characteristics and vegetative cover of the location.

2.1 WETLAND DELINEATION

The Project Survey Area was evaluated according to the procedures outlined in the United States Army Corps of Engineers (USACE) *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)* (USACE, 2012).

During field survey activities, AECOM utilized the routine on-site delineation method described in the 1987 manual and supplement that consisted of a pedestrian site reconnaissance, including identifying the vegetative communities, soils identification, a geomorphologic assessment of hydrology, and notation of disturbance. 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. Adjacent to each wetland complex, AECOM completed an additional USACE Data Form as a representative of the upland community.

2.1.1 WETLAND CLASSIFICATION

Wetlands identified in the field were classified based on the naming convention found in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin *et al.*, 1979). The unique wetland habitats were classified as palustrine emergent (PEM), palustrine forested (PFO), palustrine unconsolidated bottom (PUB), palustrine scrub-shrub (PSS), or other classifications for some wetlands. Multiple Cowardin classifications may be present where more than one classification's vegetation is dominant (vegetation type covers 30 percent or more of the substrate). Where multiple Cowardin classifications are present, the Cowardin classification of the plants that constitute the uppermost layer of vegetation having 30% or greater coverage is used for the classification.

2.1.2 WETLAND ASSESSMENT

Each delineated wetland was assessed following the Ohio Environmental Protection Agency (OEPA) *Ohio Rapid Assessment Method for Wetlands v. 5.0* (ORAM) (Mack, 2001). Wetland assessments utilized the 10-page ORAM form, providing a final Category rating for each wetland.

2.2 STREAM ASSESSMENT

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).

2.2.1 OEPA PRIMARY HEADWATER HABITAT ASSESSMENT

Stream assessments were conducted using the methods described in the OEPA's *Methods for Assessing Habitat in Flowing Waters*: *Using OEPA's Qualitative Habitat Evaluation Index (QHEI)* (Rankin, 2006) and in the OEPA's *Field Methods for Evaluating Primary Headwater Streams in Ohio* (OEPA, 2020). Streams associated with watershed area less than or equal to 1.0 square mile (259 hectares), and a maximum depth of water pools equal to or less than 15.75 inches were evaluated utilizing the Headwater Habitat Evaluation

Index (HHEI) methodology and all other streams assessed using the QHEI methodology. Flow regime (ephemeral, intermittent, perennial) was determined by the appropriate stream assessment score per OEPA manuals (OEPA, 2020) and by AECOM's professional opinion.

Streams assessed in the Project Survey Area were reviewed for existing OEPA Aquatic Life Use Designations per OEPA's Water Quality Standards (OAC Chapter 3745-1). Those without an existing use designation were assigned a provisional aquatic life use designation based upon habitat assessment results (Rankin, 1989; OEPA, 2020).

2.2.2 OEPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY

The OEPA has designated each watershed in the state on based on whether it may be ineligible for coverage under the OEPA's 401 Water Quality Certification (WQC) for Nationwide Permits (OEPA, 2017). Mapping provided by the OEPA illustrates the eligibility of streams in the area to fall under a Nationwide Permit for 401 certification or if an individual state WQC needs to be applied for. Impacts to streams within each watershed would then have eligibility for 401 WQC determined by the watershed category. The three categories are defined as:

Eligible: Streams within the watershed are eligible for coverage under the OEPA's water quality certification for the Nationwide Permits if all other general and regional special terms and conditions are met.

Ineligible: Activities affecting high quality streams and undesignated streams draining directly to high quality streams, as represented in the map, must undergo an individual 401 Water Quality Certification review process.

Possibly Eligible: Additional field screening procedures are required for streams in the watershed to determine appropriate eligibility. Activities affecting undesignated streams within those HUC12 watersheds that do not directly but eventually drain into high quality waters, might be eligible for coverage under the OEPA's 401 Water Quality Certification for Nationwide Permits depending on the results of a field screening assessment. The procedures for determining individual stream eligibility in this scenario are specified in Appendix D "Stream Eligibility Determination Process" of the OEPA Ohio State Water Quality Certification of the 2017 Nationwide Permit Reauthorization.

2.2.3 UPLAND DRAINAGE FEATURES

An upland drainage feature (UDF) is a non-jurisdictional drainage that does not meet the criteria of either a jurisdictional stream or a wetland. A UDF generally lacks an OHWM (USACE, 2005) and are equivalent to a swale or an erosional feature as described by the USACE: "generally shallow features in the landscape that may convey water across upland areas during and following storm events. Swales usually occur on

nearly flat slopes and typically have grass or other low-lying vegetation throughout the swale" (USACE, 2005).

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). This would include a ditch that originates entirely within the roadway right-of-way, has a seasonal flow regime, was not constructed to drain a wetland, and does not have hydrophytic vegetation extending more than an insignificant amount beyond its original configuration.

In addition, UDF's (including swales, ditches, and other erosional features) are generally not WOTUS except in certain circumstances, such as relocated streams.

2.3 RARE, THREATENED, AND ENDANGERED SPECIES

AECOM conducted a threatened and endangered species review and general field habitat surveys within the Project Survey Area. AECOM submitted requests to the Ohio Department of Natural Resources (ODNR) Office of Real Estate – Environmental Review Section and the USFWS Ohio Ecological Services Field Office soliciting comments on the proposed Project. Agency-identified species of concern and available species-specific information was reviewed to identify the various habitat types that listed species are known to inhabit.

AECOM field ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys as part of assessing potential impacts to threatened and endangered species. Land uses within the Project Survey Area were assigned a general classification based upon the principal land characteristics and vegetative cover as observed during the field surveys.

AECOM conducted a desktop assessment of the Project Survey Area and a quarter-mile buffer around it to identify potentially occurring winter bat hibernaculum that may be present near the Project which is in **Appendix A**. This assessment was conducted by reviewing data on mining activity and karst geology from the ODNR Division of Mineral Resources and USGS websites.

3.0 RESULTS

AECOM ecologists walked the Project Survey Area to conduct the wetland delineation, stream assessment and habitat survey on April 12, 2024. During the delineation within the Project Survey Area, AECOM delineated a total of five streams (four perennial, and one intermittent). AECOM did not identify any wetlands or ponds within the Project Survey Area. The delineated features are discussed in detail in the following section.

3.1 WETLAND DELINEATION

3.1.1 PRELIMINARY SOILS EVALUATION

According to the USDA/NRCS Web Soil Survey, a total of seven soil map units identified within the Project Survey Area. Of those, one soil map unit contains hydric inclusions. Soils indicated as having hydric inclusions are not predominately hydric soils and hydric soils are more likely to be found in topographic settings. **Table 1** below provides a detailed overview of all soil series and soil map units present within the Project Survey Area. Soil map units located in the Project Survey Area and vicinity are shown on **Figure 2**.

TABLE 1: SOIL MAP UNITS AND DESCRIPTIONS WITHIN THE PROJECT SURVEY AREA

Soil Series	Map Unit Symbol	Map Unit Description	Topographic Setting	Hydric	Hydric Component (%)
Chagrin	Chg1AF	Chagrin silt loam. 0 to 3 percent slopes, frequently flooded	Flood Plains	Yes*	Melvin 2%
Guernsey	GrC2	Guernsey-Upshur complex, 6 to 12 percent slopes, moderately eroded	Hills	No	N/A
	GrD2	Guernsey-Upshur complex, 12 to 18 percent slopes, moderately eroded	Hills	No	N/A
	GrE2	Guernsey-Upshur complex, 18 to 35 percent slopes, moderately eroded	Hills	No	N/A
	GrG2	Guernsey-Upshur complex, 35 to 70 percent slopes, moderately eroded	Hills	No	N/A
	GsG	Guernsey-Upshur complex, 18 to 70 percent slopes, landslip	Hills	No	N/A
	GwE2	Guernsey-Upshur complex, 18 to 35 percent slopes, moderately eroded	Hills	No	N/A

Yes* = Hydric inclusion present

3.1.2 NATIONAL WETLANDS INVENTORY MAP REVIEW

According to NWI data covering the Project location, the Project Survey Area contains two NWI mapped wetlands both identified as a Riverine, Intermittent, Stream Bed, Seasonally Flooded (R4SBC). The locations of NWI mapped features identified within the vicinity of the Project are provided on **Figure 2** and detailed within **Table 2** below.

TABLE 2: NWI DISPOSTION SUMMARY TABLE WITHIN THE PROJECT SURVEY AREA

NWI Code	NWI Description	Related Field Inventoried Resource (Wetland ID/Stream ID)	Comments
R4SBC	Riverine, Intermittent, Streambed, Seasonally Flooded	S-EAC-002	Field verified as Perennial stream S-EAC-002
R4SBC	Riverine, Intermittent, Streambed, Seasonally Flooded	S-EAC-005	Field verified as Perennial Stream S-EAC-005

3.1.3 DELINEATED WETLANDS

During the field survey on April 12, 2024, AECOM did not identify any wetlands within the Project Survey Area. An upland data point was recorded within the Project Survey Area, and the representative data form is provided as **Appendix B**.

3.2 STREAM DELINATION

During the field survey, AECOM delineated five streams (four perennial, and one intermittent). Of these delineated streams, all were classified using HHEI evaluations, one was classified as Class II PHW streams and four as Modified Class II PHW.

AECOM has provided a provisional determination that all delineated streams within the Project Survey Area appear to be jurisdictional (i.e., WOTUS), based on their observed or presumed confluence with downstream waters. Final jurisdictional status can only be determined by the USACE, and AECOM assessments are provisional. A summary of the delineated features is provided in **Table 2**. Stream data forms and photographs of each delineated stream resource are provided in **Appendix C**.

TABLE 3: SUMMARY OF DELINEATED STREAMS WTIHIN THE PROJECT SURVEY AREA

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Crossing ?	Proposed Impacts	
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation			Fill Type	Area (acre)
S-EAC-002	39.616516	-81.153552	Perennial	UNT to Straight Fork	62	7	4	HHEI	62	Modified Class II PHWH	Ineligible	TBD	TBD	TBD
S-EAC-003	39.616184	-81.153633	Perennial	UNT to Straight Fork	258	4.5	3	HHEI	55	Modified Class II PHWH	Ineligible	TBD	TBD	TBD
S-EAC-004	39.611951	-81.153915	Intermittent	UNT to Straight Fork	168	4.5	3	HHEI	57	Class II PHWH	Ineligible	TBD	TBD	TBD
S-EAC-005	39.609426	-81.155273	Perennial	UNT to Straight Fork	208	3.5	3	HHEI	56	Modified Class II PHWH	Ineligible	TBD	TBD	TBD
S-EAC-006	39.608575	-81.155823	Perennial	UNT to Straight Fork	186	4	3	HHEI	49	Modified Class II PHWH	Ineligible	TBD	TBD	TBD
				Total:	**882**									**0.0**

3.2.1 OEPA STREAM ELIGIBILITY

OEPA stream eligibility for 401 WQC mapping was reviewed for the Project Survey Area. The Project occurs within one watershed, Straight Fork-Little Muskingum River (050302010605), that is designated by 401 WQC eligibility as “ineligible”. The OEPA stream eligibility mapping for the Project Survey Area is provided on **Figure 4**.

3.3 FEMA 100 YEAR FLOODPLAINS

No FEMA regulated floodways, or 100-year floodplains are located within the Project Survey Area (FEMA, 2011).

3.4 PONDS

During the field surveys, AECOM did not identify any ponds within the Project Survey Area.

3.5 UPLAND DRAINAGE FEATURES

During the field survey, AECOM identified three upland drainage features within the Project Survey Area. The extent of the upland drainage feature is displayed on **Figures 2 and 3**. Photographs of all delineated upland drainage features are provided in **Appendix D**.

3.6 VEGETATIVE COMMUNITIES

AECOM ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys. As described in **Table 3** below, the Project Survey Area contained woodlands, streams/wetlands, urban, scrub shrub, old field, pasture hayfield, and landscaped areas. Vegetative communities are depicted visually on aerial photography in **Figure 5**. Representative photographs of the vegetative communities in the Project Survey Area are provided as **Appendix E**.

TABLE 4 - VEGETATIVE COMMUNITIES WITHIN THE PROJECT SURVEY AREA

Vegetative Community	Description	Approximate Acreage Within the Project Survey Area	Approximate Percentage Within the Project Survey Area
Old Field	Herbaceous cover exists alongside roads, field borders, and abandoned fields within the survey area of the Project in the form of successional old-field communities. These communities are the earliest stages of recolonization by plants following disturbance. This community type is typically short-lived, giving way progressively to shrub and forest communities unless periodically re-disturbed, in which case they remain as old fields. The old-field areas within the study corridors and adjacent areas are infrequently mowed areas of grasses, forbs, and occasional shrubs.	5.44	31.70%
Pasture/Hay Fields	Cattle and/or horse pasture, and hay fields, dominated by seasonally mowed and grazed areas of grasses and forbs.	5.43	31.00%
Scrub Shrub	Scrub-shrub habitats represent the successional stage between old-field and second growth forest, and often emerge in recently harvested forests responding to the lightness of the remaining canopy. Dominant species consist of herbaceous communities similar to that of old field habitat with 30% or greater coverage of woody species that are not trees (including sapling trees generally <3" dbh and <20' in height).	3.05	17.77%
Urban	Urban areas are areas developed with residential and commercial land uses, including roads, buildings and parking lots. These areas are generally devoid of significant woody and herbaceous vegetation.	1.56	9.09%
Landscaped	Landscaped areas, including residential properties and commercial properties, were observed within the Project vicinity. These landscaped areas within the Project Survey Area and adjacent areas are frequently mowed grasses and forbs.	1.24	7.23%
Woodlands (Deciduous)	Woodlands (floodplain, upland, successional-mixed, etc) are present along the Project Survey Area. Woody species dominating these areas included Northern Red Oak (*Quercus rubra*), and American Beech (*Fagus grandifolia*)	0.36	2.10%
Streams/Wetlands	Streams and wetlands were observed both within and beyond the survey area for the Project.	0.19	1.11%
	Totals:	**17.27**	**100%**

3.7 RARE, THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION

Protected Species Agency Consultation –

On April 16, 2024, coordination letters were sent to USFWS and the ODNR Ohio Natural Heritage Program (ONHP) and Division of Wildlife (DOW), seeking an environmental review for the Project for potential impacts to threatened and endangered species.

Responses were received from the USFWS on April 23, 2024, and from the ODNR on May 13, 2024. According to a response letter received from the USFWS, two federally endangered bat species were identified within range of the Project area. Regarding state threatened and endangered species that may occur within the Project vicinity, nine species were listed by the ODNR. Correspondence letters from the USFWS and ODNR for the Lamping Rouse T Line Failure Project are included as **Appendix F**.

Table 4 provides a list of species of concern identified by the agencies as potentially occurring within the vicinity of the Project. Photographs of the habitat within the Project Survey Area are provided as **Appendix E**.

TABLE 5
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT SURVEY AREA

Common Name (Scientific Name)	State Status	Federal Status	Typical Habitat	Habitat Observed	Avoidance Dates	Agency Comments	Potential Impacts
Mammals							
Indiana Bat (*Myotis sodalis*)	Endangered	Endangered	Summer habitat During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves. Hibernaculum(a) During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.	Summer habitat Within the Project Survey Area, trees were identified along edge of existing right-of-way that may provide suitable habitat for the species. Hibernaculum(a) **No** – Mine openings and/or known caves were located within 0.25 miles of Project area based off desktop review. See **Appendix A**. Field evaluations did not identify any potential hibernaculum(a) within the Project area (2023 Joint Guidance) *.	April 1 – September 30	Summer habitat ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30). Hibernaculum(a) The ODNR DOW recommends a desktop habitat assessment to be conducted to identify potential hibernacula within 0.25 miles of the Project area. If habitat assessment finds potential hibernaculum within 0.25 miles, a revised seasonal tree clearing restriction (March 15 to November 15) is recommended (2023 Joint Guidance) *. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.	Summer habitat Potential summer roosting habitat is present within the Project area and seasonal tree clearing, between October 1 and March 31, is recommended. Hibernaculum(a) No impacts to winter hibernacula were identified due to no tree cutting or subsurface impacts proposed.
Northern Long-eared Bat (*Myotis septentrionalis*)	Endangered	Endangered	Summer habitat During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves. Hibernaculum(a) During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.	Summer habitat Within the Project Survey Area, trees were identified along edge of existing right-of-way that may provide suitable habitat for the species. Hibernaculum(a) **No** – Mine openings and/or known caves were located within 0.25 miles of Project area based off desktop review. See **Appendix A**. Field evaluations did not identify any potential hibernaculum(a) within the Project area (2023 Joint Guidance) *.	April 1 – September 30	Summer habitat ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30). Additionally, the ODNR indicated that there is a known presence of this species within the Project area and summer surveys would not constitute a presence or absence of this species. Hibernaculum(a) The ODNR DOW recommends a desktop habitat assessment to be conducted to identify potential hibernacula within 0.25 miles of the Project area. If habitat assessment finds potential hibernaculum within 0.25 miles, a revised seasonal tree clearing restriction (March 15 to November 15) is recommended (2023 Joint Guidance) *. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.	Summer habitat Potential summer roosting habitat is present within the Project area and seasonal tree clearing, between October 1 and March 31, is recommended. Additional summer surveys would not constitute presence/absence within the Project area for the Indiana bat. Hibernaculum(a) No impacts to winter hibernacula were identified due to no tree cutting or subsurface impacts proposed.
Little brown bat (*Myotis lucifugus*)	Endangered	NA	Summer habitat During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves. Hibernaculum(a) During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.	Summer habitat Within the Project Survey Area, trees were identified along edge of existing right-of-way that may provide suitable habitat for the species. Hibernaculum(a) **No** – Mine openings and/or known caves were located within 0.25 miles of Project area based off desktop review. See **Appendix A**. Field evaluations did not identify any potential hibernaculum(a) within the Project area (2023 Joint Guidance) *.	April 1 – September 30	Summer habitat ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30). Hibernaculum(a) The ODNR DOW recommends a desktop habitat assessment to be conducted to identify potential hibernacula within 0.25 miles of the Project area. If habitat assessment finds potential hibernaculum within 0.25 miles, a revised seasonal tree clearing restriction (March 15 to November 15) is recommended (2023 Joint Guidance) *. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.	Summer habitat Potential summer roosting habitat is present within the Project area and seasonal tree clearing, between October 1 and March 31, is recommended. Hibernaculum(a) No impacts to winter hibernacula were identified due to no tree cutting or subsurface impacts proposed.

TABLE 5
ODNR AND USFWS LISTED SPECIES WITHIN THE PROJECT SURVEY AREA

Common Name (Scientific Name)	State Status	Federal Status	Typical Habitat	Habitat Observed	Avoidance Dates	Agency Comments	Potential Impacts
Tricolored bat (*Perimyotis subflavus*)	Endangered	Proposed	Summer habitat During spring/summer, this bat species roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in leaves. Hibernaculum(a) During winter, this species hibernates in humid mines, caves, and occasionally man-made structures.	Summer habitat Within the Project Survey Area, trees were identified along edge of existing right-of-way that may provide suitable habitat for the species. Hibernaculum(a) **No** – Mine openings and/or known caves were located within 0.25 miles of Project area based off desktop review. See **Appendix A**. Field evaluations did not identify any potential hibernaculum(a) within the Project area (2023 Joint Guidance) *.	April 1 – September 30	Summer habitat ODNR and USFWS recommends adherence to Avoidance Dates for Tree Clearing Activities (April 1 – September 30). Hibernaculum(a) The ODNR DOW recommends a desktop habitat assessment to be conducted to identify potential hibernacula within 0.25 miles of the Project area. If habitat assessment finds potential hibernaculum within 0.25 miles, a revised seasonal tree clearing restriction (March 15 to November 15) is recommended (2023 Joint Guidance) *. If absence or no tree cutting or subsurface impacts are proposed, the Project is not likely to impact this species.	Summer habitat Potential summer roosting habitat is present within the Project area and seasonal tree clearing, between October 1 and March 31, is recommended. Hibernaculum(a) No impacts to winter hibernacula were identified due to no tree cutting or subsurface impacts proposed.
Fish							
Ohio Lamprey (*Ichthyomyzon bdellium*)	Threatened	None	Perennial Streams	Perennial streams were identified within the Project area.	March 15 – June 30	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.	No
American Eel (*Anguilla rostrata*)	Threatened	None	Perennial Streams	Perennial streams were identified within the Project area.	In-Water Work March 15 – June 30	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.	No
Channel darter (*Percina copelandi)*	Threatened	None	Perennial Streams	Perennial streams were identified within the Project area.	March 15 – June 30	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.	No
River darter (*Percina shumardi)*	Threatened	None	Perennial Streams	Perennial streams were identified within the Project area.	In-Water Work March 15 – June 30	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.	No
Amphibians							
Eastern hellbender (*Cryptobranchus alleganiensis*)	Endangered	None	This entirely aquatic species utilizes perennial streams with large flat rocks	Perennial streams were identified within the Project area.	N/A	The DOW stated that due to the location, and that there is no in-water work proposed in a perennial stream of sufficient sized to provide suitable habitat, this project is not likely to impact this species.	No

2023 Joint Guidance – Refers to the 2023 ODNR DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing, a copy of the guidance is provided within **Appendix G of this memo.*

Protected Species Agency Summary

No tree clearing is proposed as part of the Project. If tree clearing were to become part of the Project scope of work, the ODNR and the USFWS recommends implementations of seasonal tree clearing between October 1 and March 31 to avoid adverse effects to Indiana bat, northern long-eared bat, little brown bat, and tricolored bat. ODNR confirmed a known presence in the vicinity of the Project area for the northern long-eared bat. If trees must be cut during the summer months, the ODNR recommends that a mist net survey could be completed for the Indiana bat, little brown bat, and the tricolored bat between June 1 and August 15. However, additional summer surveys would not constitute presence/absence within the Project Survey Area for the northern long-eared bat. If summer tree clearing is needed, additional coordination would be completed with ODNR and the USFWS.

Regarding potential hibernaculum(a) within the Project area, a desktop hibernaculum(a) review was completed in accordance with the 2023 Ohio ODNR DOW and USFWS Joint Guidance for Bat Surveys and Tree Clearing within 0.25 miles of the Project survey (**Appendix G**). No karst features, underground mine openings, surface industrial minerals and historic coal mines were identified are within a 0.25-miles radius of the Project Area that are anticipated to provide suitable hibernacula for cave-dwelling bats as shown in **Appendix A**. Further evaluation and coordination with the ODNR and USFWS is not warranted.

No impacts are anticipated to occur to any fish, or amphibian species as no in-water work is proposed as part of the Project.

4.0 SUMMARY

The ecological field survey of the Project Survey Area identified no wetlands or ponds. The survey did identify five streams and three UDFs within the Project Survey Area. Of the five streams, all were classified using HHEI evaluations that identified four streams as Modified Class II PHW and one as a Class II PHW.

AECOM has preliminary determined that the assessed streams within the Project Survey Area appear to be jurisdictional (i.e., WOTUS). The reported results of the ecological survey conducted by AECOM on this Project are limited to the areas within the Project Survey Area provided on **Figure 3**. Areas that fall outside of the Project Survey Area were not evaluated in the field and are not included in the reporting of this survey.

Of the nine state and/or federally listed threatened and endangered species within range of the Project Survey Area, none of the species or their critical habitat were identified for the fish or amphibian species. Trees along the edge of the existing right-of-way may provide suitable habitat for the bat species; however, no tree clearing is anticipated to be required for this Project. Therefore, no further coordination is anticipated to be required to the USFWS and/or ODNR.

The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of our assessment. They cannot apply to 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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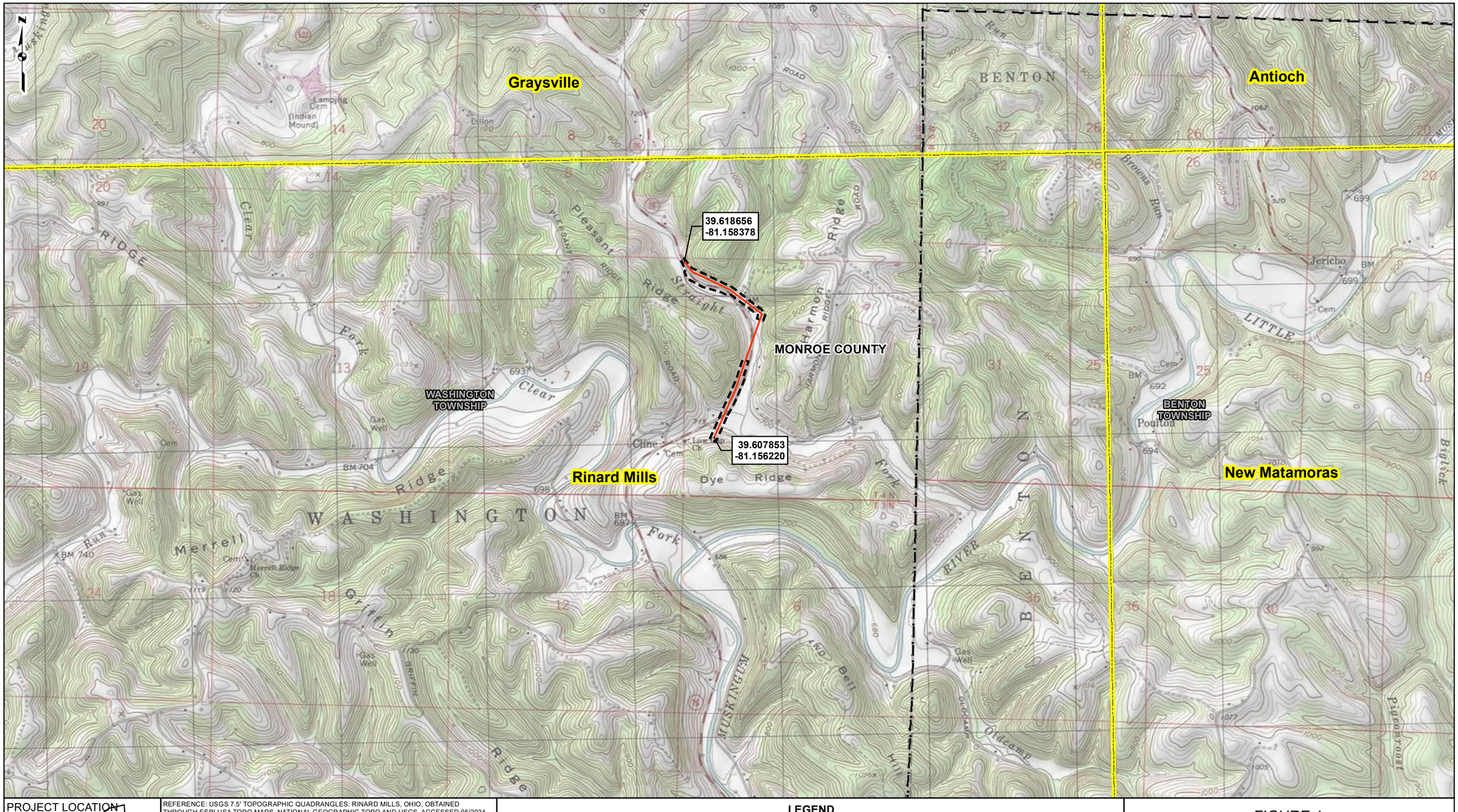

PROJECT LOCATION

MONROE COUNTY, OHIO

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: RINARD MILLS, OHIO, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 05/2024.

5/21/2024

LEGEND

- LAMPING ROUSE SLIP REPAIR
- PROJECT SURVEY AREA
- MUNICIPAL BOUNDARY
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY
- OHIO USGS 7.5' TOPOGRAPHIC QUADRANGLE

0 1,000 2,000 4,000 Feet

FIGURE 1
PROJECT LOCATION MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT

AMERICAN ELECTRIC POWER

DRAWN BY: CJT
CHECKED: BM

DATE: 5/21/2024
APPROVED:

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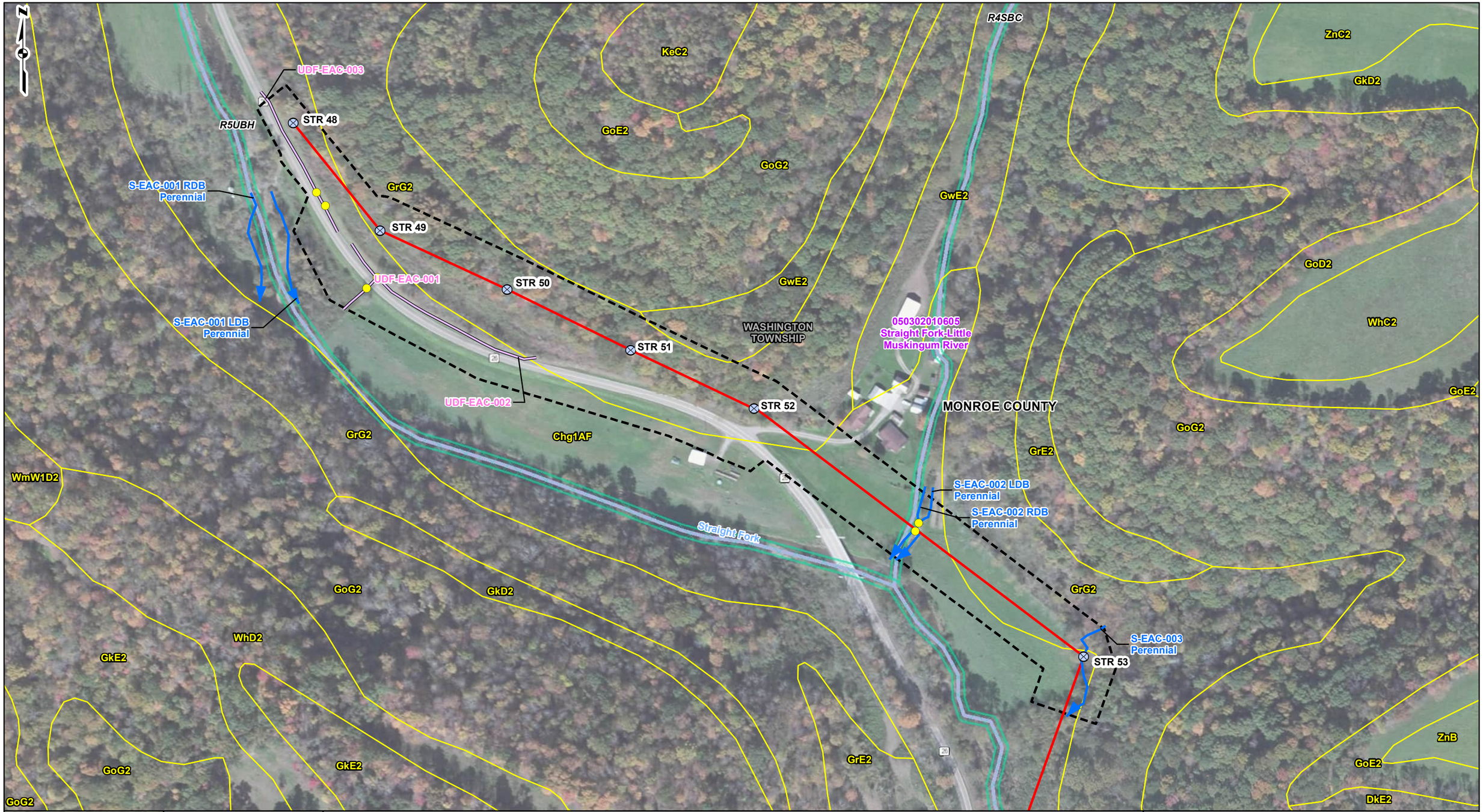

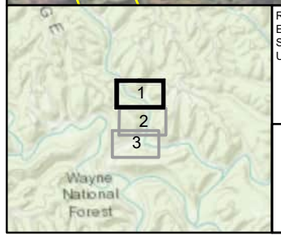

REFERENCE: WORLD IMAGERY (CLARITY), ESRI, ARCGIS ONLINE, ACCESSED 05/2024. SOIL SURVEY GEOGRAPHIC (SSURGO), USDA/NRCS, 2024.

5/21/2024

LEGEND

- EXISTING CULVERT
- DELINEATED PERENNIAL STREAM
- DELINEATED UPLAND DRAINAGE FEATURE
- LAMPING ROUSE SLIP REPAIR
- NHD STREAM (USGS)
- PROJECT SURVEY AREA
- NWI WETLAND (USFWS)
- HUC 12 WATERSHED BOUNDARY
- SOIL MAP UNIT

SOIL MAP UNIT DESCRIPTION

Chg1AF: CHAGRIN SILT LOAM, 0 TO 3 PERCENT SLOPES, FREQUENTLY FLOODED
GrG2: GUERNSEY-UPSHUR COMPLEX, 35 TO 70 PERCENT SLOPES, MODERATELY ERODED
GwE2: GUERNSEY-WESTMORE SILT LOAMS, 18 TO 35 PERCENT SLOPES, MODERATELY ERODED

0 100 200 400 Feet

FIGURE 2
SOIL MAP AND NATIONAL WETLANDS INVENTORY MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT
SHEET 1 OF 3

AMERICAN ELECTRIC POWER

DRAWN BY: CJT
CHECKED: BM
DATE: 5/21/2024
APPROVED:

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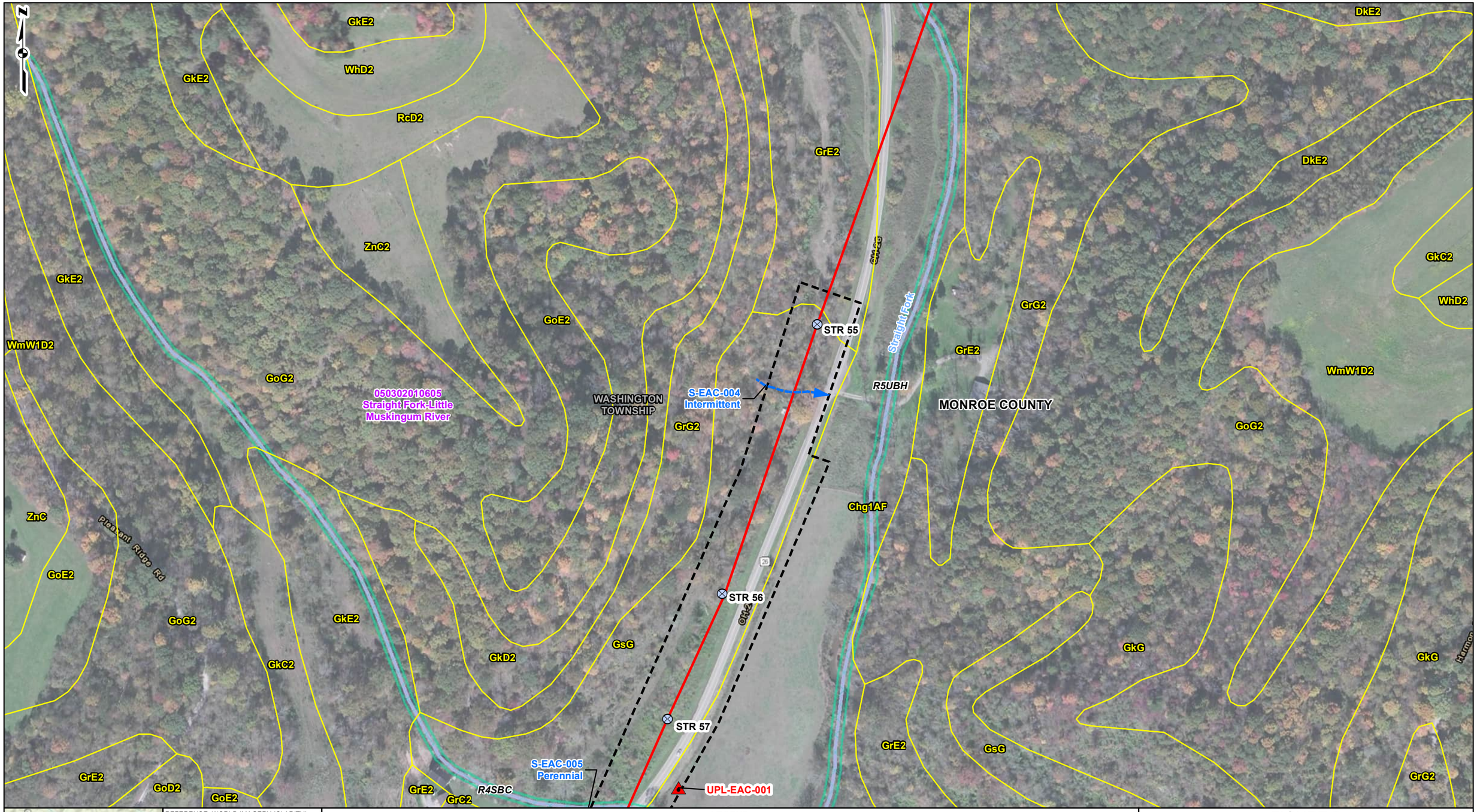

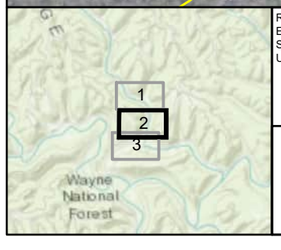

REFERENCE: WORLD IMAGERY (CLARITY), ESRI, ARCGIS ONLINE, ACCESSED 05/2024. SOIL SURVEY GEOGRAPHIC (SSURGO), USDA/NRCS, 2024.

5/21/2024

LEGEND

- EXISTING CULVERT
- UPLAND DATA POINT
- DELINEATED INTERMITTENT STREAM
- LAMPING ROUSE SLIP REPAIR
- NHD STREAM (USGS)
- PROJECT SURVEY AREA
- NWI WETLAND (USFWS)
- HUC 12 WATERSHED BOUNDARY
- SOIL MAP UNIT

SOIL MAP UNIT DESCRIPTION

Chg1AF: CHAGRIN SILT LOAM, 0 TO 3 PERCENT SLOPES, FREQUENTLY FLOODED
GrE2: GUERNSEY-UPSHUR COMPLEX, 18 TO 35 PERCENT SLOPES, MODERATELY ERODED
GsG: GUERNSEY-UPSHUR COMPLEX, 18 TO 70 PERCENT SLOPES, LANDSLIP

0 100 200 400 Feet

FIGURE 2
SOIL MAP AND NATIONAL WETLANDS INVENTORY MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT
SHEET 2 OF 3

AMERICAN ELECTRIC POWER

DRAWN BY: CJT DATE: 5/21/2024
CHECKED: BM APPROVED:

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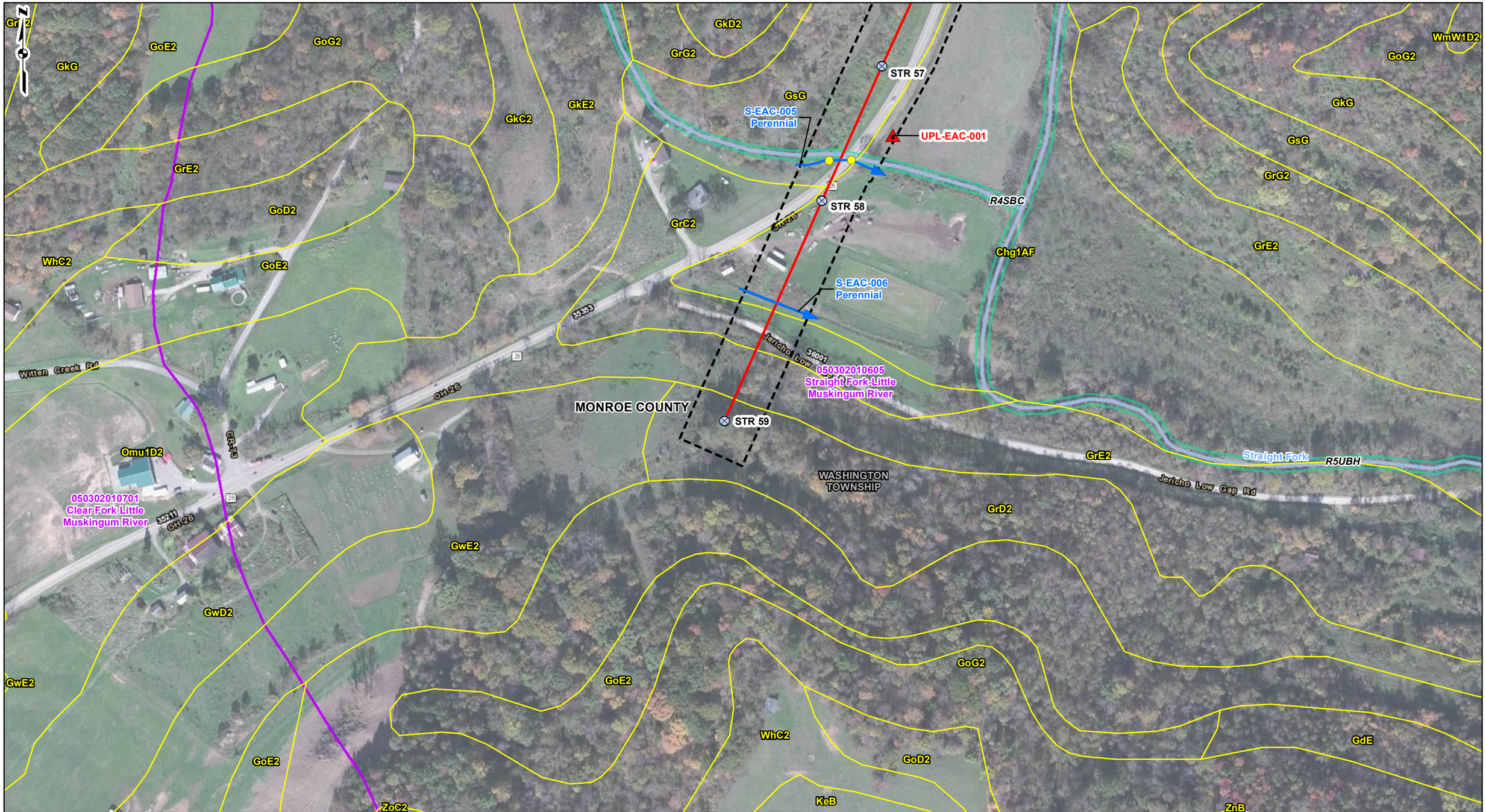

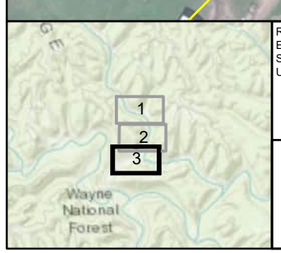

REFERENCE: WORLD IMAGERY (CLARITY), ESRI, ARCGIS ONLINE, ACCESSED 05/2024. SOIL SURVEY GEOGRAPHIC (SSURGO), USDA/NRCS, 2024.

5/21/2024

LEGEND

- EXISTING CULVERT
- UPLAND DATA POINT
- DELINEATED PERENNIAL STREAM
- LAMPING ROUSE SLIP REPAIR
- NHD STREAM (USGS)
- PROJECT SURVEY AREA
- NWI WETLAND (USFWS)
- HUC 12 WATERSHED BOUNDARY
- SOIL MAP UNIT

SOIL MAP UNIT DESCRIPTION

Chg1AF: CHAGRIN SILT LOAM, 0 TO 3 PERCENT SLOPES, FREQUENTLY FLOODED
GrC2: GUERNSEY-UPSHUR COMPLEX, 6 TO 12 PERCENT SLOPES, MODERATELY ERODED
GrD2: GUERNSEY-UPSHUR COMPLEX, 12 TO 18 PERCENT SLOPES, MODERATELY ERODED
GrE2: GUERNSEY-UPSHUR COMPLEX, 18 TO 35 PERCENT SLOPES, MODERATELY ERODED
GsG: GUERNSEY-UPSHUR COMPLEX, 18 TO 70 PERCENT SLOPES, LANDSLIP

0 100 200 400 Feet

FIGURE 2
SOIL MAP AND NATIONAL WETLANDS INVENTORY MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT
SHEET 3 OF 3

AMERICAN ELECTRIC POWER

DRAWN BY: CJT
CHECKED: BM
DATE: 5/21/2024
APPROVED:

X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\AEP_Lamping_Rouse\2_MXDs\1_WDR\WDR_Fig_2--.mxd

UDF-EAC-003
STR 48
S-EAC-001 RDB
Perennial
STR 49
UDF-EAC-001
STR 50
S-EAC-001 LDB
Perennial
STR 51
WASHINGTON
TOWNSHIP
UDF-EAC-002
STR 52
MONROE COUNTY
S-EAC-002 LDB
Perennial
S-EAC-002 RDB
Perennial
Straight Fork
S-EAC-003
Perennial
STR 53

1
2
3
Wayne
National
Forest

REFERENCE: WORLD IMAGERY (CLARITY), ESRI, ARCGIS ONLINE, ACCESSED 05/2024. OGRIP 5FT CONTOURS, ACCESSED 05/2024. NHS, USGS 2024.

5/21/2024

LEGEND

- EXISTING CULVERT
- EXISTING STRUCTURE
- DELINEATED PERENNIAL STREAM
- DELINEATED UPLAND DRAINAGE FEATURE
- LAMPING ROUSE SLIP REPAIR
- NHD STREAM (USGS)
- CONTOURS 5FT
- PROJECT SURVEY AREA

0 100 200 400 Feet

FIGURE 3
WETLAND DELINEATION AND STREAM ASSESSMENT MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT
SHEET 1 OF 3

AMERICAN ELECTRIC POWER

DRAWN BY: CJT DATE: 5/21/2024
CHECKED: BM APPROVED:

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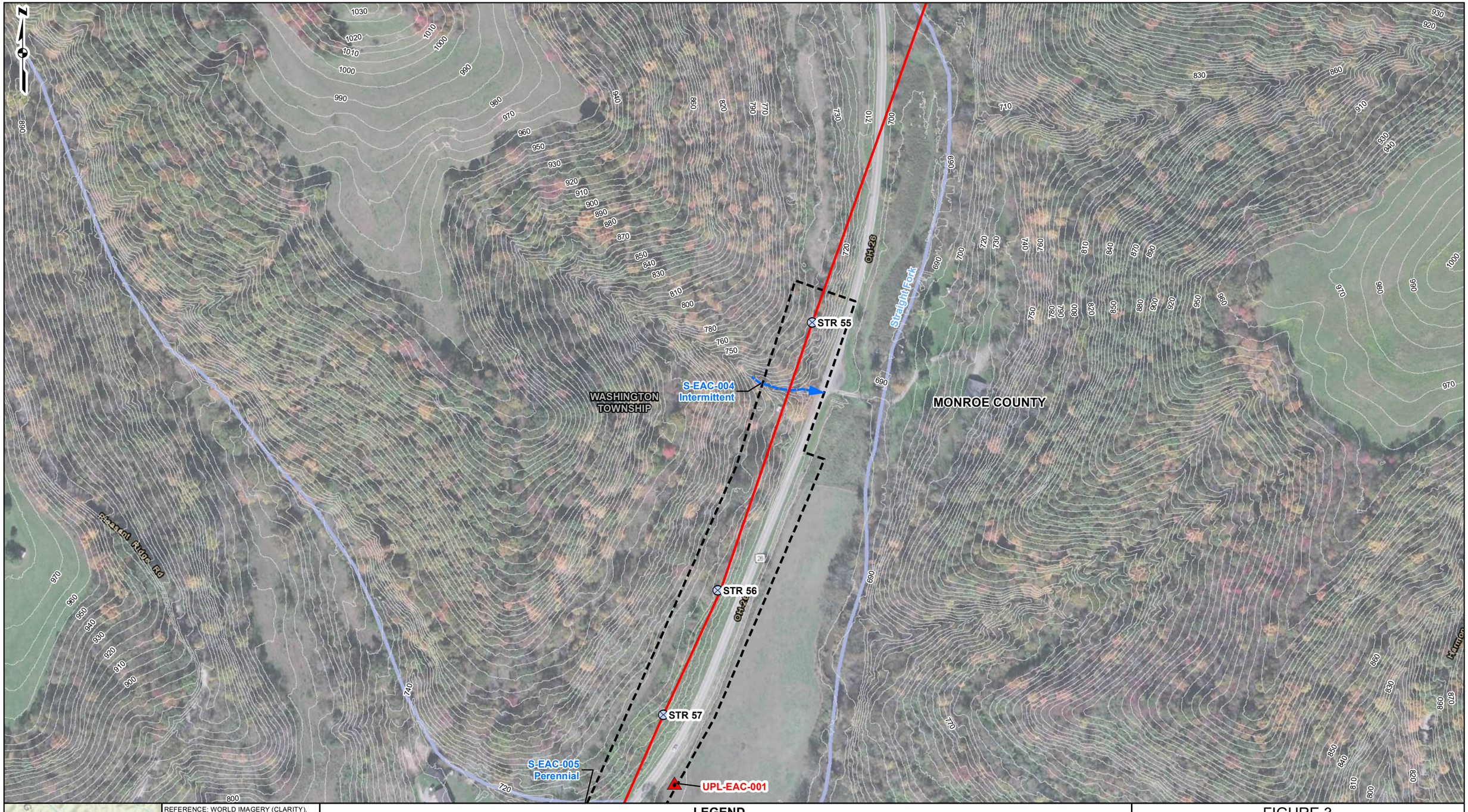

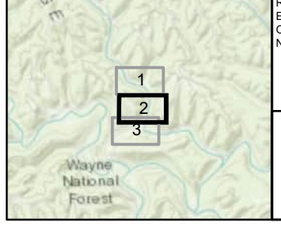

REFERENCE: WORLD IMAGERY (CLARITY). ESRI, ARCGIS ONLINE, ACCESSED 05/2024.
OGRIP 5FT CONTOURS, ACCESSED 05/2024.
NHS, USGS 2024.

5/21/2024

LEGEND

- EXISTING CULVERT
- EXISTING STRUCTURE
- UPLAND DATA POINT
- DELINEATED INTERMITTENT STREAM
- LAMPING ROUSE SLIP REPAIR
- NHD STREAM (USGS)
- CONTOURS 5FT
- PROJECT SURVEY AREA

0 100 200 400 Feet

FIGURE 3
WETLAND DELINEATION AND STREAM ASSESSMENT MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT
SHEET 2 OF 3

AMERICAN ELECTRIC POWER

DRAWN BY: CJT
CHECKED: BM
DATE: 5/21/2024
APPROVED:

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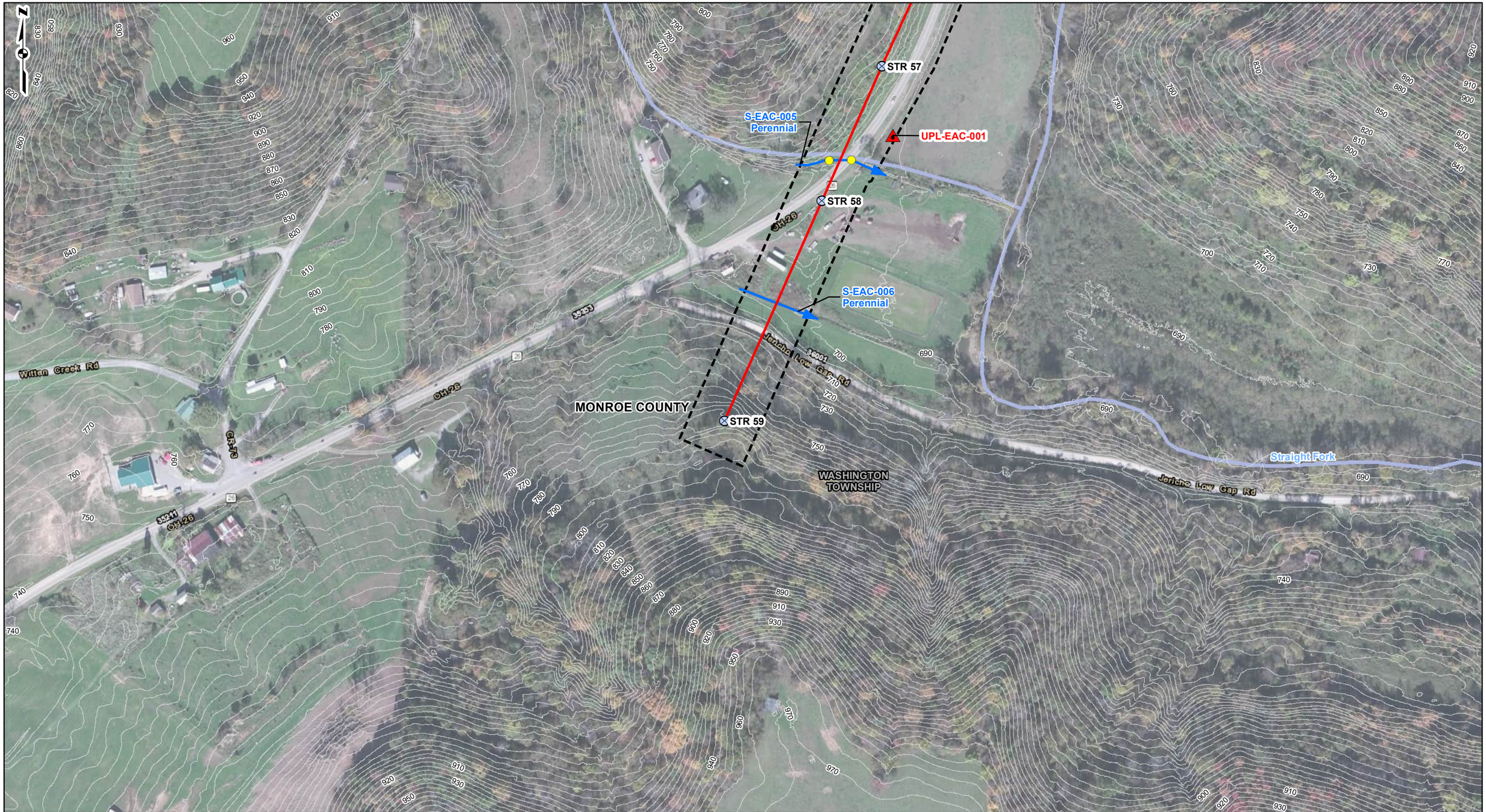

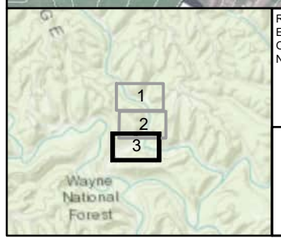

REFERENCE: WORLD IMAGERY (CLARITY), ESRI, ARCGIS ONLINE, ACCESSED 05/2024. OGRIP 5FT CONTOURS, ACCESSED 05/2024. NHS, USGS 2024.

5/21/2024

LEGEND

- EXISTING CULVERT
- EXISTING STRUCTURE
- UPLAND DATA POINT
- DELINEATED PERENNIAL STREAM
- LAMPING ROUSE SLIP REPAIR
- NHD STREAM (USGS)
- CONTOURS 5FT
- PROJECT SURVEY AREA

0 100 200 400 Feet

FIGURE 3
WETLAND DELINEATION AND STREAM ASSESSMENT MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT
SHEET 3 OF 3

AMERICAN ELECTRIC POWER

DRAWN BY: CJT
CHECKED: BM
DATE: 5/21/2024
APPROVED:

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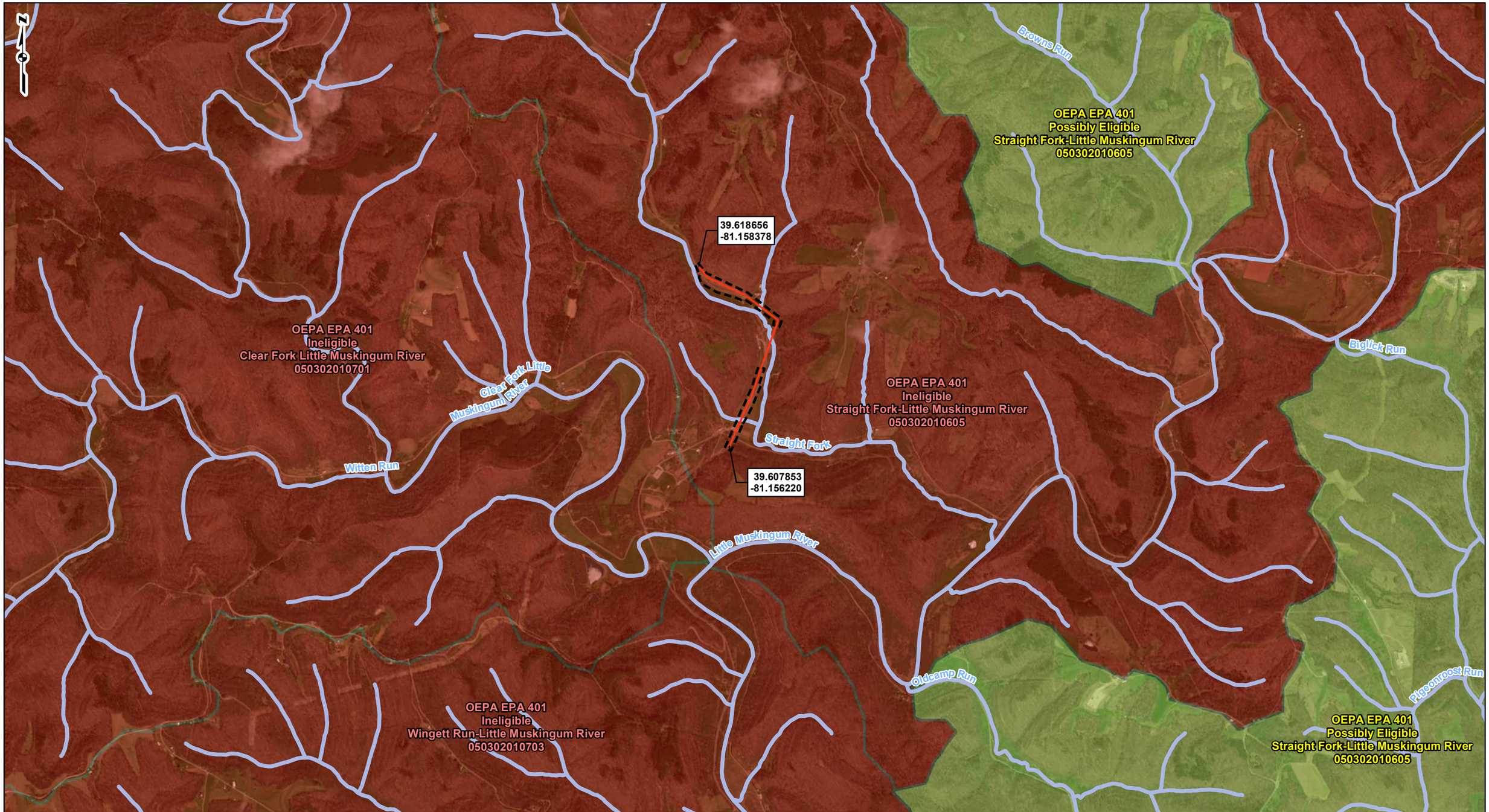

PROJECT LOCATION

MONROE COUNTY, OHIO

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: RINARD MILLS, OHIO, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 05/2024. OEPA ELIGIBLE WATERSHEDS, OHIO ENVIRONMENTAL PROTECTION AGENCY, 2024.

5/21/2024

LEGEND

- LAMPING ROUSE SLIP REPAIR
- PROJECT SURVEY AREA
- NHD STREAM (USGS)

OEPA ELIGIBILITY:

- ELIGIBLE
- INELIGIBLE
- POSSIBLY ELIGIBLE

0 1,000 2,000 4,000 Feet

FIGURE 4
STREAM ELIGIBILTY MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT

AMERICAN ELECTRIC POWER

DRAWN BY: CJT
CHECKED: BM

DATE: 5/21/2024
APPROVED:

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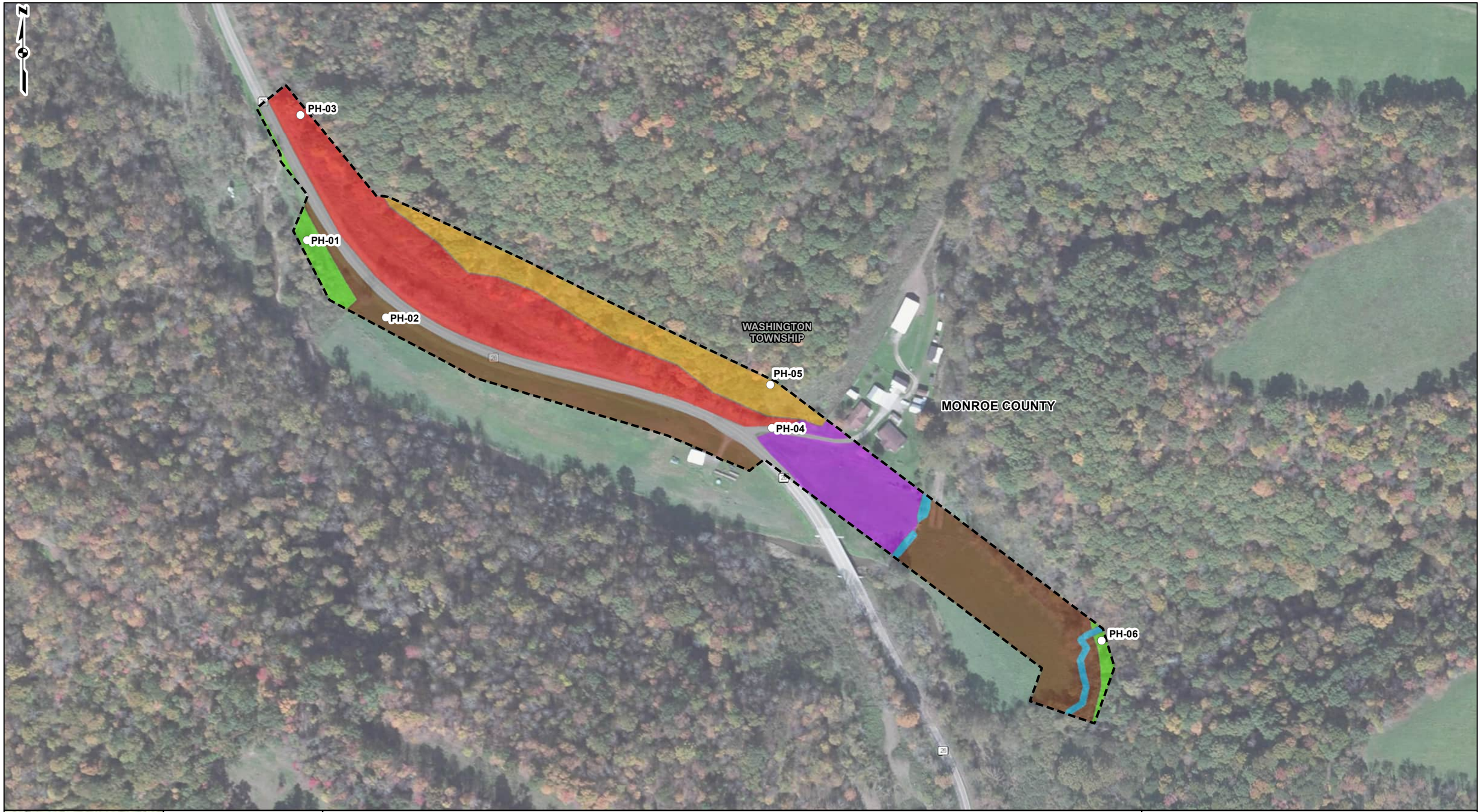

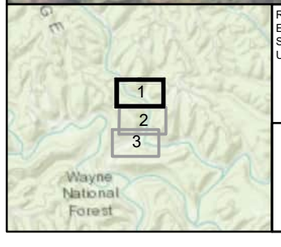

REFERENCE: WORLD IMAGERY (CLARITY), ESRI, ARCGIS ONLINE, ACCESSED 05/2024. SOIL SURVEY GEOGRAPHIC (SSURGO), USDA/NRCS, 2024.

4/24/2024

LEGEND

- PHOTO LOCATION
- PROJECT SURVEY AREA

VEGETATIVE COMMUNITY TYPE

- LANDSCAPED
- OLD FIELD
- PASTURE/HAY FIELDS
- SCRUB/SHRUB
- STREAMS/WETLANDS
- URBAN
- WOODLANDS

0 100 200 400 Feet

FIGURE 5
VEGETATIVE COMMUNITIES ASSESSMENT MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT
SHEET 1 OF 3

AMERICAN ELECTRIC POWER

DRAWN BY: CJT
CHECKED: BM
DATE: 5/21/2024
APPROVED:

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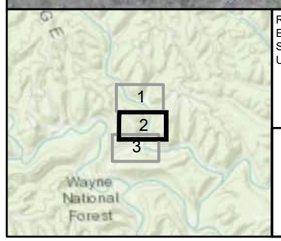

REFERENCE: WORLD IMAGERY (CLARITY), ESRI, ARCGIS ONLINE, ACCESSED 05/2024. SOIL SURVEY GEOGRAPHIC (SSURGO), USDA/NRCS, 2024.

4/24/2024

LEGEND

- PHOTO LOCATION
- PROJECT SURVEY AREA

VEGETATIVE COMMUNITY TYPE

- OLD FIELD
- PASTURE/HAY FIELDS
- SCRUB/SHRUB
- STREAMS/WETLANDS
- URBAN

0 100 200 400 Feet

FIGURE 5
VEGETATIVE COMMUNITIES ASSESSMENT MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT
SHEET 2 OF 3

AMERICAN ELECTRIC POWER

DRAWN BY: CJT
CHECKED: BM

DATE: 5/21/2024
APPROVED:

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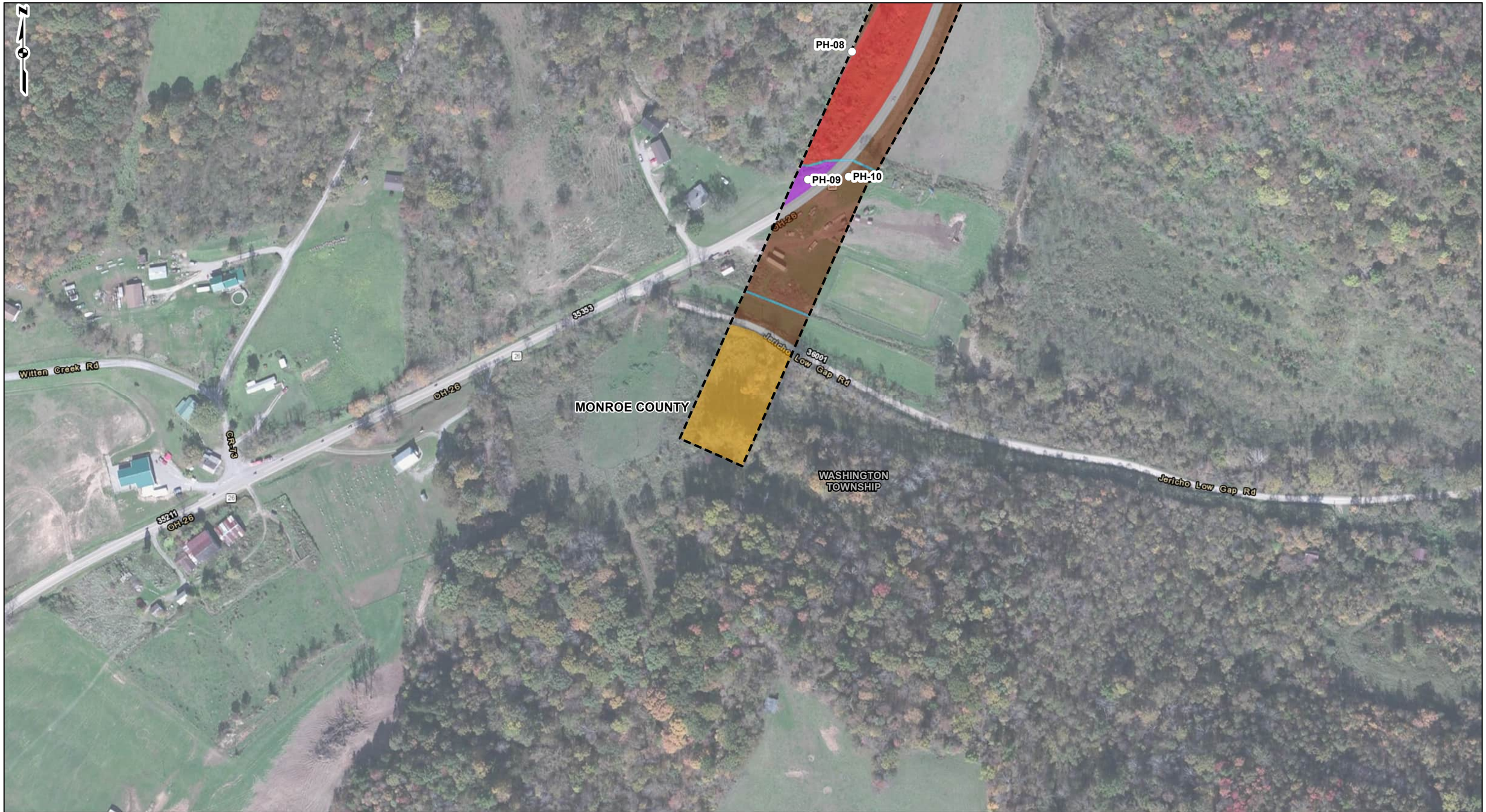

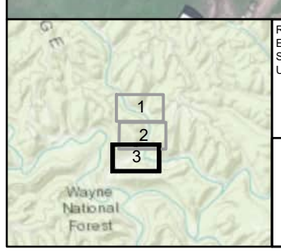

REFERENCE: WORLD IMAGERY (CLARITY), ESRI, ARCGIS ONLINE, ACCESSED 05/2024. SOIL SURVEY GEOGRAPHIC (SSURGO), USDA/NRCS, 2024.

4/24/2024

LEGEND

- PHOTO LOCATION
- PROJECT SURVEY AREA

VEGETATIVE COMMUNITY TYPE

- LANDSCAPED
- OLD FIELD
- PASTURE/HAY FIELDS
- SCRUB/SHRUB
- STREAMS/WETLANDS
- URBAN

0 100 200 400 Feet

FIGURE 5
VEGETATIVE COMMUNITIES ASSESSMENT MAP

AECOM

LAMPING ROUSE
SLIP REPAIR PROJECT
SHEET 3 OF 3

AMERICAN ELECTRIC POWER

DRAWN BY: CJT
CHECKED: BM

DATE: 5/21/2024
APPROVED:

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APPENDIX A

DESKTOP ASSESSMENT FOR WINTER BAT HABITAT

American Electric Power
8600 Smith's Mill Road
New Albany, OH 43054;
ajtoohey@ aep.com

April 16, 20244/16/2024

Attention: Mr. Mike Pettegrew
Ohio Department of Natural Resources
2045 Morse Road, Building E-2
Columbus, Ohio 43229-6693

Transmitted via email: environmentalreviewrequest@dnr.ohio.gov;
NHDRequest@dnr.ohio.gov

Reference: Project Review Request
Lamping Rouse T Line Failure Project, Monroe County, Ohio

Dear Mr. Pettegrew:

AEP Ohio Transmission Company, Inc. (AEP), is formally requesting that the Ohio Department of Natural Resources (ODNR) completes an environmental review and a Natural Heritage Database (NHD) search request for the proposed Lamping Rouse T Line Failure Project (Project) located in Monroe County, Ohio (OH). The project involves the repair of two slips associated with the existing Lamping Rouse Transmission line right of way. The slip locations are located near Structures 49, 50, and 51, and Structure 56. The Project is located on the Rinard Mills OH United States Geological Survey 7.5-minute topographical quadrangle as displayed on the Topographic Project Overview (Figure 1).

AECOM Technical Services, Inc. (AECOM) completed a desktop review of publicly available data resources and aerial imagery to identify the potential for known bat winter hibernacula within 0.25 miles of the Project area. The data sources utilized included USGS topographical maps, aerial photography, and the ODNR's Division of Mineral Resources and Geological Survey Data for Known Mining Activity and Karst Geology/Sinkholes as shown on Figures 1 and 2. Based on the available desktop resources, there are no karst features or surface mine operations located within a 0.25 miles radius of the Project area that are anticipated to provide suitable hibernacula for cave-dwelling bats. Due to lack of known karst features, sub-surface mining activities (portals or openings) known to occur within 0.25 miles of the Project area, disturbances to winter hibernacula are not anticipated for this Project.

AECOM respectfully requests the results of the ODNR's environmental review, including results of the ODNR Natural Heritage Database search (see attached NHD Request Form) at your earliest convenience. If you have questions or need additional information regarding the Project, please contact me at the phone number or email below. Thank you for your assistance with this request.

Sincerely,

Joshua M. Homes
Environmental Project Manager
Phone: (724-882-6958); joshua.holmes@aecom.com

CC: Amy J. Toohey
Environmental Specialist-Consultant
Phone: (614-565-1480); ajtoohey@aep.com

Attachments (4): Figure 1 – Topographic Project Overview; Figure 2 – Aerial Project Overview; Natural Heritage Data Request Form; Electronic Shapefiles (.shp)

No mining activities, karst features, and/or sink holes are within the extent of the map frame. The closest feature is 5.23 miles northwest of the project area.

39.618656
-81.158378

39.607853
-81.15622

Rinard Mills

MONROE COUNTY
WASHINGTON TOWNSHIP

BENTON TOWNSHIP

Legend

- County Boundary
- Township Boundary
- Ohio USGS 7.5' Topographic Quadrangle

N

0 800 1,600
Feet

Lamping Rouse T Line Failure Project

FIGURE 1
TOPOGRAPHIC PROJECT OVERVIEW

DATE: 4/11/2024	1 INCH = 800 FEET
CREATED BY: CJT	CHECKED BY: BG
JOB NO.: 60720435	AECOM

Date Saved: 4/11/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\AEP_Lamping_Rouse\2_MXDs\0_TE\LampingRouse_ODNRFigure1_Topo_Overview.mxd

No mining activities, karst features, and/or sink holes are within the extent of the map frame. The closest feature is 5.23 miles northwest of the project area.

39.618656
-81.158378

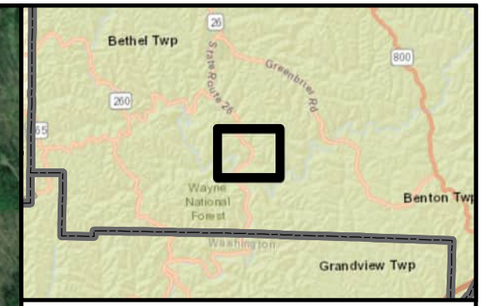
Rinard Mills

WASHINGTON TOWNSHIP

MONROE COUNTY

BENTON TOWNSHIP

39.607853
-81.15622



Legend

- County Boundary
- Township Boundary
- Ohio USGS 7.5' Topographic Quadrangle

N

0 800 1,600

Feet

AMERICAN ELECTRIC POWER

Lamping Rouse T Line Failure Project

FIGURE 2
AERIAL PROJECT OVERVIEW

DATE: 4/11/2024	1 INCH = 800 FEET
CREATED BY: CJT	CHECKED BY: BG
JOB NO.: 60720435	AECOM

Date Saved: 4/11/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\AEP_Lamping_Rouse\2_MXDs\0_TE\LampingRouse_ODNRFigure2_Aerial_Overview.mxd

APPENDIX B

U.S. ARMY CORPS OF ENGINEERS UPLAND DETERMINATION DATA FORM / PHOTOGRAPHS

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Lamping Rouse Slip Repair City/County: Monroe Sampling Date: 04/12/2024
Applicant/Owner: AEP State: OH Sampling Point: UPL-EAC-001
Investigator(s): EAC, AH Section, Township, Range: T3N R6W S6
Landform (hillside, terrace, etc.): Plain Local relief (concave, convex, none): none Slope (%): N/A
Subregion (LRR or MLRA): LRR N Lat: 39.609320 Long: -81.155222 Datum: NAD83
Soil Map Unit Name: Chg1AF- Chagrin silt loam, 0 to 3 percent slopes frequently flooded NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Sample collected within an agricultural pasture along the survey area adjacent to the roadway and fenceline.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ 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** x

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

Remarks:
No hydrology indicators are present

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: UPL-EAC-001

Tree Stratum (Plot size: 30' r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15' r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5' r)			
1. *Poa pratensis*	90	Yes	FACU
2. *Trifolium repens*	5	No	FACU
3. *Plantago lanceolata*	5	No	UPL
4. *Lamium purpureum*	5	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	105 =Total Cover		
50% of total cover: 53	20% of total cover: 21		
Woody Vine Stratum (Plot size: 15' r)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of 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: 1 (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	95	x 4 =	380
UPL species	10	x 5 =	50
Column Totals:	105 (A)		430 (B)
Prevalence Index = B/A =			4.10

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) 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** X

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation is not present in dominance or prevalence.

SOIL

Sampling Point: UPL-EAC-001

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/3	100					Loamy/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

No hydric soil indicators were present.

AECOM

PHOTOGRAPHIC RECORD
Upland Photographs

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

UPL-EAC-001

Date:

April 12, 2024

Description:

UPL

Facing North

UPL-EAC-001

Date:

April 12, 2024

Description:

UPL

Facing East

PHOTOGRAPHIC RECORD
Upland Photographs

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

UPL-EAC-001

Date:

April 12, 2024

Description:

UPL

Facing South

UPL-EAC-001

Date:

April 12, 2024

Description:

UPL

Facing West

PHOTOGRAPHIC RECORD
Upland Photographs

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

UPL-EAC-001

Date:

April 12, 2024

Description:

UPL

Soils

APPENDIX C

OEPA STREAM DATA FORMS / DELINEATED FEATURES PHOTOGRAPHS

Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) 62

SITE NAME/LOCATION: Lamping Rouse Slip Monitoring

SITE NUMBER: S-EAC-002 PER | RIVER BASIN: Ohio River | RIVER CODE: HUC 05030201 | DRAINAGE AREA (mi²): 0.39 sq mi

LENGTH OF STREAM REACH (ft): 190 | LAT: 39.616516 | LONG: -81.153552 | RIVER MILE:

DATE: 04/12/2024 | SCORER: EAC | COMMENTS: Flows through culvert (residential area drainage). Modified Class II PHW

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

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

1. SUBSTRATE (Estimate percent of every type 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]		☐ ☒	SILT [3 pt]	25
☐ ☐	BOULDER (>256 mm) [16 pts]	5	☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	
☐ ☐	BEDROCK [16 pts]		☐ ☐	FINE DETRITUS [3 pts]	
☐ ☐	COBBLE (65-256 mm) [12 pts]	20	☐ ☐	CLAY or HARDPAN [0 pt]	
☒ ☐	GRAVEL (2-64 mm) [9 pts]	25	☐ ☐	MUCK [0 pts]	
☐ ☐	SAND (<2 mm) [6 pts]	25	☐ ☐	ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 25

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: (A) 12 | TOTAL NUMBER OF SUBSTRATE TYPES: (B) 5

HHEI Metric Points

Substrate Max = 40

17

A + B

2. Maximum Pool Depth (*Measure the maximum pool depth within the 61 meter (200 feet)* 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]	☐	5 cm - 10 cm [15 pts]
☐	> 22.5 - 30 cm [30 pts]	☐	< 5 cm [5pts]
☒	> 10 - 22.5 cm [25 pts]	☐	NO WATER OR MOIST CHANNEL [0pts]

COMMENTS: | MAXIMUM POOL DEPTH (centimeters): 22

Pool Depth Max = 30

25

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

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

COMMENTS: | AVERAGE BANKFULL WIDTH (meters): 2.1

Bankfull Width Max=30

20

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:

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

☒ Stream Flowing ☐ Moist Channel, isolated pools, no flow (intermittent)

☐ Subsurface flow with isolated pools (interstitial) ☐ Dry channel, no water (ephemeral)

COMMENTS:

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

☐ None ☒ 1.0 ☐ 2.0 ☐ 3.0

☐ 0.5 ☐ 1.5 ☐ 2.5 ☐ >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: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☒ EWH Name: Straight Fork Distance from Evaluated Stream 286

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

USGS Quadrangle Name: Washington Quadrangle NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____

County: Monroe Township/City: Cline

MISCELLANEOUS

Base Flow Conditions? (Y/N): n Date of last precipitation: Actively raining at time of sample Quantity: >1 inch

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): y Canopy (% open): 95

Were samples collected for water chemistry? (Y/N): n Lab Sample # or ID (attach results): _____

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

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

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) n Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) n Species observed (if known): _____

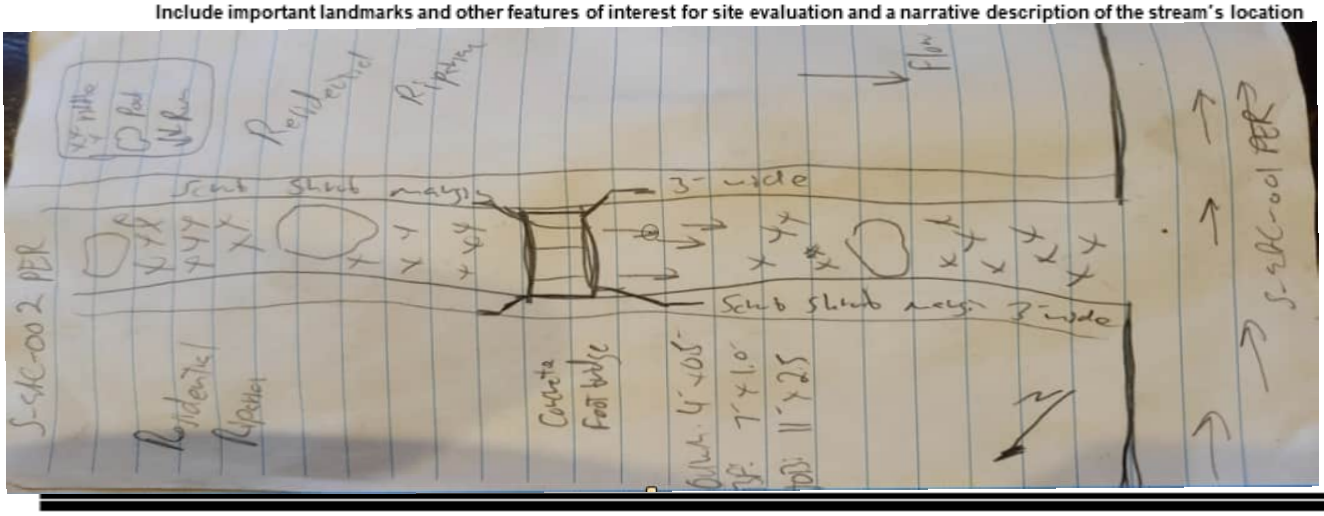
Salamanders Observed? (Y/N) n Species observed (if known): _____

Aquatic Macroinvertebrates Observed? (Y/N) n Species observed (if known): _____

Comments Regarding Biology: _____

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



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) 55

SITE NAME/LOCATION: Lamping Rouse Slip Monitoring

SITE NUMBER: S-EAC-003 PER | RIVER BASIN: Ohio River | RIVER CODE: HUC 05030201 | DRAINAGE AREA (mi²): 0.39

LENGTH OF STREAM REACH (ft): 200 | LAT: 39.616184 | LONG: -81.153633 | RIVER MILE:

DATE: 04/12/2024 | SCORER: EAC | COMMENTS: Class II PHW Perennial stream, pasture adjacent

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

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

1. SUBSTRATE (Estimate percent of every type 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]		☐ ☐	SILT [3 pt]	10
☐ ☐	BOULDER (>256 mm) [16 pts]		☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	
☐ ☐	BEDROCK [16 pts]		☐ ☐	FINE DETRITUS [3 pts]	
☐ ☒	COBBLE (65-256 mm) [12 pts]	30	☐ ☐	CLAY or HARDPAN [0 pt]	
☒ ☐	GRAVEL (2-64 mm) [9 pts]	30	☐ ☐	MUCK [0 pts]	
☐ ☐	SAND (<2 mm) [6 pts]	30	☐ ☐	ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 30 (A)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21

TOTAL NUMBER OF SUBSTRATE TYPES: 4 (B)

HHEI Metric Points

Substrate Max = 40

25

A + B

2. Maximum Pool Depth (*Measure the maximum pool depth within the 61 meter (200 feet)* 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]	☒	5 cm - 10 cm [15 pts]
☐	> 22.5 - 30 cm [30 pts]	☐	< 5 cm [5pts]
☐	> 10 - 22.5 cm [25 pts]	☐	NO WATER OR MOIST CHANNEL [0pts]

COMMENTS: High flow stage present

MAXIMUM POOL DEPTH (centimeters): 10

Pool Depth Max = 30

15

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

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

COMMENTS:

AVERAGE BANKFULL WIDTH (meters): 1.4

Bankfull Width Max=30

15

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:

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:

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: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☒ EWH Name: Straight Fork Distance from Evaluated Stream 150

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

USGS Quadrangle Name: Washington Quadrangle NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____

County: Monroe Township/City: Cline

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: Currently Raining Quantity: >1 inch

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): Y Canopy (% open): 100%

Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____

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

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

Additional comments/description of pollution impacts: _____

Channel flow from hillside outside of survey to the toe of slope along the survey are where the gradient decreases and sinuosity increases.

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____

Salamanders Observed? (Y/N) N Species observed (if known): _____

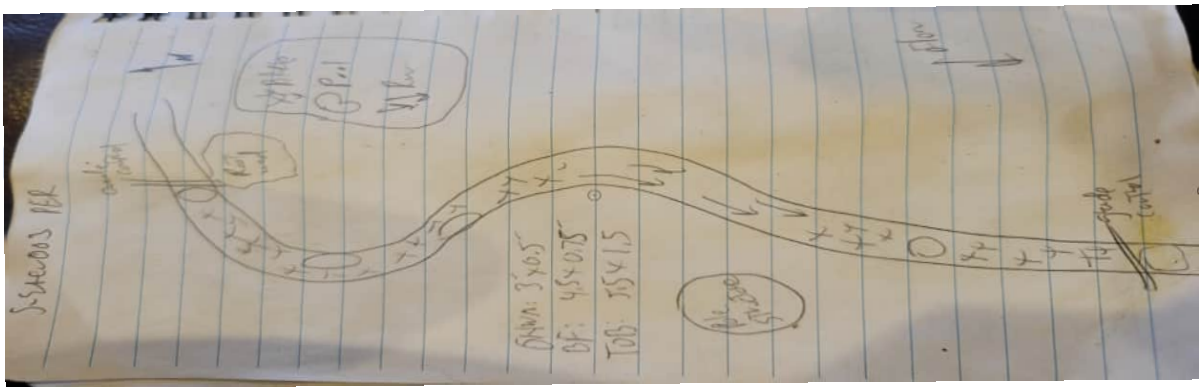
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____

Comments Regarding Biology: _____

High Flow status precludes biological sampling.

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



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) 57

SITE NAME/LOCATION: Lamping Rouse Slip Monitoring

SITE NUMBER: S-EAC-004 INT | RIVER BASIN: Ohio River | RIVER CODE: HUC 05030201 | DRAINAGE AREA (mi²): 0.01

LENGTH OF STREAM REACH (ft): 168 | LAT: 39.611951 | LONG: -81.153915 | RIVER MILE:

DATE: 04/12/2024 | SCORER: EAC | COMMENTS: Class II PHW, high gradient intermittent stream channel crosses the Right of Way

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

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

1. SUBSTRATE (Estimate percent of every type 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]		☐ ☐	SILT [3 pt]	5
☐ ☐	BOULDER (>256 mm) [16 pts]	5	☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	5
☐ ☐	BEDROCK [16 pts]		☐ ☐	FINE DETRITUS [3 pts]	
☐ ☒	COBBLE (65-256 mm) [12 pts]	25	☐ ☐	CLAY or HARDPAN [0 pt]	
☒ ☐	GRAVEL (2-64 mm) [9 pts]	50	☐ ☐	MUCK [0 pts]	
☐ ☐	SAND (<2 mm) [6 pts]	10	☐ ☐	ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 30 (A)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21

TOTAL NUMBER OF SUBSTRATE TYPES: 6 (B)

HHEI Metric Points

Substrate Max = 40

27

A + B

2. Maximum Pool Depth (*Measure the maximum pool depth within the 61 meter (200 feet)* 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]	☒	5 cm - 10 cm [15 pts]
☐	> 22.5 - 30 cm [30 pts]	☐	< 5 cm [5pts]
☐	> 10 - 22.5 cm [25 pts]	☐	NO WATER OR MOIST CHANNEL [0pts]

COMMENTS: Step pools

MAXIMUM POOL DEPTH (centimeters): 8

Pool Depth Max = 30

15

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

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

COMMENTS:

AVERAGE BANKFULL WIDTH (meters): 1.3

Bankfull Width Max=30

15

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: Young second growth forest and scrub shrub riparian

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:

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

☐ None	☐ 1.0	☐ 2.0	☐ 3.0
☒ 0.5	☐ 1.5	☐ 2.5	☐ >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: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☒ EWH Name: Straight Fork Distance from Evaluated Stream 300

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

USGS Quadrangle Name: Washington Quadrangle NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____

County: Monroe Township/City: Cline

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: Current Quantity: >1 inch

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): y Canopy (% open): 50

Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____

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

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

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____

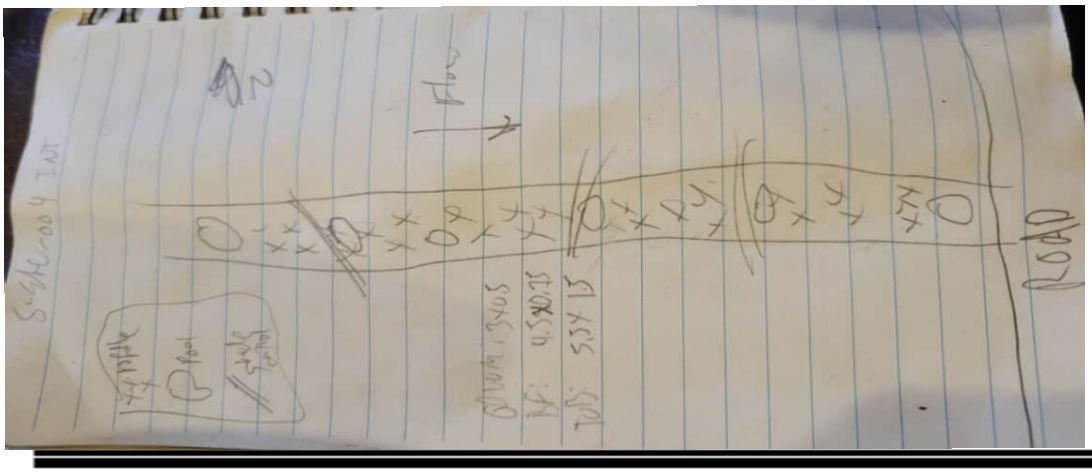
Salamanders Observed? (Y/N) N Species observed (if known): _____

Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____

Comments Regarding Biology: _____

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



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) 56

SITE NAME/LOCATION: Lamping Rouse Slip Monitoring

SITE NUMBER: S-EAC-005 PER | RIVER BASIN: Ohio River | RIVER CODE: HUC 05030201 | DRAINAGE AREA (mi²): 0.01

LENGTH OF STREAM REACH (ft): 200 | LAT: 39.609426 | LONG: -81.155273 | RIVER MILE:

DATE: 04/12/2024 | SCORER: EAC | COMMENTS: Modified Class II PHW Perennial. Stream is culverted and channelized.

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

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

1. SUBSTRATE (Estimate percent of every type 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]		☐ ☐	SILT [3 pt]	5
☐ ☐	BOULDER (>256 mm) [16 pts]	5	☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	
☐ ☐	BEDROCK [16 pts]		☐ ☐	FINE DETRITUS [3 pts]	
☐ ☒	COBBLE (65-256 mm) [12 pts]	30	☐ ☐	CLAY or HARDPAN [0 pt]	
☒ ☐	GRAVEL (2-64 mm) [9 pts]	50	☐ ☐	MUCK [0 pts]	
☐ ☐	SAND (<2 mm) [6 pts]	10	☐ ☐	ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 35 (A)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21

(B) TOTAL NUMBER OF SUBSTRATE TYPES: 5

HHEI Metric Points

Substrate Max = 40: 26

A + B

2. Maximum Pool Depth (*Measure the maximum pool depth within the 61 meter (200 feet)* 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]	☒	5 cm - 10 cm [15 pts]
☐	> 22.5 - 30 cm [30 pts]	☐	< 5 cm [5pts]
☐	> 10 - 22.5 cm [25 pts]	☐	NO WATER OR MOIST CHANNEL [0pts]

COMMENTS: Channel is altered by straightening, culverts and dredging

MAXIMUM POOL DEPTH (centimeters): 10

Pool Depth Max = 30: 15

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

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

COMMENTS:

AVERAGE BANKFULL WIDTH (meters): 1.3

Bankfull Width Max=30: 15

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: Surrounded by cattle farming and small row crop area, both fenced and unfenced

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

☒	Stream Flowing	☐	Moist Channel, isolated pools, no flow (intermittent)
☐	Subsurface flow with isolated pools (interstitial)	☐	Dry channel, no water (ephemeral)

COMMENTS: High flow condition

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

☐	None	☐	1.0	☐	2.0	☐	3.0
☒	0.5	☐	1.5	☐	2.5	☐	>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: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☒ EWH Name: Straight Fork Distance from Evaluated Stream 453

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

USGS Quadrangle Name: Washington Quadrangle NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____

County: Monroe Township/City: Cline

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: Current Quantity: _____

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): Y Canopy (% open): 100

Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): N/A

Field Measures: Temp (°C) N/A Dissolved Oxygen (mg/l) N/A pH (S.U.) N/A Conductivity (umhos/cm) N/A

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

Additional comments/description of pollution impacts: the stream crosses under the road via culvert

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____

Salamanders Observed? (Y/N) N Species observed (if known): _____

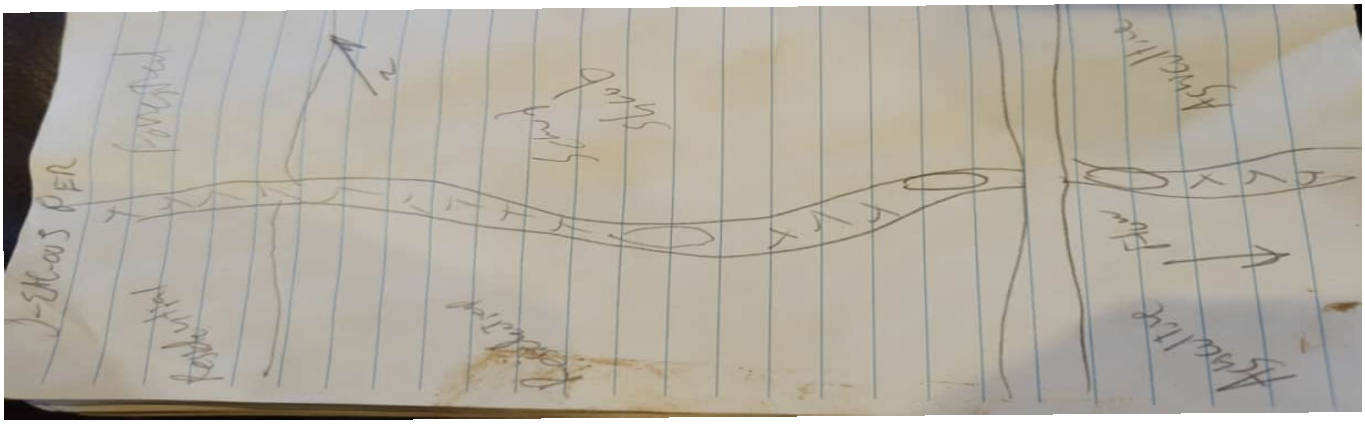
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____

Comments Regarding Biology: High flow conditions preclude thorough investigation of biology.

TOB:4.5' x 10' OHWM: 3' x 0.3' BF: 3.5' x 0.5'

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



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) 49

SITE NAME/LOCATION: Lamping Rouse Slip Monitoring

SITE NUMBER: S-EAC-006 PER | RIVER BASIN: Ohio River | RIVER CODE: HUC 05030201 | DRAINAGE AREA (mi²): 0.17

LENGTH OF STREAM REACH (ft): 186 | LAT: 39.608575 | LONG: -81.155823 | RIVER MILE:

DATE: 04/12/2024 | SCORER: EAC | COMMENTS: Modified Category II PHW, Stream is channelized.

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

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

1. SUBSTRATE (Estimate percent of every type 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]		☐ ☐	SILT [3 pt]	30
☐ ☐	BOULDER (>256 mm) [16 pts]		☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	
☐ ☐	BEDROCK [16 pts]		☐ ☐	FINE DETRITUS [3 pts]	
☐ ☐	COBBLE (65-256 mm) [12 pts]	10	☐ ☐	CLAY or HARDPAN [0 pt]	
☒ ☐	GRAVEL (2-64 mm) [9 pts]	30	☐ ☐	MUCK [0 pts]	
☐ ☒	SAND (<2 mm) [6 pts]	30	☐ ☐	ARTIFICIAL [3 pts]	

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 10

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: (A) 15 | **TOTAL NUMBER OF SUBSTRATE TYPES:** (B) 4

HHEI Metric Points

Substrate Max = 40: 19

A + B

2. Maximum Pool Depth (*Measure the maximum pool depth within the 61 meter (200 feet)* 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]	☒	5 cm - 10 cm [15 pts]
☐	> 22.5 - 30 cm [30 pts]	☐	< 5 cm [5pts]
☐	> 10 - 22.5 cm [25 pts]	☐	NO WATER OR MOIST CHANNEL [0pts]

COMMENTS: | **MAXIMUM POOL DEPTH (centimeters):** 10

Pool Depth Max = 30: 15

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

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

COMMENTS: | **AVERAGE BANKFULL WIDTH (meters):** 1.4

Bankfull Width Max=30: 15

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:

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

☒ Stream Flowing ☐ Moist Channel, isolated pools, no flow (intermittent)

☐ Subsurface flow with isolated pools (interstitial) ☐ Dry channel, no water (ephemeral)

COMMENTS:

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

☐ None ☐ 1.0 ☐ 2.0 ☐ 3.0

☒ 0.5 ☐ 1.5 ☐ 2.5 ☐ >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: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☒ EWH Name: Straight Fork Distance from Evaluated Stream 570

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

USGS Quadrangle Name: Washington Quadrangle NRCS Soil Map Page: _____ NRCS Soil Map Stream Order: _____

County: Monroe Township/City: Cline

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: Current Quantity: >1"

Photo-documentation Notes: _____

Elevated Turbidity? (Y/N): Y Canopy (% open): 100

Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____

Field Measures: Temp (°C) N/A Dissolved Oxygen (mg/l) N/A pH (S.U.) N/A Conductivity (umhos/cm) N/A

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

Additional comments/description of pollution impacts: _____

Stream channel has culverts and has been channelized. Adjacent land use practices have resulted in erosion and sediment deposition.

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____

Salamanders Observed? (Y/N) N Species observed (if known): _____

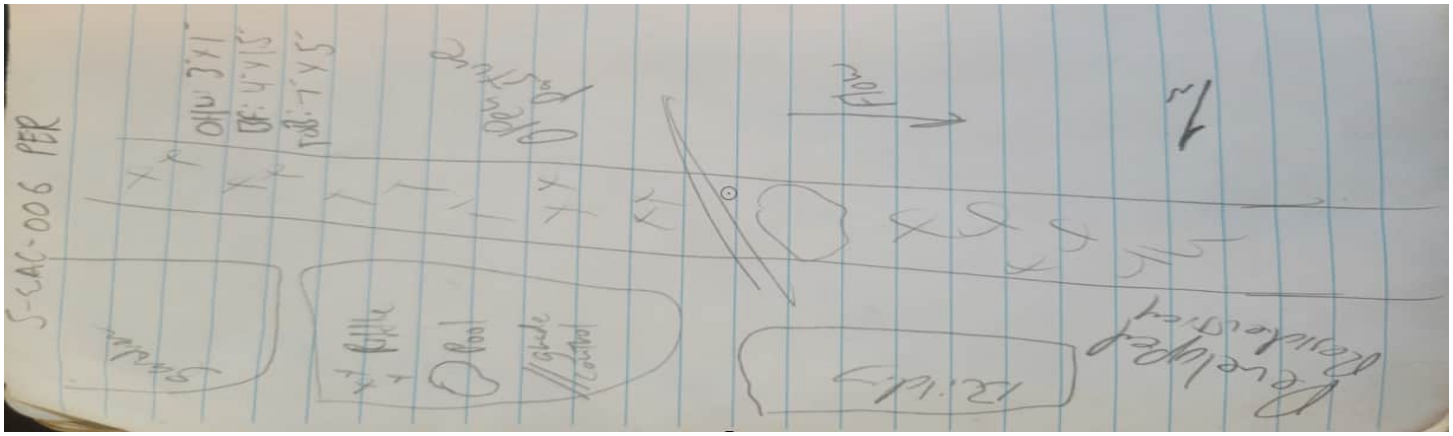
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____

Comments Regarding Biology: High flow condition precludes detailed investigation

High flow condition and unstable banks preclude thorough investigation

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



AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD

Stream Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

S-EAC-002

Date:

April 12, 2024

Description:

Perennial

Facing Upstream

S-EAC-002

Date:

April 12, 2024

Description:

Perennial

Facing Downstream

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD

Stream Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

S-EAC-002

Date:

April 12, 2024

Description:

Perennial

Substrate

S-EAC-003

Date:

April 12, 2024

Description:

Perennial

Facing Upstream

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Stream Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

S-EAC-003

Date:

April 12, 2024

Description:

Perennial

Facing Downstream

S-EAC-003

Date:

April 12, 2024

Description:

Perennial

Substrate

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD

Stream Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

S-EAC-004

Date:

April 12, 2024

Description:

Intermittent

Facing Upstream

S-EAC-004

Date:

April 12, 2024

Description:

Intermittent

Facing Downstream

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Stream Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

S-EAC-004

Date:

April 12, 2024

Description:

Intermittent

Substrate

S-EAC-005

Date:

April 12, 2024

Description:

Perennial

Facing Upstream

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD

Stream Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

S-EAC-005

Date:

April 12, 2024

Description:

Perennial

Facing Downstream

S-EAC-005

Date:

April 12, 2024

Description:

Perennial

Substrate

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD

Stream Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

S-EAC-006

Date:

April 12, 2024

Description:

Perennial

Facing Upstream

S-EAC-006

Date:

April 12, 2024

Description:

Perennial

Facing Downstream

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD

Stream Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

S-EAC-006
Date: April 12, 2024
Description: Perennial Substrate

APPENDIX D

UPLAND DRAINAGE FEATURE PHOTOGRAPHIC RECORD

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Upland Drainage Features Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

UDF-EAC-001
Date: April 12, 2024
Description: Upland Drainage Feature Facing Up

UDF-EAC-001
Date: April 12, 2024
Description: Upland Drainage Feature Facing Down

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Upland Drainage Features Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

UDF-EAC-001	
Date: April 12, 2024	
Description: Upland Drainage Feature Facing Substrate	

UDF-EAC-002	
Date: April 12, 2024	
Description: Upland Drainage Feature Facing Up	

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Upland Drainage Features Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

UDF-EAC-002 **Date:** April 12, 2024 **Description:** Upland Drainage Feature Facing Down	

UDF-EAC-002 **Date:** April 12, 2024 **Description:** Upland Drainage Feature Facing Substrate	

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Upland Drainage Features Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

UDF-EAC-003
Date: April 12, 2024
Description: Upland Drainage Feature Facing Up

UDF-EAC-003
Date: April 12, 2024
Description: Upland Drainage Feature Facing Down

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Upland Drainage Features Photograph Record

Client Name:	Site Location:	Project No.
AEP Transco Ohio	Lamping Rouse T Line Failure Project	60729560

UDF-EAC-003

Date:

April 12, 2024

Description:

Upland Drainage Feature

Facing Substrate

APPENDIX E

HABITAT PHOTOGRAPHIC RECORD

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name:	Site Location:	Project No.
AEP Ohio Transco	Lamping Rouse T Line Failure Project	60729560

PH-01
Date: April 12, 2024
Description: Woodlands Facing South

PH-02
Date: April 12, 2024
Description: Pasture/Hay Fields Facing South

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name:	Site Location:	Project No.
AEP Ohio Transco	Lamping Rouse T Line Failure Project	60729560

PH-03

Date:

April 12, 2024

Description:

Old Field

Facing East

PH-04

Date:

April 12, 2024

Description:

Urban

Facing North

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name:	Site Location:	Project No.
AEP Ohio Transco	Lamping Rouse T Line Failure Project	60729560

PH-05

Date:

April 12, 2024

Description:

Scrub/Shrub

Facing South

PH-06

Date:

April 12, 2024

Description:

Woodlands

Facing East

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name:	Site Location:	Project No.
AEP Ohio Transco	Lamping Rouse T Line Failure Project	60729560

PH-07

Date:

April 12, 2024

Description:

Scrub/Shrub

Facing West

PH-08

Date:

April 12, 2024

Description:

Old Field

Facing West

AECOM Imagine it. Delivered.

PHOTOGRAPHIC RECORD
Habitat Photograph Record

Client Name:	Site Location:	Project No.
AEP Ohio Transco	Lamping Rouse T Line Failure Project	60729560

PH-09

Date:

April 12, 2024

Description:

Landscaped

Facing North

PH-10

Date:

April 12, 2024

Description:

Pasture/Hay Fields

Facing South

APPENDIX F

AGENCY CORRESPONDENCE

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

April 23, 2024

Project Code: 2024-0076219

Dear Joshua Holmes:

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: The endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: The proposed project is in the vicinity of one or more confirmed records of northern long-eared bats. Should the proposed project site contain trees ≥3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, we recommend removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats.

If implementation of this seasonal tree cutting recommendation is not possible, and because the proposed project is ≥ 1.5 miles from the northern long-eared bat capture/detecton location(s), a summer survey may be conducted to document the presence or absence of Indiana bats and

northern long-eared bats at the project site. The summer survey must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. In Ohio, summer mist net surveys may only be conducted between June 1 and August 15. We recommend that any Indiana bats and northern long-eared bats captured during the survey, especially reproductively active females and juveniles, be monitored through radio-tracking to determine roost locations.

If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are also warranted. Portal surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office.

Survey results should be coordinated with this office prior to initiation of any work at the project area. Based on the results of the survey(s), we will evaluate potential impacts to the Indiana bat from the proposed project. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year.

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.

Due to the project type, size, and location, 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.

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

cc: Nathan Reardon, ODNR-DOW
Eileen Wyza, ODNR-DOW

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

May 13, 2024

Joshua Holmes
AECOM
707 Grant Street, 5th Floor
Pittsburgh, Pennsylvania 15219

Re: 24-0597_AEP Lamping Rouse Slip Repair

Project: The proposed project involves the repair of two slips associated with the existing Lamping Rouse Transmission line right of way. The first slip is near Structures 49, 50, and 51, and the second slip is near Structure #56.

Location: The proposed project is located in Washington Township, Monroe County, Ohio.

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

Natural Heritage Database: The Natural Heritage Database has the following data at or within one mile of the project area:

Creek Heelsplitter (*Lasmigona compressa*), SC
Round Hickorynut (*Obovaria subrotunda*), T
Round Pigtoe (*Pleurobema sintoxia*), SC

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

Location records for the species listed above are provided in a shapefile attachment to this letter. Species location information will not be disclosed, published, or distributed beyond the scope of your project.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an 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 project is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "*RANGE-WIDE INDIANA BAT & 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 following listed fish species.
State Endangered
Ohio lamprey (*Ichthyomyzon bdellium*)

State Threatened
American eel (*Anguilla rostrata*)
channel darter (*Percina copelandi*)
river darter (*Percina shumardi*)

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 these or other aquatic species.

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

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

APPENDIX G

2023 JOINT GUIDANCE

OHIO DIVISION OF WILDLIFE AND U.S. FISH AND WILDLIFE SERVICE (OH-FIELD OFFICE) JOINT GUIDANCE FOR BAT SURVEYS AND TREE CLEARING MAY 2023

This document has been updated with new state guidance for the 2023 field season.

This guidance applies to state recommendations only. Contact the USFWS to determine if federal consultation is also necessary to comply with federal law.

Agency Contacts:

ODNR-DOW Permit Coordinator: Wildlife.Permits@dnr.ohio.gov, (614) 265-6315
ODNR-DOW Bat Survey Coordinator: Eileen Wyza, Eileen.Wyza@dnr.ohio.gov, (614) 265-6764
USFWS OHFO Endangered Species: Angela Boyer, angela_boyer@fws.gov, (614) 416-8993, ext.122

Covid-19 Guidance:

Surveyors should follow all covid protocols put in place by their agency. All surveyors should wear masks when handling bats and anyone exhibiting symptoms of covid-19 should not participate in bat surveys.

Ohio Mist-net Surveys:

This document serves as guidance for bat mist netting activities in Ohio and does not supersede any requirements listed on your permits or facility certificate. All permit conditions must be strictly adhered to for permits to be valid and for renewal of permits beyond the existing year.

Due to the presence of White-nose Syndrome (WNS), mist-netting in Ohio must be conducted between June 1 and August 15 unless stated otherwise in your state permit. The ODNR Division of Wildlife (ODNR-DOW) and U.S. Fish and Wildlife Service (USFWS) Ohio Field Office (OHFO) have determined that delaying netting activities until June 1 will provide additional recovery time for bats affected by WNS. For presence/probable absence surveys, netting will not be accepted outside of the June 1 - August 15 timeframe.

To assess project areas for presence or probable absence of the state and federally listed Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) during summer residency, the USFWS developed the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2023). This protocol, **with minor modifications referenced below**, can also be used in Ohio for the 2023 field season and includes surveying for the state-listed little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*).

According to the updated federal range-wide guidelines, presence/probable absence net surveys for northern long-eared bats shall incorporate either 10 net nights per square 0.5 kilometer (123 acres) of project area, or four net nights per kilometer for linear projects. Presence/probable absence net surveys for Indiana bats shall incorporate six net nights per square 0.5 kilometer (123 acres) of project area, or two net nights per kilometer for linear

projects. If a project area is eligible for a presence/probable absence survey for both Indiana bats and northern long-eared bats, following the northern long-eared bat level of effort will qualify as a presence/ probable absence survey for both species. However, if a project area is eligible for a presence/absence survey for both species, following the Indiana bat level of effort will not qualify the survey for a northern long-eared bat presence/ probable absence survey. Please note that the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2023) requires that a minimum of two (2) biologists (e.g., one permitted and one technician) must be on-site for every four (4) net-sets being operated. Exceptions to on-site minimum staffing levels may be allowed under extenuating circumstances, provided written justification is included in the proposed survey study plan and subsequently approved by the OHFO and ODOW.

Due to the reclassification of the northern long-eared bat on March 31, 2023, the previous northern long-eared bat 4(d) rule has been nullified. There is a new online tool in the USFWS's Information for Planning and Consultation (IPaC) website that allows project proponents to utilize a determination key (Dkey) for the northern long-eared bat. **The Dkey cannot be used to replace consultation with ODNR-DOW.** Project proponents should coordinate directly with the ODNR-DOW and the OHFO for project technical assistance for all federally listed species, including the Indiana bat and northern long-eared bat.

The tricolored bat is listed as endangered by ODNR-DOW. Additionally, the USFWS published a proposed rule to list the tri-colored bat as endangered on September 14, 2022. The USFWS is scheduled to publish a final rule on the tricolored bat's status by the end of September 2023 which could affect future project development. Therefore, in anticipation of this listing we recommend that project proponents coordinate with the OHFO in addition to ODNR-DOW to determine if the project could benefit from formal coordination with USFWS for tricolored bat. The USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2023) allows presence/absence surveys for the tricolored bat that use the northern long-eared bat level of effort.

Exception for Ohio mist-net surveys: All presence/absence surveys conducted for state listed bat species (Indiana, northern long-eared, little brown, tricolored) should follow the maximum net nights set forth in the federal guidance to be considered valid by ODNR-DOW. Any modifications to this position will be communicated at the time of the site authorization approval.

Ohio Acoustic Surveys:

Acoustic bat surveys for presence/absence will be accepted by ODNR-DOW for the 2023 season. Surveys should follow guidelines laid out in the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (March 2023) with the following exceptions:

- Ohio survey dates are June 1 – August 15, 2022
- After conducting automated analyses using one or more of the currently available 'approved' acoustic bat ID programs[1], qualitative analysis (i.e., manual vetting) of any calls recorded from state-endangered species (*M. sodalis, M. septentrionalis*[2]*, M. lucifugus*[2]*,* and *P. subflavus*[2]) must be completed.
- **All presence/absence acoustic surveys conducted for state listed bat species (Indiana, northern long-eared, little brown, tricolored) should follow the maximum acoustic nights set forth in the federal guidance to be considered valid by ODNR-DOW. Any modifications to this position will be communicated at the time of the site authorization approval.**

At a minimum, for each detector site/night a program considered presence of state-listed bats likely, review all files (including no IDs) from that site/night. If more than one acoustic bat ID program is used, qualitative analysis must also include a comparison of the results of each program by site and night.

[1] https://www.fws.gov/media/indiana-bat-summer-survey-guidance

[2] State listing as endangered effective July 1, 2020

Combined Mist-netting and Acoustic Surveys:
ODNR-DOW will accept the USFWS pilot survey option of combining mist-netting and acoustic surveys for traditional survey sites (e.g., 123-acre area) detailed in Appendix I of the USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines (2023). All presence/absence combined mist-net and acoustic surveys conducted for state listed bat species should follow the maximum level of effort set forth by the federal guidance to be considered valid by ODNR-DOW. Any modifications to this position will be communicated at the time of the site authorization approval.

Before Field Season:

- Anyone surveying bats using mist-nets in the state of Ohio must obtain a federal permit as well as a state scientific collection permit. The federal permit should include both the Indiana bat and the northern long-eared bat.
- Your ODNR-DOW permit consists of two documents: a Scientific Collector (Wild Animal) Permit and an endangered species letter signed by the Chief of the Division of Wildlife (in addition to your federal permit). Both ODNR-DOW documents must be obtained prior to field work and kept with you and any sub-permittees during field work.

During Field Season:

- Prior to initiation of field work (a minimum of two weeks in advance), permittees must provide proposed mist netting plans to USFWS and ODNR-DOW in the form of an e-mail letter to the USFWS OHFO and copy to the ODNR-DOW Bat Survey Coordinator. Plans must be reviewed and approved by USFWS OHFO and ODNR-DOW before ANY surveys take place. Study plans must specify objectives, location details, dates of proposed work, and all other relevant details. **Study plans must also include a USFWS Project Code. Project Codes can only be obtained by requesting an official species list through the USFWS's Information for Planning and Consultation (IPaC) website (https://ipac.ecosphere.fws.gov/).** When handling bats, you must strictly adhere to the current WNS Decontamination Protocol (current version can be found at https://www.whitenosesyndrome.org/topics/decontamination). Clothing, boots, gear, and equipment should all be thoroughly decontaminated between nights, as well as between netting sites.
- Request bat bands at least two weeks in advance of needing them. Bat bands can be obtained by e-mailing the ODNR-DOW Bat Survey Coordinator with how many bands are needed, current permit number, sizes, and a mailing address. Bands will not be issued until your permits are valid. We have two sizes of bands—2.4 mm and 4.2 mm. The 2.4 mm split metal bat ring made of aluminum alloy is suitable for banding small bats. This band must be placed on all captured Indiana, northern long-eared, little brown, and tricolored bats. The larger 4.2 mm band is suitable for silver-haired (*Lasionycteris noctivagans*), big brown (*Eptesicus fuscus*), and hoary (*Lasiurus cinereus*) bats. You must band all Indiana, northern long-eared, little brown, and tricolored bats with ODNR-DOW bands; therefore, you should not be in the field without the 2.4 mm sized band.
- Only individuals who are named on the ODNR-DOW endangered species letter portion of the permit and on the corresponding federal bat permit may conduct and oversee mist-net surveys. Trained assistants may work on permitted bat activities under the direct and on-site supervision of a named permittee. All bat IDs must be verified by a named permittee. If an Indiana bat and/or northern long-eared bat is captured, the permittee shall notify the USFWS and the ODNR-DOW Bat Survey Coordinator referenced above within 48 hours via email. If a little brown bat or tricolored bat is captured, notify the ODNR-DOW Bat Survey Coordinator only within 48 hours via email. Reports of listed bat captures should include specific information such as spatial location of capture, band information, radio-transmitter frequency information, sex, reproductive status, and age of individual.
- For presence/absence surveys, ODNR-DOW requires all female and juvenile state endangered and threatened bat species (Indiana, northern long-eared, little brown, and tricolored bat) be radio-tracked if

caught, in accordance with methods outlined in Appendix D of USFWS 2022 Range-wide Indiana Bat Summer Survey Guidelines.

• If you are taking any biological samples (tissue, fur, blood, etc.), this must be specifically authorized in your state and federal permits and noted in your survey proposal.

After Field Season:

By March 15, you must submit your final ODNR-DOW report(s) from the previous summer. You are not required to fill out the ODNR-DOW Wildlife Diversity Bat Excel Spreadsheet; instead, please forward your USFWS Midwestern US Spreadsheet (found here: https://www.fws.gov/media/bat-reporting-spreadsheets-2020-2021) to the ODNR-DOW Bat Survey Coordinator and ODNR-DOW Permit Coordinator and include your state permit number along with an electronic copy of the project report. Electronic summaries emailed during the field season are NOT considered as full compliance of this reporting requirement.

Ohio Environmental Review Recommendations for projects involving disturbance near potential/known bat hibernacula (cliffs, caves, mines) or tree cutting:

Step 1: Coordinate with Ohio Division of Wildlife (DOW) regarding existing records for state-listed endangered bat summer and/or winter occurrence information. Potential hibernacula found during a habitat assessment must address possible suitability for Indiana bats, northern long-eared bats, tricolored bats, and little brown bats.

If project site contains a known bat hibernaculum(a) –

- For state-listed endangered species other than the Indiana bat and northern long-eared bat, a recommendation of 0.25-mile tree cutting buffer around all known entrances to protect existing conditions at the hibernaculum(a). The U.S. Fish and Wildlife Service (USFWS) should be contacted for guidance on projects occurring within 5 miles of known or potential Indiana bat and/or northern long-eared bat hibernacula. If the project involves subsurface disturbance, consultation with DOW is required.
- Limited tree cutting may be permitted within the buffer. Coordinate with DOW.

If a project site does not contain known bat hibernaculum(a)

- Conduct a desktop habitat assessment of the project area. Tools such as the ODNR Mines of Ohio Viewer, Karst Interactive Map, topographic maps, aerial photos, historical records, etc. should be used to determine if there are any potential caves, mines, karst features, rock ledges, or other features that may serve as potential hibernacula.
  - If no such features are found, proceed to Step 2.
  - If potential hibernacula are found during the desktop assessment:
    - Assume bats are using these hibernacula and refrain from clearing trees from March 15-November 15

-Or-

- Conduct a field habitat assessment to determine if a potential hibernaculum(a) is present within the action area. We encourage impacts to ledges and rock outcroppings be avoided. If impacts cannot be avoided, features should be evaluated for potential roosting characteristics such as recesses, overhangs, and crevices.
- **NOTE**: The USFWS Range-wide Indiana Bat Guidelines, Appendix H, contains instructions for completing a habitat assessment, but only includes criteria for Indiana bat hibernacula.

Step 2: When conducted, a presence/absence survey must follow current DOW guidelines.

Step 3: If a state-listed endangered bat is captured or recorded during the survey:

- Recommendation of no summer tree cutting, or limited cutting following guidelines detailed below, within 5 miles (or 2.5 miles for tricolored bats) of the capture site if a roost is not located.
- Recommendation of no summer tree cutting, or limited cutting following guidelines detailed below, within 2.5 miles of a roost tree if located.

If no state-listed endangered bat is captured or recorded during the survey:

- Summer tree cutting may proceed for 5 years before a new survey is needed under state guidance.

Limited summer tree cutting guidance for bats that are only state-listed endangered: Limited tree cutting in summer may be permitted after consultation with DOW, but clearing trees with the following characteristics should be avoided unless they pose a hazard: dead or live trees of any size with loose, shaggy bark; crevices, holes, or cavities; clusters of dead leaves; live trees of any species with DBH ≥ 20".

FREQUENTLY ASKED QUESTIONS

When does the ODNR-DOW Bat Survey protocol have to be used?

This protocol should be used anytime Indiana bat, northern long-eared bat, little brown bat, or tricolored bat summer presence/probable absence surveys are conducted in the state of Ohio.

How many detector nights are required for presence/probable absence acoustic surveys?

As described in the current USFWS Range-wide Indiana Bat and Northern Long-eared Bat Summer Survey Guidelines:

Level of effort for all state-listed endangered bat species including Indiana bat and northern long-eared bats: Follow maximum detector nights as outlined in the federal guidance (for northern long-eared bat).

Northern Long-eared Bat Level of Effort:
Linear projects: a minimum of 4 detector nights per km (0.6 miles) of suitable summer habitat
Non-linear projects: a minimum of 14 detector nights per 123 acres (0.5 km^2) of suitable summer habitat.
At least 2 detector locations per 123 acre "site" shall be sampled until at least 8 detector nights has been completed over the course of at least 2 calendar nights (may be consecutive). For example:
- 4 detectors for 3 nights and 1 detector for 2 nights each (can sample the same location or move within the site)
- 2 detectors for 7 nights each (can sample the same location or move within the site)
- 1 detector for 14 nights (must sample at least 2 locations and move within the site – we recommend evenly distributing LOE among locations)

Indiana Bat Level of Effort:
Linear projects: a minimum of 4 detector nights per km (0.6 miles) of suitable summer habitat
Non-linear projects: a minimum of 10 detector nights per 123 acres (0.5 km^2) of suitable summer habitat.
At least 2 detector locations per 123 acre "site" shall be sampled until at least 8 detector nights has been completed over the course of at least 2 calendar nights (may be consecutive). For example:
- 5 detectors for 2 nights each (can sample the same location or move within the site)
- 2 detectors for 5 nights each (can sample the same location or move within the site)
- 1 detector for 10 nights (must sample at least 2 locations and move within the site – we recommend evenly distributing LOE among locations)

How many net surveys are required for presence/probable absence?

Level of effort for all state-listed endangered bat species including Indiana bat and northern long-eared bats: Follow maximum net nights as outlined in the federal guidance (for northern long-eared bat).

Net surveys for northern long-eared bat presence/probable absence shall incorporate, at a minimum, either 10 net nights per square 0.5 kilometer (123 acres) of project area, or four net nights per kilometer for linear projects. For linear projects, there must be at least one net night of survey on two different nights (minimum of two nights). This does not allow for two net nights on a single night for surveys.

Net surveys for Indiana bat presence/probable absence shall incorporate, at a minimum, either six net nights net nights per square 0.5 kilometer (123 acres) of project area, or two net nights per kilometer for linear projects. For linear projects, there must be at least one net night of survey on two different nights (minimum of two nights). This

does not allow for two net nights on a single night for surveys.

How long are the results of the surveys valid for an assessment of an area?

Mist-net or acoustic surveys documenting probable absence of state-listed endangered bats are valid for five years.

When can acoustic or net surveys occur in Ohio?

In Ohio, acoustic or net surveys may only be conducted from June 1 through August 15 unless indicated otherwise in your state permit. Any surveys outside of the June 1 - August 15 timeframe cannot be used in Ohio to assess the presence/probable absence of state-listed bats.

Can a presence/probable absence survey be conducted within a known Indiana bat and/or northern long-eared bat capture/detection buffer?

Surveys generally cannot be used to document presence/probable absence of state-listed endangered bats where presence of the species has already been confirmed by prior surveys.

What if a project is proposing to clear trees between April 1 and September 30 when bats may be present but no bat records exist in the project area?

Any Ohio project that is not within a known bat record buffer, and tree clearing between April 1 and September 31 is being proposed, may have a presence/probable absence survey conducted between June 1 and August 15 following the range-wide guidance. If a presence/probable absence survey is not performed, presence of listed bats is assumed.

How does take of northern long-eared bats differ from Indiana bats?

Under Ohio law, there is no exemption for take of any listed bat species.

Where do I get bands?

If you need bands, email the ODNR-DOW Bat Survey Coordinator at least two weeks in advance with your current ODNR permit number, how many bands in each size (2.4 and 4.2 mm) you will need this season, and a current address to ship the bands.

Do I have to band every bat?
No, currently this is optional. However, you are required as per your state permit to band all Indiana, northern long-eared, little brown, and tricolored bats.

Summary: Application Expedited Construction Notice - Lamping-Rouse 138 kV Transmission Line Temporary Relocate Project electronically filed by Hector Garcia-Santana on behalf of AEP Ohio Transmission Company, Inc..