LETTER OF NOTIFICATION

For the

BATH-TREBEIN 138 kV RECONDUCTOR PROJECT

PUCO Case No. 19-1631-EL-BLN



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

Submitted by: The Dayton Power and Light Company 1900 Dryden Road Moraine, Ohio 45439

October 10, 2019

4906-6-05: APPLICATION REQUIREMENTS

The Dayton Power and Light Company (DP&L) provides the following information to the Ohio Power Siting Board (OPSB) pursuant to Ohio Administrative Code (OAC) Section 4906-6-05.

4906-6-05: GENERAL INFORMATION

4906-6-05(B)(1): PROJECT NAME AND DESCRIPTION

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

DP&L proposes the Bath-Trebein 138 kilovolt (kV) Reconductor Project (Project), located in Beavercreek Township, Greene County, Ohio (Attachment A, Figure 1). The purpose of this Project is to reconductor an existing 138 kV overhead electrical transmission line connecting the existing Bath 138 kV Substation to the existing Trebein 138 kV Substation. The transmission line is approximately 4.6 miles in length and located within an existing 100-foot-wide right-of-way (ROW). The Project also includes the replacement of four wood poles; a direct embed steel monopole is replacing one wood pole and three other wood poles will be replaced with new wood poles in the same location. The remaining existing transmission line towers/pole will remain in their current locations and will not be moved.

The Project generally extends southward from the existing Bath Substation at coordinates latitude 39 45'58.23" N and longitude 83 58'43.98" W to the existing Trebein Substation at latitude 39 42'16.29" N and longitude 83 58'53.65" W. The one new steel new pole structure will be located at latitude 39 42'15.41" N and longitude 83 58'48.32" W, and the three new wood pole replacements will be located at latitude 39 45'57.44" N and longitude 83 58'44.14" W, latitude 39 45'57.16" N and longitude 83 58'40.31" W, and latitude 39 45'56.76" N and longitude 83 58'34.20" W.

The Project meets the requirements for a Letter of Notification (LON) because it is within the types of project defined by Item (2)(b) of Appendix A (Application Requirement Matrix for Electric Power Transmission Lines) of OAC Rule 4906-1-01, which states:

(2) Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled conductors, adding structures to an existing transmission line, or replacing structures with a different type of structure, for a distance of:

(b) More than two miles.

The proposed approximate 4.6-mile reconductoring Project is within the requirements of Item (2)(b).

The Project has been assigned PUCO Case No. 19-1631-EL-BLN.

4906-6-05 (B)(2): NEED FOR THE PROJECT

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

The Project is being constructed as a baseline upgrade required to resolve a North American Electric Reliability Corporation (NERC) reliability criterion violation related to an overload of the Bath-Trebein 138 kV transmission line for the loss of both Greene 345/138 kV transformers. Additionally, this Project will help provide sufficient operating capacity, operational flexibility, and reliability to the metro Dayton load center which provides service to some of Dayton's largest customers. The Project has been approved by PJM (PJM Baseline # b1270) and is a mandated Regional Transmission Expansion Plan (RTEP) Project. The Project is included in Section (D) "The Planned Transmission System" FE-T9 on page 71 of the 2019 The Dayton Power and Light Company Long Term Forecast Report (LTFR) 2019.

4906-6-05 (B)(3): PROJECT LOCATION

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

The location of the Project is shown on Figure 1 in Attachment A. This figure shows the approximate Project area and substations in relation to the county and township boundaries. Figure 2 in Attachment A shows the Project area, including the approximate existing Bath-Trebein 138 kV ROW, potential off ROW access, existing structures and poles, new pole location, existing substations, existing transmission lines, and parcel boundaries within the general Project vicinity.

4906-6-05 (B)(4): ALTERNATIVES CONSIDERED

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

Because the Project will occur within existing maintained ROW where there are existing easements or occur on existing maintained substation properties, the resulting alignment represents the most suitable

and least-impactful alternative, and as a result, no other alternatives were considered. Socioeconomic, land use, and ecological information is presented in Section 4906-6-05 B(10) of this application.

4906-6-05 (B)(5): PUBLIC INFORMATION PROGRAM

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

The entire reconductoring of the transmission line will be located on DP&L-owned properties or on parcels within existing easements between DP&L and the respective property owners. Letters will be sent via certified mail to affected property owners (Table 1, Attachment B) at the time of filing this LON Application and at least 7 days before construction begins. The installation of the one new steel pole and the replacement of three existing wood poles are located on DP&L property; therefore, there are no newly affected property owners that DP&L is required to inform. DP&L maintains a website (https://www.dpandl.com/About-DPL/Reliability/Transmission-Improvements/), which provides the public information about the Project and how to request a copy of the LON. A copy of the LON will be served on the chief executive officer of the county and township, and the head of pertinent public agencies with the duty of protecting the environment or of planning land use in the area where the Project is located. A copy of the LON will also be served to the public library in each political subdivision affected by this proposed Project as set forth in section 4906-6-07 below.

Within seven days of filing the LON, DP&L will issue a public notice of the Project in newspapers of general circulation in the Project area. Additionally, letters will be sent to affected property owners when this LON is submitted to the Board informing them of the Project.

4906-6-05 (B)(6): CONSTRUCTION SCHEDULE

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

Construction for this Project is expected to begin June 1, 2020 and be completed by June 1, 2021.

4906-6-05 (B)(7): AREA MAP

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

Attachment A, Figure 1 depicts the location of the Project. To locate and view the Project area from Columbus, take Interstate-70 (I-70) West to I-675 South, then head south on I-675 for about 3.5 miles

The Dayton Power and Light Company

to OH-235. Turn left and head east-southeast onto OH-235 for approximately 3.0 miles. Turn right onto Dayton Yellow Springs Road and continue for approximately 0.6 miles, then turn left onto Linebaugh Road. Travel south on Linebaugh Road for approximately 1.4 miles and the Bath Substation is located on the west side of Linebaugh Road. The proposed transmission line reconductoring Project starts at the Bath Substation and travels approximately 4.6 miles southward where it connects into Trebein Substation which is located along the north side of Dayton Xenia Road.

4906-6-05 (B)(8): PROPERTY AGREEMENTS

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

The Project is located on property owned by DP&L or on parcels where there are existing easements between DP&L and the respective property owners. No new easements, options, or land use agreements are necessary for the Project. A list of property owners where the line currently crosses and where easements exist are included in Table 1 in Attachment B.

4906-6-05 (B)(9): TECHNICAL FEATURES

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

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

The applicant shall provide operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

The equipment and facilities to be installed within the Project area will include the following:

- 3-1351.5 MCM 45/7 ACSR Conductor Single Wire per Phase
- 1- Guyed, 145-ft. Tall Direct Embed Steel Monopole (new, replaces an existing wood pole)
- 24 Existing Steel Lattice Towers to Remain as is
- 4 Existing Wood Poles (three to be replaced in place)
- 1- 3/8" EHS Steel Static Wire

The Project is located entirely on parcels owned by DP&L or on parcels where there are existing easements between DP&L and the respective property owners. The installation of the one new steel pole structure and the replacement of three existing wood poles are located on DP&L property; thus, land acquisition or new easements will not be required.

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

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

No occupied residences or institutions are located within 100 feet of the proposed transmission line ROW; therefore, no Electric and Magnetic Field calculations are required by this code provision. And as a result, no design alternatives were considered for the Project.

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

The estimated capital cost of the project.

The estimated capital cost for the Project is \$1,300,000.

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

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

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

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

The Project is located within existing maintained ROW and substation sites within Beavercreek Township, Greene County, Ohio. Land use within the Project area includes agricultural land (farmed and pasture), residential properties, maintained lawn and landscape, grasslands, shrub, and wooded areas, public roadways, and utility lines. Other land uses in the vicinity of the Project area include agricultural lands, grasslands, shrub, forested areas, residential, commercial and industrial properties, transportation corridors, and other utility corridors. There are no known parks, churches, wildlife management areas, or nature preserve lands within 1,000 feet of the Project, and therefore no impacts to these resources are anticipated. No other environmental or cultural resources are expected to be impacted as a result of this Project. Archaeological and cultural resources, as well as areas of ecological concern are further discussed in Sections 4906-6-05 (B)(10)(c) and 4906-6-05 (B)(10)(f) of this LON, respectively.

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

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

Approximately 30% or 1.4 miles of the 4.6 mile transmission line is used for agriculture and approximately 65% or 3 miles of the transmission line route crosses agricultural district land.

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

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

A review of the Ohio History Connection online GIS database was conducted on August 28, 2019 for the area within 1,000 feet of the Project. The review identified 15 archaeological sites and 1 historic resource (Tables 1 and 2; Attachment A, Figure 3). No bridges, cemeteries, or resources listed on the National Register of Historic Places (NRHP) have been documented within 1,000 feet of the Project. One previous cultural resource survey overlaps the northern portion of the Project. This 2001 survey was associated with a mine expansion project. Five of the sites and one historic resource recorded within the Project were identified during that previously conducted survey. Four sites overlap with the Project (33GR0254, 33GR0339, 33GR0340, and 33GR0839). However, Project impacts are not anticipated to occur within the site boundaries of these four sites.

A Phase I archaeological field survey was conducted September 11, 2019 for the proposed one new steel pole location. The survey area included an approximate 100-square foot survey area. The field survey yielded no archaeological findings. As a result, there are no anticipated adverse impacts to archaeological or cultural resources. Additionally, none of the resources identified through the Ohio History Connection review overlap within the Phase I Survey Area. An abbreviated report is included in Attachment C.

| Table 2. Treviously Recorded Archaeological Sites within 1,000 Feet of the Troject | | | |
|------------------------------------------------------------------------------------|--------------------------|---------------------------------|------------------------|
| Site Number | Cultural Affiliation | Site Type | NRHP Status |
| 33GR0029 | Prehistoric | Mound | Destroyed-Not Eligible |
| 33GR0103 | Prehistoric and historic | Habitation and artifact scatter | Undetermined |
| 33GR0254 | Prehistoric | Habitation | Undetermined |
| 33GR0339 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0340 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0372 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0374 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0836 | Prehistoric | Artifact scatter | Undetermined |

 Table 2:
 Previously Recorded Archaeological Sites within 1,000 Feet of the Project

The Dayton Power and Light Company

Bath-Trebein 138 kV Reconductor Project

| Site Number | Cultural Affiliation | Site Type | NRHP Status |
|-------------|--------------------------|---------------------------------|--------------|
| 33GR0837 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0838 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0839 | Prehistoric | Artifact scatter | Undetermined |
| 33GR1172 | Prehistoric | Artifact scatter | Undetermined |
| 33GR1173 | Prehistoric | Artifact scatter | Undetermined |
| 33GR1174 | Prehistoric and historic | Artifact scatter and habitation | Undetermined |
| 33GR1184 | Prehistoric | Artifact scatter | Undetermined |
| 33GR1191 | Historic | Habitation | Undetermined |

Source: Ohio Historic Connection 2019

Table 3:Previously Recorded Historic Resource within 1,000 feet of the Project

| Structure Number | Name | Site Type | NRHP Status |
|---------------------|---------------------|-----------|--------------|
| GRE0113601 | Charles Harner Barn | Barn | Undetermined |

Source: Ohio Historic Connection 2019

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

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

Due to the potential for the Project to disturb 1 or more acres of land, the Project may be required to obtain general permit coverage from the Ohio Environmental Protection Agency (OEPA) under the National Pollutant Discharge Elimination System (NPDES) program for storm water discharges from small and large construction projects. Temporary construction access permits may be required from Green County and/or Beavercreek Township. A Section 10/Nationwide Permit may be needed from the U.S. Army Corps of Engineers (USACE) for reconductoring over the Little Miami River. Based on the new steel pole height and location, DP&L will file a notification (Form 7460-1) with the Federal Aviation Administration (FAA). A wetland delineation was completed for the Project area and a wetland delineation report is provided in Attachment D. No other government agency requirements are known at the time of this filing.

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

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

the findings of the investigation, and a copy of any document produced as a result of the investigation.

An Information for Planning and Consultation (IPaC) Official Species List was completed on September 10, 2019 on the United States Fish and Wildlife (USFWS) website https://ecos.fws.gov.ipac/. The Official Species List yielded six federally listed species, which included the Indiana bat (*Myotis sodalis*), clubshell mussel (*Pleurobema clava*), rayed bean mussel (*Villosa fabalis*), and snuffbox mussel (*Epioblasma triquetra*) as endangered, and the northern longeared bat (*Myotis septentrionalis*) and eastern massasauga snake (*Sistrurus catenatus*) as threatened. According to the State-listed species for Greene County, obtained from the Ohio Department of Natural Resources (ODNR)-Division of Wildlife (DOW) (updated June 2016) the same six species were State-listed. The Indiana bat, rayed bean mussel, clubshell mussel, snuffbox mussel and eastern massasauga are listed as State-endangered, while the northern long-eared bat is a species of concern. In addition, the State list included the northern harrier (*Circus cyaneus*) and plains clubtail dragonfly (*Gomphus externus*) as State-endangered, and the tonguetied minnow (*Exoglossum laurae*) and black sandshell mussel (*Ligumia recta*) as State-threatened. The Project is within range of all 10 species.

Habitat within the Project area consists of agriculture, grassland, and shrub habitat, with smaller portions of maintained lawn and forest habitat. Forested habitat exists as ROW fringe and small fragmented patches. Any tree clearing activities would occur between October 1 and March 31 to avoid any impacts to protected bat species and no in-stream work is expected to occur as a result of this project. Due to the location and it being a reconducting Project within existing ROW it is anticipated that none of the federal or state-listed species will be adversely affected.

Project review request letters were submitted to both the ODNR-DOW (Attachment E) and USFWS on September 18, 2019. The USFWS provided a Project Concurrence (Attachment E) dated October 2, 2019. A response has not yet been provided by the ODNR. Due to the project type, size and location and proposed implementation of seasonal tree cutting to avoid impacts to the federally listed bat species, the USFWS does not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species.

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

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

A wetland delineation was conducted on September 3 to 5, 2019, which identified a total of 23 wetlands and four streams. Wetlands within the Project area consist of primarily of palustrine emergent (PEM) habitat. Four wetlands consist of palustrine emergent/scrub-shrub (PEM/PSS) habitat and one wetland consists of palustrine aquatic bed/emergent/scrub-shrub (PAB/PEM/PSS) habitat. None of the wetlands were deemed to be OEPA Category 3 wetlands. Streams identified within the Project area consist of one ephemeral stream, one intermittent stream, and two perennial streams (Ludlow Creek and Little Miami River). A copy of the wetland delineation report is included within Attachment D of this application. Federal Emergency Management Agency (FEMA) designated floodplains are located within the Project area and are associated with Ludlow Creek and Little Miami River. No permanent impacts to wetlands, streams, or floodplains are anticipated. The Little Miami River is designated as Section 10 navigable waterway and a state scenic river. Because the transmission line already exists across the river, there should be no navigable waterway or scenic river impacts as a result of the Project. No federal, state, or local parks, wildlife management areas, etc. are located within or adjacent to the Project area. A portion of ROW crosses land owned by the Greene County Park District (located along the south side of Fairground Road), however this land is not currently a park. Due to the location and it being a reconducting Project within existing ROW, it is anticipated that none of the federal or state-listed species will be adversely affected.

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

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

To the best of DP&L's knowledge, no unusual conditions exist that would 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 is being provided concurrently with filing to the following elected officials and pertinent departments of Greene County and Beavercreek Township.

The Dayton Power and Light Company

Bath-Trebein 138 kV Reconductor Project

Greene County

Bob Glaser, County Commissioner 35 Greene Street Xenia, Ohio 45385

Richard Gould, CPA, County Commissioner 35 Greene Street Xenia, Ohio 45385

Thomas Koogler, County Commissioner 35 Greene Street Xenia, Ohio 45385

Stephanie Ann Golff, P.E., P.S. Greene County Engineer 615 Dayton-Xenia Road Xenia, Ohio 45385 Devon Shoemaker, Executive Director Greene County Regional Planning Comm. 615 Dayton-Xenia Road Xenia, Ohio 45385

Amanda McKay, District Administrator County Soil & Water Conservation District 1365 Burnett Drive Xenia, Ohio 45385

Beavercreek Township

Tom Kretz, Township Trustee 8514 Orchard Lane, Suite C Beavercreek, Ohio 45434

Jeff Roberts, Township Trustee 8514 Orchard Lane, Suite C Beavercreek, Ohio 45434

Debborah L. Wallace, Township Trustee 8514 Orchard Lane, Suite C Beavercreek, Ohio 45434 Christy Ahrens, Fiscal Officer 8514 Orchard Lane, Suite C Beavercreek, Ohio 45434

Laurie Brown, Zoning Inspector/ Code Enforcement Officer 8514 Orchard Lane, Suite C Beavercreek, Ohio 45434

A copy of this LON application was provided to the following libraries for public viewing:

Beavercreek Community Library 3618 Dayton-Xenia Road Beavercreek, Ohio 45432

Fairborn Community Library 1 E Main St Fairborn, Ohio 45324

ATTACHMENT A - FIGURES



Source: ESRI and Burns & McDonnell Engineering Company, Inc.



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community CDPX: SCIENTESIENSIDP1/163860, 2018/2010/2018/2000c8/Bath-Trebein/Figure 2_LON.mxd christiewski 10/2/2019 CDPX: SCIENTE@SIANBERING COMPANY INC.





Source: ESRI, DP&L, and Burns & McDonnell Engineering Company, Inc.



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Source: ESRI, DP&L, and Burns & McDonnell Engineering Company, Inc.



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ATTACHMENT B – LANDOWNER NOTIFICATION TABLE

| Name | Address of Easement | Tax Mailing Address | Parcel Number | Parcel Acres |
|----------------------------------------|---------------------------|-------------------------------------------------|--------------------|-----------------|
| The Dayton Power and Light Company | Trebein Sub | 1065 Woodman Dr., Dayton OH 45432 | B03000200492001900 | 3.02 |
| The Dayton Power and Light Company | | 1065 Woodman Dr., Dayton OH 45432 | B03000200492003300 | 4.33 |
| BD. of Trustees of Beavercreek Twp. | Bikeway | 1981 Dayton Xenia Rd., Beavercreek, OH 45434 | B03000200492006100 | 2.118 |
| Guiessman, Lisa | Dayton Xenia Rd | 1300 Dayton Xenia Rd., Xenia, OH 45385 | B03000200492002200 | 8.167 |
| Unknown owner | River Area | | | |
| Kerwn Green LLC | S/O Hilltop Rd | 1000 Hilltop Rd., Xenia, OH 45385 | B03000200430015100 | 68.36 |
| Kerwn Purple LLC | N/O & S/O Hilltop Rd | 1000 Hilltop Rd., Xenia, OH 45385 | B03000200430000500 | 207.251 |
| Kerwn Blue LLC | N/O Hilltop Rd | 1000 Hilltop Rd., Xenia, OH 45385 | B03000200430015000 | 130.247 |
| Nutter, Robert W. | 925 Hilltop Rd | 925 Hilltop Rd., Xenia, OH 45385 | B03000200440002600 | 12.203 |
| Kerwn Scarlet Gray LLC | Trebein Rd | 1000 Hilltop Rd., Xenia, OH 45385 | B03000200430014800 | 144.872 |
| Ling, Audrey Et Al | 1351 Hilltop Rd | P.O. Box 202, Centerville, IN 47330 | B03000200430000900 | 159.818 |
| Hutchinson, Gary L. & Gail L. | 965 Fairground Rd | | B03000200420001800 | 80 |
| Mueller | | 360 Winding Trl., Xenia, OH 45385 | | |
| BD. of Trustees of Beavercreek | 1101 Fairground Rd | 1981 Dayton Xenia Rd., Beavercreek, | B03000200420001300 | 44.195 |
| Devoe, Ronald TR & Carol Jean Noble | 1140 Fairground Rd | 1078 Fairground Rd., Xenia, OH 45385 | B03000200420000700 | 155.124 |
| Barr Family Farm LP | 1145 Ludlow Rd | 1045 Ludlow Rd., Xenia, OH 45385 | B03000200410000700 | 63.052 |
| Cozy Den Homes LLC | 1240 Ludlow Rd | 208 Snyder Rd., New Carlisle, OH 45344 | B03000200410000300 | 23.8 |
| Hackman, Michael A. & Michelle H. | 1290 Ludlow Rd | 1290 Ludlow Rd., Xenia, OH 45385 | B03000200410006000 | 7.729 |
| Rosenkranz, Joseph S. & Carol A. | 2482 Trebein Rd | 2482 Trebein Rd., Xenia, OH 45385 | B03000200410000100 | 37.315 |
| Muckerheide, Kevin M. & Janet J. | 2561 Linebaugh Rd | 1291 Windsor Dr., Beavercreek, OH 45434 | B03000200400000400 | 100.892 |
| Fairborn Cement Co. LLC | Old Lane, Linebaugh Rd | 3250 Linebaugh Rd., Xenia, OH 45385 | B03000200400000500 | 5.328 |
| Fairborn Cement Co. LLC | 2650 Linebaugh Rd | 3250 Linebaugh Rd., Xenia, OH 45385 | B03000200400000300 | 106.5561 |
| The Dayton Power and Light Company | Bath Sub | 1065 Woodman Dr., Dayton OH 45432 | B03000200400000900 | 33 |

Table 1: Landowner Notification and Parcel Information within Project Area.

ATTACHMENT C – ABBREVIATED PHASE I ARCHAEOLOGICAL FIELD SURVEY REPORT





Cultural Resource Investigation of the Bath-Trebein 138 kV Reconductor Project



The Dayton Power and Light Company



Cultural Resource Investigation of the Bath-Trebein 138 kV Reconductor Project

prepared for

The Dayton Power and Light Company

September 2019

prepared by Mark Latham

Burns & McDonnell Engineering Company, Inc. Kansas City, Missouri Project No. 116386

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LIST OF ABBREVIATIONS

| <u>Abbreviation</u> | <u>Term/Phrase/Name</u> |
|---------------------|----------------------------------------------------|
| Burns & McDonnell | Burns & McDonnell Engineering Company, Inc. |
| DP&L | The Dayton Power and Light Company |
| GIS | Geographic Information System |
| kV | Kilovolt |
| NRHP | National Register of Historic Places |
| Project | Bath-Trebein 138 kilovolt (kV) Reconductor Project |

1.0 INTRODUCTION

This report describes the results of the cultural resources survey of The Dayton Power and Light Company's (DP&L's) proposed Bath-Trebein 138 kilovolt (kV) Reconductor Project (Project), located in Beavercreek Township, Greene County, Ohio (Figure 1-1). The purpose of this Project is to reconductor an existing 138 kV overhead electrical transmission line connecting the existing Bath 138 kV Substation to the existing Trebein 138 kV Substation. The transmission line is approximately 4.6 miles in length and located within a 100-foot-wide right-of-way (ROW). The Project also includes the replacement of four wood poles; a steel pole structure is replacing one wood pole and three other wood poles will be replaced with new wood poles in the same location. The remaining existing transmission line towers/poles will remain as is.

The Project is located approximately 1.3 miles northwest of Xenia in Greene County, Ohio. The cultural Survey Area included an approximate 100-square foot area for one pole location. Land use within and surrounding the Survey Area was comprised mainly of grassland and scrub-shrub, and the existing transmission line was present. Prior to the field survey, Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) conducted a cultural resources desktop review for a Study Area comprised of a 1000-foot buffer around the Project Area.

1.1 Objectives of the Investigation

The primary objective of the survey was to identify and evaluate cultural resources within the Survey Area. Burns & McDonnell conducted the archaeological investigations to professional standards in accordance with the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation*, (48 FR 44716-44742), the *Secretary's Standard for Identification* (48 FR 44720-44723), and in accordance with the *Archaeology Guidelines of the Ohio Historic Preservation Office* (1994).

1.2 Personnel

Mark Latham, MA, served as Principal Investigator for the Project and conducted the field survey. Kim House conducted the background review. The online background review was conducted on August 28, 2019 and the field survey was conducted on September 11, 2019. Mr. Latham served as lead author of the report and Ms. House produced the figures and coordinated Geographic Information System (GIS) data.



\Studies Lorme, ថ Credits: Sources: Esri, HERE, Del ts/ENS\DPL\116386_OPSBFILING` © 2019 BLIRNS & McDONNFLL FI Clients/I Service I Path: Z:\

2.0 RESULTS OF INVESTIGATIONS

A review of Ohio History Connection online GIS data was conducted for the Study Area prior to the fieldwork. The results of the background review and field investigations are presented in this section.

2.1 Background Review

A review of Ohio History Connection online GIS data indicated there were 15 archaeological sites (Table 1-1) and 1 historic resource (Table 1-2). No bridges, cemeteries, or resources listed on the National Register of Historic Places (NRHP) have been documented in the Study Area (Figure 2-1). One previous cultural resource survey overlaps the northern portion of the Study Area. This 2001 survey was associated with a mine expansion project. Five of the sites and one historic resource recorded within the Study Area were identified during that survey. Four sites overlap with the Project Area (33GR0254, 33GR0339, 33GR0340, and 33GR0839). However, no Project impacts will occur within the site boundaries of these four sites. None of the resources overlap within the Survey Area.

| Site Number | Cultural Affiliation | Site Type | NRHP Status |
|-------------|--------------------------|---------------------------------|---------------------------|
| 33GR0029 | Prehistoric | Mound | Destroyed-Not Eligible |
| 33GR0103 | Prehistoric and historic | Habitation and artifact scatter | Undetermined |
| 33GR0254 | Prehistoric | Habitation | Undetermined |
| 33GR0339 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0340 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0372 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0374 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0836 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0837 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0838 | Prehistoric | Artifact scatter | Undetermined |
| 33GR0839 | Prehistoric | Artifact scatter | Undetermined |
| 33GR1172 | Prehistoric | Artifact scatter | Undetermined |
| 33GR1173 | Prehistoric | Artifact scatter | Undetermined |
| 33GR1174 | Prehistoric and historic | Artifact scatter and habitation | Undetermined |
| 33GR1184 | Prehistoric | Artifact scatter | Undetermined |
| 33GR1191 | Historic | Habitation | Undetermined |

| Table 1-1: | Previously Recorded | Archaeological Sites | within the Study Area |
|------------|---------------------|----------------------|-----------------------|
|------------|---------------------|----------------------|-----------------------|

Source: Ohio Historic Connection 2019

| Structure Number | Name | Site Type | NRHP Status |
|---------------------|---------------------|-----------|--------------|
| GRE0113601 | Charles Harner Barn | Barn | Undetermined |

| Table 1-2: Previously Recorded Historic Resource within the Study Are | a |
|-----------------------------------------------------------------------|---|
|-----------------------------------------------------------------------|---|

Source: Ohio Historic Connection 2019

2.2 Field Survey

The proposed new pole location in the Survey Area was shovel tested. The upper horizon was 17 centimeters in depth and was dark yellowish brown (10YR 3/4) clayey loam mottled with brown (7.5YR 4/4) silty clay. The underlying subsoil was brown (7.5YR 4/4) silty clay to at least 50 centimeters below the surface. Shovel test was 50 centimeters in diameter, and all soils were screened through ¹/₄-inch hardware cloth. No cultural resources were identified in the Survey Area.





Source: ESRI, DP&L, Ohio History Connection, and Burns & McDonnell Engineering Company, Inc.












Figure 2-2: Project Overview, Facing Northeast. Pole to be Replaced right of Tower.

3.0 CONCLUSIONS AND RECOMMENDATIONS

The objectives of this cultural resource investigation were to identify, record, and provide a preliminary assessment of the cultural resources found within the Survey Area. No cultural resources where identified within the Survey Area in the background review or during the field survey. Therefore, Burns & McDonnell recommends archaeological clearance for the Project with the following stipulations:

- If the proposed Project is changed, additional investigations may be necessary.
- If previously undocumented cultural resources are uncovered during construction, we recommend that they be evaluated by a professional archaeologist.

4.0 REFERENCES CITED

Ohio Historic Preservation Office

1994 Archaeology Guidelines. Ohio Historical Society, Columbus, Ohio.





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ATTACHMENT E – THREATENED AND ENDANGERED SPECIES CORRESPONDENCE

Harrison, Brooke

Flag Status:

| From: | susan_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov></ohio@fws.gov> |
|-----------------|-------------------------------------------------------------------------------|
| Sent: | Wednesday, October 2, 2019 2:47 PM |
| To: | Harrison, Brooke |
| Subject: | Burns & McDonnell #116386 Bath Substation to Trebein Substation in Greene Co. |
| Follow Up Flag: | Follow up |

Flagged



UNITED STATES DEPARTMENT OF THE INTERIOR U.S. Fish and Wildlife Service Ecological Services Office 4625 Morse Road, Suite 104 Columbus, Ohio 43230 (614) 416-8993 / Fax (614) 416-8994



TAILS# 03E15000-2019-TA-1887

Dear Ms. Harrison,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. We recommend that proposed activities minimize water quality impacts, including fill in streams and wetlands. Best management practices should be utilized to minimize erosion and sedimentation.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees \geq 3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the federally listed endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*), we do not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service (Service) should be initiated to assess any potential impacts.

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

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.), ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

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

Sincerely,

Patralli

Patrice M. Ashfield Field Office Supervisor

Harrison, Brooke

| From: | EnvironmentalReviewRequest@dnr.state.oh.us |
|----------|-------------------------------------------------------------------|
| Sent: | Wednesday, September 18, 2019 11:49 AM |
| То: | Harrison, Brooke |
| Subject: | Thank you for contacting the Ohio Department of Natural Resources |

Thank you for contacting the Ohio Department of Natural Resources. This email is your receipt that we have received your message and/or project review request. During normal business operations, we strive to respond to your request within 30 to 45 business days. However, during certain times of the year, due to large volumes of requests, our response time may be longer. If you have any questions please contact our office at 614-265-6397.

Sincerely,

Sarah Tebbe Ohio Department of Natural Resources Office of Real Estate 2045 Morse Road Columbus, Ohio 43229 (614) 265-6397



Harrison, Brooke

| From: | Harrison, Brooke | |
|--------------|-------------------------------------------------------------------------------|--|
| Sent: | Wednesday, September 18, 2019 11:47 AM | |
| То: | environmentalreviewrequest@dnr.state.oh.us | |
| Cc: | sarah.tebbe@dnr.state.oh.us | |
| Subject: | FW: Environmental Review | |
| Attachments: | Bath-Trebein_Substation & ROW Boundaries_09162019.zip; ODNR_DP&L_Bath-Trebein | |
| | Reconductoring Project_Env Review Request_Letter_September2019.pdf | |

On behalf of The Dayton Power and Light Company (DP&L), Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) is requesting an environmental review for a transmission line reconductor project located in Greene County, Ohio. Attached is an Environmental Review Request letter and figures, along with a shapefile showing the project area.

If you have any questions, please contact me by phone at 614-453-7833 or by email at <u>bharrison@burnsmcd.com</u>.

Sincerely,

Brooke Harrison \ Burns & McDonnell Project Manager \ Environmental Services o 614-453-7833 \ M 216-527-4781 bharrison@burnsmcd.com \ burnsmcd.com 530 W. Spring St, Suite 200, Columbus, OH 43215

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September 18, 2019

John Kessler Ohio Department of Natural Resources Division of Wildlife 2045 Morse Road, Bldg. E-2 Columbus, OH 43229-6693

Re: Environmental Review Request Bath-Trebein 138kV Reconductor Project Burns & McDonnell Project #116386

Dear Mr. Kessler:

The Dayton Power and Light Company (DP&L) is proposing to reconductor an existing overhead 138 kilovolt (kV) transmission line connecting the Bath Substation to the Trebein Substation in Greene County, Ohio. The line is approximately 4.6 miles in length with a 100-foot-wide right-of-way (ROW). There is to be one new steel pole structure constructed within the existing ROW as part of the project, but the rest of the existing supporting structures (towers) will remain as is. The project location and potential work area are shown on Figures 1 and 2 (lat. 39.733617, long. -83.978499). On behalf of DP&L, Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) is requesting an environmental review of the project.

It is anticipated that work activities will occur within and near existing maintained ROW and existing roads will be used primarily for construction access to minimize impacts. Streams and wetlands are located within the project area; however, it is anticipated that wetland impacts will be avoided and/or minimized by accessing structures from areas adjacent to roadways or through upland ROW and that no instream work will occur. Habitat within the ROW consists of primarily grassland, agriculture, pasture, scrub-shrub with smaller portions of mowed lawn and forest habitat. Forest habitat exists as either small patches or along the edge of the ROW. Any tree clearing activities would occur between October 1 and March 31 to avoid any impacts to protected bat species. Construction is expected to start on or about January 1, 2020.

If you have any questions or comments about the project or require additional information, please contact me by phone at 614-453-7833 or by email at <u>bharrison@burnsmcd.com</u>.

Sincerely,

Bicere Haruson

Brooke Harrison, Project Manager

Encl.

cc: Timothy Bockhorn, DP&L Robert Everard, Burns & McDonnell











Path: Z:\Clients\ENS\DPL\116386_OPSBFILING\Studies\Geospatia\\DataFiles\ArcDocs\Bath-Trebein\Edited Maps\Figure A-1_Topographic Map.mxd jkensinger 9/16/2019 COPYRIGHT© 2019 BURNS & McDONNELL ENGINEERING COMPANY. INC.

Source: ESRI, NWI for Ohio, NHD for Ohio, FEMA Floodplain Data, DP&L, and Burns & McDonnell Engineering Company, Inc.



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Source: ESRI, DP&L, NRCS, and Burns & McDonnell Engineering Company, Inc.







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Source: ESRI, DP&L, NRCS, and Burns & McDonnell Engineering Company, Inc.



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ATTACHMENT D - WETLAND DELINEATION REPORT





Wetland Delineation Investigation of the Bath-Trebein 138 kV Reconductor Project



The Dayton Power and Light Company



Wetland Delineation Investigation of the Bath-Trebein 138 kV Reconductor Project

prepared for

The Dayton Power and Light Company

September 2019

prepared by Brooke Harrison

Burns & McDonnell Engineering Company, Inc. Columbus, Ohio Project No. 116386

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LIST OF ABBREVIATIONS

| Abbreviation | Term/Phrase/Name |
|-------------------|---------------------------------------------|
| Burns & McDonnell | Burns & McDonnell Engineering Company, Inc. |
| DP&L | The Dayton Power and Light Company |
| FEMA | Federal Emergency Management Agency |
| GPS | Geographic Positioning System |
| HHEI | Headwater Habitat Evaluation Index |
| kV | kilovolt |
| NAIP | National Agriculture Imagery Program |
| NFHL | National Flood Hazard Layer |
| NHD | National Hydrography Dataset |
| NRCS | Natural Resource Conservation Service |
| NWI | National Wetland Inventory |
| NWP | Nationwide Permit |
| OEPA | Ohio Environmental Protection Agency |
| ORAM | Ohio Rapid Assessment Method |
| PAB | Palustrine Aquatic Bottom |
| PEM | Palustrine Emergent |
| PSS | Palustrine Scrub-shrub |
| QHEI | Qualitative Habitat Evaluation Index |
| ROW | Right-of-way |
| SSURGO | Soil Survey Geographic |
| USACE | United States Army Corps of Engineers |

| Abbreviation | Term/Phrase/Name |
|--------------|-----------------------------------------|
| USDA | United States Department of Agriculture |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| WOTUS | Waters of the United States |

1.0 INTRODUCTION

This report describes the results of the wetland delineation survey of the Bath-Trebein 138 kilovolt (kV) Reconductor Project (Project) being developed by The Dayton Power and Light Company (DP&L) in Greene County, Ohio. To accomplish the Project, DP&L is proposing to reconductor approximately 4.6 miles of existing 138 kV transmission line between Bath 138 kV Substation to the Trebein 138 kV Substation. The Project also includes the replacement of four wood poles; a steel pole structure is replacing one wood pole and three other wood poles will be replaced with new wood poles in the same location. The remaining existing transmission line towers/poles will remain as is.

1.1 Description of Project Area

The southern end of the Project, Trebein Substation, is located approximately three miles northwest of downtown Xenia, Greene County, Ohio. The transmission line travels north approximately 4.6 miles with a 100-foot-wide right-of-way (ROW) where it connects with Bath Substation (Figure A-1, Appendix A). The Project area was comprised primarily of existing maintained substation property and transmission line ROWs, herbaceous grassland habitat, scrub-shrub habitat, and agriculture with smaller portions of maintained lawn, and forest habitat. The wetland delineation encompassed a total area of approximately 56 acres, within the approximate 4.6-mile-long and 100-foot-wide ROW Project area and associated off ROW access routes (Project area).

1.2 Objectives of the Investigation

The purpose of this assessment was to identify any wetlands or other waterbodies within the approximate 56-acre Project area that may be considered waters of the United States (WOTUS) and subject to regulation under the federal Clean Water Act by the U.S. Army Corps of Engineers (USACE) or the State of Ohio. Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) conducted the wetland delineation on September 3-5, 2019, to identify the location and extent of wetlands and waterbodies within the Project area.

2.0 METHODS

The following discussions summarize the methods used for the review of existing data and the wetland delineation.

2.1 Existing Data Review

Burns & McDonnell reviewed available background information for the Project area prior to conducting a site visit. This available background information included the 2016 U.S. Geological Survey (USGS) 7.5minute topographic map (Yellow Springs and Xenia Quadrangles), National Hydrography Dataset (NHD) U.S. Fish & Wildlife Service (USFWS) National Wetland Inventory (NWI) maps, Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL), U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) 2019 Soil Survey Geographic (SSURGO) digital data for Greene County, Ohio, and National Agriculture Imagery Program (NAIP) aerial photography (2016). Figures A-2 and A-3 in Appendix A show the data reviewed.

Background data helps in identifying locations that could potentially contain WOTUS; however, wetland presence on background data cannot be assumed to accurately identify the location of wetlands. A field visit was necessary to identify locations of wetlands and other WOTUS that may be present.

2.2 Wetland Delineation Field Survey

A Burns & McDonnell wetland scientist completed a wetland delineation on September 3-5, 2019. The delineation was completed in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual (1987 Manual) and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region – Version 2.0* (Regional Supplement). Sample plots were established at multiple locations, and Wetland Determination Data Forms from the Regional Supplement were completed to characterize the Project area (Appendix B). Vegetation, soil conditions, and hydrologic indicators were recorded at each of these sample plots. Locations of sample plots and other identified features were surveyed using a sub-meter accurate Global Positioning System (GPS) unit. Photographs were taken onsite and are included in Appendix C.

2.2.1 Wetland Evaluation

Each delineated wetland was assigned a category using the Ohio Rapid Assessment Method (ORAM) for Wetland Categorization. According to Ohio Administrative Code, Category 1 wetlands have minimal habitat and minimal hydrological and recreational functions. These wetlands do not provide critical habitat for threatened or endangered species. Category 2 wetlands have moderate wildlife habitat or hydrological or recreational functions. Category 2 wetlands are dominated by native vegetation but generally do not contain threatened or endangered species habitat. Category 3 wetlands have superior habitat or hydrological or recreational functions. These wetlands often provide habitat for threatened or endangered species.

The State of Ohio affords different levels of protection to wetlands based on wetland quality. The ORAM 10 Page Form for Wetland Categorization was completed for each delineated wetland, and a preliminary ORAM score for each wetland was determined. A copy of the ORAM Summary Worksheet and Wetland Categorization Worksheet for each delineated wetland is located in Appendix D.

2.2.2 Stream Evaluation

An assessment of habitat in flowing waters was performed for streams located within the Project area using the either the Ohio Environmental Protection Agency (OEPA) Qualitative Habitat Evaluation Index (QHEI) for larger streams or Headwater Habitat Evaluation Index (HHEI) for primary headwater streams. Following the OEPA guidance, any stream with a drainage area of less than or equal to one mi² (2.589 km²) and pools with a maximum water depths less than or equal to 15.75 in (40 cm) were evaluated using the HHEI. The QHEI was used to evaluate streams with drainage areas greater than one mi² and pools with maximum water depths greater than 15.75 in (40 cm). Copies of the QHEI and HHEI field scoring sheets are included in Appendix E.

3.0 RESULTS

The following sections describe the results of the existing data review and the completed wetland delineation (Figures A-2, A-3, A-4 and A-5, Appendix A).

3.1 Existing Data Review

Existing background information was reviewed to familiarize Burns & McDonnell wetland personnel with the topography and potential locations of wetlands and other waterbodies. The USGS topographic map (Yellow Springs and Xenia Quadrangles) indicates the Project area is generally flat land with some steep slopes (Figure A-2). Six wetlands and four streams are depicted in the Project area on the NHD or NWI maps (Figure A-2). According to the FEMA NFHL, floodplains are located within the Project area.

The NRCS SSURGO digital data indicates seventeen soil map units are located within the Project area (Figure A-3). Nine of these soil map units are included on the national hydric soil list for Greene County, Ohio. These are:

- Algiers silt loam (Ag)
- Brookston silt clay loam, fine texture, 0 to 2 percent slopes (Bs)
- Casco-Eldean loams, 12 to 18 percent slopes, moderately eroded (CcD2)
- Casco-Rodman loams, 18 to 50 percent slopes, moderately eroded (CdE2)
- Eldean silt loam, 0 to 2 percent slopes (EmA)
- Eldean silt loam, 2 to 6 percent slopes (EmB)
- Eldean silt loam, 6 to 12 percent slopes, moderately eroded (EmC2)
- Miamian silt loam, 0 to 2 percent slopes (MhA),
- Miamian silt loam, 2 to 6 percent slopes (MhB),
- Miamian silt loam, 2 to 6 percent slopes, eroded (MhB2)
- Miamian-Casco complex, 12 to 18 percent slopes, moderately eroded (MmD2)
- Miamian-Casco complex, 18 to 35 percent slopes, moderately eroded (MnE2)
- Miamian-Eldean silt loams, 2 to 6 percent slopes, moderately eroded (MoB2)
- Miamian-Eldean silt loams, 6 to 12 percent slopes, moderately eroded (MoC2)
- Ockley silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes (OcA)
- Sloan silty clay loam (So)
- Westland silty clay loam, Southern Ohio Till Plain, 0 to 2 percent slopes (Ws)

Review of aerial photography indicates the Project area consists primarily of existing substation and transmission line ROWs, maintained lawn and planted trees, herbaceous grassland habitat, agriculture, and forested habitat (Figure A-4 in Appendix A) which is similar to what was identified during the wetland delineation.

3.2 Wetland Delineation Field Survey

The land cover and delineated features within the Project area are discussed in detail below.

Vegetation. The Project area was comprised primarily of an existing substation and transmission lines, herbaceous grassland habitat, scrub-shrub habitat, and agriculture with smaller portions of maintained lawn, and forest habitat. Dominant species observed in the herbaceous grassland habitat included Canada goldenrod (Solidago canadensis), white clover (Trifolium repens), wingstem (Verbesina alternifolia), and great ragweed (Ambrosia trifida). Dominant species observed in the scrub-shrub habitat included Russian olive (*Elaeagnus angustifolia*), box elder (*Acer negundo*), black walnut (*Juglans nigra*), rambler rose (Rosa multiflora), Morrow's honeysuckle (Lonicera morrowii), gray dogwood (Cornus racemosa), white avens (Geum canadense), eastern woodland sedge, (Carex blanda), poison ivy (Toxicodendron radicans), Virginia creeper (Parthenocissus quinquefolia), Canada goldenrod, spotted touch-me-not (Impatiens canadensis), pinkweed (Persicaria pensylvanica), summer grape (Vitis aestivalis), black raspberry (Rubus occidentalis), harvestlice (Agrimonia parviflora), and horsebriar (Smilax rotundifolia). Dominant species observed in agriculture included corn (Zea mays) and soybeans (Glycine max). Dominant species observed in the maintained lawn included Kentucky bluegrass (*Poa pratensis*) and white clover. Dominant species observed in the forest habitat included black walnut, honey locust (Gleditsia triacanthos), red maple (Acer rubrum), northern red oak (Quercus rubra), and Norway spruce (Picea abies) with Morrow's honeysuckle, garlic mustard (Alliaria petiolata), pokeweed (Phytolacca *americana*), Virginia creeper, and summer grape present. Dominant species observed in the wetland are discussed below.

Soil. Typical soils within the upland sample plot consisted of non hydric soils with a mixture of very dark grayish brown (10YR 3/2) and dark brown (10YR 3/3) matrix colors and hydric soils in several sample plots with a mixture of black (10YR 2/1) and very dark gray (10YR 3/1) matrix colors. Soils found in the wetland are discussed below.

Hydrology. No hydrology indicators were present in the upland sample plot. Wetland hydrology indicators are discussed below.

3.2.1 Delineated Features

Twenty-three wetlands and four streams were identified during the wetland delineation. The wetlands and streams are described below, and the locations of the wetland and streams delineated within the Project Area are shown in Appendix A, Figures A-4 and A-5.

3.2.1.1 Wetlands

A total of twenty-three wetlands were identified during the delineation. The wetlands are described in detail below and in Table 1.
| Wetland ID | Wetland Type | Area of Wetland Delineated (acres) | ORAM Category | |
|------------|--------------|---------------------------------------|---------------------|--|
| W-1 | PSS | 0.25 | Modified Category 2 | |
| W-2 | PEM | 1.28 | Category 2 | |
| W-3 | PEM | 2.23 | Modified Category 2 | |
| W-4 | PEM | 0.07 | Category 1 | |
| W-5 | PSS | 1.51 | Modified Category 2 | |
| W-6 | PEM | 0.20 | Modified Category 2 | |
| W-7 | PEM | 0.01 | Modified Category 2 | |
| W-8 | PEM | 0.06 | Category 2 | |
| W-9 | PEM | 0.06 | Modified Category 2 | |
| W-10 | PEM | 0.18 | Modified Category 2 | |
| W-11 | PEM | 0.05 | Modified Category 2 | |
| W-12 | PEM | 0.50 | Modified Category 2 | |
| W-13 | PEM | 0.02 | Category 1 | |
| W-14 | PEM | 3.21 | Modified Category 2 | |
| W-15 | PEM | 2.14 | Modified Category 2 | |
| W-16 | PAB/PEM/PSS | 2.73 | 1 or 2 Gray Zone | |
| W-17 | PEM | 0.06 | Category 1 | |
| W-18 | PEM | 0.08 | Category 2 | |
| W-19 | PEM | 0.01 | Modified Category 2 | |
| W-20 | PEM | 0.02 | Modified Category 2 | |
| W-21 | PEM | 0.01 | Modified Category 2 | |
| W-22 | PEM | 0.07 | Modified Category 2 | |
| W-23 | PEM | 0.01 | Modified Category 2 | |
| | Total: | 14.78 | | |

| Table | 1: | Delineated | Wetlands | within | the P | roiect / | Area |
|-------|----|------------|------------|------------|-------|-----------|-------|
| Labic | | Dennearea | ··· cuanas | ** 1011111 | | I UJCCU I | II vu |

Wetland 1 (W-1). W-1 is considered a palustrine scrub-shrub (PSS) wetland which occupies 0.25-acre within the Project area. Vegetation in this wetland was dominated by gray dogwood, reed canary grass, rice cutgrass (*Leersia oryzoides*), and mild water-pepper (*Persicaria hydropiper*). Soils within the wetland sample plot were a mixture of black (10YR 2/1) and gray (10YR 5/1 and 10YR 6/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 43 and met the requirements for ORAM Modified Category 2.

Wetland 2 (W-2). W-2 is considered a palustrine emergent (PEM) wetland which occupies 1.28-acre within the Project area. Vegetation in this wetland was dominated by reed canary grass, narrow leaf cattail (*Typha angustifolia*). Soils within the wetland sample plot were a mixture of black (Gley 1 2.5/N and

10YR 2/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Both primary and secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation, inundation visible on aerial imagery, hydrogen sulfide odor, saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 49.5 and met the requirements for ORAM Category 2.

Wetland 3 (W-3). W-3 is considered a PEM wetland which occupies 2.23-acre within the Project area. Vegetation in this wetland was dominated by and reed canary grass. Soils within the wetland sample plot were a mixture of black (10YR 2/1) and dark gray (10YR 4/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 39 and met the requirements for ORAM Modified Category 2.

Wetland 4 (W-4). W-4 is considered a PEM wetland which occupies 0.07-acre within the Project area. Vegetation in this wetland was dominated by reed canary grass and narrow leaf cattail. Soils within the wetland sample plot were a black (Gley 1 2.5/N) matrix color with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and seasonal intermittent surface water. Both primary and secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included surface water, saturation, inundation visible on aerial imagery, hydrogen sulfide odor, drainage patterns, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 22 and met the requirements for ORAM Category 1.

Wetland 5 (W-5). W-5 is considered a PSS wetland which occupies 1.51-acre within the Project area. Vegetation in this wetland was dominated by gray dogwood, reed canary grass, giant goldenrod (*Solidago gigantea*), and harvestlice. Soils within the wetland sample plot were a mixture of black (10YR 2/1) and gray (10YR 5/1 and 10YR 6/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery,

geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 39 and met the requirements for ORAM Modified Category 2.

Wetland 6 (W-6). W-6 is considered a PEM wetland which occupies 0.20-acre within the Project area. Vegetation in this wetland was dominated by reed canary grass and poison ivy. Soils within the wetland sample plot were a mixture of black (10YR 2/1) and gray (10YR 5/1 and 10YR 6/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 40 and met the requirements for ORAM Modified Category 2.

Wetland 7 (W-7). W-7 is considered a PEM wetland which occupies 0.01-acre within the Project area. Vegetation in this wetland was dominated by reed canary grass. Soils within the wetland sample plot were a mixture of black (10YR 2/1), dark gray (10YR 4/1) and gray (10YR 5/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 37 and met the requirements for ORAM Modified Category 2.

Wetland 8 (W-8) and Wetland 18 (W-18). W-8 and W-18 are considered PEM wetlands and occupy 0.06 and 0.08 acre, respectively, within the Project area. These two wetlands connect outside of the ROW and become one wetland therefore they are discussed together. Vegetation in these wetlands was dominated by reed canary grass and rice cutgrass. Soils within the wetland sample plots were a mixture of black (10YR 2/1) and very dark gray (10YR 3/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. These wetlands received a preliminary ORAM score of 48 and met the requirements for ORAM Category 2.

Wetland 9 (W-9), Wetland 11 (W-11), Wetland 19 (W-19), Wetland 20 (W-20), Wetland 21 (W-21), Wetland 22 (W-22), and Wetland 23 (W-23). W-9, W-11, W-19, W-20, W-21, W-22, and W-23 are considered PEM wetlands and occupy 0.06, 0.05, 0.01, 0.02, 0.01, 0.07, and 0.01 acre, respectively, within the Project area. Vegetation in these wetlands was dominated by reed canary grass and spotted touch-me-not. Soils within the wetland sample plots were a mixture of black (10YR 2/1) and very dark gray (10YR 3/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. These wetlands received a preliminary ORAM score of 38 and met the requirements for ORAM Modified Category 2.

Wetland 10 (W-10). W-10 is considered a PEM wetland which occupies 0.18-acre within the Project area. Vegetation in this wetland was dominated by reed canary grass. Soils within the wetland sample plot were a mixture of black (10YR 2/1) and very dark gray (10YR 3/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 39 and met the requirements for ORAM Modified Category 2.

Wetland 12 (W-12). W-12 is considered a PEM wetland which occupies 0.50-acre within the Project area. Vegetation in this wetland was dominated by reed canary grass. Soils within the wetland sample plot were a mixture of black (10YR 2/1) and very dark gray (10YR 3/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 37 and met the requirements for ORAM Modified Category 2.

Wetland 13 (W-13). W-13 is considered a PEM wetland which occupies 0.02-acre within the Project area. Vegetation in this wetland was dominated by reed canary grass and green bulrush (*Scirpus atrovirens*). Soils within the wetland sample plot were a mixture of black (Gley 1 2.5/N and 10YR 2/1) matrix colors

with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation. Both primary and secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included sediment deposits, saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 10.5 and met the requirements for ORAM Category 1.

Wetland 14 (W-14). W-14 is considered a PEM wetland which occupies 3.21-acre within the Project area. Vegetation in this wetland was dominated by reed canary grass. Soils within the wetland sample plot were a mixture of black (10YR 2/1) and dark gray (10YR 4/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 42.5 and met the requirements for ORAM Modified Category 2.

Wetland 15 (W-15). W-15 is considered a PEM wetland which occupies 2.14-acre within the Project area. Vegetation in this wetland was dominated by reed canary grass. Soils within the wetland sample plot were a mixture of black (10YR 2/1) and gray (10YR 5/1 and 10YR 6/1) matrix colors with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 37 and met the requirements for ORAM Modified Category 2.

Wetland 16 (W-16). W-16 is considered a PAB/PEM/PSS (1.71 acres, 0.31 acres, 0.71 acres) wetland which occupies 2.73-acre within the Project area. Vegetation in this wetland was dominated by narrow leaf cattail and sandbar willow. Soils within the wetland sample plot were a black (Gley 1 2.5/N) matrix color with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation and perennial surface water. Both primary and secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included surface water, saturation, watermarks, sediment deposits, inundation visible on aerial imagery, sparsely vegetated concave surface, hydrogen

sulfide odor, saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 31 and met the requirements for ORAM 1 or 2 Gray Zone.

Wetland 17 (W-17). W-17 is considered a PEM wetland which occupies 0.06-acre within the Project area. Vegetation in this wetland was dominated by narrow leaf cattail. Soils within the wetland sample plot consisted of black (10YR 2/1) matrix color with redoximorphic features present. The soils were loamy/clayey in texture. Hydric soil was indicated by the presence of a redox dark surface (F6). The primary source of hydrology for the wetland is precipitation. Secondary wetland hydrology indicators were met. Observed indicators of wetland hydrology included saturation visible on aerial imagery, geomorphic position, and a positive FAC-neutral test. This wetland received a preliminary ORAM score of 11 and met the requirements for ORAM Category 1.

3.2.1.2 Streams

A total of four streams were delineated within the Project Area. Table 2 provides the type and length for each stream identified.

| Table 2. Defineated Streams within the Troject Area | | | | | | | |
|-----------------------------------------------------|-----------------------------------------|--------------|--------------------------------------------|----------------------|--------------------|--|--|
| Stream ID | Stream Name (If applicable) | Stream Type | Stream Length Delineated Area (feet) | OHWM Width (feet) | QHEI/HHEI Score | | |
| S-1 | Little Miami River | Perennial | 2,222 | 75 | 72.5 | | |
| S-2 | Ludlow Creek | Perennial | 198 | 12 | 67 | | |
| S-3 | Unnamed Tributary to Ludlow Creek | Intermittent | 136 | 3 | 40 | | |
| S-4 | Unnamed Tributary to Ludlow Creek | Ephemeral | 150 | 2 | 17 | | |
| | | Total: | 2,706 | - | - | | |

Table 2: Delineated Streams within the Project Area

Perennial

Perennial streams are characterized by the presence of flowing water during the entire year. A total of two perennial streams were identified during the delineation and they are described in detail below.

Stream 1 (S-1, Photo 64): S-1 is the Little Miami River, a perennial stream that flows southwest across the southern portion of the ROW and Project Area. S-1 flows outside of the Project area towards the south and west and eventually into the Ohio River. S-1 averaged approximately 65-75 feet wide from the OHWM and water levels ranged from 2 inches in riffles to 38 inches deep in pools on the day of the

delineation. Riffles, runs, pools, glides, undercut banks, overhanging vegetation, shallows, rootwads, rootmats, and woody debris were observed. The substrate consisted of cobble, gravel, sand and silt, and scored a 72.5 on the QHEI scoring form.

Stream 2 (S-2, Photo 65-66): S-2 is Ludlow Creek, a perennial stream that flows through the Project area and ROW several times. S-2 flows outside of the Project area towards the south and into Little Miami River and eventually into the Ohio River. S-2 averaged approximately 10-15 feet wide from the OHWM and water levels ranged from 2 inches in the riffles to 30 inches deep in pools on the day of the delineation. Riffles, runs, pools, glides, undercut banks, overhanging vegetation, rootwads, rootmats, aquatic macrophytes, and woody debris were observed. The substrate consisted of cobble, gravel, sand silt, and muck and scored a 67 on the QHEI scoring form.

Intermittent

Intermittent streams are characterized by the presence of flowing water during certain times of the year, and a significant source of hydrology is groundwater. One intermittent stream was identified during the delineation and is described in detail below.

Stream 3 (S-3, Photo 67): S-3 is an unnamed intermittent stream that flows southeast across the northern portion of the ROW and Project area. S-3 flows outside of the Project area towards the southeast and into Ludlow Creek which eventually flows into the Little Miami River. S-3 averaged approximately 3 feet wide from the OHWM and was approximately 3 inches deep with 6-inch-deep pools on the day of the delineation. The substrate consisted of gravel, sand, silt and fine detritus. S-3 received a score a 40 on the HHEI scoring form.

Ephemeral

Ephemeral streams are characterized by the presence of flowing water only during or directly after a precipitation event. Ephemeral stream beds are located above the water table all year round, and they generally receive runoff from rainfall. One ephemeral stream was identified within the Project Area and is described in detail below.

Stream 4 (S-4, Photo 68): S-4 is an unnamed ephemeral stream that flows southeast across the northern portion of the ROW and Project area. S-4 flows outside of the Project area towards the southeast and into Ludlow Creek which eventually flows into the Little Miami River. S-4 averaged approximately 2 feet

wide from the OHWM and was a dry channel on the day of the delineation. The substrate consisted of gravel, sand, and leaf pack/woody debris. S-4 received a score of 17 on the HHEI scoring form.

4.0 SUMMARY

Burns & McDonnell conducted a wetland delineation of the Project area to identify wetlands and other potential WOTUS. A total of 23 wetlands and four streams were identified, which appear to have a hydrological connection to probable WOTUS. It is the opinion of Burns & McDonnell that each wetland and stream delineated would be considered WOTUS and subject to regulation by the USACE. If these potential jurisdictional areas cannot be avoided with temporary fills or disturbance during construction, then coordination with the USACE and/or OEPA may be necessary. To determine if the identified WOTUS are jurisdictional then the wetland delineation report can be provided to the USACE for review.





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APPENDIX A – FIGURES









Source: ESRI, NWI for Ohio, NHD for Ohio, FEMA Floodplain Data, DP&L, and Burns & McDonnell Engineering Company, Inc.





























Source: ESRI, DP&L, NRCS, and Burns & McDonnell Engineering Company, Inc.

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Case No(s). 19-1631-EL-BLN

Summary: Letter of Notification Part 1 of 3 electronically filed by Mrs. Jessica E Kellie on behalf of The Dayton Power and Light Company