AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY

LETTER OF NOTIFICATION

HAWTHORNE SUBSTATION EXPANSION PROJECT
OPSB CASE NO.: 25-0876-EL-BLN

November 24, 2025

American Transmission Systems, Incorporated
341 White Pond Drive
Akron, OH 44320-1119

LETTER OF NOTIFICATION
HAWTHORNE SUBSTATION EXPANSION PROJECT
OPSB CASE No. 25-0876-EL-BLN

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

4906-6-05: ACCELERATED APPLICATION REQUIREMENTS

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

Name of Project: Hawthorne Substation Expansion Project ("Project")

Reference Number: 634

4906-6-05(B)(1): Brief Description of Project and Reference Numbers

In this Project, American Transmission Systems, Incorporated, ("ATSI"), a FirstEnergy company, is proposing to expand the existing Hawthorne 138 kV Substation to convert the existing substation into a ring bus substation configuration. The substation will expand from its existing square footage of approximately 15,624 square feet to approximately 27,526 square feet. This expansion represents an approximate 76 percent increase in square footage. As part of the Project, the existing Angola-Midway 138 kV Transmission Line will be re-terminated inside the reconfigured Hawthorne Substation. This will create the Angola-Hawthorne 138 kV Transmission Line and Hawthorne-Midway 138 kV Transmission Line. The existing structures outside of the Hawthorne Substation will remain, and new conductors will be strung from the existing structure immediately outside of Hawthorn Substation to the new substation take-off structures.

The Project is in the city of Toledo, Lucas County, Ohio. The general location of the proposed Project is shown in Exhibit 1, a partial copy of the United States Geologic Survey

("USGS") Topographic Map, Lucas County, Ohio Quad Map. Exhibit 2 provides a partial copy of ESRI aerial imagery. The general layout is shown in Exhibit 3.

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

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

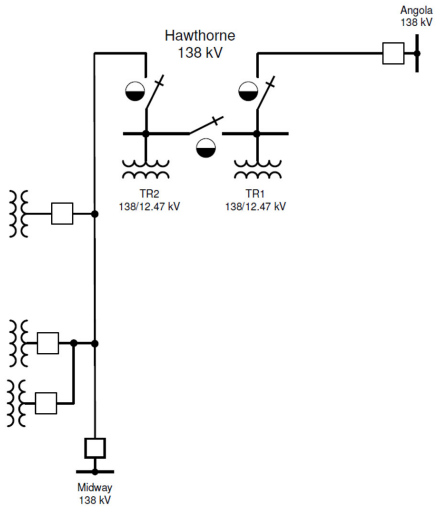
> *(4) Constructing additions to existing electric power transmission stations or converting distribution stations to transmission stations where:*
>
> *(b) There is a greater than twenty percent expansion of the fenced area.*

The proposed Project is within the requirements of Item (4)(b) because it involves constructing additions to existing electric power transmission station greater than twenty percent expansion of the fenced area.

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

Hawthorne Substation is a 138-12.47 kV substation located in Lucas County, Ohio and serves as the distribution substation to the surrounding area. The proposed Project includes the upgrade of the 138 kV portion of the substation, which is currently configured as a straight bus as shown in Figure 1. A straight bus configuration is one in which breakers or switches for multiple elements are connected to a common bus. The Project will reconfigure and upgrade the 138 kV bus configuration to a more resilient ring bus configuration. The Project is needed to: (i) reduce the number of area-wide power disruptions to residential and commercial customers due to transmission outages; (ii) improve the reliability of the transmission and the local distribution network by upgrading the substation with a redundant bus and protection scheme; and (iii) eliminate the simultaneous outages of multiple transmission facilities in the area.

FIGURE 1



The Angola–Midway 138 kV Transmission Line is approximately 22 miles in length and serves four delivery points; two distribution substations (Hawthorne and Angola substations), and two retail connections, one of which is a hospital. The Angola – Midway 138 kV Transmission Line serves approximately 56 Megawatts ("MW") of load and over 13,400 customers.

Hawthorne Substation is located in Lucas County and is a Toledo Edison distribution substation. Hawthorne Substation is located approximately 4.6 miles from Angola Substation, another 138-12.47 kV Toledo Edison distribution substation. As a distribution hub, the Hawthorne Substation directly serves approximately 35 MW of peak load and approximately 7,500 Toledo Edison distribution customers.

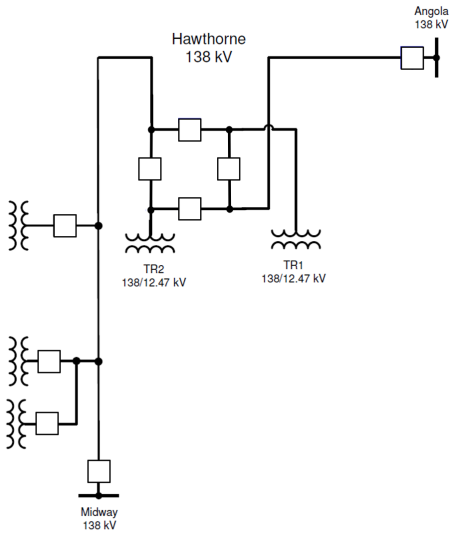
In the existing Hawthorne Substation, the 138 kV portion of the substation is in a straight bus configuration. A fault on the bus or a transformer fault would result in an outage of the entire 138 kV bus, the two distribution transformers, and will trip the Angola – Midway 138 kV Transmission Line. This would result in approximately 56 MW and over 13,400 customers interrupted as a result of the outage.

Furthermore, a fault on the Angola–Midway 138 kV Transmission Line will result in an outage to all customers connected to the transmission line, including the customers served from Hawthorne Substation. Any fault that results in the Angola–Midway 138 kV

Transmission Line being interrupted will outage the two retail connections that impacts approximately 3 MW, the Hawthorne Substation which impacts approximately 35 MW of peak load and approximately 7,500 Toledo Edison distribution customers and will impact the #1 138-12.47 kV transformer at Angola Substation that serves over 5,900 customers and approximately 18 MW of load. This leads to the total impact of the outage being approximately 75 MW and over 17,500 customers interrupted as a result of the transmission line interruption.

The proposed Project to build a four-breaker ring bus configuration at Hathorne Substation, as shown in Figure 2, will significantly reduce the likelihood of a simultaneous outage of multiple facilities due to a bus fault or transformer fault condition which would result in the direct loss of electric service. The Project will also increase the reliability and operational flexibility of the transmission system. The proposed ring bus arrangement ensures that no more than two elements would trip due to a breaker failure condition. FirstEnergy's transmission planning is based on deterministic criteria, and not probabilistic criteria. In other words, ATSI's transmission planning assessments result in recommendations to reinforce the transmission system based on an adverse planning event occurring and not based on the probability of the event occurring. ATSI cannot know or predict when a failure or fault will occur.

FIGURE 2



In the last five years, there have been three unscheduled outages on the Angola–Midway 138 kV Transmission Line as shown in Table 1. The shortest outage time was a few seconds, while the longest outage lasted almost fifteen minutes. The average outage time was 6 minutes. Two of the outages were related to human error and one outage was due to weather.

Table 1. Reliability outage history for Angola – Midway 138 kV Transmission Line

Outage Start	Outage Restored	Duration	Outage Type	Cause Category	Cause	Customers Impacted
12/11/2021 10:30:40	12/11/2021 10:33:56	3m 16s.	Unscheduled	Weather, excluding lightning	Wind	7,458
05/25/2022 14:29:00	05/25/2022 14:29:31	31s.	Unscheduled	Human Error	Human Error During Construction	7,458
03/29/2024 09:52:44	03/29/2024 10:06:54	14m 10s.	Unscheduled	Human Error	Human Error During Construction	0

The proposed Project will upgrade the Hawthorne Substation to meet the current minimum FirstEnergy design standard for new substations and eliminate the contingency scenarios discussed above. The minimum FirstEnergy requirements for new transmission substations are either a "breaker-and-a-half" configuration or a "ring bus" configuration as documented in FirstEnergy's "Requirements for Transmission Connected Facilities" document. Three types of breaker configurations were considered when planning the upgrade to the Hawthorne Substation – the "double-breaker" configuration, the "breaker-and-a-half" configuration, and the "ring bus" configuration. All the considered alternatives meet the requirements outlined in FirstEnergy's "Requirements for Transmission Connected Facilities" document.

The double-breaker configuration would be the most reliable substation configuration because it provides full redundancy for every terminal (i.e., two breakers per substation element/terminal). In the double-breaker scheme, a single element is fed from two breakers connected to two separate buses: therefore, doubling the number of breakers required, and providing a fully redundant protection scheme. The double-breaker configuration is also the most expensive option, as it would require the greatest number of circuit breakers – eight breakers would be required for the four elements (two transformers and two transmission lines). Consequently, the double-breaker configuration was not selected.

In the breaker-and-a-half scheme, while two buses are still used, three breakers are connected in a string between the two buses. The two nodes between the three breakers provide for the connection of two elements. Thus, three breakers supply two elements, or a "breaker-and-a half" per element. The middle breaker is common to both elements and the scheme is not fully redundant as the failure of the middle breaker will cause the outage of both elements. In the breaker-and-half configuration at most two elements are interrupted for a failed or faulted breaker. However, because the number of breakers required to connect the four transmission terminals for this project is six breakers, the breaker-and-half configuration was not selected.

The ring bus configuration was ultimately selected, as it will only require four breakers to adequately serve the two transmission lines and two transformers and provide additional reliability and operational flexibility. Upgrading the substation to a robust ring-bus configuration will provide the ability to provide redundant service to the distribution transformers, improve operational flexibility and efficiency during outages, maintenance, and restoration efforts, and reduce the potential of local load loss due to the transmission line and substation configuration. Note that the proposed substation project is not needed to address a NERC, PJM, or FirstEnergy Planning Criteria violation. The Project is a supplemental project driven by the FirstEnergy System Performance Excellence methodology based on the existing system configuration and its impact on the reliability of electric service to the residents and businesses of the area.

The Project will enhance the reliability and resiliency of the power system in the area. The new ring bus configuration at Hawthorne Substation will reduce the potential for customer outages in the area.

With the expansion and reconfiguration of the Hawthorne Substation, ATSI did not consider the use of any advanced transmission technologies because the majority of the work will be completed within the existing substation. Some examples of advanced technologies that ATSI considers while proposing reliability projects are the use of Dynamic Line Rating technologies and/or the use of advanced conductors. Dynamic Line Rating technologies is the use of software and hardware to determine the thermal limits of

a transmission line in real time based on rating methodologies and ambient conditions within a given area which can either increase or decrease the thermal ratings of the transmission line. Advanced conductors are the use of conductors with non-steel wire cores that are typically used in conventional transmission line conductors. These advanced conductors allow for increased capacity on a given transmission line due to the reduced sagging of the transmission line conductor when operated at higher temperatures. These advanced technologies were not considered because the project scope is primarily within a substation and the transmission lines connected to the substation, as it is designed today, do not have any capacity constraints.

The need for the proposed Project was presented at the May 19, 2022, Subregional Regional Transmission Expansion Plan ("RTEP") Committee – Western meeting. The solution for the proposed Project was presented at the August 16, 2024, Subregional RTEP Committee – Western meeting. PJM assigned supplemental number s3543.1 for the Project. The PJM SRRTEP-Western presentation slides are included as Exhibit 4 and provide additional details of the Project drivers.

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

The location of the Project relative to existing or proposed lines is shown in the ATSI Transmission Network Map, included as part of the confidential portion of the FirstEnergy Corp. 2025 Long-Term Forecast Report. This map was submitted to the PUCO in Case No. 25-0504-EL-FOR under Adm.Code 4901:5-5:04 (C)(2)(b). The map is incorporated by reference only. The Project is included in ATSI's LTFR filed in 2025 on page 80. The general location and layout of the Project area are shown in Exhibits 1 and 2. The Project layout is shown in Exhibit 3.

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

In addition to the substation configurations discussed above, another alternative considered to the proposed Project was to maintain the existing configuration and the elevated risk of exposure. ATSI determined that, due to the number of customers impacted and the

magnitude of load at risk, it would pursue the recommended solution to provide increased reliability and operational flexibility to customers.

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

ATSI's manager of External Affairs will advise local officials of features and the status of the proposed Project as necessary. ATSI will maintain a Project website and will continue to work with property owners concerning the proposed Project. The website address is below:
https://www.firstenergycorp.com/about/transmission_projects/ohio.html .

ATSI will publish notice of the Project in The Toledo Blade within 7 days of filing this Letter of Notification application. The notice will comply with Adm.Code 4906-6-08(A)(1)-(6).

Finally, during all phases of this Project, ATSI will maintain the transmission projects hotline at 1-888-311-4737 or via email at: transmissionprojects@firstenergycorp.com where the public may ask questions or leave comments on the Project for ATSI.

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

The construction schedule for this Project is expected to begin as early as March 2, 2026, and to be completed by December 31, 2026.

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

Exhibit 1 provides a partial copy of the USGS Topographic Map, Lucas County, Ohio Quad Map. Exhibit 2 provides a partial copy of ESRI aerial imagery.

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

The Project is located entirely within existing right-of-way on Parcel No. 2100864, owned by Toledo Edison Company and Parcel No. 2101004, owned by ATSI. No new Easements will be required for completion of this Project.

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

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

The equipment and facilities described below are associated with the substation expansion:

Materials:

Voltage:	145 kV Max System Voltage (550 kV BIL)
Bus Conductor:	4" Aluminum Pipe (2) 1590 KCMIL 61str AAC
Insulators:	Porcelain
Breakers:	Four (4) 145 kV 3000 A 40 kA Siemens SPS2S Breakers and associated disconnect switches
Switches:	Eight (8) 145 kV, 2000 A Gang-Operated Switches Four (4) 138k, 1200A Motor Operated Switches
CVT's:	Two (2) New Sets of (3) 138kV CCVTs, metering class, dual secondary
WT's:	One (1) 138 kV 2000 A Single-Phase Wave Trap
Line Tuner:	Single frequency line-ground coupled, series L-C line tuning unit, frequency range: 30-500 kHz tuned for 165 kHz
Arresters:	Six (6) 108 kV (84kV MCOV) Arresters
Transformer (SSVT):	Outdoor distribution transformer(s), single phase, 120/240 V ,100 KVA, secondary, 79675 /13800Y Primary Voltage conventional type.
Structures:	One (1) 15'-0" x 39'-0" Packaged Control Enclosure One (1) 138kV A-frame dead-end. One (1) 138kV A-frame dead-end expansion. Six (6) lights mounted to the A-frames One (1) 138 kV single-phase SSVT structures

Voltage:	138 kV
Conductors:	954 kcmil 45/7 ACSR
Static Wire:	7#8 Alumoweld
Insulators:	Porcelain/Glass

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

As this is a substation expansion project and there is no transmission line work outside of the expanded substation fence, no Electric and Magnetic Field ("EMF") calculations are required by this subsection.

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

The estimated cost for the proposed Project is $22,036,000. Although not statutorily required for approval, at the request of OPSB Staff, ATSI confirms that ATSI's costs will be captured and allocated via FERC formula rates for the ATSI Transmission Zone, Attachment H-21 in the PJM OATT.

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

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

The Project is in the city of Toledo, Lucas County, Ohio. The Project area is in commercial area. No significant changes or impacts to the current or future land use are anticipated.

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

Agricultural land does not exist within the Project's Area of Potential Effect ("APE").

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

As part of the investigation for this Letter of Notification, TRC Companies, Inc. ("TRC") requested database information from the Ohio Historic Preservation Office's ("SHPO") on May 15, 2024 for the Project Study Area (Area of Potential Effect or "APE") with a one (1)-mile search radius. This data documents the presence of previously recorded significant historic properties, including above-ground historic resources and/or archaeological sites within the Project Study Area or within one (1) mile of the Project Study Area. On June 10, 2024, SHPO replied to the request, and response is attached as Exhibit 5. In August of 2025, the Project Study Area was expanded from the original 1.7 acres to the west since the initial consultation with SHPO and now totals 2.92 acres in size. A letter notifying SHPO on this update to the Project Study Area was submitted by TRC on August 12, 2025. The response received on September 9, 2025, is attached as part of Exhibit 5. SHPO concurred that the Project, as proposed, will not affect any historic properties or cultural resources. No further coordination is required unless the scope of work changes or new/additional archaeological deposits are discovered during construction.

The SHPO database includes a catalog all historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP), including districts, sites, building, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The original provided data and the updated online mapping system review revealed no historic properties recorded within one (1) mile of the Project Study Area.

The SHPO database also includes listings on the Ohio Historic Inventory (OHI), the Ohio Archaeological Inventory (OAI), previous cultural resource surveys, and the Ohio Genealogical Society (OGS) cemetery inventory. The initial provided data and updated online mapping system review indicates there are no above-ground historic resources or OGS cemeteries recorded within one (1) mile of the Project Study Area.

There have been three (3) official archaeological surveys conducted within one (1) mile of the Project Study Area. From these surveys and the efforts of local informants, there are five (5) archaeological sites recorded within one (1) mile of the Project Study Area. The sites are located at 0.91 miles northeast, 0.71 miles east, 0.34 miles south, 0.45 miles south-southwest, and 0.73 miles west-northwest. All five (5) are prehistoric open sites that have not yet been assessed for NRHP eligibility.

According to the review, no cultural resource studies are warranted for the Project. Furthermore, as proposed, the Project will have no effect on historic properties. No further coordination is required for this Project unless the scope of work changes or archaeological remains are discovered during the course of the Project.

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

Coordination is required with the city of Toledo to obtain the necessary right-of-way permit(s) for work within the right-of-way of Heatherdowns Blvd. Earth disturbance over one (1) acre will require a Stormwater Pollution Prevention Plan to be reviewed by the city of Toledo. If disturbance exceeds 1 acre, the submittal of a Notice of Intent application with the Ohio EPA is required for coverage under the general construction stormwater permit

(OHC000006). All permitting and/or coordination necessary to comply with local, state, and federal agencies with jurisdiction regarding this Project will be completed prior to the commencement of construction.

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

As part of the investigation, ATSI retained TRC to conduct necessary surveys. TRC submitted a request to the Ohio Department of Natural Resources ("ODNR") Office of Real Estate to conduct an Environmental Review. As part of the Environmental Review, the ODNR Office of Real Estate conducted a search of the ODNR Division of Wildlife's Natural Heritage Database ("DOW") to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project Study Area. The ODNR's Office of Real Estate's response on May 28, 2024, as well as ODNR's Office of Real Estate's response for the expanded area on September 8, 2025, indicated that there are no records of state and/or federally listed plants or animals located within a one (1) mile radius of the Project Study Area. However, the Project is within the range of nineteen (19) state and/or federally listed animal species. A copy of ODNR's Office of Real Estate's response is included as part of Exhibit 6.

Based on the information received from correspondence with ODNR, the Project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. These bat species predominantly roost in trees behind loose, exfoliating bark, in crevices, and cavities, or in the leaves. These species are dependent on the forest structure surrounding the roost tress. The DOW recommended a desktop bat hibernaculum assessment be completed for the Project, which TRC completed for ATSI and submitted to ODNR for concurrence on September 8, 2025. ODNR responded on September 9, 2025, attached as Exhibit 6A, concurring that no caves, cliffs, or mine openings occur in the Project Study Area; therefore, the Project is not likely to impact hibernating bats. In assessing compliance with NWP General Condition 18, TRC determined that tree clearing is anticipated within

the Project Study Area. Any tree clearing needed as a result of this Project, it will take place within the US Fish and Wildlife Service (USFWS) recommended tree clearing dates (October 1 – March 31); therefore, no impacts to bat species are anticipated as a result of the construction of this Project.

The Project is within the range of the following listed mussel species: the federally endangered rayed bean (*Villosa fabalis*) and snuffbox (*Epioblasma triquetra*); the state endangered eastern pondmussel *(Ligumia nasuta*); and the state threatened pondhorn (*Uniomerus tetralasmus*). Due to the location, and because there is no in-water work proposed in a perennial stream, this Project will not impact mussel species.

The Project is within the range of the following six (6) state listed fish species: the state endangered cisco (*Coregonus artedi*), lake sturgeon (*Acipenser fulvescens*), and western banded killifish (*Fundulus diaphanus menona*); and the state threatened greater redhorse (*Moxostoma valenciennesi*), American eel (*Anguilla rostrata*), and channel darter (*Percina copelandi*). Due to the location, and because there is no in-water work proposed in a perennial stream, this Project will not impact these species.

The Project is within the range of the Blanding's turtle (*Emydoidea blandingii*), a state threatened species. This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next. Due to the location, the type of habitat within the Project Study Area, and the type of work proposed, this Project is not likely to impact this species.

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

The Project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. Due to the

location, the type of habitat within the Project Study Area, and the type of work proposed, this Project is not likely to impact this species.

The Project is also within the range of the blue-spotted salamander (*Ambystoma laterale)*, a state endangered species. Due to the location, the type of habitat within the Project Study Area, and the type of work proposed, this Project is not likely to impact this species.

The ODNR DOW further indicated that the Project is within the range of the sandhill crane (*Antigone canadensis*), a state threatened species. Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds, they require a rather large tract of wet meadow, shallow marsh, or bog for nesting. Due to the existing developed land use and a lack of suitable habitat within the Project Study Area, this species is not likely to be impacted by the proposed activities.

As part of the investigation, TRC a request to USFWS to research the presence of any endangered, threatened, rare, or designated species within the Project Study Area. Since that date, the Project Study Area expanded to the west and increased in size from 1.7 acres to 2.92 acres. TRC sent an updated request to USFWS regarding the Project and a response was received on May 15, 2025. A copy of USFWS' response is included in Exhibit 7. The response indicated that if no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, USFWS recommends the removal of any trees ≥3 inches dbh only occur between October 1 and March 31 to avoid adverse impacts to the Indiana bat, northern long-eared bat, and the proposed listed tricolored bat. Any tree clearing required as part of the Project will occur during USFWS seasonal tree clearing dates (October 1 and March 31) to avoid adverse impacts to these species.

Additionally, USFWS recommends the following actions to maintain habitat and avoid impacts to monarchs in Ohio: revegetate disturbed areas with native plant species including nectar-producing plants and milkweed endemic to the area; limit mowing monarch butterfly habitat from March 15 to August 31, when monarchs are breeding, and from September 1 to October 31, when large numbers of monarchs are migrating; and avoid the use of

pesticides and herbicides in and near monarch habitat. In order to avoid impacts to this species, any mowing in monarch habitat will be limited to the restriction dates outlined above and no spraying will occur within or near monarch habitat. Due to the Project type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat.

A list of all endangered, threatened, and rare species, as identified by ODNR, within the range of the Project is provided in Table 2.

Table 2. List of Endangered and Threatened Species within range of Project Study Area

Common Name	Scientific Name	Federal Listed Status	State Listed Status	Affected Habitat
Amphibian				
Blue-spotted salamander	*Ambystoma laterale*	N/A	Endangered	Moist, damp deciduous or mixed forests.
Bird				
Sandhill crane	*Antigone canadensis*	N/A	Threatened	Grassland, prairie, or large tracts of wetland habitat.
Mammals				
Indiana bat	*Myotis sodalis*	Endangered	Endangered	Trees, forests, caves, and caverns.
Little brown bat	*Myotis lucifugus*	N/A	Endangered	Trees, forests, caves, and caverns.
Northern long-eared bat	*Myotis septentrionalis*	Endangered	Endangered	Trees, forests, caves, and caverns.
Tricolored bat	*Perimyotis subflavus*	Proposed Endangered	Endangered	Trees, forests, caves, and caverns.
Fish				
American eel	*Anguilla rostrata*	N/A	Threatened	Perennial streams.
Channel darter	*Percina copelandi*	N/A	Threatened	Perennial streams.
Cisco	*Coregonus artedi*	N/A	Endangered	Perennial streams.
Greater redhorse	*Moxostoma valenciennesi*	N/A	Threatened	Perennial streams.
Lake sturgeon	*Acipenser fulvescens*	N/A	Endangered	Perennial streams.
Western banded killifish	*Fundulus diaphanus menona*	N/A	Endangered	Perennial streams.
Mussels				

Pondhorn	*Uniomerus tetralasmus*	N/A	Threatened	Perennial streams.
Eastern pondmussel	*Ligumia nasuta*	N/A	Endangered	Perennial streams.
Snuffbox	*Epioblasma triquetra*	Endangered	Endangered	Perennial streams.
Rayed bean	*Villosa fabalis*	Endangered	Endangered	Perennial streams.
Reptiles				
Blanding's turtle	*Emydoidea blandingii*	N/A	Threatened	Marshes, ponds, lakes, streams, wet meadows, and swampy forests.
Kirtland's snake	*Clonophis kirtlandii*	N/A	Threatened	Wet fields and meadows.
Spotted turtle	*Clemmys guttata*	N/A	Threatened	Fens, bogs and marshes, wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches.

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

TRC conducted wetland and waterways delineation for the Project, as shown in Exhibit 8. The Project Study Area is approximately 2.92 acres in size, located in the city of Toledo, Lucas County, Ohio. During the field investigation, no wetlands or surface waters were delineated or identified within the Project Study Area.

The Project Study Area consists mainly of an existing, maintained utility ROW and substation, and residential property, surrounded by minor upland forested habitat. TRC did not observe the presence of any of the ODNR-listed species during the field investigation due to the highly maintained nature of the utility ROW, the existing facility, and residential property. Therefore, no impacts are anticipated to any of the listed species detailed in the ODNR correspondence.

The Limits of Disturbance (LOD) will be completely within the Project Study Area and will predominantly include using an existing access road and maintained substation facility

for the proposed construction. NWP 57 (effective March 15, 2021, valid through March 14, 2026), authorizes the construction of access roads for the construction and maintenance of electric utility lines or telecommunication lines, including overhead lines and substations, in nontidal waters of the United States, provided the activity does not cause the loss of greater than 0.5-acre of waters of the United States. Nationwide Permit Regional General Conditions were reviewed regarding this Project. The Project is located in the city of Toledo, Lucas County, Ohio, which is within the USACE Buffalo Regulatory District. The Project location is not listed in Appendix 1 to Regional General Condition 5(a) (Endangered Species and Threatened Species). Jurisdictional resources are not present and therefore there is no potential trigger for a Section 404 PCN to USACE and NWP 57 conditions are met.

A review of the USGS Protected Areas Database (www.usgs.gov/programs/gap-analysis-project/science/protected-areas) revealed no conservation easements within the Project Study Area. The National Conservation Easement Database is no longer in use due to the database no longer being actively updated and supported.

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

Construction and operation of the proposed Project will be in accordance with the requirements specified in the latest revision of the National Electrical Safety Code as adopted by the PUCO and will meet all applicable safety standards established by the Occupational Safety and Health Administration.

No other or unusual conditions are expected that will result in significant environmental, social, health or safety impacts.

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

This Letter of Notification application is being provided concurrently to the following public officials from the city of Toledo and Lucas County.

Lucas County

Commissioner Lisa A. Sobecki
President, Lucas County
Board of Commissioners
One Government Center
Toledo, OH 43604
lasobecki@co.lucas.oh.us

Commissioner Anita Lopez
Lucas County
Board of Commissioners
One Government Center
Toledo, OH 43604
alopez@co.lucas.oh.us

Commissioner Pete Gerken
Lucas County
Board of Commissioners
One Government Center
Toledo, OH 43604
pgerken@co.lucas.oh.us

Mr. Mike Pniewski, P.E., P.S.
Lucas County Engineer
1049 S McCord Road,
Holland, OH 43528
mpniewski@co.lucas.oh.us

Ms. Burma Stewart, Director
Lucas County Planning
and Development Department
3737 W. Sylvania Avenue
Toledo, OH 43623
bstewart@co.lucas.oh.us

City of Toledo

Mayor Wade Kapszukiewicz
City of Toledo
One Government Center
640 Jackson Street,
Toledo, OH 43604
Wade.Kapszukiewicz@toledo.oh.gov

Carrie Hartman, President
City of Toledo Council
One Government Center
640 Jackson Street,
Toledo, OH 43604
carrie.hartman@toledo.oh.gov

Mr. Thomas C. Gibbons, Director
Toledo-Lucas County
Planning Commission
One Government Center, Suite 1620
Toledo, OH 43604
thomas.gibbons@toledo.oh.gov

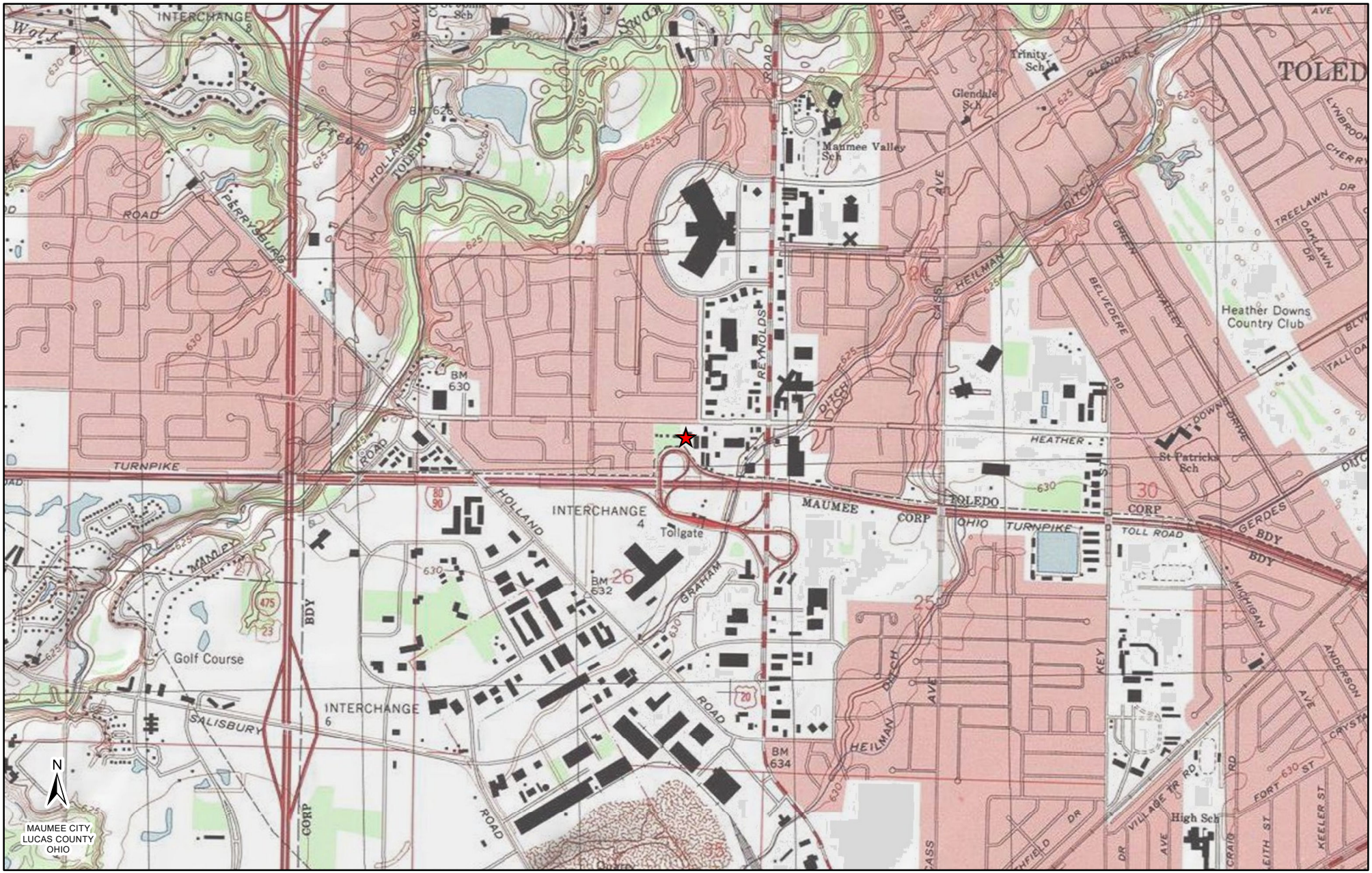
Mr. Thomas C. Skrobola
Finance Director, City of Toledo
One Government Center
Toledo, OH 43604
thomas.skrobola@toledo.oh.gov

Library

Ms. Tiana Tutu-Anokye, Manager
Maumee Branch Library
501 River Rd, Maumee, OH 43537
tiana.tutu-anokye@toledolibrary.org

Per Adm.Code 4906-6-07(B), exemplar copies of the notice letters sent to local government officials and to the library have been included with this application as proof of compliance with requirements of Adm.Code 4906-6-07(A)(1) and 4906-6-07(A)(2).

Information is posted at www.firstenergycorp.com/about/transmission_project/ohio.html on how to request an electronic or paper copy of this Letter of Notification application. The link to this website is being provided in accordance with Adm.Code 4906-6-07(B), which requires ATSI to provide the OPSB with proof of compliance with Adm.Code 4906-6-07(A)(3).



LEGEND:

★ Project Location

0 1,000 2,000 4,000

Feet

Reference:

USGS Topographical Overlay; ODOT

Coordinate System:

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

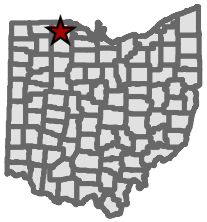
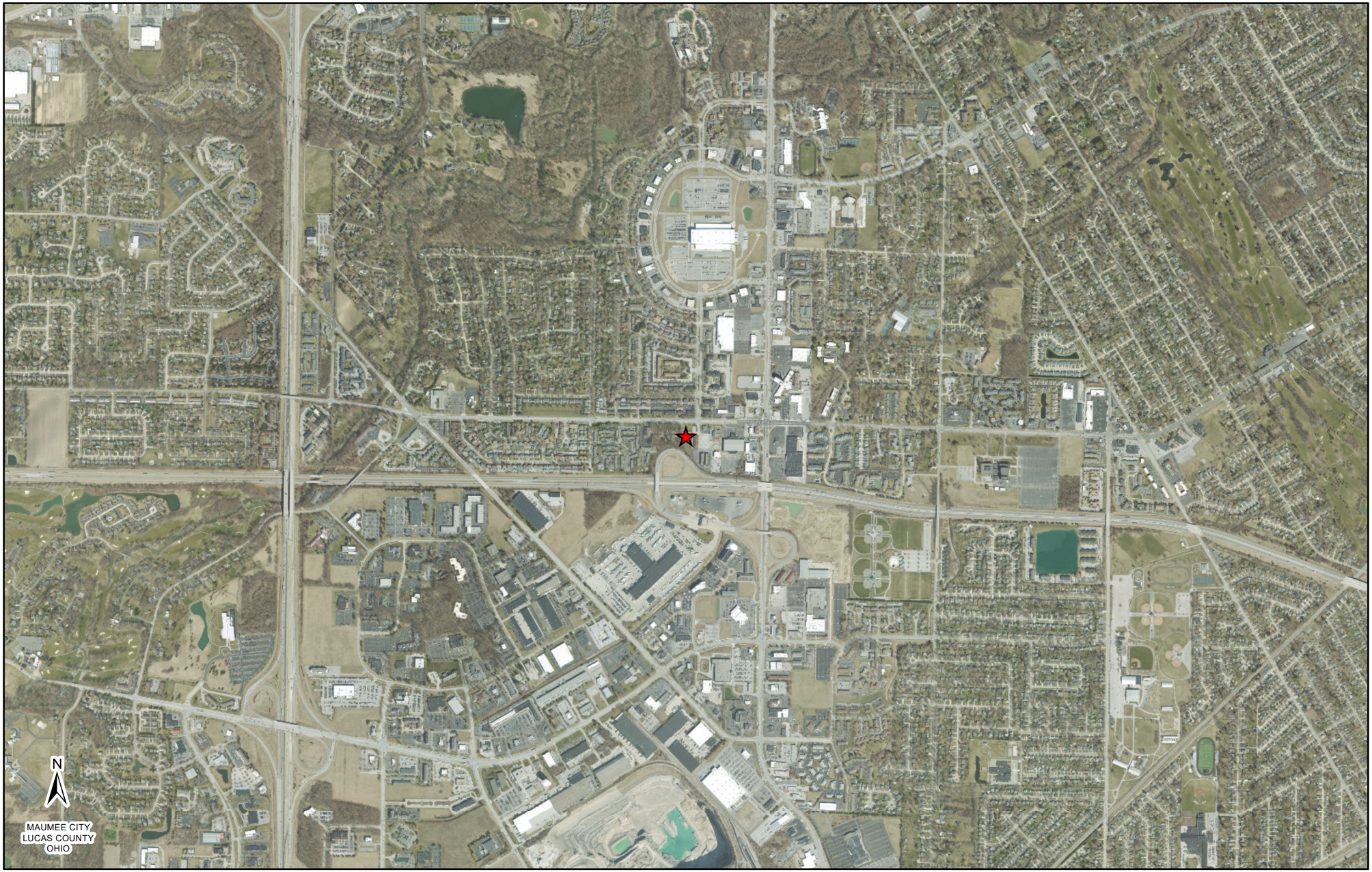


EXHIBIT 1

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

Hawthorne Substation Expansion and 138 kV Transmission Lines Reconfiguration Project



LEGEND:

★ Project Location

0 1,000 2,000 4,000

Feet

Reference:

ESRI Imagery; ODOT

Coordinate System:

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

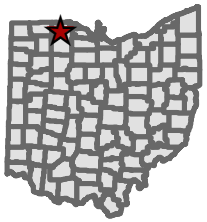
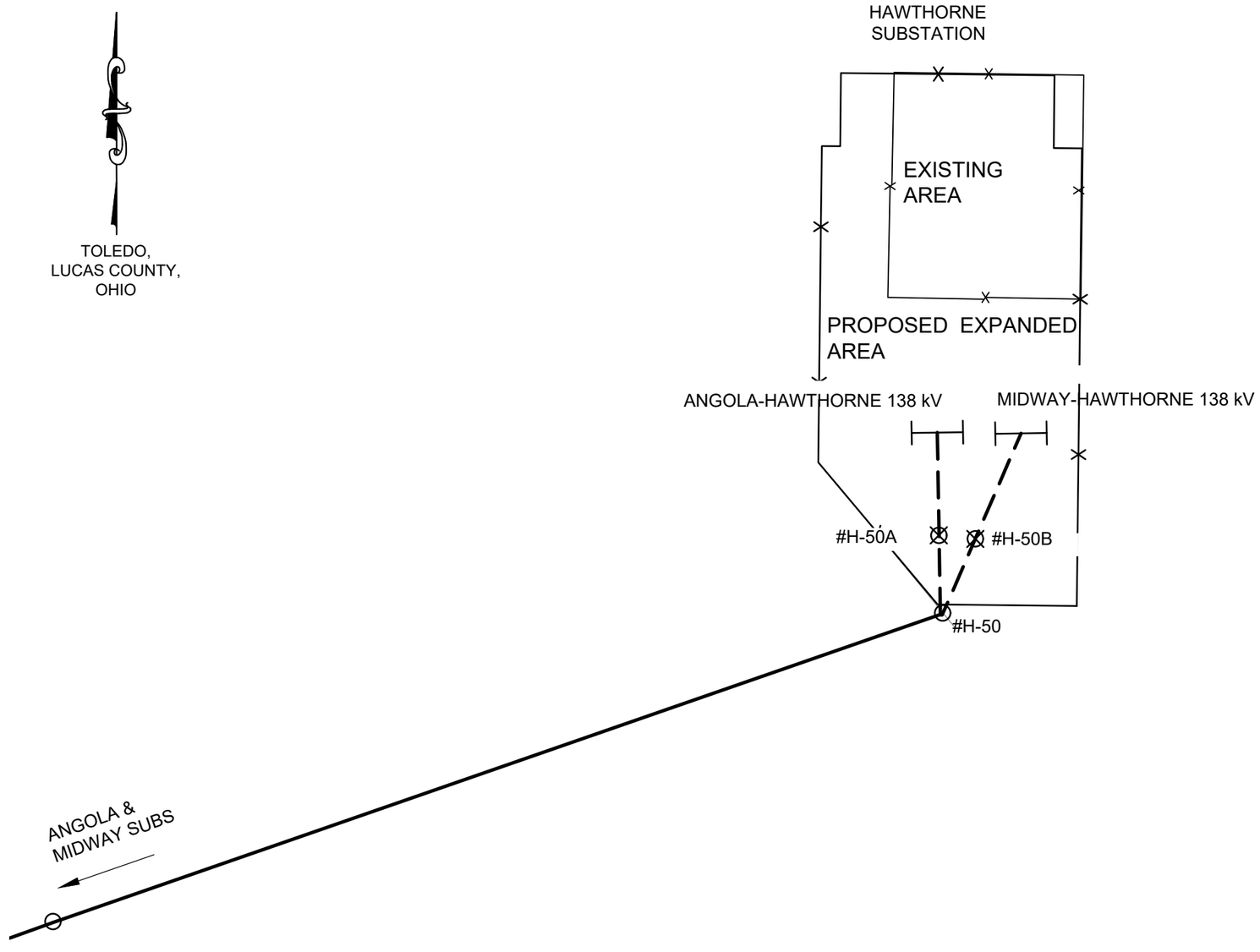


EXHIBIT 2

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

Hawthorne Substation Expansion and 138 kV Transmission Lines Reconfiguration Project

TOLEDO,
LUCAS COUNTY,
OHIO



LEGEND

- ⊙ - EXISTING STRUCTURE
- ⊠ - STRUCTURE TO BE REMOVED
- ——— - EXISTING TRANSMISSION LINE
- ——x—— - FENCE
- ⊢⊣ - SUBSTATION FRAME

SCALE: NTS

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

HAWTHORNE SUBSTATION EXPANSION PROJECT

GENERAL LAYOUT

EXHIBIT 3

EXHIBIT 4

ATSI Transmission Zone M-3 Process
Angola – Midway 138 kV Line

Need Number: ATSI-2022-013
Process Stage: Solution Meeting – 08/16/2024
Previously Presented: Need Meeting – 05/19/2022

Supplemental Project Driver(s):
Operational Flexibility and Efficiency
Equipment Material Condition, Performance and Risk
Infrastructure Resilience

Specific Assumption Reference(s):
Global Considerations

- System reliability and performance
- Load at risk in planning and operational scenarios
- Load and/or customers at risk on single transmission lines
- Substation/line equipment limits

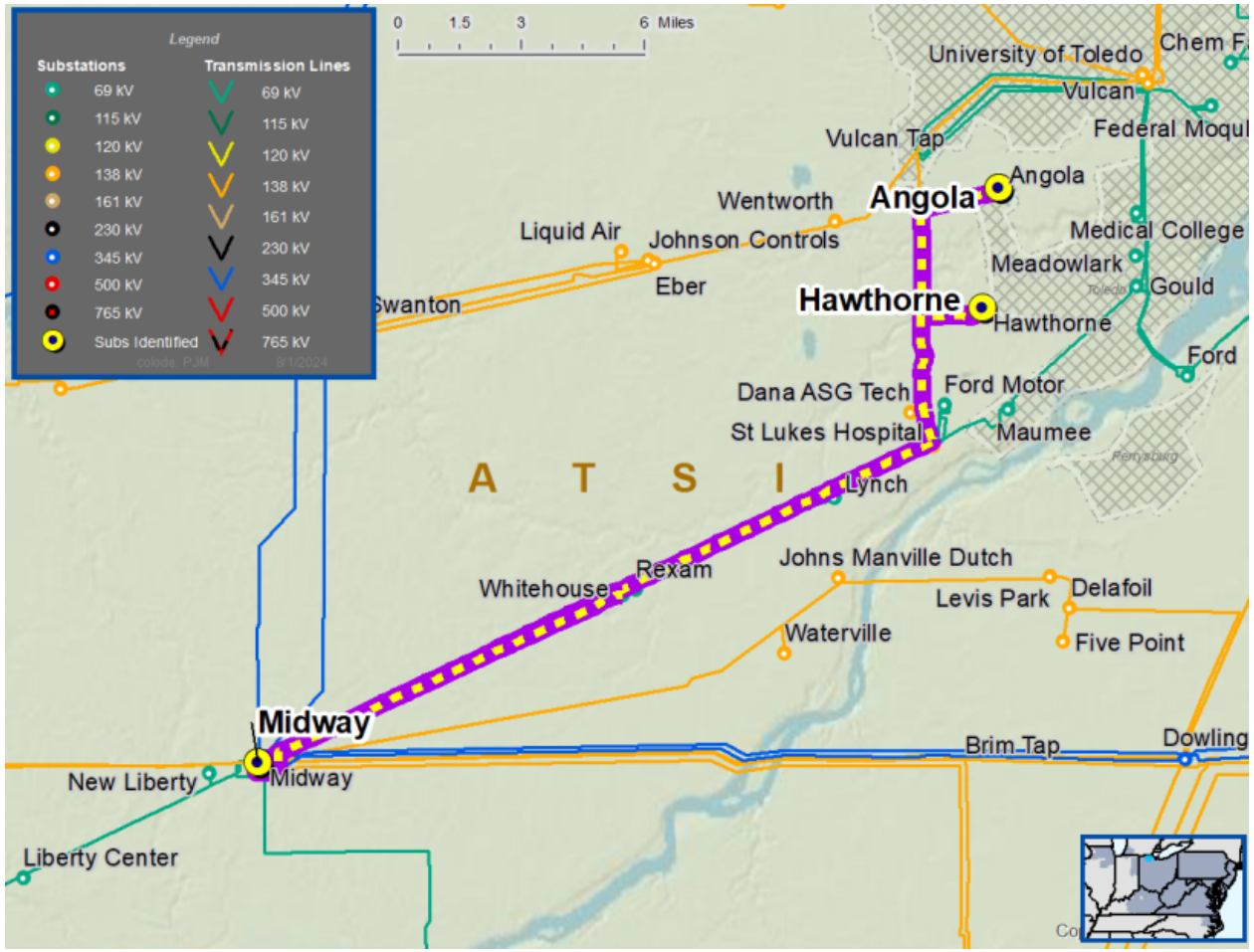
Add/Expand Bus Configuration

- Loss of substation bus adversely impacts transmission system performance

Problem Statement:

The loss of the Angola-Midway 138 kV Line results in the loss of approximately 38.5 MW and 7,400 customers at three delivery points.

Since 2017, the Angola-Midway 138 kV Line has experienced four unscheduled outages: two sustained and two momentary.



ATSI Transmission Zone M-3 Process
Angola – Midway 138 kV Line

Need Number: ATSI-2022-013

Process Stage: Solution Meeting – 08/16/2024

Proposed Solution:

Expand Hawthorne Station into a ring bus configuration

- Build a four breaker 138 kV ring bus.

Alternatives Considered:

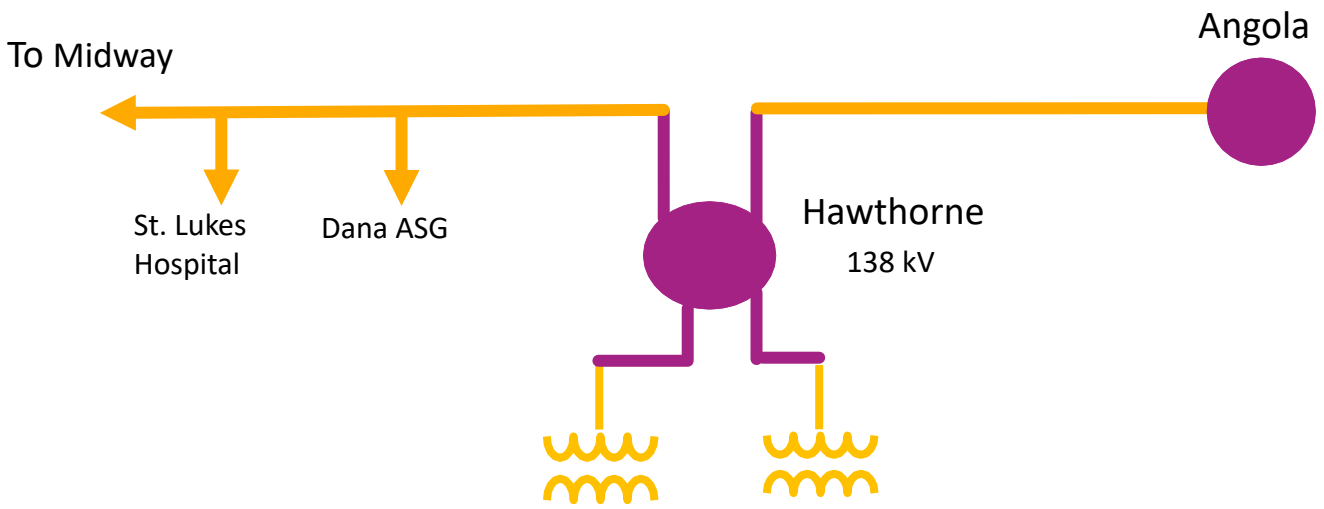
- Expand Angola substation into a five (5) breaker 138 kV ring bus substation, build approximately 2.3 miles of new 138 kV circuit from Angola Substation to Angola tap on Angola – Eber – Vulcan 138 kV Line.

Estimated Project Cost: $11.6M

Projected In-Service: 3/14/2028

Status: Conceptual

Model: 2023 RTEP model for 2028 Summer (50/50)



Legend	
500 kV	
345 kV	
138 kV	
69 kV	
34.5 kV	
23 kV	
New	

EXHIBIT 5

In reply refer to:
2024-LUC-61299

September 9, 2025

Justin McKissick, MA, RPA
Senior Archaeologist/Project Manager
TRC Environmental Corporation
317 E Carson Street, Suite 113
Pittsburgh, PA 15219
Email: JMcKissick@trccompanies.com

RE: Section 106 Review: Hawthorne Substation Project, Toledo, Lucas County, Ohio

Dear Mr. McKissick:

This letter is in response to the correspondence received on August 12, 2025, regarding the above-referenced project in Lucas County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code (O.R.C.) and the Ohio Power Siting Board rules for siting this project. 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 SHPO previously reviewed and commented on this project on June 10, 2024. However, since that time the scope of the project has changed, which includes the increase of the Area of Potential Effect (APE) from 1.7-acres to 2.92-acres. This increase will include the demolition of a 1950s-era ranch style house. Based on information submitted, no historic properties, districts, or archaeological sites are located within the newly defined APE. After careful review, it is the SHPO's opinion that no cultural resource studies are warranted for the project. Furthermore, as proposed, the project will have no effect on historic properties. No further coordination is required for this project unless the scope of work changes again or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted. If you have any questions concerning this review, please contact me via email at sbiehl@ohiohistory.org. Thank you for your cooperation.

Sincerely,

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

RPR Serial No. 1110339

In reply refer to:
2024-LUC-61299

June 10, 2024

Justin McKissick, MA, RPA
Project Archaeologist/Field Director
TRC Environmental Corporation
317 E Carson Street, Suite 113
Pittsburgh, PA 15219
Email: JMcKissick@trccompanies.com

RE: Section 106 Review: Hawthorne 138kV 4 Breaker Ring 16044605 Bus Project, Toledo, Lucas County, Ohio

Dear Mr. McKissick:

This letter is in response to the correspondence received on May 14, 2024, regarding the above reference project in Lucas County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code (O.R.C.) and the Ohio Power Siting Board rules for siting this project. 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 proposed project consists of expansion of an existing substation, including the use of a possible laydown storage yard and a temporary access road through a paved parking lot. Based on information submitted by you, which included a Project Summary Form, no historic properties, districts, or archaeological sites are located within the direct Area of Potential Effect (APE), as defined by you. New infrastructure will not exceed existing infrastructure heights. Therefore, based on this information, it is the SHPO's opinion that no cultural resource studies are warranted for the project. Furthermore, as proposed, the project will have no effect on historic properties. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted as required by 36 CFR § 800.13. If you have any questions concerning this review, please contact either myself via email at sbiehl@ohiohistory.org or Ms. Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Stephen M. Biehl

Stephen M. Biehl, Project Reviews Coordinator (archaeology)
Resource Protection and Review
State Historic Preservation Office

RPR Serial No. 1103159

EXHIBIT 6

Department of Natural Resources
ohiodnr.gov

Mike DeWine, *Governor*
Jim Tressel, *Lt. Governor*
Mary Mertz, *Director*

Office of Real Estate & Land Management
Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

September 8, 2025

Jenna Slabe
TRC Companies, Inc.
1382 West 9th Street, Suite 400
Cleveland, Ohio 44113

Re: 25-1205_Hawthorne Substation

Project: The proposed project involves expansion activities for the existing Hawthorne substation.

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

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

Natural Heritage Database: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose,

exfoliating bark, in crevices and cavities, or in clusters of dead leaves on tree limbs. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cleared, the DOW recommends tree and/or tree limb clearing 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 a Diameter Breast Height (DBH) ≥ 20" if possible. If trees are present within the project area, and trees and/or tree limbs must be cleared during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any clearing. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the OHIO DIVISION OF WILDLIFE AND U.S. FISH AND WILDLIFE SERVICE (OH-FIELD OFFICE) JOINT GUIDANCE FOR BAT SURVEYS. If state-listed bats are documented, DOW recommends tree clearing only occur from October 1 through March 31. However, limited summer tree clearing may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

For every project, the DOW also recommends that a winter bat habitat assessment is conducted to determine if potential hibernacula are present within the project area. This is to limit possible disturbances that seasonal tree clearing and/or subsurface work (e.g., trenching, blasting, etc.) may cause to hibernating bats. Potential hibernacula include rocky outcroppings, caves, and underground mines. Direction on how to conduct winter habitat assessments can be found in the joint guidance linked above. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile permanent tree clearing buffer around the hibernaculum entrance. Limited summer or winter tree clearing may be acceptable after consultation with the DOW. If a habitat assessment for projects involving subsurface disturbance finds that a potential hibernaculum is present within 5 miles of the project area, please consult with Eileen Wyza for project recommendations. If no tree clearing or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species.

Federally Endangered
rayed bean (*Villosa fabalis*)
snuffbox (*Epioblasma triquetra*)

State Endangered
eastern pondmussel *(Ligumia nasuta*)

State Threatened
pondhorn (*Uniomerus tetralasmus*)

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

The project is within the range of the following listed fish species.

State Endangered
cisco (*Coregonus artedi*)
lake sturgeon (*Acipenser fulvescens*)
western banded killifish (*Fundulus diaphanus menona*)

State Threatened
greater redhorse (*Moxostoma valenciennesi*)
American eel (*Anguilla rostrata*)
channel darter (*Percina copelandi*)

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

The project is within the range of the Blanding's turtle (*Emydoidea blandingii*), a state threatened species. This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

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

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the blue-spotted salamander (*Ambystoma laterale)*, a state endangered species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the sandhill crane (*Antigone canadensis*), a state threatened species. Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds, they require a rather large tract of wet meadow, shallow marsh, or bog for nesting. If grassland, prairie, or wetland habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 1 through August 31. If this habitat will not be impacted, this project is not likely to have an impact on this species.

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

Water Resources: The Division of Water Resources has not conducted a project specific review and/or comments, however, the guidance provided below should be reviewed by the Environmental Review applicant for applicability on this project and subsequent compliance.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer website can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

Ohio Revised Code (ORC) Section 1521.16 mandates that any owner of a property or a facility that has the capacity of withdrawing 100,000 gallons per day (gpd) of water from groundwater, surface water, or both must register with the Division of Water Resources' Water Withdrawal Facilities Registration (WWFR) Program and report their withdrawals annually.

Additional coordination may be required depending on the location of the withdrawal and consumptive use. Restrictions or permitting may be required for:

- New or increased consumptive use of water averaging 2 million gallons per day (mgd) within 30 days within the Ohio River basin.
- New or increased withdrawal and consumptive water use in the Lake Erie watershed averaging 1 million gallons per day (mgd) or more in 90 days.
- New or increased water withdrawal directly from Lake Erie averaging 2.5 million gallons per day (mgd) or more in 90 days.
- Diversion or movement of water across the Ohio River and Lake Erie basin divide.

If the project does not involve activities that are subject to water withdrawal regulatory requirements as described above, then no further action is required. For more information, visit the Water Inventory & Planning website.

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

Expiration: *ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.*

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 28, 2024

Jenna Slabe
TRC Companies, Inc.
1382 West 9th Street, Suite 400
Cleveland, Ohio 44113

Re: 24-0652_Hawthorne 138kV 4 Breaker Ring Bus

Project: The proposed project involves work and expansion activities for the existing Hawthorne substation.

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

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

Natural Heritage Database: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure

surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "*OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING*". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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

The project is within the range of the following listed mussel species.
Federally Endangered
rayed bean (*Villosa fabalis*)
snuffbox (*Epioblasma triquetra*)

State Endangered
eastern pondmussel *(Ligumia nasuta*)

State Threatened
pondhorn (*Uniomerus tetralasmus*)

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

The project is within the range of the of the following listed fish species.
State Endangered
cisco (*Coregonus artedi*)
lake sturgeon (*Acipenser fulvescens*)
western banded killifish (*Fundulus diaphanus menona*)

State Threatened
American eel (*Anguilla rostrata*)
channel darter (*Percina copelandi*)
greater redhorse (*Moxostoma valenciennesi*)

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 Blanding's turtle (*Emydoidea blandingii*), a state threatened species. This species inhabits marshes, ponds, lakes, streams, wet meadows, and swampy forests. Although essentially aquatic, the Blanding's turtle will travel over land as it moves from one wetland to the next. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

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

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the blue-spotted salamander (*Ambystoma laterale)*, a state endangered species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

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

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

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project.

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

1382 W Ninth St., Suite 400
Cleveland, OH 44113

T 216.344.3072
TRCcompanies.com

April 24, 2024

Ohio Department of Natural Resources
Office of Real Estate & Land Management
2045 Morse Road, Building E-2
Columbus, OH 43229-6693

Project Submittal for an Environmental Review of the Hawthorne 138kV 4 Breaker Ring Bus Project located in the City of Toledo, Lucas County, Ohio.
(TRC Project No. 429847.0078.0000)

To Whom It May Concern,

On behalf of FirstEnergy Corporation (FirstEnergy), TRC Companies, Inc. (TRC) is requesting an Environmental Review of the proposed Hawthorne 138kV 4 Breaker Ring Bus Project (Project) located in the City of Toledo, Lucas County, Ohio (**Figure 1:** Site Location Map).

Project Location (latitude/longitude):
Centroid: 41.593871, -83.669156

County: Lucas County

Project Description: The Project involves work and expansion activities for the existing Hawthorne substation. The proposed Project Study Area is approximately 1.70 acres in size, located in the City of Toledo, Lucas County, Ohio. As depicted in the attached mapping, the proposed Project Study Area (**Figure 2:** Aerial Map) occurs within an existing, maintained utility right-of-way (ROW) and substation, surrounded by commercial land use and forested habitat. No tree clearing is anticipated within the Project Study Area.

On-site Habitat Description: Based on field surveys, TRC has identified the following habitats within the Project Study Area:

Land Use: Existing, maintained utility ROW and substation, surrounded by commercial land use and forested habitat.

Wetlands: On November 16, 2023, TRC performed a surface water delineation within the Project Study Area. No wetland resources were identified or delineated within the Project Study Area (**Figure 3:** Delineated Resources Map).

Streams: On November 16, 2023, TRC performed a surface water delineation within the Project Study Area. No streams or waterbodies were identified or delineated within the Project Study Area (**Figure 3:** Delineated Resources Map).

Forested Area: The proposed Project Study Area contains a minor amount of forested habitat on the edge of the utility ROW. No tree clearing is anticipated within the Project Study Area.

Uplands: The proposed Project Study Area includes upland habitat within an existing utility ROW and substation.

Floodplains: According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panels, 39095C0231E (eff. 8/16/2011) and 39095C0233E (eff. 8/16/2011), the proposed Project is not located within a FEMA-mapped 100-Year Flood Zone.

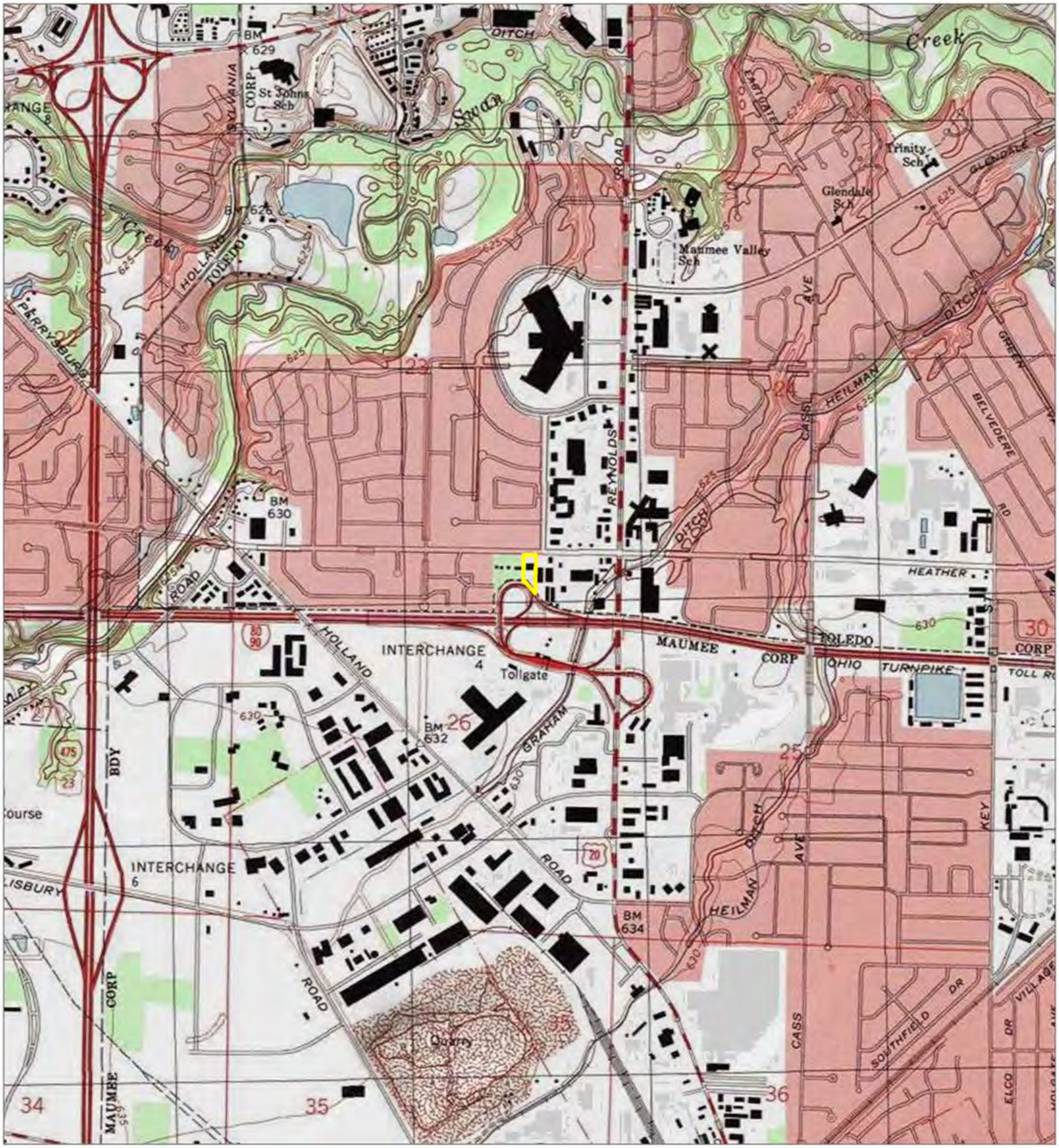
Potential Disturbance: It is anticipated that due to the nature of the Project, jurisdictional resources will not be impacted by the proposed Project activities. The most current Best Management Practices will be followed during construction and disturbed areas will be restored to pre-construction conditions as much as applicable. No tree clearing is anticipated within the Project Study Area. However, if minor tree clearing is needed as a result of this Project, it will take place within the USFWS recommended tree clearing dates (October 1 – March 31).

Please do not hesitate to contact me at (330) 998-0481 or via email at JSlabe@TRCcompanies.com if you have any questions or require additional information.

Regards,

Jenna Slabe
Ecologist

Attachments:
Figure 1: Site Location Map
Figure 2: Aerial Map
Figure 3: Delineated Resources Map
Photographic Record



PROJECT STUDY AREA

BASE MAP: USA TOPO MAPS MAP SERVICE , MAUMEE QUAD

N

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

PROJECT:	FIRSTENERGY HAWTHORNE 138KV 4 BREAKER RING BUS PROJECT LUCAS COUNTY, OH
TITLE:	SITE LOCATION MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	429847.0078
CHECKED BY:	E. GIVEN	FIGURE 1	
APPROVED BY:	B. FALKINBURG		
DATE:	NOVEMBER 2023		

TRC

1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR

COORDINATE SYSTEM: NAD 1983 STATEPLANE OHIO NORTH FIPS 3401 FEET; MAP ROTATION: 0

SAVED BY: MOPEL ON 11/17/2023, 13:31:11 PM; LAYOUT NAME: FIG01_SLM

PROJECT STUDY AREA

BASE MAP: GOOGLE MAPS.

1:900
1" = 75'
0 75 150 FEET

PROJECT: FIRSTENERGY
HAWTHORNE 138KV 4 BREAKER RING BUS PROJECT
LUCAS COUNTY, OH

TITLE: AERIAL MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	429847.0078
CHECKED BY:	E. GIVEN		FIGURE 2
APPROVED BY:	B. FALKINBURG		
DATE:	NOVEMBER 2023		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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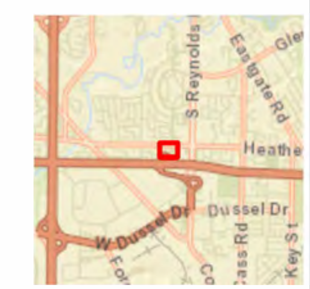
PROJECT STUDY AREA

CULVERT

RULE OUT POINT

BASE MAP: GOOGLE MAPS.
DATA SOURCES: TRC WETLAND DELINEATION COMPLETED NOVEMBER 16, 2023.



N

1:900
1" = 75'

0 75 150 FEET

PROJECT:	FIRSTENERGY HAWTHORNE 138KV 4 BREAKER RING BUS PROJECT LUCAS COUNTY, OH		
TITLE:	DELINEATED RESOURCES MAP		
DRAWN BY:	M. OPEL	PROJ. NO.:	429847.0078
CHECKED BY:	E. GIVEN	FIGURE 3	
APPROVED BY:	B. FALKINBURG		
DATE:	NOVEMBER 2023		

TRC

1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet; Map Rotation: 0
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PHOTOGRAPHIC RECORD

Hawthorne 138kV 4 Breaker Ring Bus Project

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	429847.0078.0000

Photo No. 1.	
Photo Date: 11/16/2023	
Description: Photo of the northern extent of the Project Study Area near Heatherdowns Blvd, facing north.	

Photo No. 2.	
Photo Date: 11/16/2023	
Description: Photo of the northern extent of the Project Study Area, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	429847.0078.0000

Photo No. 3. **Photo Date:** 11/16/2023 **Description:** Photo of the northern extent of the Project Study Area and existing substation, facing south.	

Photo No. 4. **Photo Date:** 11/16/2023 **Description:** Photo of the northern extent of the Project Study Area, facing west.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	429847.0078.0000

Photo No. 5. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area and existing substation, facing north.	

Photo No. 6. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	429847.0078.0000

Photo No. 7. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area, facing south.	

Photo No. 8. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area, facing west.	

EXHIBIT 6A

From: Eileen.Wyza@dnr.ohio.gov
To: Slabe, Jenna
Cc: Falkinburg, Brad; Molnar, Maggie
Subject: [EXTERNAL] RE: Desktop Hibernacula Assessment: FirstEnergy"s Hawthorne Substation Project
Date: Tuesday, September 9, 2025 8:27:30 AM
Attachments: image002.png
image004.png
image005.png
image006.png
image007.png
image008.png
image001.png

Hello Jenna,

Per review of the desktop survey provided for the FirstEnergy's Hawthorne Substation Project, the Ohio Division of Wildlife concurs with your assessment that no caves, cliffs, or mine openings occur in the project area. Therefore, the project is not likely to impact hibernating bats.

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

Thank you,

Eileen Wyza, Ph.D.
(she/her/hers)
Wildlife Biologist
Ohio Division of Wildlife
Phone: 614-265-6764
Email: Eileen.Wyza@dnr.ohio.gov

From: Slabe, Jenna <JSlabe@trccompanies.com>
Sent: Monday, September 8, 2025 4:31 PM
To: Wyza, Eileen <Eileen.Wyza@dnr.ohio.gov>
Cc: Falkinburg, Brad <BFalkinburg@trccompanies.com>; Molnar, Maggie <MMolnar@trccompanies.com>
Subject: Desktop Hibernacula Assessment: FirstEnergy's Hawthorne Substation Project

Eileen,

In response to ODNR's DOW recommendations (attached), TRC completed a desktop hibernacula assessment to determine if potential hibernaculum is present within FirstEnergy's proposed Hawthorne Substation Project located in the City of Toledo, Lucas County, Ohio.

Please let us know if you have any questions on the provided desktop assessment or require any additional information, thank you!

Jenna Slabe, PWS

Ecologist

1382 W 9th St, Suite 400, Cleveland, OH 44113
C 330.998.0481 | JSlabe@trccompanies.com
TRCcompanies.com

EXHIBIT 7

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

May 15, 2024

Project Code: 2024-0080925

Dear Jenna Slabe:

The U.S. Fish and Wildlife Service (Service) 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 effects to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat. If there are any project modifications during the term of this action, or additional information for listed or proposed species or their critical habitat becomes available, or if new information reveals effects of the action that were not previously considered, then please contact us for additional project review.

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

1382 W Ninth St., Suite 400
Cleveland, OH 44113

T 216.344.3072
TRCcompanies.com

April 24, 2024

Patrice Ashfield
Field Office Supervisor
U.S. Fish and Wildlife Service
4625 Morse Road, Suite 104
Columbus, OH, 43230

Request for Submittal Review (IPaC Project Code: 2024-0080925) regarding the Hawthorne 138kV 4 Breaker Ring Bus Project located in the City of Toledo, Lucas County, Ohio.
(TRC Project No. 429847.0078.0000)

Dear Ms. Ashfield,

On behalf of FirstEnergy Corporation (FirstEnergy), TRC Companies, Inc. (TRC) is requesting Technical Assistance regarding the proposed Hawthorne 138kV 4 Breaker Ring Bus Project (Project) located in the City of Toledo, Lucas County, Ohio (**Figure 1**: Site Location Map). We are requesting information regarding Threatened and Endangered (T&E) species, or their habitats that may be impacted by the proposed Project, as well as information regarding, known locations of any known bald eagle nests, bat capture records, and bat hibernacula within a 5-mile radius of the proposed Project.

Project Location (latitude/longitude):
Centroid: 41.593871, -83.669156

County: Lucas County

Project Description: The Project involves work and expansion activities for the existing Hawthorne substation. The proposed Project Study Area is approximately 1.70 acres in size, located in the City of Toledo, Lucas County, Ohio. As depicted in the attached mapping, the proposed Project Study Area (**Figure 2:** Aerial Map) occurs within an existing, maintained utility right-of-way (ROW) and substation, surrounded by commercial land use and forested habitat. No tree clearing is anticipated within the Project Study Area.

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Forested Area: The proposed Project Study Area contains a minor amount of forested habitat on the edge of the utility ROW. No tree clearing is anticipated within the Project Study Area.

Uplands: The proposed Project Study Area includes upland habitat within an existing utility ROW and substation.

Floodplains: According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panels, 39095C0231E (eff. 8/16/2011) and 39095C0233E (eff. 8/16/2011), the proposed Project is not located within a FEMA-mapped 100-Year Flood Zone.

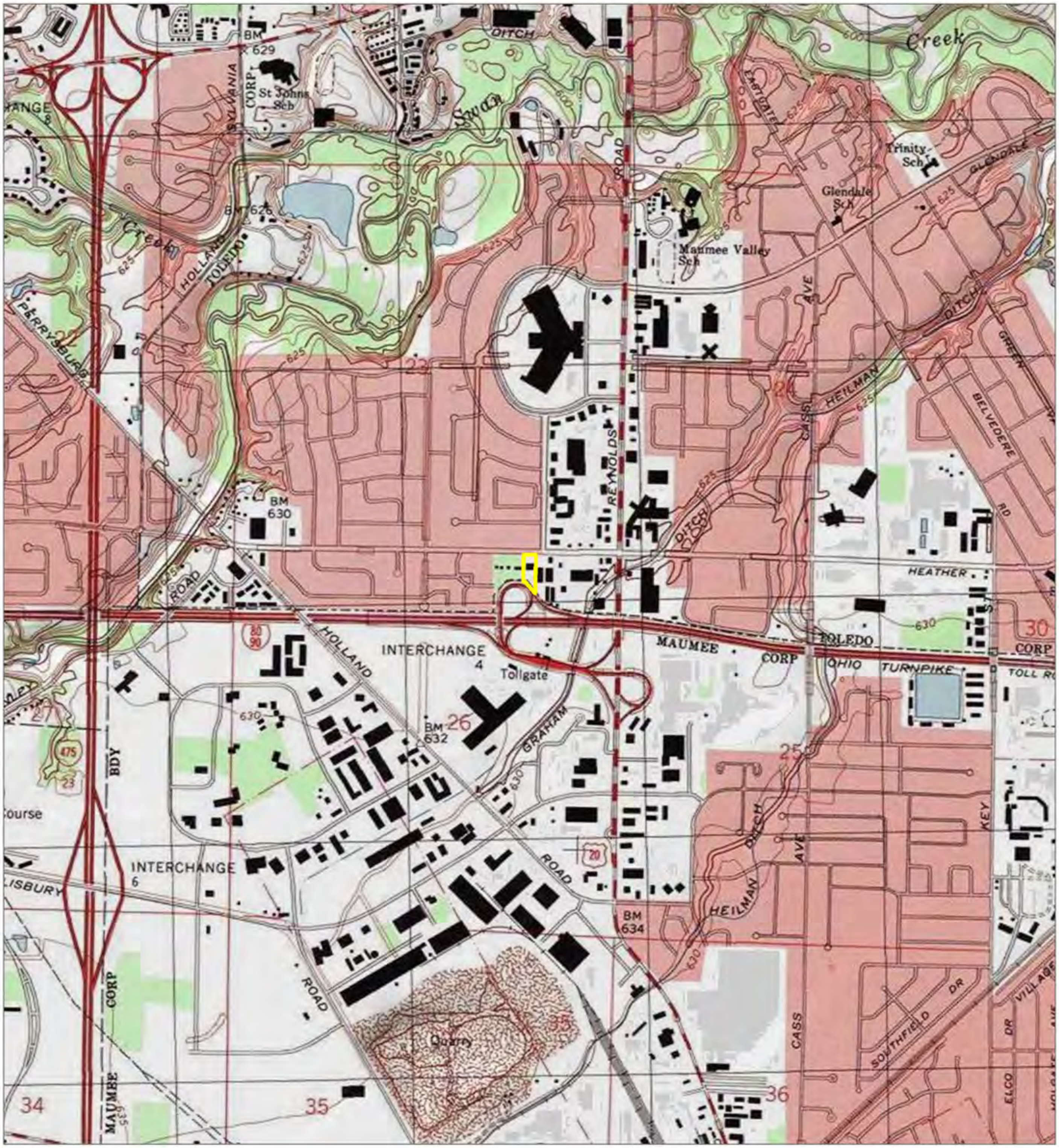
Potential Disturbance: It is anticipated that due to the nature of the Project, jurisdictional resources will not be impacted by the proposed Project activities. The most current Best Management Practices will be followed during construction and disturbed areas will be restored to pre-construction conditions as much as applicable. No tree clearing is anticipated within the Project Study Area. However, if minor tree clearing is needed as a result of this Project, it will take place within the USFWS recommended tree clearing dates (October 1 – March 31).

Please do not hesitate to contact me at (330) 998-0481 or via email at JSlabe@TRCcompanies.com if you have any questions or require additional information.

Regards,

Jenna Slabe
Ecologist

Attachments:
Figure 1: Site Location Map
Figure 2: Aerial Map
Figure 3: Delineated Resources Map
Photographic Record
USFWS IPaC Official Species List



PROJECT STUDY AREA

BASE MAP: USA TOPO MAPS MAP SERVICE , MAUMEE QUAD

N

0 1,000 2,000
FEET
1:24,000 1" = 2,000'

PROJECT:
FIRSTENERGY
HAWTHORNE 138KV 4 BREAKER RING BUS PROJECT
LUCAS COUNTY, OH

TITLE:

SITE LOCATION MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	429847.0078
CHECKED BY:	E. GIVEN	FIGURE 1	
APPROVED BY:	B. FALKINBURG		
DATE:	NOVEMBER 2023		

TRC

1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR

PROJECT STUDY AREA

BASE MAP: GOOGLE MAPS.

1:900
1" = 75'
0 75 150 FEET

PROJECT: FIRSTENERGY
HAWTHORNE 138KV 4 BREAKER RING BUS PROJECT
LUCAS COUNTY, OH

TITLE: AERIAL MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	429847.0078
CHECKED BY:	E. GIVEN		FIGURE 2
APPROVED BY:	B. FALKINBURG		
DATE:	NOVEMBER 2023		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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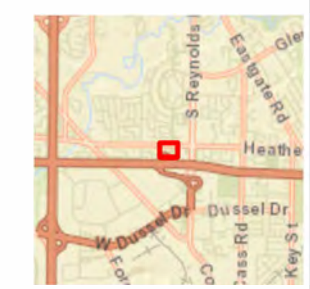
PROJECT STUDY AREA
CULVERT
RULE OUT POINT

BASE MAP: GOOGLE MAPS.
DATA SOURCES: TRC WETLAND DELINEATION COMPLETED NOVEMBER 16, 2023.



N

1:900
1" = 75'
0 75 150 FEET

PROJECT: FIRSTENERGY
HAWTHORNE 138KV 4 BREAKER RING BUS PROJECT
LUCAS COUNTY, OH

TITLE: DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	429847.0078
CHECKED BY:	E. GIVEN	FIGURE 3	
APPROVED BY:	B. FALKINBURG		
DATE:	NOVEMBER 2023		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet; Map Rotation: 0
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PHOTOGRAPHIC RECORD

Hawthorne 138kV 4 Breaker Ring Bus Project

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	429847.0078.0000

Photo No. 1.	
Photo Date: 11/16/2023	
Description: Photo of the northern extent of the Project Study Area near Heatherdowns Blvd, facing north.	

Photo No. 2.	
Photo Date: 11/16/2023	
Description: Photo of the northern extent of the Project Study Area, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	429847.0078.0000

Photo No. 3. **Photo Date:** 11/16/2023 **Description:** Photo of the northern extent of the Project Study Area and existing substation, facing south.	

Photo No. 4. **Photo Date:** 11/16/2023 **Description:** Photo of the northern extent of the Project Study Area, facing west.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	429847.0078.0000

Photo No. 5. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area and existing substation, facing north.	

Photo No. 6. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	429847.0078.0000

Photo No. 7. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area, facing south.	

Photo No. 8. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area, facing west.	

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To: 04/23/2024 19:04:17 UTC
Project Code: 2024-0080925
Project Name: Hawthorne 138kV 4 Breaker Ring Bus Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
(614) 416-8993

PROJECT SUMMARY

Project Code: 2024-0080925
Project Name: Hawthorne 138kV 4 Breaker Ring Bus Project
Project Type: Operations and Maintenance - Electric Power Transmission and Distribution Facilities
Project Description: The Project involves work and expansion activities within the existing Hawthorne substation. The proposed Project Study Area is approximately 1.70 acres in size, located in the City of Toledo, Lucas County, Ohio.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.5938189,-83.66916196365288,14z

Counties: Lucas County, Ohio

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Rufa Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

CLAMS

NAME	STATUS
Rayed Bean *Villosa fabalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5862	Endangered

INSECTS

NAME	STATUS
Karner Blue Butterfly *Lycaeides melissa samuelis* There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/6656	Endangered
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid *Platanthera leucophaea*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/601

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Jenna Slabe
Address: 1382 West 9th Street Suite 400
City: Cleveland
State: OH
Zip: 44113
Email jslabe@trccompanies.com
Phone: 3309980481

EXHIBIT 8

1382 West Ninth St.
Suite 400
Cleveland, OH 44113

T 216.344.3072
TRCcompanies.com

August 8, 2025

Mr. Auggie Ruggiero
FirstEnergy Corporation
341 White Pond Drive
Akron, OH 44320

Reference: Technical Memorandum for the Surface Water Delineation of the Hawthorne Substation Project located in the City of Toledo, Lucas County, Ohio.
(TRC Project No. 664674.0000 Phase 4)

Dear Mr. Ruggiero:

On behalf of FirstEnergy Corporation, TRC Environmental Corporation (TRC) conducted a surface water delineation for the Hawthorne Substation Project (Project). The Project is located in the City of Toledo, Lucas County, Ohio and is 2.92 acres in size (**Attachment A, Figure 1 and 2**). The Project Study Area is located at the following approximate centroid coordinates: 41.594052, -83.669446. This Project involves work and expansion activities for the existing Hawthorne substation.

Delineations were conducted by qualified wetland scientists on November 16, 2023, and July 29, 2025, in accordance with the United States Army Corps of Engineers (USACE) parameters. The objective was to evaluate and delineate potential surface water resources within the Project Study Area, such that the resources could be considered during each phase of the Project. Prior to the site visit, TRC reviewed available secondary source information such as the National Wetlands Inventory (NWI), National Hydrography Dataset (NHD), United States Geological Survey (USGS) topographic maps, County Soil Survey maps, and aerial imagery of the Project Study Area to use in addition to field investigations.

The Project Study Area is shown on the attached map (**Attachment A, Figure 1**), which was derived from the USGS Maumee, Ohio 7.5-minute quadrangle topographic map. Soil mapped within the Project Study Area includes hydric, non-hydric and non-hydric with hydric inclusions soils (**Attachment A, Figure 3**). The proposed Project Study Area does not include any mapped NHD or NWI features (**Attachment A, Figure 4**). According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panels, 39095C0231E (eff. 8/16/2011) and 39095C0233E (eff. 8/16/2011), the proposed Project is not located within a FEMA mapped 100-Year Flood Zone. During the field investigation, land use within the Project Study Area was observed to be an existing, maintained utility right-of-way (ROW) and substation, and residential property, surrounded by minor upland forested habitat. See attached mapping in **Attachment A** and the Photographic Record in **Attachment B** for further details of the Project Study Area.

During the field investigations, no wetlands or surface waters were delineated or identified within the Project Study Area. To verify the absence of wetlands within the Project Study Area, upland data points (ROP-EKG-1 and ROP-JMS-1) were collected and are shown on **Figure 5** in **Attachment A.** Data for ROP-EKG-1 and ROP-JMS-1 were recorded on the USACE Wetland Determination Data Form – Northcentral and Northeast Region. The Wetland Determination Data Forms are provided in **Attachment C.**

This Technical Memorandum represents the conditions within the Project Study Area identified herein, as of the inspection dates. Should you require any additional information or have any questions concerning this letter, please feel free to contact me at (440) 666-2890 or by email at BFalkinburg@TRCCompanies.com.

Kind Regards,

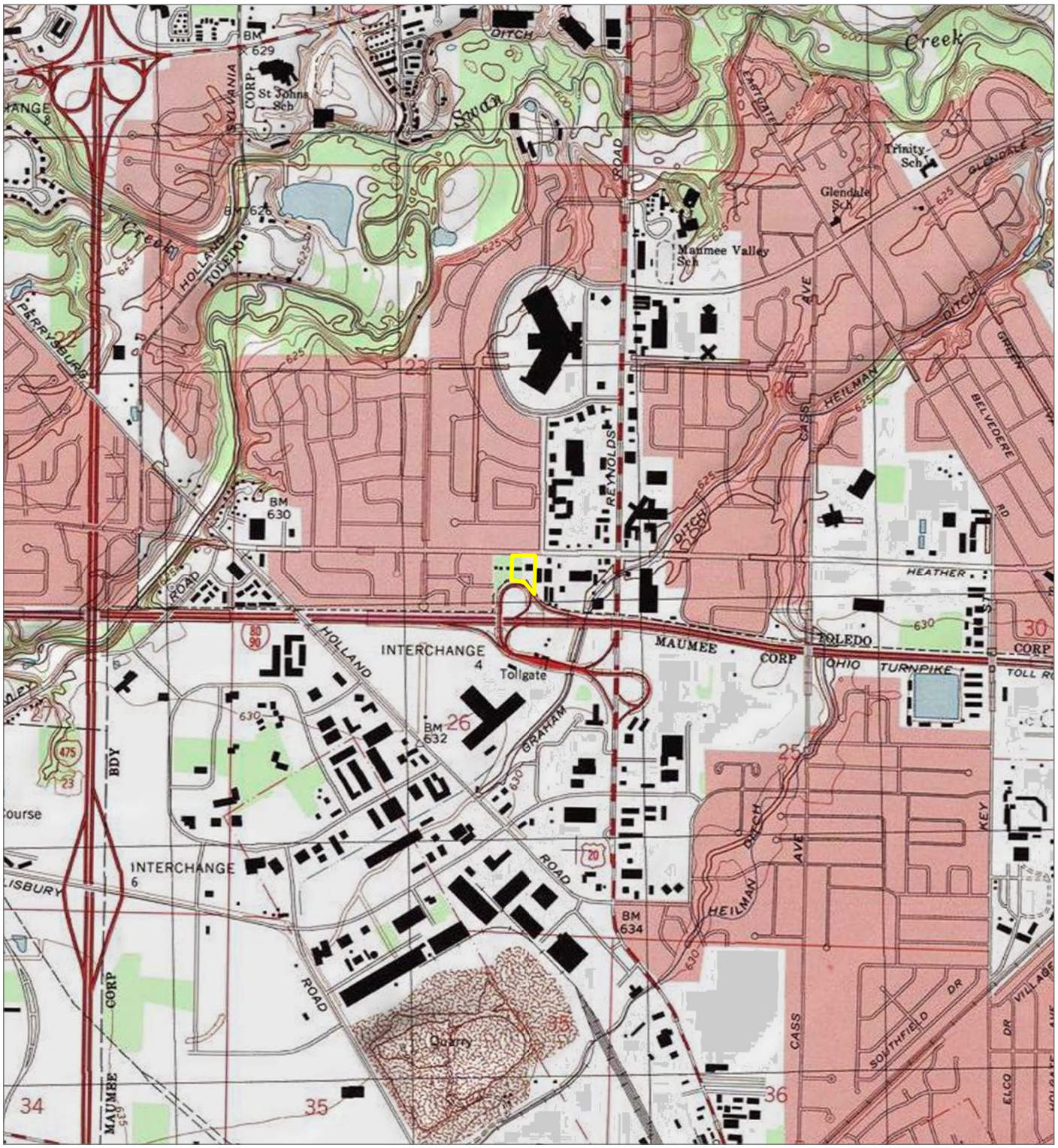
TRC

Brad M. Falkinburg, PWS
Ecological Office Practice Leader

cc: Maggie Molnar, PWS – TRC

Attachments
Attachment A: Figures
Attachment B: Photographic Record
Attachment C: Data Forms

ATTACHMENT A – Figures



PROJECT STUDY AREA

BASE MAP: USA TOPO MAPS MAP SERVICE , MAUMEE QUAD

N

0 1,000 2,000

FEET

1:24,000 1" = 2,000'

PROJECT:

FIRSTENERGY
HAWTHORNE SUBSTATION PROJECT
LUCAS COUNTY, OH

TITLE:

SITE LOCATION MAP

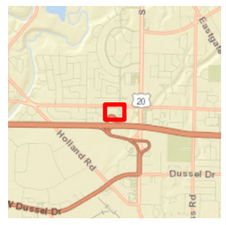
DRAWN BY:	M. OPEL	PROJ. NO.:	664674 P4
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		**FIGURE 1**
DATE:	JULY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDRV2

PROJECT STUDY AREA

BASE MAP: GOOGLE MAPS.



1:900
1" = 75'

0 75 150 FEET

PROJECT:
FIRSTENERGY
HAWTHORNE SUBSTATION PROJECT
LUCAS COUNTY, OH

TITLE:
AERIAL MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	664674 P4
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		**FIGURE 2**
DATE:	JULY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDRv2.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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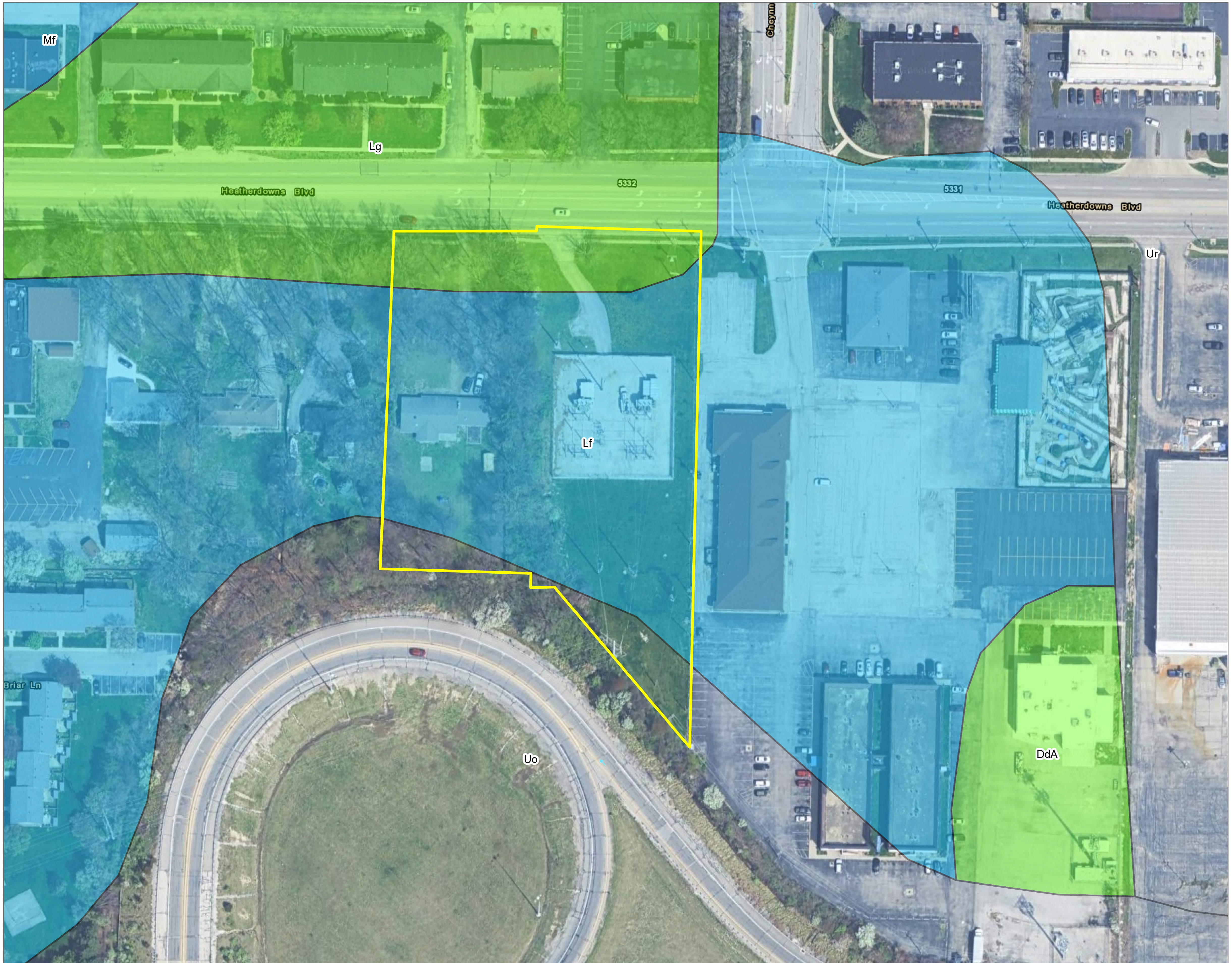
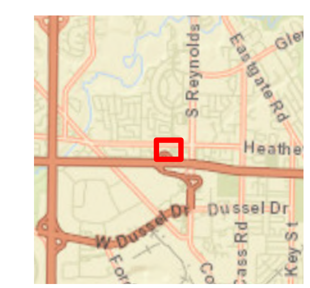


PROJECT STUDY AREA
HYDRIC SOIL
NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
NON-HYDRIC SOIL

BASE MAP: GOOGLE MAPS.
DATA SOURCES: SOILS DATA ACQUIRED FROM USDA/NRCS SSURGO DATABASE.



N
1:1,200
1" = 100'
0 100 200 FEET

PROJECT:	FIRSTENERGY HAWTHORNE SUBSTATION PROJECT LUCAS COUNTY, OH		
TITLE:	SOILS MAP		
DRAWN BY:	M. OPEL	PROJ. NO.:	664674 P4
CHECKED BY:	M. MOLNAR	FIGURE 3	
APPROVED BY:	B. FALKINBURG		
DATE:	AUGUST 2025		
TRC		1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072	
FILE:			WDRv2.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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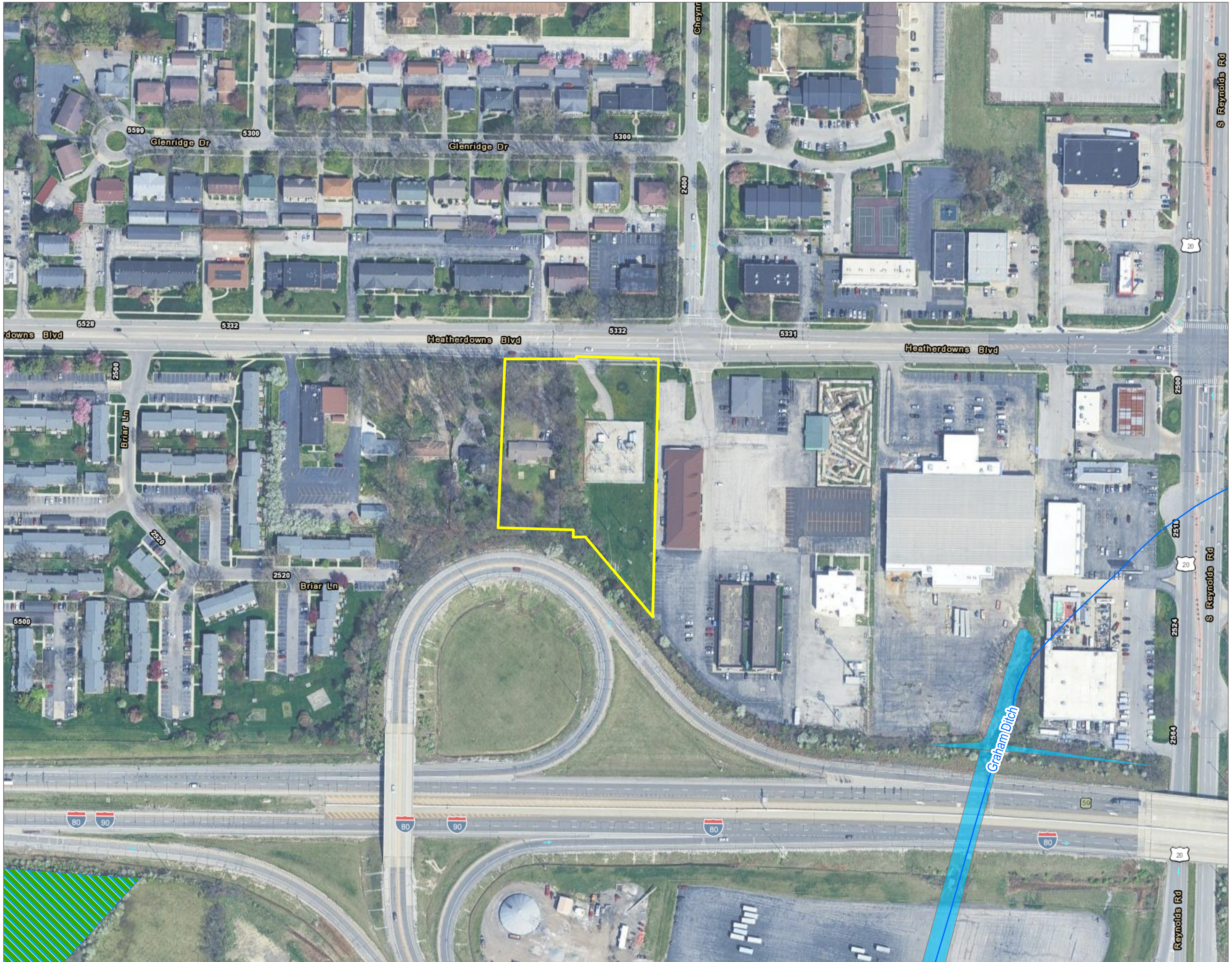


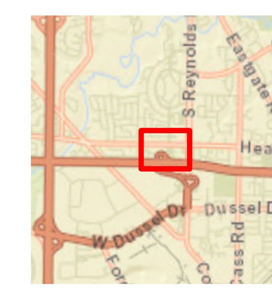
PROJECT STUDY AREA

NATIONAL HYDROGRAPHY DATASET (NHD) STREAM

NATIONAL WETLANDS INVENTORY (NWI) FEATURE

100-YEAR FLOOD ZONE

BASE MAP: GOOGLE MAPS.
DATA SOURCES: WETLAND DATA ACQUIRED FROM U.S. FISH & WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY (NWI). STREAM DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD). FLOOD DATA ACQUIRED FROM FEMA, NATIONAL FLOOD HAZARD LAYER (NFHL).



N

1:2,400
1" = 200'

0 200 400 FEET

PROJECT:	FIRSTENERGY HAWTHORNE SUBSTATION PROJECT LUCAS COUNTY, OH
TITLE:	NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	664674 P4
CHECKED BY:	M. MOLNAR	FIGURE 4	
APPROVED BY:	B. FALKINBURG		
DATE:	AUGUST 2025		

TRC

1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDRv2.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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PROJECT STUDY AREA
CULVERT
UPLAND DATA POINT

BASE MAP: GOOGLE MAPS.
DATA SOURCES: TRC WETLAND DELINEATION COMPLETED NOVEMBER 16, 2023 & JULY 30, 2025.

1:900
1" = 75'

0 75 150 FEET

PROJECT:
FIRSTENERGY
HAWTHORNE SUBSTATION PROJECT
LUCAS COUNTY, OH

TITLE:
DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	664674 P4
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		**FIGURE 5**
DATE:	JULY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDRv2.aprx

Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet; Map Rotation: 0
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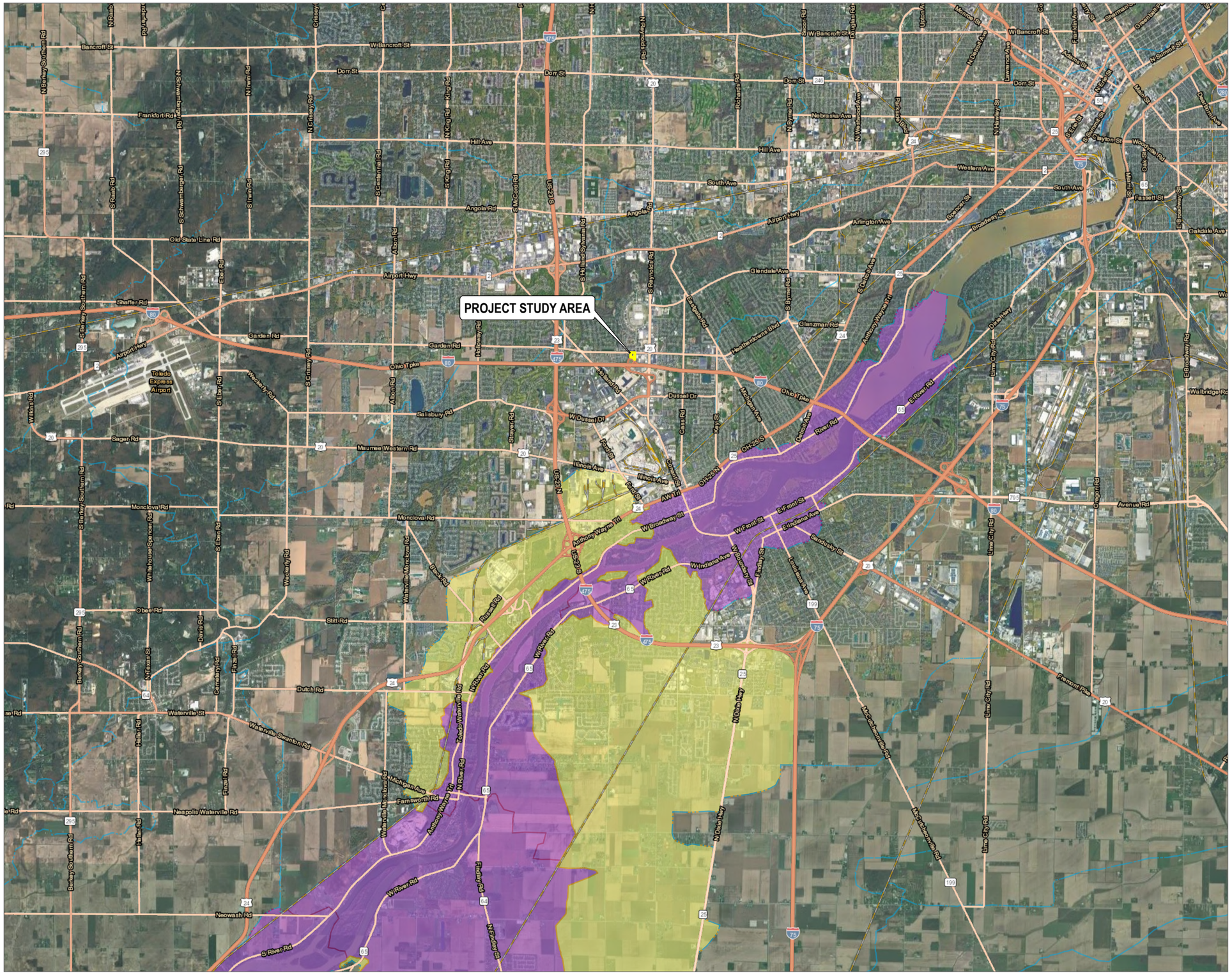

PROJECT STUDY AREA

OHIO EPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY

- INELIGIBLE
- POSSIBLY ELIGIBLE
- ELIGIBLE

BASE MAP: GOOGLE MAPS.
DATA SOURCES: NATIONWIDE PERMITS STREAM DATA ACQUIRED FROM THE OHIO EPA.

1:90,000
1" = 7,500'

0 7,500 15,000 FEET

PROJECT:
FIRSTENERGY
HAWTHORNE SUBSTATION PROJECT
LUCAS COUNTY, OH

TITLE:
NATIONWIDE PERMITS
STREAM ELIGIBILITY MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	664674 P4
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		**FIGURE 6**
DATE:	AUGUST 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDRv2.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet Map Rotation: 0
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ATTACHMENT B – Photographic Record

PHOTOGRAPHIC RECORD

Hawthorne Substation Project

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	664674 Phase 4

Photo No. 1.	
Photo Date: 11/16/2023	
Description: Photo of the northern extent of the Project Study Area near Heatherdowns Blvd, facing north.	

Photo No. 2.	
Photo Date: 11/16/2023	
Description: Photo of the northern extent of the Project Study Area, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	664674 Phase 4

Photo No. 3.
Photo Date: 11/16/2023
Description: Photo of the northern extent of the Project Study Area, facing west.

Photo No. 4.
Photo Date: 11/16/2023
Description: Photo of the southern extent of the Project Study Area, facing east.

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	664674 Phase 4

Photo No. 5. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area, facing south.	

Photo No. 6. **Photo Date:** 11/16/2023 **Description:** Photo of the southern extent of the Project Study Area, facing west.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	664674 Phase 4

Photo No. 7.
Photo Date: 7/29/2025
Description: Photo of the northern extent of the Project Study Area near Heatherdowns Blvd, facing south.

Photo No. 8.
Photo Date: 7/29/2025
Description: Photo of the western extent of the Project Study Area, facing east.

Client Name:	Site Location:	Project No.
FirstEnergy	City of Toledo, Lucas County, Ohio	664674 Phase 4

Photo No. 9.
Photo Date: 7/29/2025
Description: Representative photo of the Project Study Area, facing east.

Photo No. 10.
Photo Date: 7/29/2025
Description: Representative photo of the Project Study Area, facing north.

ATTACHMENT C – Data Forms

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Hawthorne Substation Project City/County: Toledo, Lucas County Sampling Date: 2023-11-16
Applicant/Owner: FirstEnergy State: OH Sampling Point: ROP-EKG-1
Investigator(s): Michael Whitacre, Emma Given Section, Township, Range: NA
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): None Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA 99 of LRR L Lat: 41.5940354 Long: -83.6698319 Datum: WGS84
Soil Map Unit Name: Lenawee silty clay loam, 0 to 1 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No _____ (If no, explain in Remarks.)
Are Vegetation _____ , Soil _____ , or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No _____
Are Vegetation _____ , Soil _____ , or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No ✘
Hydric Soil Present? Yes _____ No ✘
Wetland Hydrology Present? Yes _____ No ✘

Is the Sampled Area within a Wetland? Yes _____ No ✘

If yes, optional Wetland Site ID: ROP-EKG-1

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is UPL. Based on the absence of all three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

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

Field Observations:
Surface Water Present? Yes _____ No ✘ Depth (inches): _____
Water Table Present? Yes _____ No ✘ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No ✘ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✘

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

Remarks:
The criterion for wetland hydrology is not met.

VEGETATION – Use scientific names of plants. Sampling Point: ROP-EKG-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus strobus*	10	Yes	FACU
2. *Ailanthus altissima*	10	Yes	UPL
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1. *Lonicera japonica*	20	Yes	FACU
2. *Malus sp.*	5	Yes	NI
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Dactylis glomerata*	35	Yes	FACU
2. *Geum laciniatum*	5	No	FACW
3. *Plantago lanceolata*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	10	x 5 =	50
Column Totals:	85 (A)		340 (B)

Prevalence Index = B/A = 4

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 Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** ✘

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

The criterion for hydrophytic vegetation is not met.

SOIL Sampling Point: ROP-EKG-1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 12	10YR 2/1	100					Sandy Loam	
12 to 20	10YR 2/1	60	10YR 6/8	3	C	PL	Loam	
12 to 20	10YR 4/3	37					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7) **(LRR R, MLRA 149B)**
- __ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- __ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- __ Loamy Mucky Mineral (F1) **(LRR K, L)**
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- __ Coast Prairie Redox (A16) **(LRR K, L, R)**
- __ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- __ Dark Surface (S7) **(LRR K, L)**
- __ Polyvalue Below Surface (S8) **(LRR K, L)**
- __ Thin Dark Surface (S9) **(LRR K, L)**
- __ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- __ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- __ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

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

Restrictive Layer (if present):
Type: Not present
Depth (inches): _____

Hydric Soil Present? Yes _____ **No** ✘

Remarks:
The criterion for hydric soil is not met.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hawthorne Substation Project City/County: Toledo, Lucas County Sampling Date: 2025-7-29
Applicant/Owner: FirstEnergy State: OH Sampling Point: ROP-JMS-1
Investigator(s): Jenna Slabe, Will Haas Section, Township, Range: NA
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): None Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA 99 of LRR L Lat: 41.594354 Long: -83.669605 Datum: WGS84
Soil Map Unit Name: Lenawee silty clay loam, 0 to 1 percent slopes NWI Classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No ____ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✘
Hydric Soil Present? Yes ____ No ✘
Wetland Hydrology Present? Yes ____ No ✘

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✘

If yes, optional Wetland Site ID: ROP-JMS-1

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is UPL. Based on the absence of all three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ 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)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No ✘ Depth (inches): ____
Water Table Present? Yes ____ No ✘ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No ✘ Depth (inches): ____

Wetland Hydrology Present? Yes ____ **No** ✘

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

Remarks:
The criterion for wetland hydrology is not met.

VEGETATION – Use scientific names of plants. Sampling Point: ROP-JMS-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Tilia americana*	50	Yes	FACU
2. *Quercus macrocarpa*	20	Yes	FACU
3. *Taxus canadensis*	15	No	FACU
4. *Quercus rubra*	10	No	FACU
5.			
6.			
7.			
	95	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Plantago lanceolata*	15	Yes	FACU
2. *Carex blanda*	10	Yes	FAC
3. *Taraxacum officinale*	5	No	FACU
4. *Oxalis stricta*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	120	x 4 =	480
UPL species	0	x 5 =	0
Column Totals:	130 (A)		510 (B)

Prevalence Index = B/A = 3.9

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 Vegetation Strata:

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

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 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 vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes __ No ✘

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

The criterion for hydrophytic vegetation is not met.

SOIL Sampling Point: ROP-JMS-1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 8	10YR 3/2	100					Clay Loam	
8 to 20	10YR 4/3	100					Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7)
- __ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- __ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- __ High Chroma Sands (S11) **(LRR K, L)**
- __ Loamy Mucky Mineral (F1) **(LRR K, L)**
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ Marl (F10) **(LRR K, L)**
- __ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- __ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- __ Polyvalue Below Surface (S8) **(LRR K, L)**
- __ Thin Dark Surface (S9) **(LRR K, L)**
- __ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- __ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- __ Red Parent Material (F21) **(outside MLRA 145)**
- __ 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 present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ **No** ✘

Remarks:
The criterion for hydric soil is not met.