

Project Summary

Consultation Code: 03E15000-2021-SLI-0209

Event Code: 03E15000-2021-E-00284

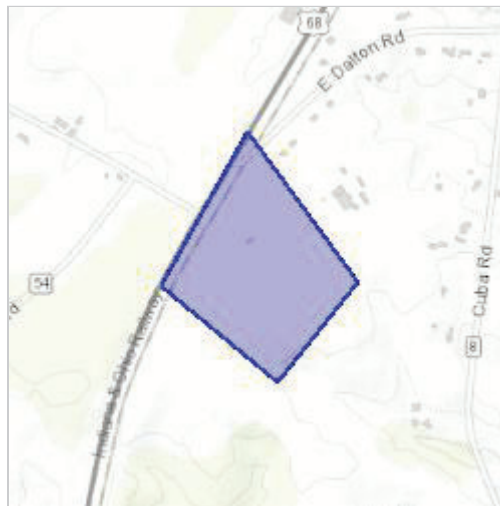
Project Name: Clinton Substation

Project Type: TRANSMISSION LINE

Project Description: Project involves the expansion of the existing Clinton Substation for installation of a new transformer, breakers, and associated hardware.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.39778398650299N83.85475055739212W>



Counties: Clinton, OH

Attachment D
ODNR Environmental Review Request and
ODNR Environmental Review Response



Ohio Department of Natural Resources

MIKE DeWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

John Kessler, Chief

2045 Morse Road – Bldg. E-2

Columbus, OH 43229

Phone: (614) 265-6621

Fax: (614) 267-4764

February 8, 2021

Jason Steckel
Arcadis U.S., Inc.
4665 Cornell Road, Suite 200
Cincinnati, Ohio 45241

Re: 21-0016; Dayton Power and Light - Clinton Substation

Project: The proposed project consists of the expansion of the existing Clinton Substation for installation of a second 345/69 kilovolt (kV) transformer, three new 345kV breakers, and associated hardware.

Location: The proposed project is located in Wilmington and Washington Townships, Clinton County, Ohio.

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

Natural Heritage Database: The Natural Heritage Database has the following record at or within a one-mile radius of the project area:

Cowan Lake State Park – ODNR Division of Parks & Watercraft

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity. Additional comments on some of the features may be found in pertinent sections below.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Fish and Wildlife: The Division of 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 threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these 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”. <https://ohiodnr.gov/static/documents/wildlife/wildlife-management/Bat+Survey+Guidelines.pdf>

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 DOW (contact Sarah Stankavich, sarah.stankavich@dnr.state.oh.us).

The DOW also recommends that a desktop habitat assessment, followed by a field assessment if needed, is conducted to determine if there are potential hibernaculum(a) present within the project area. Information about how to conduct habitat assessments can be found in the current USFWS “Range-wide Indiana Bat Survey Guidelines.” If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the project area, please send this information to Sarah Stankavich, sarah.stankavich@dnr.state.oh.us 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 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

club shell (*Pleurobema clava*)

rayed bean (*Villosa fabalis*)

snuffbox (*Epioblasma triquetra*)

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

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 U.S. Fish & Wildlife Service.

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

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

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

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at Sarah.Tebbe@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator (Acting)

Ms. Sarah Tebbe
Ohio Department of Natural Resources – Office of Real Estate
2045 Morse Road, Building E-2
Columbus, OH 43229-6693
Tel 614-265-6397
Sarah.Tebbe@dnr.state.oh.us

Arcadis U.S., Inc.
4665 Cornell Road
Suite 200
Indianapolis
Indiana 46204
Tel 513 860 8700
Fax 513 860 8701
www.arcadis.com

Subject:

**Environmental Review Request
Dayton Power & Light Company
Clinton Substation Project
Clinton County, Ohio**

Date:

December 1, 2020

Contact:

Jason Steckel

Phone:

317.236.2842

Email:

jason.steckel@arcadis.com

Ms. Tebbe:

On behalf of Dayton Power & Light Company (DP&L), Arcadis U.S., Inc. (Arcadis) requests an Environmental Review by the Ohio Department of Natural Resources Office of Real Estate regarding the potential impacts of the proposed Clinton Substation Project (the Project) on state-listed species.

BACKGROUND

The Project is located in Wilmington and Washington Townships, Clinton County, Ohio (39.397704°N, 83.854698°W) and consists of the expansion of the existing Clinton Substation for installation of a second 345/69 kilovolt (kV) transformer, three new 345kV breakers, and associated hardware (Attachment 1).

DP&L anticipates beginning construction in September 2021 and that the Project will be in service on June 1, 2022. Limits of Disturbance (LOD) for the Project will consist of the area proposed for expansion of the substation. During construction, stormwater runoff will be managed using the best management practices (BMPs) specified in the Stormwater Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control Plan (ESCP).

EXISTING CONDITIONS

Arcadis investigated the Project area during a site visit completed on October 13-14, 2020, to document existing vegetation communities and hydrologic conditions. Aerial mapping depicting aquatic features delineated within the ESA are provided

as Attachment 2 and representative photographs of the Project area are provided as Attachment 3. During the site investigation three wetlands and four ephemeral streams were identified within the ESA (Attachment 2).

Vegetative communities observed within the ESA consisted of agricultural field, upland scrub shrub, palustrine emergent (PEM) wetland, palustrine scrub/shrub (PSS) wetland, and palustrine forested (PFO) wetland. Site photographs are included as Attachment 3.

- Agricultural fields contained soybeans (*Glycine max*).
- Dominant vegetation in the upland scrub shrub areas included autumn olive (*Eleagnus umbellata*) and bush honeysuckle (*Lonicera maackii*).
- Dominant vegetation in the PEM portion of wetland consisted of curly dock (*Rumex crispus*), large barnyard grass (*Echinochloa crus-galli*), shallow sedge (*Carex lurida*), rice cutgrass (*Leersia oryzoides*), reed canary grass (*Phalaris arundinacea*), sycamore (*Populus deltoides*), and narrow-leaf cat-tail (*Typha angustifolia*).
- Dominant vegetation within the PSS wetland included shallow sedge, black willow (*Salix nigra*), and chufa (*Cyperus esculentus*).
- Dominant vegetation in the PFO portion of wetland consisted of black willow, narrow leaf cattail, and chufa.

No eagles or their nests were observed during field survey of the ESA.

PROPOSED IMPACTS

Proposed impacts resulting from the Project consist of the placement of fill material within 0.08 acre of PEM wetland, 0.01 acre of PSS wetland, and 0.01 acre of PFO wetland. Additionally, the Project will result in impacts to approximately 60 linear feet of ephemeral stream and 434 linear feet of intermittent stream. Proposed impacts will be permitted under Nationwide Permit (NWP) 12 - Utility Line Activities and a Pre-Construction Notification (PCN) will be submitted to the United States Army Corps of Engineers (USACE) Huntington District and the Ohio Environmental Protection Agency (OEPA).

FEDERAL CONSULTATION

In addition to this request for Environmental Review, Arcadis consulted the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online tool to determine the likelihood for threatened and endangered (T&E) species or T&E species habitat to occur within the Project area.

Results from the USFWS IPaC inquiry indicated that the site is located within the range of the federally threatened northern long-eared bat (*Myotis septentrionalis*) and federally endangered Indiana bat (*Myotis sodalis*). The results also indicate that the Project area contains no critical habitat for the identified species. No tree clearing is proposed for the planned substation expansion. Therefore, no impacts to bats are anticipated. The IPaC species list is included as Attachment 4.

Ms. Sarah Tebbe
December 1, 2020

CONCLUSIONS

Arcadis, on behalf of DP&L, is requesting comments from your office on potential effects of the proposed Project on state-listed species. If you have any questions or require additional information, please contact Jason Steckel at 317-236-2842 or via email at jason.steckel@arcadis.com.

Sincerely,
Arcadis U.S., Inc.



Jason Steckel
Project Ecologist

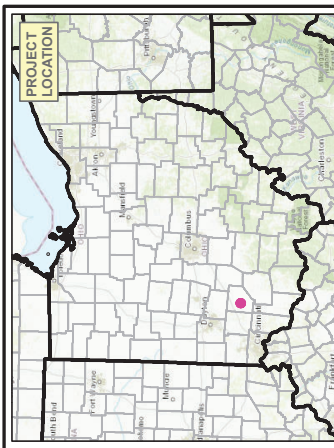
Copies:
Amanda Foti, Dayton Power & Light Company

Enclosures:

Attachments

- 1 Site Location Map
- 2 Delineated Streams and Wetlands Map
- 3 Photographic Log
- 4 IPaC Species List
- 5 Project Shapefiles (attached to email)

Attachment 1
Site Location Map



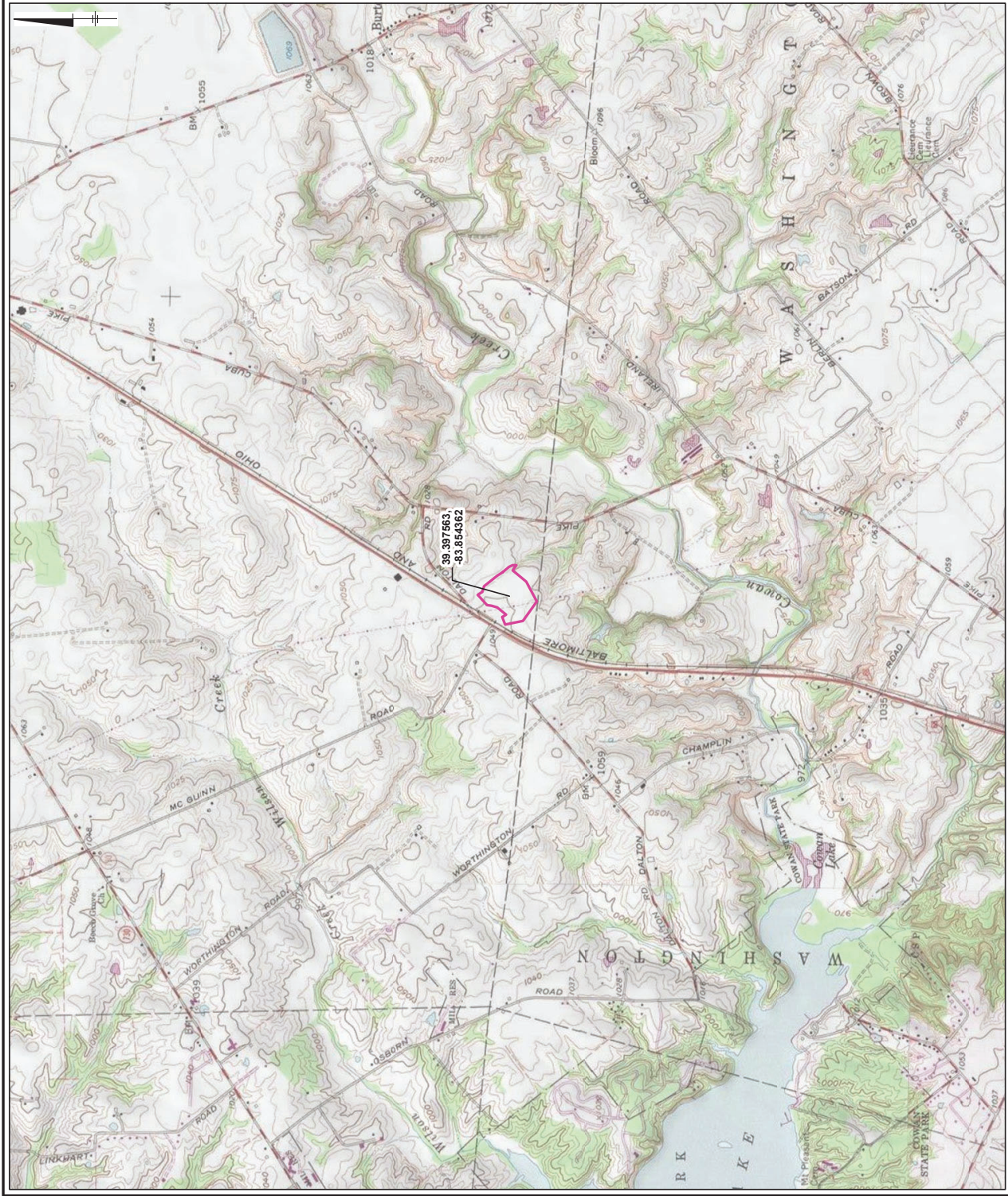
Legend
 Environmental Survey Area (ESA)



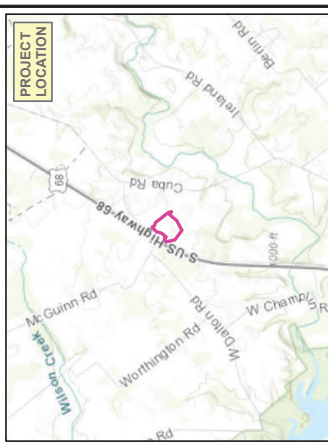
NOTE:
 1. THIS TOPOGRAPHIC QUADRANGLE, WILMINGTON, OHIO,
 OBTAINED FROM ESR/IMAGE SERVICE PHOTO REVISED NOVEMBER, 1973.

AES CORPORATION
 CLINTON SUBSTATION PROJECT
 CLINTON COUNTY, OHIO

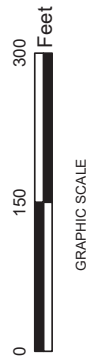
SITE LOCATION MAP



Attachment 2
Delineated Streams and Wetlands Map



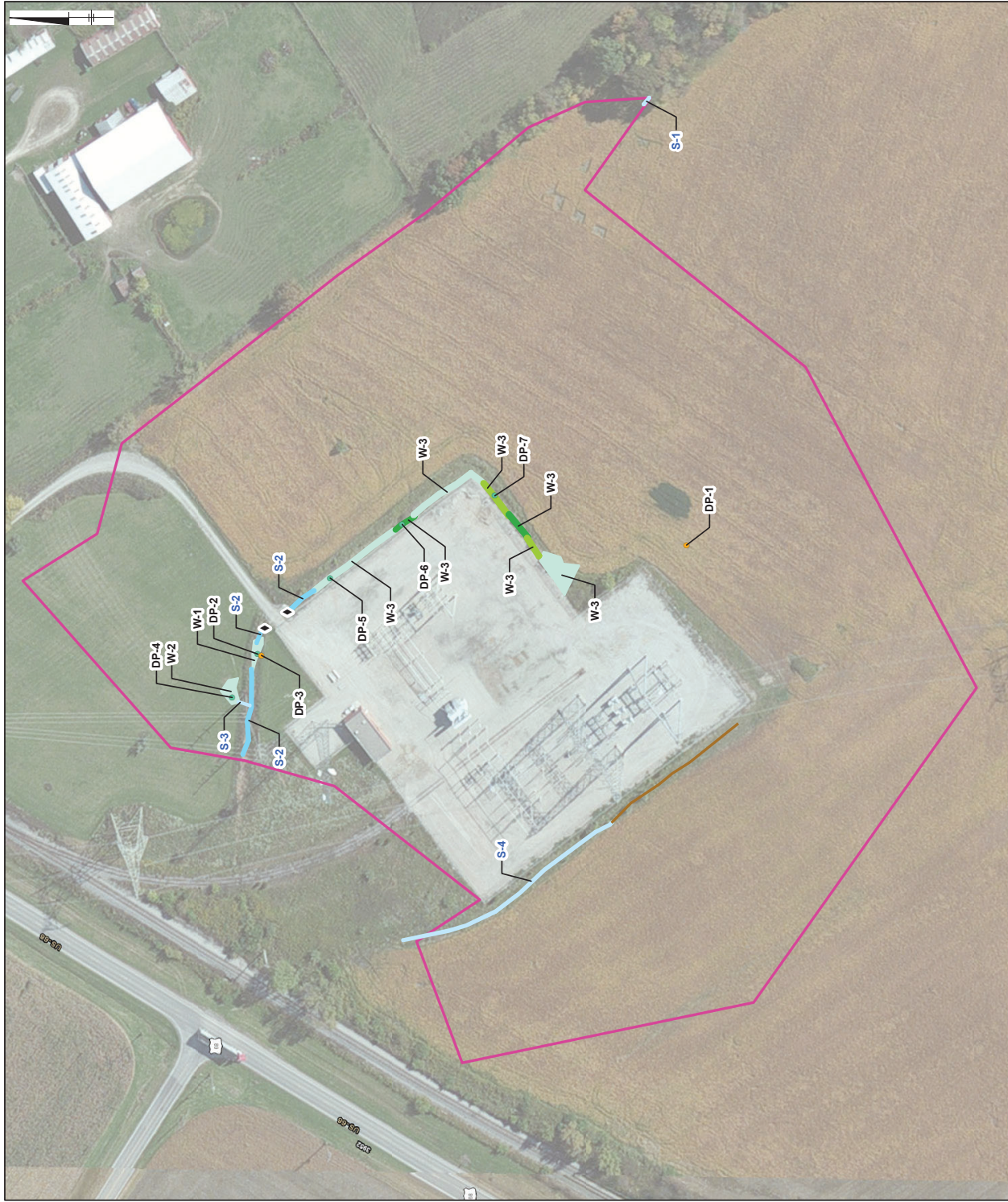
- Legend**
- ▲ Culvert
 - Upland Data Point
 - Wetland Data Point
 - Upland Ditch
 - Delineated Stream (Ephemeral)
 - Delineated Stream (Intermittent)
 - Delineated Wetland (PEM)
 - Delineated Wetland (PSS)
 - Delineated Wetland (PFO)
 - Environmental Survey Area (ESA)



NOTE:
1. 2017 IMAGERY OBTAINED FROM ESRI IMAGE SERVICE.

AES CORPORATION
CLINTON SUBSTATION PROJECT
CLINTON COUNTY, OHIO

DELINEATED WETLANDS AND STREAMS MAP



Attachment 3
Photographic Log

Project Photographs

Dayton Power and Light Company, AES Corporation
Clinton Substation Expansion Project
Clinton County, Ohio



Photo: 1

Date:

October 13, 2020

Description:

View of access road to
Clinton Substation

Direction:

Northeast



Photo: 2

Date:

October 13, 2020

Description:

View of Clinton Substation

Direction:

East

Project Photographs

Dayton Power and Light Company, AES Corporation
Clinton Substation Expansion Project
Clinton County, Ohio



Photo: 3

Date:

October 13, 2020

Description:

View of Clinton Substation
ESA

Direction:

South



Photo: 4

Date:

October 13, 2020

Description:

View of Clinton Substation

Direction:

South

Project Photographs

Dayton Power and Light Company, AES Corporation
Clinton Substation Expansion Project
Clinton County, Ohio



Photo: 5

Date:

October 13, 2020

Description:

View of Clinton Substation

Direction:

Southwest



Photo: 6

Date:

October 13, 2020

Description:

View of Clinton Substation

Direction:

West

Project Photographs

Dayton Power and Light Company, AES Corporation
Clinton Substation Expansion Project
Clinton County, Ohio



Photo: 7

Date:

October 14, 2020

Description:

View of Clinton Substation
ESA

Direction:

Southwest



Photo: 8

Date:

October 13, 2020

Description:

View of stream S-1; facing
upstream

Direction:

West

Project Photographs

Dayton Power and Light Company, AES Corporation
Clinton Substation Expansion Project
Clinton County, Ohio



Photo: 9

Date:

October 13, 2020

Description:

View of stream S-1; facing downstream

Direction:

East



Photo: 10

Date:

October 13, 2020

Description:

View of stream S-1;
substrate

Direction:

N/A

Attachment 4
IPaC Species List



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:

November 02, 2020

Consultation Code: 03E15000-2021-SLI-0209

Event Code: 03E15000-2021-E-00284

Project Name: Clinton Substation

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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 ECOS-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 ECOS-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:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.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 <http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

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 <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/BirdHazards.html>.

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 <http://www.fws.gov/migratorybirds/AboutUS.html>.

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

Consultation Code: 03E15000-2021-SLI-0209

Event Code: 03E15000-2021-E-00284

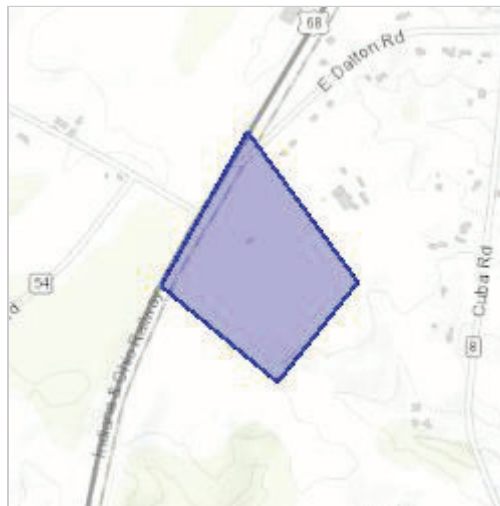
Project Name: Clinton Substation

Project Type: TRANSMISSION LINE

Project Description: Project involves the expansion of the existing Clinton Substation for installation of a new transformer, breakers, and associated hardware.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.39778398650299N83.85475055739212W>



Counties: Clinton, OH

Endangered Species Act Species

There is a total of 2 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 Fisheries¹, 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 <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Incidental take of the northern long-eared bat is not prohibited at this location. Federal action agencies may conclude consultation using the streamlined process described at https://www.fws.gov/midwest/endangered/mammals/nleb/s7.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

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

Attachment E
Wetland and Waterbody Report

Dayton Power and Light Company,
AES Corporation

WETLAND AND WATERBODY DELINEATION REPORT

Clinton Substation Expansion Project

Clinton County, Ohio

November 2020

A large, solid orange geometric shape, resembling a stylized triangle or a section of a larger triangle, is positioned in the bottom right corner of the page. It is composed of two overlapping triangles, creating a complex, angular form that extends from the bottom edge towards the top right corner.

WETLAND AND WATERBODY DELINEATION REPORT

Clinton Substation Expansion Project
Clinton County, Ohio



Sarah Medziuch
Environmental Scientist

Prepared for:

Ms. Amanda Foti
Transmission and Distribution
AES Corporation
One Monument Circle
Indianapolis, Indiana, 46204

Prepared by:

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4665 Cornell Road
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Cincinnati
Ohio 45241
Tel 513 860 8700
Fax 513 860 8701



Corey Wilcox
Senior Technical Review

Date:

November 2020

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TABLES

Table 1. Soil Units Identified within the Environmental Survey Area

Table 2. Environmental Survey Area Wetland Summary

Table 3. Environmental Survey Area Waterbody Summary

FIGURES

Figure 1. Topographic Map

Figure 2. NWI / NHD / FEMA Map

Figure 3. NRCS Soils Map

Figure 4. Delineated Wetlands and Streams Map

APPENDICES

A Photographic Log

B ORAM Data Form

C USACE Forms

D HHEI Data Forms

1 INTRODUCTION

This Wetland and Waterbody Delineation Report (Report) summarizes the results of wetland and waterbody delineation surveys conducted on October 13-14, 2020, by Arcadis U.S., Inc. (Arcadis) on behalf of the Dayton Power and Light Company, an AES Corporation company (DP&L) for the Clinton Substation Expansion Project (Project). The Project is in Union Township, Clinton County, Ohio and involves expansion of the existing substation. The Project is located at N 39.397674 W 83.854788 and the environmental survey area (ESA) is approximately 17.9 acres (**Figure 1**).

The purpose of the delineation was to assess the presence or absence of wetlands or other waters that may be affected by the proposed Project, and to assess general ecological conditions within the ESA. Three wetlands and four streams were identified within the ESA.

2 BACKGROUND INFORMATION

Prior to conducting the wetland and waterbody delineation survey, Arcadis reviewed the following resources to identify the potential location and extent of wetlands and waterbodies within the Project area:

- United States Geological Survey (USGS) topographic map (*Wilmington* quadrangle) (USGS 1979),
- USGS National Hydrography Dataset (NHD-mapped streams) (USGS 2012),
- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) dataset (USFWS 2007),
- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (FEMA 2010),
- United States Department of Agriculture Natural Resource Conservation Service (NRCS) Web Soil Survey of Clinton County, Ohio (NRCS 2018), and
- Aerial imagery (ESRI 2017)

2.1 USGS Topographic Map

The USGS topographic map (**Figure 1**), which identifies intermittent and perennial streams, does not identify any blueline streams within the ESA.

2.2 USGS NHD

The NHD represents the drainage network with features such as rivers, streams, canals, lakes, ponds, coastline, dams, and stream gauges (USGS 2012). No NHD waterbodies are mapped within the ESA (**Figure 2**).

The ESA lies within the Wilson Creek-Cowan Creek (United States Geologic Survey [USGS] Hydrologic Unit Code [HUC] 050902020605) subwatershed of the larger Little Miami Watershed (USGS HUC 05090202) (USGS 2012). The nearest traditionally navigable waterway (TNW) with hydrologic surface connection to the delineated waterbodies is the Little Miami River (USACE, n.d.).

2.3 USFWS NWI Dataset

NWI maps are used as a guide, along with other data, to indicate the potential presence of wetlands. The information is often out of date and not necessarily field-verified. The presence of an NWI feature is not a definitive indicator that a wetland or waterbody is present. No NWI features are mapped within the ESA (**Figure 2**) (USFWS 2007).

2.4 FEMA National Flood Hazard Layer

The identification and location of the mapped 100-year flood hazard zones within the ESA was determined by reviewing the FEMA National Flood Hazard Layer (FEMA 2010). The ESA is entirely within an area of minimal flood hazard (Zone X) (**Figure 2**).

2.5 Digital Soil Survey of Clinton County, Ohio

According to the NRCS Web Soil Survey for Clinton County (NRCS 2018), the following six soil units are mapped within the ESA (**Figure 3**). One of the soil map units is listed as predominantly hydric, four of the soil map units as listed as predominantly non-hydric, and one of the soil map units is listed as non-hydric. Generally, soil units identified as hydric contain soils that indicate through their color and structure that they have experienced dominantly reducing (i.e., oxygen poor) conditions, which are a result of inundation and/or saturation by water. Soil units identified as non-hydric have no hydric soil components identified in the mapped soil unit. The soil units identified within the ESA are displayed on **Figure 3** and listed in **Table 1**, below.

Table 1. Soil Units Identified within the ESA

Soil Map Unit Symbol	Soil Map Unit Name	Hydric Rating
FgA	Fincastle silt loam, southern ohio till plain, 0 to 2 percent slopes	Predominantly Non-Hydric
FgB	Fincastle silt loam, Southern Ohio Till Plain, 2 to 4 percent slopes	Predominantly Non-Hydric
MhC2	Miamian silt loam, 6 to 12 percent slopes, eroded	Non-Hydric
TrA	Treaty silty clay loam, 0 to 1 percent slopes	Predominantly Hydric
XaB	Xenia silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes	Predominantly Non-Hydric
XaB2	Xenia silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes, eroded	Predominantly Non-Hydric

2.6 Aerial Imagery

A review of aerial imagery for the ESA shows that the ESA contains an existing substation and is immediately surrounded by rural residential areas and agricultural fields (ESRI 2017). Aerial photography for the ESA and its vicinity is presented as **Figure 4**.

3 METHODOLOGY

Pedestrian surveys were conducted within the ESA on October 13-14, 2020 to identify wetland boundaries according to Section 404 of the Clean Water Act routine onsite methodology described in the Technical Report Y-87-1 *Corps of Engineers Wetlands Delineation Manual* (USACE Environmental Laboratory 1987) and subsequent guidance documents and the U.S. Army Corps of Engineers (USACE) 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0). The ESA is within the Major Land Resource Area: Indiana and Ohio Till Plain and the Land Resource Region: Central Feed Grains and Livestock Region (USACE 2010).

If wetlands were present within the ESA, wetland delineation data was recorded on the USACE Regional Supplement wetland determination data forms. One data point was recorded for each wetland. Corresponding upland data points were recorded to document upland boundaries and conditions surrounding the wetlands within the ESA.

The United States Environmental Protection Agency (EPA) and the USACE published the Navigable Waters Protection Rule (NWPR) in the Federal Register to finalize a revised definition of “waters of the United States” under the Clean Water Act (EPA and USACE 2020). The EPA and USACE have streamlined the definition so that it includes four categories of jurisdictional waters; this final rule became effective on June 22, 2020. Under this new rule, the following four types of waters are considered jurisdictional by the USACE:

- The territorial seas and TNWs,
- Perennial and intermittent tributaries to those waters,
- Certain lakes, ponds, and impoundments, and
- Wetlands adjacent to jurisdictional waters.

It is noted that the USACE continues to maintain authority to determine what wetlands and waterbodies are jurisdictional under the NWPR. Additionally, it is noted that certain waters that the USACE does not consider jurisdictional are regulated on the state level by the Ohio Environmental Protection Agency (OEPA).

The OEPA requires classification of streams and wetlands, if present, according to OEPA methods in order to establish the “quality” of these waterbodies in accordance with the Ohio Wetland Water Quality Standards (Ohio Administrative Code [OAC] 2012). The standards dictate the level of permitting and mitigation required for impacts to the wetlands. Each identified wetland was evaluated in accordance with the Ohio Rapid Assessment Method (ORAM), developed by the Ohio Environmental Protection Agency (OEPA) (OEPA 2001). Categorization was conducted in accordance with the latest quantitative score calibration (OEPA 2001).

The OEPA classifies larger streams (with watersheds greater than one square mile) in accordance with the OEPA Qualitative Habitat Evaluation Index (OEPA, 2006). Streams with drainage areas smaller than one square mile are evaluated using the OEPA Primary Headwater Habitat Evaluation (HHEI) (OEPA, 2018). The quality of the stream is based on the score, as well as other features such as past modifications and substrate types.

The outer boundaries of each wetland and waterbody, determined by the ordinary high water mark, were delineated and recorded using a handheld Trimble GeoXH Global positioning system receiver. As features

were collected, they were given a unique feature identification (ID). If a stream was identified, the centerline of each stream was delineated and recorded.

4 SURVEY RESULTS

4.1 Vegetative Communities

Vegetative communities observed within the ESA consisted of agricultural field, upland scrub shrub, palustrine emergent (PEM) wetland, palustrine scrub shrub (PSS) wetland, and palustrine forested wetland (PFO).

The agricultural field contained soybean (*Glycine max*).

Upland scrub shrub areas contained autumn olive (*Elaeagnus umbellata*) and bush honeysuckle (*Lonicera maackii*).

Dominant vegetation present within PEM wetlands included curly dock (*Rumex crispus*), large barnyard grass (*Echinochloa crus-galli*), shallow sedge (*Carex lurida*), rice cutgrass (*Leersia oryzoides*), reed canary grass (*Phalaris arundinacea*), American sycamore (*Platanus occidentalis*), eastern cottonwood (*Populus deltoides*), and narrow-leaf cat-tail (*Typha angustifolia*).

Dominant vegetation observed within the PSS wetland included shallow sedge, black willow (*Salix nigra*), and chufa (*Cyperus esculentus*).

Dominant vegetation within PFO wetlands consisted of black willow, narrow-leaf cat-tail, and chufa.

Photographs of the ESA are provided in **Appendix A**.

4.2 Wetlands

As shown on **Figure 4**, three wetlands were identified in the ESA, totaling 0.1 acres. Two of the wetlands (W-1 and W-3) are adjacent to an intermittent waterbody (S-2) and appear to be jurisdictional under the NWPR. One wetland, W-2 abuts an ephemeral channel and does not appear to be jurisdictional by the USACE under the new NWPR but may be considered jurisdictional at the state level by the OEPA. Wetland characteristics are summarized in **Table 2**, below. Wetland photographs are provided in **Appendix A**. The ORAM data form is provided in **Appendix B** and the USACE wetland determination data forms are included in **Appendix C**.

WETLAND AND WATERBODY DELINEATION REPORT

Table 2. Environmental Survey Area Wetland Summary

Feature ID	Cowardin Classification	Approximate Area Delineated within the ESA (acres) ¹	ORAM Score ²	OEPA Wetland Category ²	12-Digit HUC	Hydrologic Connection ³
W-1	PEM	<0.01	24	Category 1	050902020605	Adjacent to intermittent stream (S-2)
W-2	PEM	0.01	24	Category 1	050902020605	Isolated (adjacent to ephemeral stream)
W-3	PEM	0.06	24	Category 1	050902020605	Adjacent to intermittent stream (S-2)
	PSS	0.01				
	PFO	<0.01				
Total:		0.1				

NOTES:

ID = Identification

HUC = Hydrologic Unit Code

PEM = Palustrine Emergent

PSS = Palustrine Scrub Shrub

PFO = Palustrine Forested

ORAM = Ohio Rapid Assessment Method

OEPA = Ohio Environmental Protection Agency

USACE = United States Army Corps of Engineers

1 The wetland may extend outside of the Project area; this acreage corresponds to the size of the feature located within the ESA.

2 OEPA Wetland Category is determined based on ORAM score, in accordance with OEPA 2001.

3 The determination of hydrologic connection is based on the boundary delineations and have not been formally approved by the USACE and/or OEPA

4.3 Waterbodies

As shown on **Figure 4**, Arcadis identified three ephemeral streams (S-1, S-3, and S-4) and one intermittent stream (S-2) within the ESA. Stream S-1 is an unnamed tributary (UNT) to Cowan Creek. Streams S-2, S-3, and S-4 are UNTs to Wilson Creek. Due to its flow regime and downstream hydrologic connection between S-2 and the Little Miami River (a TNW), it is Arcadis' opinion that stream S-2 is likely to be considered jurisdictional by the USACE. Streams S-1, S-3, and S-4 are ephemeral waterbodies and are likely will not be considered jurisdictional by USACE under the new NWPR but may be considered jurisdictional at the state level by the OEPA. Photographs of these streams are in **Appendix A**. Additional stream characteristics are summarized in the HHEI data forms in **Appendix D** and **Table 3**, below.

Table 3. Environmental Survey Area Waterbody Summary

Feature ID/ Waterbody Name	Flow Regime ¹	12-Digit HUC	Drainage Area (square miles)	Approximate Length Delineated within the ESA (feet)	HHEI Score	OEPA Narrative Rating	OEPA Aquatic Life Use Designation ³
S-1/ UNT to Cowan Creek	Ephemeral	050902020605	<0.01	10	14	Modified Ephemeral Stream	--
S-2/ UNT to Wilson Creek	Intermittent	050902020605	0.04	172	31	Modified Small Drainage Warmwater Stream	--
S-3/ UNT to Wilson Creek	Ephemeral	050902020605	<0.01	17	15	Modified Ephemeral Stream	--
S-4/ UNT to Wilson Creek	Ephemeral	050902020605	0.01	276	17	Modified Ephemeral Stream	--
Total:				475			

NOTES:

ID = Identification

HUC = Hydrologic Unit Code

OEPA = Ohio Environmental Protection
Agency

PHWH = Primary Headwater Habitat

¹ Flow regime is defined as perennial, intermittent, or ephemeral. This determination was interpreted using field observations, USGS topographic maps, and the OEPA HHEI (OEPA 2018), as appropriate.

² Aquatic life use designation for streams according to OAC 2012

5 CONCLUSIONS

On October 13-14, 2020, Arcadis conducted wetland and waterbody delineations within the ESA of the proposed Clinton Substation Expansion Project in Clinton County, Ohio. Arcadis identified two PEM wetlands (W-1 and W-2), totaling 0.02-acres, one 0.08-acre PEM/PSS/PFO wetland (W-3), and four streams (S-1, S-2, S-3, and S-4), totaling 475 linear feet within the ESA. Due to the downstream hydrologic connection between stream S-2 and the Little Miami River (a TNW) and its intermittent flow regime, it is Arcadis' opinion that only stream S-2 is likely to be considered jurisdictional by the USACE. Wetlands W-1 and W-3 are adjacent to this stream and are also likely to be considered jurisdictional by the USACE. Streams S-1, S-3, and S-4 are ephemeral waterbodies, and W-2 abuts an ephemeral stream, and are likely not considered jurisdictional by USACE under the new NWPR but may be considered jurisdictional at the state level by the OEPA.

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FIGURES



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Summary: Notice of Construction of Clinton 345kV Expansion Part 2 electronically filed by Mr. Michael F Russ on behalf of The Dayton Power and Light Company