

**Letter of Notification for the
Columbus Solar Park LLC
Model Landfill Solar
138 kV Gen-Tie Transmission Line Project
OPSB Case No. 23-0256-EL-BLN**

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

Submitted by:
Columbus Solar Park, LLC



March 28, 2023



Bricker & Eckler LLP
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March 28, 2023

Via Electronic Filing

Ms. Tanowa Troupe
Administration/Docketing
Ohio Power Siting Board
180 East Broad Street, 11th Floor
Columbus, Ohio 43215-3793

**Re: Columbus Solar Park LLC Model Landfill Solar 138 kV
Gen-Tie Transmission Line Project, Case No. 23-0256-EL-BLN**

Dear Ms. Troupe:

Enclosed for filing in the above-referenced case is a copy of Columbus Solar Park LLC's Letter of Notification for the proposed Model Landfill Solar 138 kV Gen-Tie Transmission Line Project ("Columbus Solar Gen-Tie") City of Columbus, Franklin County, Ohio.

Name of Applicant: Columbus Solar Park LLC
whose authorized representative is:
Paul Curran
CEO
BQ Energy Development, LLC
400 Market Industrial Park, Suite 32
Wappingers Falls, NY 12590
Telephone: (845) 392-1644
E-Mail: eva.grunblatt@bqenergy.com

**Name/Location of
Proposed Facility:** Columbus Solar Gen-Tie Project
City of Columbus
Franklin County, Ohio

Case No. 23-0256-EL-BLN

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Authorized

Representative:

Devin D. Parram
Bricker & Eckler LLP
100 South Third Street
Columbus, OH 43215
Telephone: (614) 227-8813
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E-Mail: dparram@bricker.com

Notarized Statement:

*See Attached Affidavit of Paul Curran,
on behalf of Columbus Solar Park LLC*

Sincerely on behalf of
Columbus Solar Park LLC



Devin D. Parram

Enclosure

**BEFORE
THE OHIO POWER SITING BOARD**

In the Matter of the Letter of Notification)
Columbus Solar Park LLC Model Landfill)
Solar 138 kV Gen-Tie Transmission Line) Case No. No 23-0256-EL-BLN
Project Franklin County, Ohio,)

**AFFIDAVIT OF Paul Curran
COLUMBUS SOLAR PARK LLC**

STATE OF New York :
 :
COUNTY OF Dutchess : ss.

I, Paul Curran, being duly sworn and cautioned, state that I am over 18 years of age and competent to testify to the matters stated in this affidavit and further state the following based upon my personal knowledge:

1. I am a CEO at BQ Energy Development, LLC ("BQ Energy"), which in turn is a wholly owned subsidiary of Clean Capital LLC. Columbus Solar Park LLC ("Columbus Solar") a wholly owned subsidiary of BQ Energy. I am making this statement in my capacity as a Managing Director of Columbus Solar and not in my individual capacity.

2. Columbus Solar's Letter of Notification to the Ohio Power Siting Board for a Certificate of Environmental Compatibility and Public Need to develop, and construct the Model Landfill Solar 138 kV Gen-Tie Transmission Line Project in the City of Columbus, Franklin County, Ohio was prepared and reviewed by BQ Energy employees or consultants that are the primary individuals in charge of the development of the Columbus Solar Application on whom I reasonably rely as subject matter experts.

3. To the best of my knowledge, information, and belief, the information and materials contained in the above-referenced Application are true and accurate.

4. To the best of my knowledge, information, and belief, the above-referenced Letter of Notification is complete.

Paul C...

COLUMBUS SOLAR PARK LLC

Sworn to before and signed in my presence this 27th day of March 2023.

Alicia Scott
Notary Public

[SEAL]



4906-6-05 Accelerated Application Requirements

Columbus Solar Park LLC (“Applicant”), a wholly owned subsidiary of BQ Energy Development LLC (BQ Energy), which in turn is a wholly owned subsidiary of Clean Capital LLC, provides the following information to the Ohio Power Siting Board (OPSB) in accordance with the accelerated application requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

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

The Applicant, Columbus Solar Park LLC, proposes to construct and operate the Project, an approximately 0.44-mile 138 kV overhead generation tie-line (gen-tie) that will deliver electricity to the existing Columbus Power Substation that connects to the regional transmission grid. The location of the Project is shown on **Figures 1 and 2 in Appendix A**.

The Project meets the requirements for a Letter of Notification (LON) as defined by Item 1 (b) and Item 3 of Appendix A to Ohio Administrative Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

(1) New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:

(b) Line(s) greater than 0.2 miles in length but not greater than two miles in length

The Project has been assigned Case No. 23-0256-EL-BLN.

B(2) Statement of Need

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

The proposed 138 kV gen-tie transmission line will serve to connect a less than 50 MW capacity solar photovoltaic generating facility to its point of interconnection with the PJM electric grid, the existing Columbus Power Substation owned by the City of Columbus. The generating facility (which is not subject to the OPSB's jurisdiction and not the subject of this application) will be located on a former solid waste landfill known as the Model Landfill. The Project will deliver power generated from the solar generating facility to the grid.

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.

Appendix A, Figure 1 depicts the location of the Project on a 1:24,000 scale topographic map. **Appendix A, Figure 2** identifies the Project components in relation to existing transmission lines and substations on a 2021 aerial photograph.

B(4) Alternatives Considered

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

Due to location of the existing substation facility relative to the less than 50 MW capacity solar generating facility, alternative routes for the transmission line were deemed infeasible. The Applicant has designed the gen-tie line to exit the generating facility at the nearest location to the existing substation and point of interconnect. The gen-tie route parallels an existing roadway and utilizes an existing overhead electric easement, which will reduce any potential impacts from the Project. No residences or other permanently occupied facilities are proximate to the gen-tie line. This Project represents the most suitable and least impactful alternative. Socioeconomic, land use, and ecological information is presented in Section B(10) which demonstrates why the Project as proposed presents minimum impacts on the environment and surrounding neighbors.

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 Applicant will inform affected property owners and tenants about this Project through several different mediums. Within seven days of filing this LON, the Applicant will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements of OAC Section 4906-6-08(A)(1-6). Further, the Company has mailed (or will mail) a letter, via first class mail, to affected landowners, tenants, contiguous owners and any other landowner the Applicant may approach for an easement necessary for the construction, operation, or maintenance of the Project. The letter will comply with all requirements of OAC Section 4906-6-08(B). A map depicting the affected properties is included in **Appendix A, Figure 3**. The Applicant maintains a website (www.ColumbusSolarPark.com) which hosts an electronic copy of this LON and the public notice of this LON. An electronic and paper copy of the LON will be served to the public library in each political subdivision affected by this Project.

B(6) Construction Schedule

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

Construction of the Project is planned to begin in around September 2023 with an anticipated in-service date of no later than December 2024.

B(7) Area Map

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

Figure 1, Appendix A, identifies the location of the Project area on a United States Geological Survey 1:24,000 quadrangle map. **Appendix A, Figure 2** displays the Project components on a 2021 aerial photograph.

To visit the Project from downtown Columbus, Ohio, take I-71S toward Cincinnati for 3 miles. Take exit 104/Frank Road to merge right onto Frank Road and travel 0.4 mile before exiting right onto OH-104/Jackson Pike. The Project is located 1.6 miles south of the intersection of Frank Road and Jackson Pike.

B(8) Property Agreements

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

A list of properties required for the Project are provided in the table below. A portion of the Project falls within the road right-of-way of OH-104/Jackson Pike.

Property Parcel Number	Property Owner	Agreement Type	Easement or Option Obtained (Yes/No)
570-181425	City of Columbus Ohio	Easement	In Progress
160-000097	Franklin County Regional Solid Waste Management	Lease	Yes

B(9) Technical Features

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

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

The transmission line will include the following:

Gen-tie 138 kV Line

Voltage: 138kV

Conductors: 336.4 kcmil 26/7 Strands LINNET ACSR

Shield Wire: 1-48 Count AC 86/646 OPGW and 1- 3/8" 7 Strand EHS for two spans from each Dead End

Insulators: Polymer

ROW Width: 30 feet

Structure Type: Two (2) Single Circuit Steel Pole Terminal Dead End, Two (2) Single Circuit Steel Tangent (Delta configuration), Three (3) Single Circuit Steel Tangent (Delta configuration) with Distribution Under build, Two (2) Single Circuit Steel Running angle (Vertical configuration) with Distribution Under build.

B(9)(b) Electric and Magnetic Fields

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

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

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

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

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

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

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital costs estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately \$1,300,000 +/- 20% using a Class 3 estimate.

B(10) Social and Economic Impacts

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

B(10)(a) Land Use

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

The Project is located in Franklin County, Ohio. The portion of the Project on the eastern side of Jackson Pike is in the municipal boundary of the City of Columbus, while the portion west of Jackson Pike is in Jackson Township. The property class in the Project area is zoned Manufacturing by the Franklin County Auditor. Surrounding land uses include a limestone/aggregate quarry, commercial properties, industrial properties, Jackson Pike, Interstate 71 and Interstate 270. There are no residences located within 1,000 feet of the Project. The nearest occupied structure is Franklin County Correction Center located approximately 1,700 feet north of the Project. There are no schools, parks, churches, cemeteries, wildlife management areas, or nature preserve lands within 1,000 feet of the centerline of the Project.

B(10)(b) Agricultural Land Information

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

No properties registered as agricultural district land are in the Project. Properties east of Jackson Pike are zoned Manufacturing; the property west of Jackson Pike is a former solid waste landfill that is now closed and unsuitable for agricultural use. The Project occupies 1.0-acre of maintained right-of-way, 0.45-acre developed-high intensity lands, and crosses but will not impact 0.1-acre of cleared riparian / perennial streams (Marsh Run and Scioto Big Run).

B(10)(c) Archaeological and Cultural Resources

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

Columbus Solar Park LLC's consultant completed a cultural resources records check/database review to determine the presence of known cultural resources within a 1-mile radius of the proposed transmission line including a visibility and viewshed analysis and data review of registered landmark of historic, archaeological, or other cultural significance. Based on this desktop analysis, no archaeological or cultural resources fall within a 1-mile radius of the Project; while four archaeological resources, no cemeteries, and three historic structures are located within 1-mile of the Project. No National Register of Historic Places (NRHP) resources, landmarks or districts are located within 1-mile of the Project.

Additionally, the consultant completed a desktop viewshed study within a 5-mile radius limited to those significant resources listed in the NRHP and found 21 NRHP resources and 13 NRHP historic districts within the viewshed.

Upon review of the desktop assessment findings, and based upon past and present land uses, Columbus Solar Park LLC's consultant concluded that the Project will have no adverse effect on historic properties and no further cultural resource work would be necessary. Columbus Solar Park LLC's consultant is currently submitting a literature review and recommendation with the State Historic Preservation Office (SHPO) (**Appendix B**). Coordination with SHPO will be provided to OPSB once it has been received.

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

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

The Project was assessed with the Federal Aviation Administration (FAA) Obstruction Evaluation tool and received a Determination of No Hazard. No further coordination with FAA is required.

A Notice of Intent (“NOI”) will be filed with the Ohio Environmental Protection Agency for authorization of construction storm water discharges under General Permit OHC000005, and Columbus Solar Park LCC will implement and maintain best management practices as outlined in the project-specific Storm Water Pollution Prevention Plan to minimize erosion and control sediment to protect surface water quality during storm events. A local stormwater permit will be obtained from Franklin County prior to the start of construction. The 9 proposed monopole structures and two dead-end structures will not be installed in any streams or wetlands (see **Appendix C**) and will not require a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers or Pre-Construction Notification to the U.S. Army Corps of Engineers. The Project will not require tree clearing as the Project occupies existing, maintained road and utility easements and will span streams well above their banks; and will adhere to locally designated Stream Corridor Protection Zones requirements. Several proposed tower structures are located within the Federal Emergency Management Agency’s (“FEMA”) 100-year floodplain area. Impacts in the floodplain will require coordination with the Franklin County Floodplain Coordinator in accordance with the National Flood Insurance Program (NFIP). A Letter of Map Revision (LOMR-F) was submitted to FEMA requesting an adjacent area of the former Model Landfill to be occupied by the < 50 MW generating facility be removed from the regulatory floodplain (LOMR-F, Oct. 18, 2021, Case No. 22-05-0186A). Further coordination with Franklin County regarding the proposed transmission line tower structures is ongoing; Columbus Solar Park LLC will provide floodplain construction authorization when received.

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

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

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

On March 20, 2023, Columbus Solar LLC's consultant submitted coordination letters to the United States Fish and Wildlife Service (USFWS) and the Ohio Department of Natural Resources (ODNR) Ohio Natural Heritage Program (ONHP) and Division of Wildlife (DOW), seeking an environmental review of the Project area for potential impacts to state and/or federally protected species. ODNR and USFWS responses were not yet received at the time of the filing. Copies of the submitted consultation letters are presented in **Appendix D**. Coordination responses from USFWS and ODNR will be provided to OPSB once they have been received.

The initial USFWS consultation letter (**Appendix D**) includes an official USFWS Information for Planning and Consultation (IPaC) search. The IPaC results identifies that the Project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) in Ohio. The Project will not require tree clearing as the Project occupies existing, maintained road and utility easements.

Based on the nature of the proposed Project activities and habitat characteristics of the surrounding vicinity, construction impacts to protected species are not anticipated. Columbus Solar Park LLC will continue coordination with USFWS and ODNR to mitigate any potential impacts to state and/or federally protected species.

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.

On October 19, 2021 and March 1, 2023, wetland and stream delineation surveys were completed by the Company's consultant for an approximately 17-acre site encompassing the Project (**Appendix C**). During the field survey, two perennial streams (Marsh Run and Scioto Big Run) and no wetlands were identified within the Project area. No tree clearing within the riparian areas is anticipated; these are maintained by regular mowing/cutting. No impacts to

delineated streams or wetlands are anticipated and no other areas of ecological concern were identified within the Project area.

Based on a review of the Protected Areas Database of the United States, there are no state or national parks, forests, wildlife areas or mapped conservation easements in the vicinity of the Project. The 5-mile radius desktop viewshed study conducted for the Project (**Appendix B**) identified a recreational area Three Creeks Metropark at the eastern limit of the 5-mile radius.

Several proposed tower structures are located within the FEMA 100-year floodplain area. Impacts in the floodplain will require coordination with the Franklin County Floodplain Coordinator in accordance with the National Flood Insurance Program (NFIP). Further coordination with Franklin County regarding the proposed transmission line tower structures is ongoing; Columbus Solar Park LLC will provide floodplain construction authorization when received.

B(10)(g) Unusual Conditions

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

To the best of Columbus Solar Park LLCs knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts. Proposed tower structures located west of Jackson Pike are within the property containing the former solid waste landfill but fall outside of the estimated limits of waste for the landfill.

Appendix A Project Maps

\\cncinc.com\global\Projects\300-000\303-966-GIS\Maps\LON\303966 Figure1 Topo.mxd - 3/17/2023 - 7:57:13 PM (ifrodge)



SOURCES:
USGS TOPOGRAPHIC QUAD/ ARCGIS BASE MAP SERVICE. LAST ACCESSED: 3/17/2023
QUAD NAME: SOUTHWEST COLUMBUS, 1979, PR 1983

<p>► Proposed 138kV Gen-Tie □ Proposed Structures</p>		<p>COLUMBUS SOLAR PARK, LLC MODEL LANDFILL SOLAR TRANSMISSION LINE PROJECT FRANKLIN COUNTY, OHIO</p> <p>SITE TOPOGRAPHIC MAP</p>
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DRAWN BY:	MHS	CHECKED BY:	JBF	APPROVED BY:	JBF*	FIGURE NO:	1
DATE:	MARCH 17, 2023	DWG SCALE:	1" = 1,000'	PROJECT NO:	303-966		

\\cccinc.com\global\Projects\300-000\303-966-GIS\Maps\LON\303966 Figure2 Aerial.mxd - 3/17/2023 - 7:48:58 PM (ifrodge)



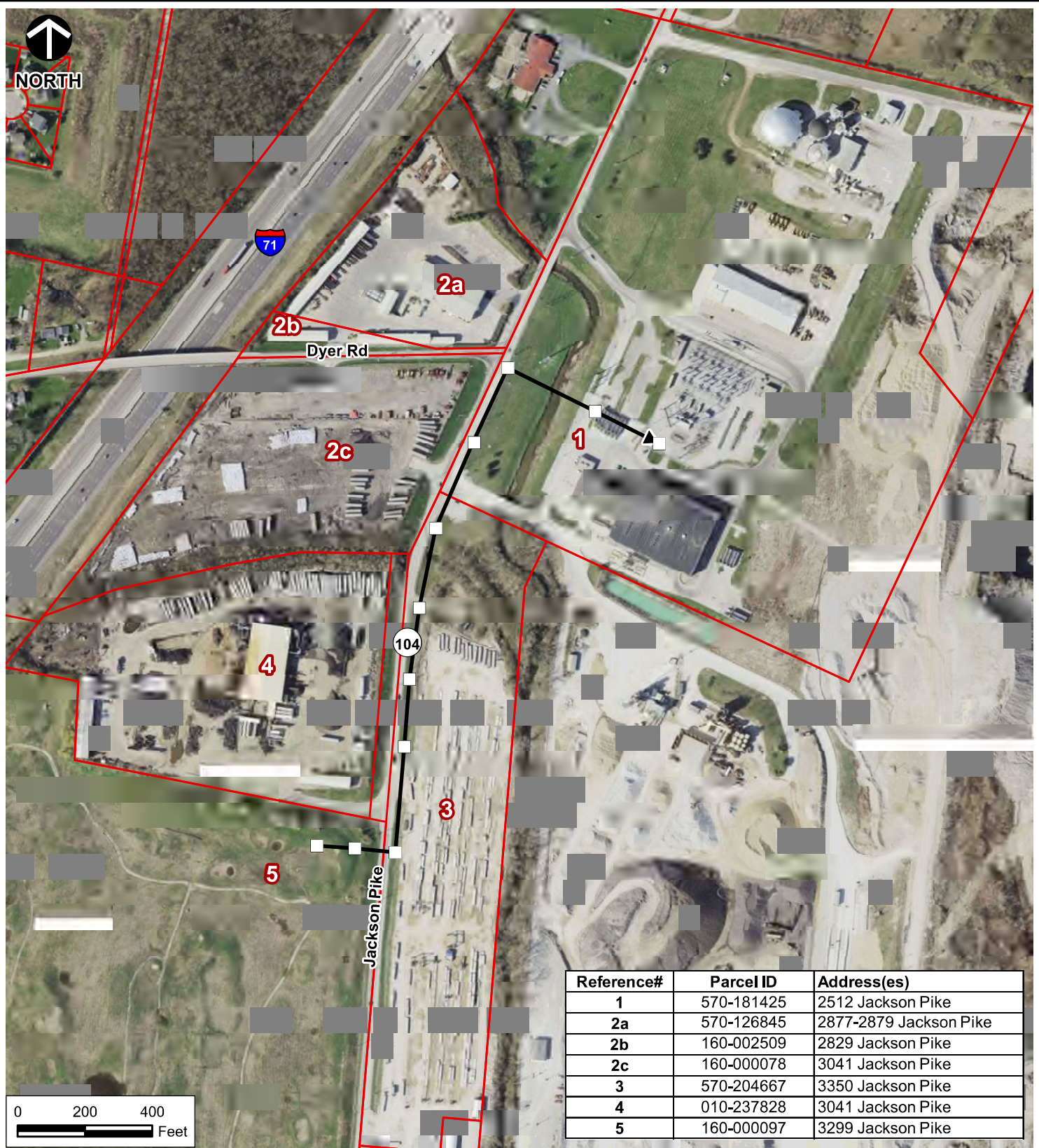
SOURCES:
2021 CITY OF COLUMBUS AERIAL IMAGERY: [HTTPS://MAPS.COLUMBUS.GOV/ARCGIS/SERVICES](https://maps.columbus.gov/arcgis/services). LAST ACCESSED: 3/17/2023
HYDROGRAPHY: USFWS NATIONAL HYDROLOGIC DATASET, LAST ACCESSED: 3/17/2023

<ul style="list-style-type: none">► Proposed 138kV Gen-Tie□ Proposed Structures— Existing Overhead Electric (Approximate)Existing Columbus Power SubstationParcels		COLUMBUS SOLAR PARK, LLC MODEL LANDFILL SOLAR TRANSMISSION LINE PROJECT FRANKLIN COUNTY, OHIO	
		SITE AND VICINITY AERIAL MAP	

DRAWN BY:	MHS	CHECKED BY:	JBF	APPROVED BY:	JBF*	FIGURE NO:
DATE:	MARCH 17, 2023	DWG SCALE:	1" = 300'	PROJECT NO:	303-966	2

Signature on File *

P:\300-000\303-966\GIS\Maps\ONI\303966 Figure3 Landowner.mxd - 3/23/2023 - 11:08:06 AM (msimkins)



SOURCES: 2021 CITY OF COLUMBUS AERIAL IMAGERY: [HTTPS://MAPS.COLUMBUS.GOV/ARCGIS/SERVICES](https://maps.columbus.gov/arcgis/services). LAST ACCESSED: 3/23/2023
HYDROGRAPHY: USFWS NATIONAL HYDROLOGIC DATASET, LAST ACCESSED: 3/23/2023

- ➔ Proposed 138kV Gen-Tie
- Proposed Structures
- ▭ Parcels



COLUMBUS SOLAR PARK, LLC
MODEL LANDFILL SOLAR
TRANSMISSION LINE PROJECT
FRANKLIN COUNTY, OHIO

LANDOWNER MAP

DRAWN BY: MHS CHECKED BY: JBF APPROVED BY: JBF*
DATE: MARCH 23, 2023 DWG SCALE: 1" = 400' PROJECT NO: 303-966

FIGURE NO:

3

Signature on File *

Appendix B Archaeological and Cultural Resources



March 20, 2023

via email: section106@ohiohistory.org

Ms. Diana Welling
Project Reviews Manager
Ohio Historic Preservation Office
Ohio History Center
Resource Protection and Review
800 East 17th Avenue
Columbus, OH 43211-2497

Dear Ms. Welling:

Subject: Section 106 Review – Project Summary Form
Columbus Solar Park, LLC
138 kV Transmission Line
Model Landfill Solar Project
Jackson Township, Franklin County, Ohio
CEC Project 303–966

On behalf of BQ Energy, LLC, and its affiliate Columbus Solar Park, LLC (CSP), Civil & Environmental Consultants, Inc. (CEC) conducted a desktop analysis for the proposed 138kV electric transmission line corridor (the “Project”). The Project located in Jackson Township in Franklin County, is a 0.71-kilometer (0.44-mile) long gen-tie line that will have a 9.1-meter (30-foot) wide right-of-way (ROW). The proposed 138 kV transmission line will serve to connect a less than 50 MW capacity solar photovoltaic generating facility to an existing substation. The desktop analysis was completed to understand what cultural resources may be present in the project area.

The work is being conducted in compliance with the Ohio Power Siting Board (OPSB), Ohio Administrative Code 4906-6-05 (10) (c), “investigation concerning the presence or absence of significant archeological or cultural resources that may be located within the potential disturbance area of the project.”

1.0 PROJECT DESCRIPTION

The proposed transmission line will exit the generating facility, a former landfill, and cross existing overhead utility corridor on the west side of Jackson Pike and turn north occupying an existing electric utility corridor along the east side of Jackson Pike before turning west to connect with the existing Columbus Power substation owned by the City of Columbus. The proposed approximately 26.2-meter (86-foot) high monopole tower structures will replace several existing approximately 13.7-meter (45-foot) high electric distribution utility line poles. The existing distribution conductor(s) will be underbuilt to share the new structures with the new 138 kV conductor.

The Project is bordered to the west by the former Model Landfill and Interstate-71, to the south by Interstate-270, to the east by a large aggregate quarry, and to the north by industrial properties including the existing 10-acre substation.

2.0 METHODOLOGY

CEC's desktop analysis consisted of a records check/database review to determine the presence of known cultural resources in the study area, defined as the area within a 1.6-kilometer (1-mile) radius extending from each side of the Project boundaries.

The architectural review examined a 1.6-kilometer (1-mile) radius within the viewshed of the proposed transmission line. The viewshed analysis utilized LIDAR, GIS technology and 26.2-meter (86-feet) high tower structures (Figure 3).

CEC additionally evaluated visual impacts of the proposed Project to significant archaeological or cultural resource by preparing a viewshed study for an 8-kilometer (5-mile) radius around the Project, to determine what resources eligible for inclusion in the National Register of Historic Places (NRHP) would be visible to the Project. Results of this wide-area viewshed are presented in Attachment B.

The review identified resources listed in the NRHP, Ohio State Historic Preservation Office (OHPO) Online Mapping System for historic and archaeological sites (Ohio History Connection [OHC] 2023), and known cemeteries shown on United States Geological Survey (USGS) topographic maps and within the OHPO Online Mapping System. The review also included examination of historical maps and aerial imagery. Figure 3 shows the project area, the study area and viewshed.

3.0 BACKGROUND RESEARCH

One previous archaeological investigation has been conducted in the project area (Table 1). Two other archaeological surveys are located within the 1.6-kilometer (1-mile) study radius (Table 1).

In 1987 Gray & Pape, Inc. completed a Phase I, II, and III cultural resource investigation of 19.3-kilometer (12- miles) of proposed 40.6-centimeter (16-inch) pipeline along State Route 104 in Franklin and Pickaway counties, Ohio. None of the archaeological sites recorded during the 1987 survey were within the project area.

TABLE 1: PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS IN STUDY AREA

NAD8/SURVEY #	CITATION	PROJECT TYPES	SURVEY TYPES	SURVEY YEAR	WITHIN PROJECT AREA (Y/N)
11050	Gray 1987	Pipeline	Phase I, II, and III	1987	Y
11047	Blank 1985	Waste Water Treatment	Phase I and II	1985	N
11111	Wakeman and O'Donnell 1994	Real-Estate Development	Literature Review and Reconnaissance Survey	1994	N

Source: OHC 2023

A total of four archaeological sites have been documented in the study area, consisting entirely of prehistoric sites. No sites are within the Project Area. Two archaeological sites within the Study Area are likely destroyed and were recorded as burials. Site 33FR62/American Aggregates Cemetery is a prehistoric burial that was discovered and disturbed by a bulldozer during gravel operations and in 1963 was recovered by Frye & Goslin. The site contained the remains of an adult male. According to the site form the skeletal material was moved to the Ohio Historical Society Museum. The site is located in what is now the large disturbed area to the east of the Project Area, the site is likely destroyed. Site 33FR74 is located within the landfill west of the Project Area. Site 33FR74 is a prehistoric burial which was recorded in 1973. Site 33FR74 is located within the boundaries of the closed municipal waste landfill, leading to the belief that the site has been destroyed. Franklin County purchased the land in order to construct a municipal waste landfill in September 1973. Both of these sites are assumed destroyed and are not located within or adjacent to the Project Area. No previously recorded archaeological sites will be effected by the project.

TABLE 2. PREVIOUS ARCHAEOLOGICAL SITES IN STUDY AREA

SITE NUMBER	SITE TYPE	NRHP STATUS	WITHIN VIEWSHED (Y/N)	IN PROJECT AREA (Y/N)
33FR57	Prehistoric	Undetermined	Y	N
33FR62	Prehistoric	Undetermined	Y	N
33FR74	Prehistoric	Undetermined	N	N
33FR3113	Prehistoric	Undetermined	N	N

Source: OHC 2023

4.0 KNOWN ARCHITECTURAL RESOURCES

4.1 Cemeteries

No previously recorded OGS cemeteries are identified within the study area.

4.2 Historic Period Structures

In the Ohio Mapping system, five historic structures were identified in the study area (Table 3). Two resources are eligible, two are not eligible, and one resource is not-evaluated. All resources except the single dwelling (FRA405226) are within the 1.6-kilometer (1-mile) viewshed of the Project (Figure 3).

TABLE 3: PREVIOUS ARCHITECTURAL RESOURCES IN STUDY AREA

OHIO INVENTORY NUMBER	RESOURCE	CONDITION- INTEGRITY/ NRHP STATUS	LOCATION	WITHIN VIEWSHED (Y/N)	DISTANCE TO PROJECT AREA (MILES)
FRA251717	Birkhead House	Not Eligible	1350 Dyer Road	Y	0.13-miles
FRA408317	Single Dwelling	Not Eligible	SR 104 across from trash burning power plant	Y	0.01-miles
FRA408717	Single Dwelling	Eligible	1571 Dyer Road	Y	0.51- miles

Source: OHC 2023

Based upon reconnaissance of the Project Area performed during multiple recent site visits, resource FRA408317 does not appear to be still standing, or was mis-mapped.

5.0 HISTORIC USE OF PROJECT AREA

CEC reviewed historical maps and aerial imagery for the Project. The 1842 (Wheeler 1842) [Figure 4] county atlas shows the project area is owned by W. M. and L. Starling, no structures are depicted on the 1842 map. The county atlas from 1856 show the project area owned by A. L. & D. Fullerton but no dwellings are depicted on the map in the location of the Project. There is one structure that is located in the general location of the FRA408317 resource and the map depicts Jackson Pike (Graham 1856) [Figure 5]. The 1872 (Caldwell & Gould 1872) [Figure 6] depicts the property is owned by Wm Miller with a structure in the project area. The 1883 atlas depicts the same owners as the 1872 atlas (Mable 1883) [Figure 7].

The Mills (1914) atlas shows multiple prehistoric mounds in the general area of the Project with an enclosure running through the center of the project area (Figure 8).

The 1923 West Columbus, 15-minute topographic map depicts no structure within the project area, but structures are along Jackson Pike (Figure 9). The 1955 Southwest Columbus, 7.5-minute topographic map matches the 15-minute (Figure 10). The 1965 Southwest Columbus topographic map shows large amounts of water located east of the northern substation and project area. A waterway labeled Big Run appears in the northern area of the project area (Figure 11). The 1973, 1982, and 1984 Southwest Columbus topographic maps show large areas of disturbance on the east and west sides of Jackson Pike and the project area (Figure 12). The disturbances west of Jackson Pike are gone on the 1995 Southwest Columbus topographic map and the substation the Project will connect to on the north side is located on the 1995 mapping (Figure 2).

Historic aerial images from 1953, 1954, 1957, 1963, 1965, 1971, 1985, 1994, 2002–2007, 2009–2012, and 2014–2022 were reviewed for landscape changes. The 1953–1957 imagery shows Jackson Pike with some residential buildings on the eastern side of the road. The 1963 imagery shows a large amount of water and waterway on the west side of the project area. The 1965, 1971, 1985 imagery shows consistently more water and disturbances. The substation on the northern side of the project area first appears on the 1985 imagery. The water appears to be for utility use and potentially mining occurring the area. The 1994 imagery shows mining and disturbances in and adjacent to the entire project area, transmission lines along Jackson Pike are visible on the 1994 imagery. A landfill is located on the west side of the project area from the 1965–1994 before showing as a golf course on the 2002 imagery. The 2002–2022 imagery shows large amounts of limestone mining and industrialization on the east side of the project area. The golf course is no longer looks to be operational on the 2015 imagery. The entire project area is adjacent to large amounts of heavy disturbances from limestone mining, recycling plants, landfills turned into golf courses, existing substations, and other disturbances occurring from 1963 to present.

6.0 SUMMARY

CEC's desktop analysis consisted of a records check/database review to determine the presence of known cultural resources in the study area, defined as the area within a 1.6-kilometer (1-mile) radius extending from each side of the project area boundaries. Historical maps and aerial imagery shows the area has been through various land disturbing activities consisting of waterway diversion and straightening, landfill, golf course, mining, roadways, and substation construction. The roadway running through the project area was previously surveyed and no archaeological sites are within the project area. Four archaeological sites are within the 1.6-kilometer (1-mile) radius. None of the previously documented archaeological sites have been evaluated for the NRHP. The previously

surveyed FRA408717/1571 Dyer Road is eligible and located within the viewshed of the project area, but is located over 0.51-miles (0.8-kilometers) away the project area with I-71 running between FRA408717 and the Project. While the project may be visible from the resources, the resource's viewshed has already been diminished within the numerous transmission lines, roadways, landfills, mining activities, and other developments.

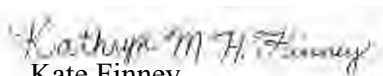
CEC presents this information for review and comment by the Ohio State Historic Preservation Office in compliance with the Ohio Power Siting Board, Ohio Administrative Code 4906-6-05 (10) (c).

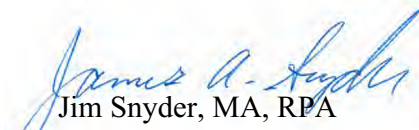
Upon review of the desktop assessment findings, and based upon past and present land uses, CEC recommends that the Project will have no adverse effect on historic properties and no further cultural resource work will be necessary.

If you have any questions or require additional information, please contact me at 317-655-7777 or via email at jsnyder@cecinc.com.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.


Kate Finney
Assistant Project Manager


Jim Snyder, MA, RPA
Archaeological Principal Investigator

Attachments: Figures

- Figure 1. State Map
- Figure 2. 1995 Southwest Columbus 7.5-minute topographic map
- Figure 3. Aerial image
- Figure 4. 1842 Atlas
- Figure 5. 1856 Atlas
- Figure 6. 1872 Atlas
- Figure 7. 1883 Atlas
- Figure 8. 1914 Mills Atlas
- Figure 9. 1923 West Columbus 15-minute topographic map
- Figure 10. 1955 Southwest Columbus 7.5-minute topographic map
- Figure 11. 1965 Southwest Columbus 7.5-minute topographic map
- Figure 12. 1972 Southwest Columbus 7.5-minute topographic map
- Attachment A. Photographs
- Attachment B. Wide-Area Viewshed Analysis

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FIGURES

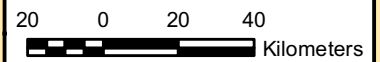


NORTH



LEGEND

-  Ohio Counties
-  Franklin County



SOURCE: USSTATES AND USCOUNTIES/
ARCGIS MAP SERVICE / ACCESSED 3/10/2023



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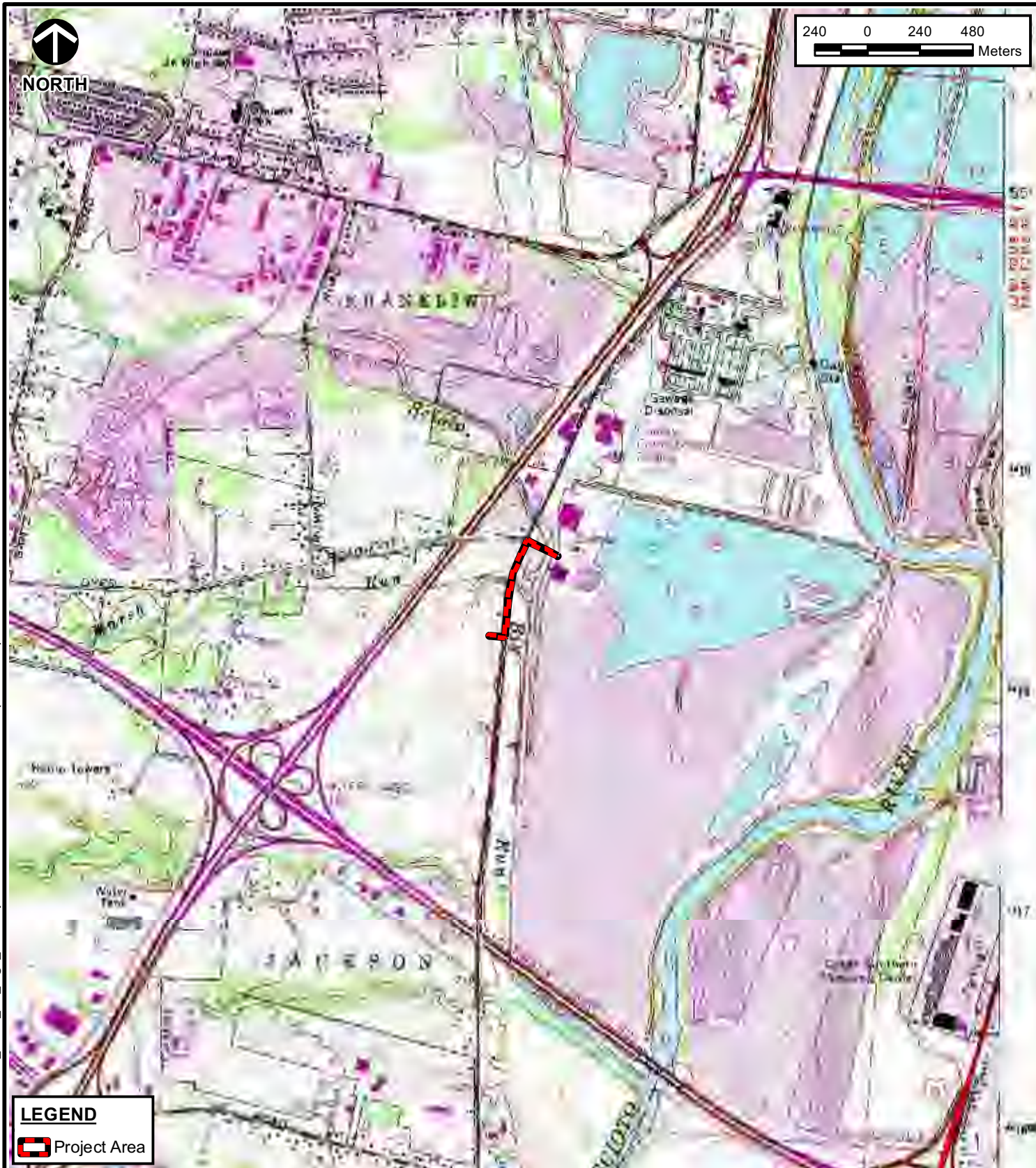
COLUMBUS SOLAR PARK, LLC
PROPOSED SOLAR FACILITY
FRANKLIN COUNTY, OHIO

PROJECT LOCATION IN OHIO

DRAWN BY:	MHS	CHECKED BY:	KMHF	APPROVED BY:	JAS*	FIGURE NO:
DATE:	10 MAR 2023	DWG SCALE:	1 cm = 20 km	PROJECT NO:	306-406	1

Signature on File *

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LEGEND
Project Area



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FRANKLIN COUNTY, OHIO

PROJECT AREA ON A PORTION OF THE
1995 SOUTHWEST COLUMBUS, OH,
7.5-MINUTE USGS QUADRANGLE

DRAWN BY:	MHS	CHECKED BY:	KMHF	APPROVED BY:	JAS*	FIGURE NO:
DATE:	10 MAR 2023	DWG SCALE:	1 cm = 240 m	PROJECT NO:	303-966	2

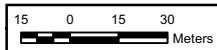
Signature on File *



LEGEND

- Project Area
- + Historic Structure
- + Proposed Structure Location
- Photograph Location
- Stream Area

SOURCES: ESRI WORLD IMAGERY / ARCGIS
MAP SERVICE / IMAGERY DATE: 2022.



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FRANKLIN COUNTY, OHIO

PROJECT AREA AND VIEWSHED
ON AERIAL IMAGERY

DRAWN BY: MHS	CHECKED BY: JAS	APPROVED BY: JBF	FIGURE NO: 3
DATE: 10 MAR 2023	SCALE: 1 cm = 15 m	PROJECT NO: 303-966	

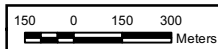
Signature on File



LEGEND

- Records Check Area (1-Mile)
- Project Area
- Viewshed
- Photograph Location
- Historic Structures
- ▲ Archaeological Sites
- + OGS Cemeteries

SOURCES: ESRI WORLD IMAGERY / ARCGIS
MAP SERVICE / IMAGERY DATE: 2022



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DRAWN BY: MHS CHECKED BY: JAS
DATE: 17 MAR 2023 SCALE: 1 cm = 150 m

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FRANKLIN COUNTY, OHIO

PROJECT AREA AND VIEWSHED
ON AERIAL IMAGERY (OVERVIEW)

APPROVED BY: JBF
PROJECT NO: 303-966

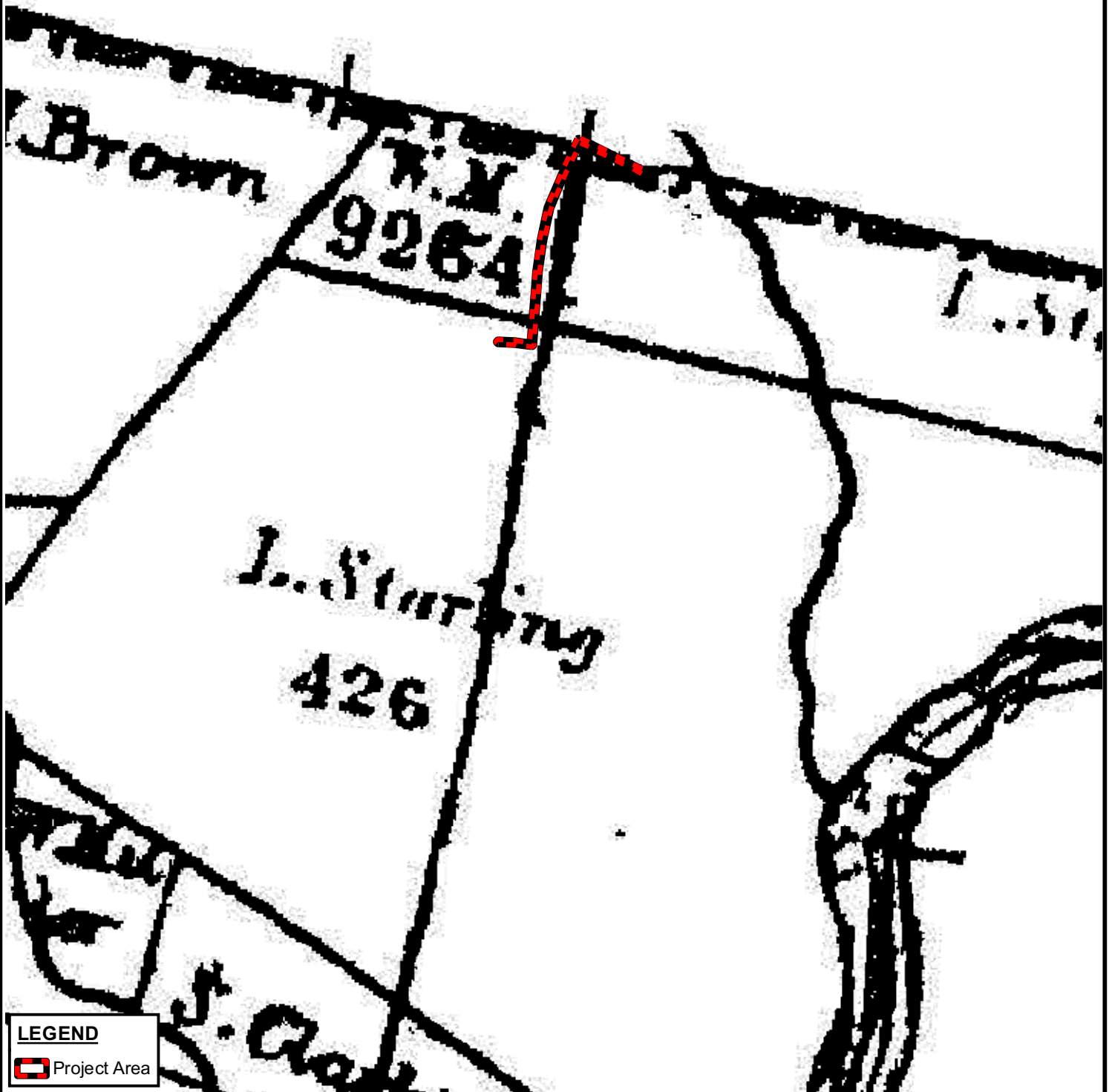
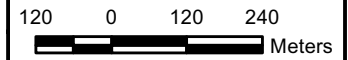
FIGURE NO:

3

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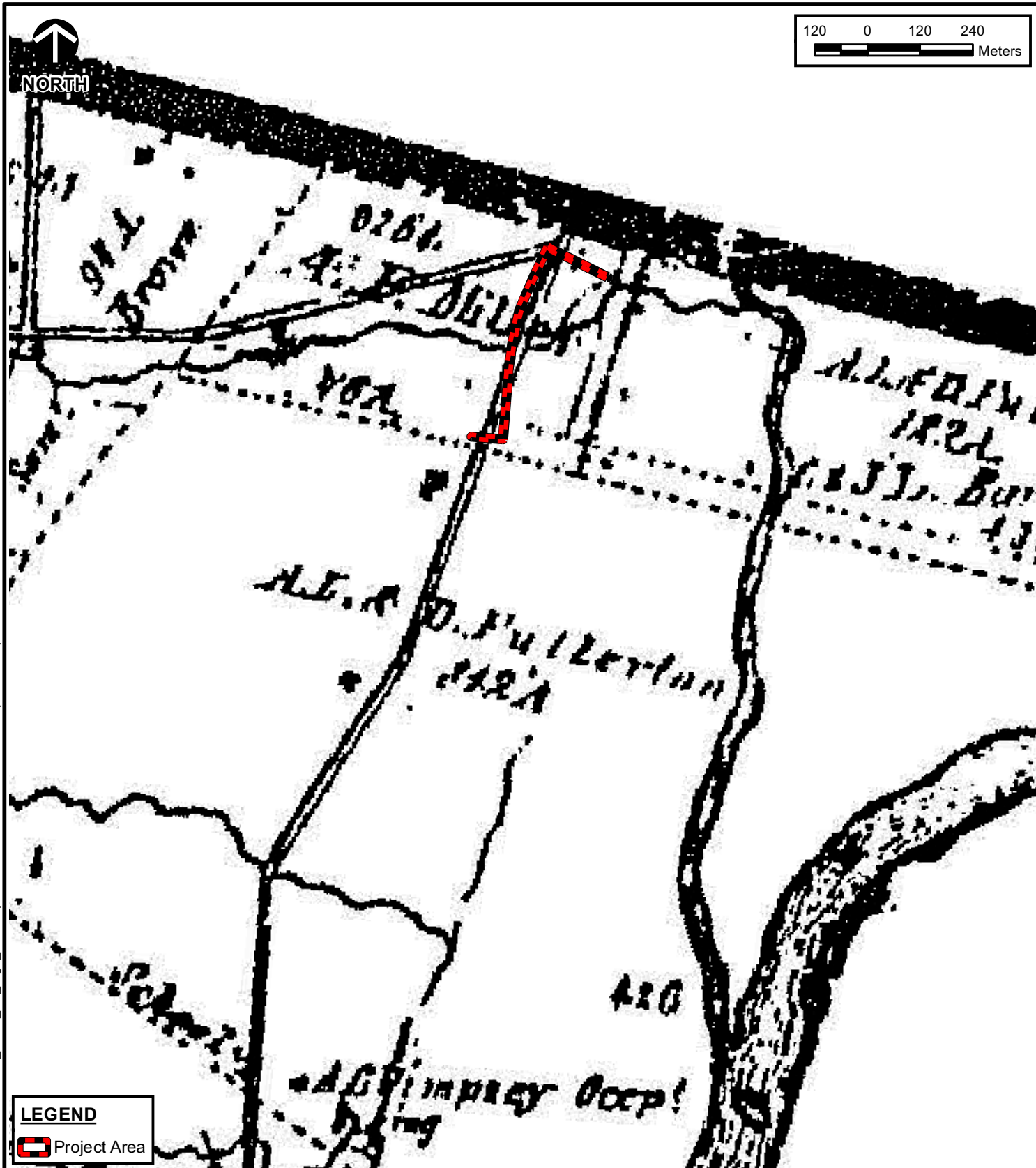
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PORTION OF THE 1842 ATLAS

DRAWN BY:	MHS	CHECKED BY:	KMHF	APPROVED BY:	JAS*	FIGURE NO:
DATE:	10 MAR 2023	DWG SCALE:	1 cm = 120 m	PROJECT NO:	303-966	4

Signature on File *

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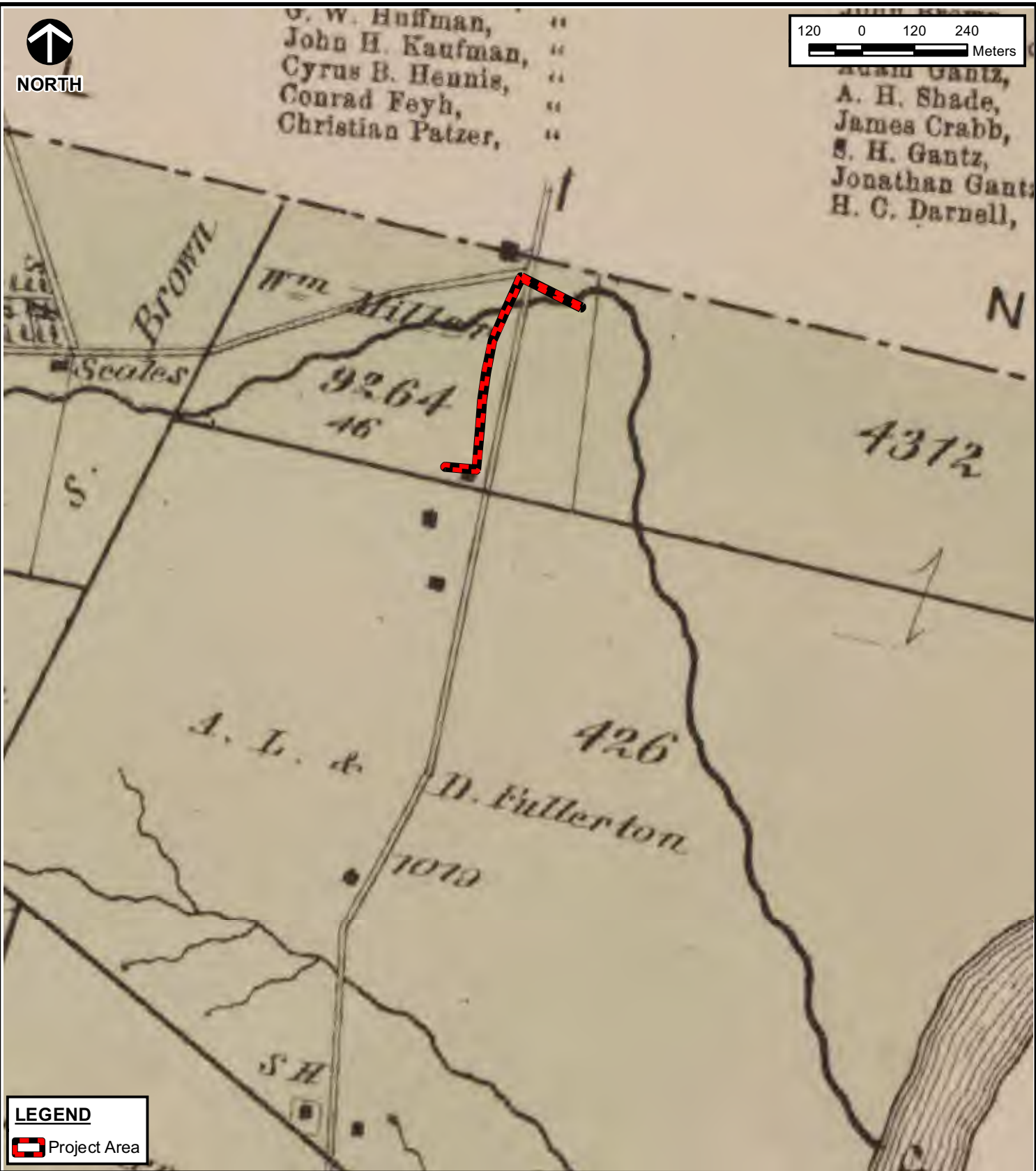
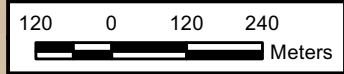
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PORTION OF THE 1856 ATLAS

DRAWN BY:	MHS	CHECKED BY:	KMHF	APPROVED BY:	JAS*	FIGURE NO:
DATE:	10 MAR 2023	DWG SCALE:	1 cm = 120 m	PROJECT NO:	303-966	5

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PROJECT AREA ON A
PORTION OF THE 1872 ATLAS

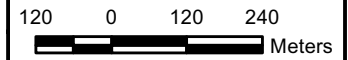
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DATE:	10 MAR 2023	DWG SCALE:	1 cm = 120 m	PROJECT NO:	303-966	6

Signature on File *

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PROJECT AREA ON A
PORTION OF THE 1883 ATLAS

DRAWN BY:	MHS	CHECKED BY:	KMHF	APPROVED BY:	JAS*	FIGURE NO:
DATE:	10 MAR 2023	DWG SCALE:	1 cm = 120 m	PROJECT NO:	303-966	7

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PROJECT AREA ON A PORTION
OF THE 1914 MILLS ATLAS

DRAWN BY:

MHS

CHECKED BY:

KMHF

APPROVED BY:

JAS*

FIGURE NO:

DATE:

10 MAR 2023

DWG SCALE:

1 cm = 480 m

PROJECT NO:

303-966

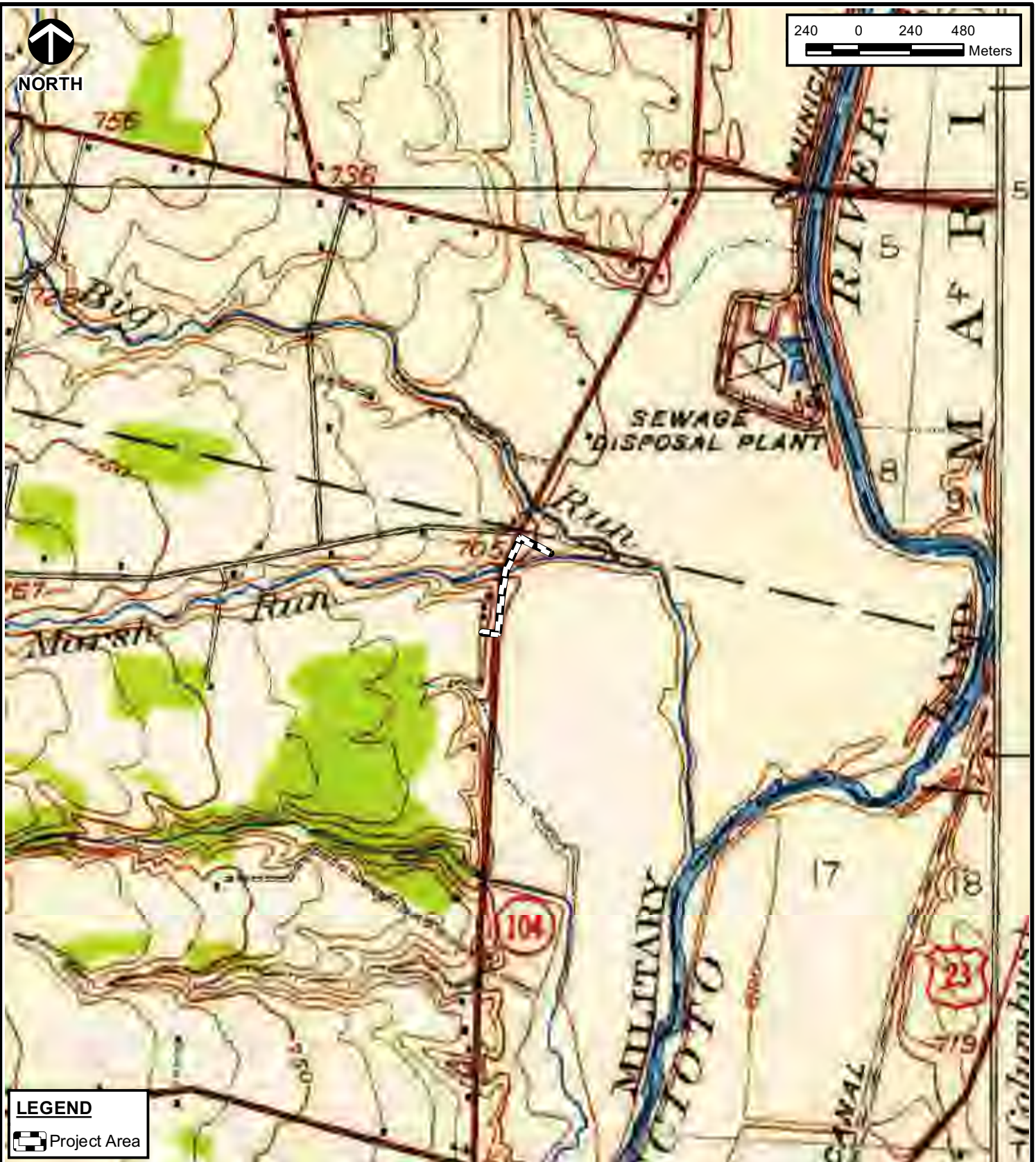
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NORTH

240 0 240 480
Meters



LEGEND

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PROJECT AREA ON A PORTION OF THE
1923 WEST COLUMBUS, OH,
15-MINUTE USGS QUADRANGLE

DRAWN BY:

MHS

CHECKED BY:

KMHF

APPROVED BY:

JAS*

FIGURE NO:

DATE:

10 MAR 2023

DWG SCALE:

1 cm = 240 m

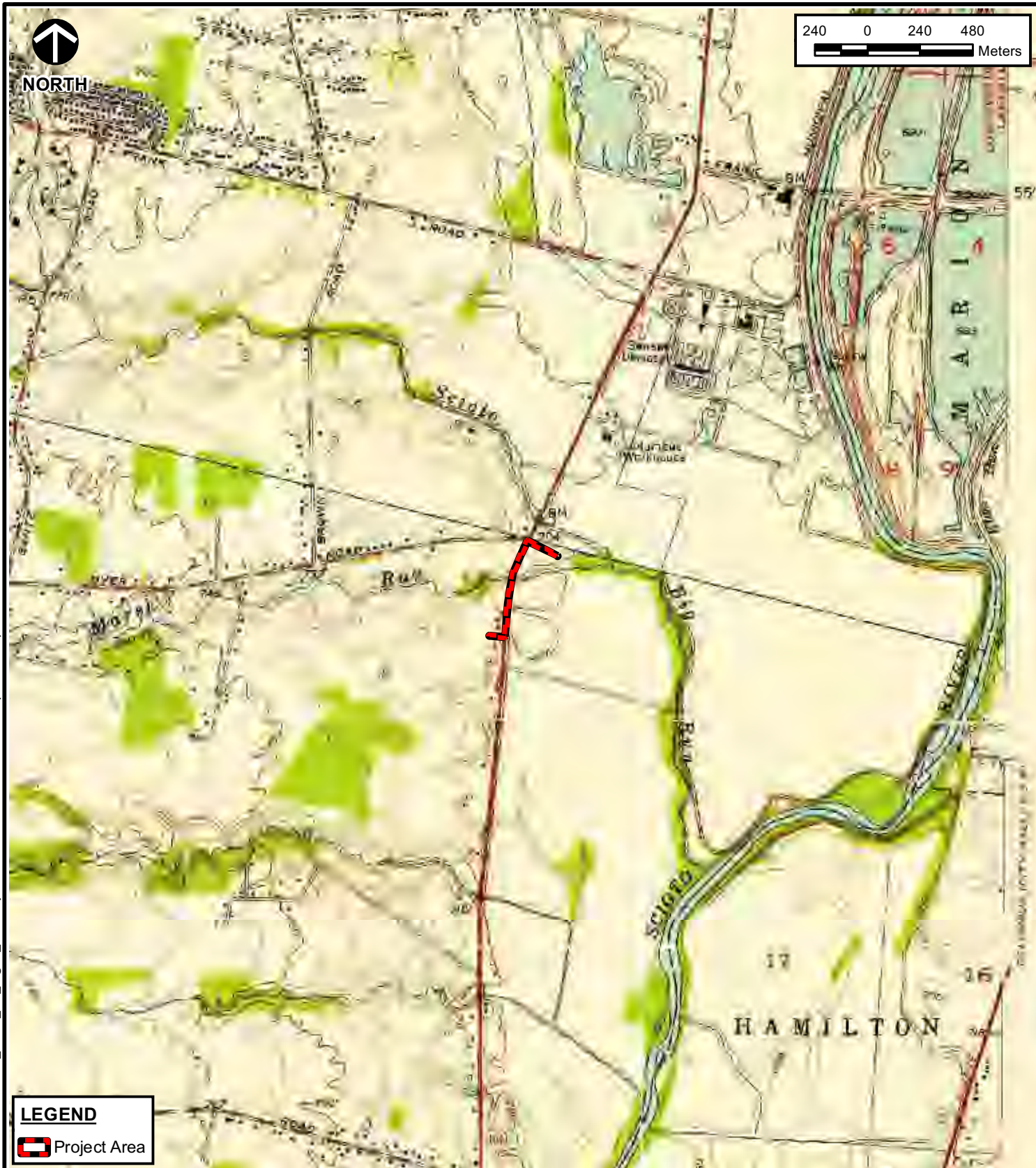
PROJECT NO:

303-966

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PROJECT AREA ON A PORTION OF THE
1955 SOUTHWEST COLUMBUS, OH,
7.5-MINUTE USGS QUADRANGLE

DRAWN BY:

MHS

CHECKED BY:

KMHF

APPROVED BY:

JAS*

FIGURE NO:

DATE:

10 MAR 2023

DWG SCALE:

1 cm = 240 m

PROJECT NO:

303-966

10

Signature on File *

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PROJECT AREA ON A PORTION OF THE
1965 SOUTHWEST COLUMBUS, OH,
7.5-MINUTE USGS QUADRANGLE

DRAWN BY:	MHS	CHECKED BY:	KMHF	APPROVED BY:	JAS*	FIGURE NO:
DATE:	10 MAR 2023	DWG SCALE:	1 cm = 240 m	PROJECT NO:	303-966	11

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PROJECT AREA ON A PORTION OF THE 1973 SOUTHWEST COLUMBUS, OH, 7.5-MINUTE USGS QUADRANGLE			
DRAWN BY:	MHS	CHECKED BY:	KMHF
DATE:	10 MAR 2023	DWG SCALE:	1 cm = 240 m
APPROVED BY:	JAS*	FIGURE NO:	12
PROJECT NO:	303-966	Signature on File *	

ATTACHMENT A
PHOTOGRAPHS



Photograph 1. Overview of the project area east of Jackson Pike, looking north.



Photograph 2. Overview of northern portion of the project area, looking south.

Columbus Solar Park, LLC
138 kV Transmission Line – Model Landfill Soar Project
Jackson Township, Franklin County, Ohio
CEC Project 303-966.0020
Photographs Taken on March 1, 2023



Photograph 3. Overview of the northern portion of the project area, looking north.



Photograph 4. Overview of the project area, looking southwest.

Columbus Solar Park, LLC
138 kV Transmission Line – Model Landfill Soar Project
Jackson Township, Franklin County, Ohio
CEC Project 303-966.0020
Photographs Taken on March 1, 2023

ATTACHMENT B

WIDE-AREA VIEWSHED ANALYSIS

March 17, 2023

Mr. Michael McNulty
BQ Energy, LLC
400 Market Industrial Park, Suite 32
Wappinger Falls, NY 12590

Dear Mr. McNulty:

Subject: Wide-Area Viewshed Analysis for the Columbus Solar Park, LLC
138kV Transmission Line
Model Landfill Solar Project
Franklin County, Ohio
CEC Project 303-966.0050

Civil & Environmental Consultants, Inc. (CEC) conducted a desktop viewshed analysis for the proposed 138kV electric transmission line corridor located in Franklin County, Ohio (the Project). The proposed 138 kV transmission line will serve to connect a less than 50 MW capacity solar photovoltaic generating facility to an existing substation.

The Project is an approximately 0.44-mile long, 30-foot wide, 1.55-acre corridor is located in Jackson Township, Franklin County, Ohio. The proposed transmission line consists of nine transmission line tower structures that have a proposed height of approximately 86 feet above ground level (agl). The location of the Project at 1:24,000 scale relative to roads and principal surface features is indicated on Figure 1.

CEC prepared this viewshed analysis pursuant to Ohio Administrative Code (OAC) 4906-6-05 (10) (c), “*investigation concerning the presence or absence of significant archeological or cultural resources that may be located within the potential disturbance area of the project*” and pursuant to OAC 4906-6-05 (10) (f), “*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*”.

CEC evaluated visual impacts of the proposed Project by preparing a viewshed study for an 8-kilometer (5-mile) radius around the Project. The study area for the viewshed study has been defined as an 8-kilometer (5-mile) radius given the relatively short length and height of the

transmission line, the intervening vegetation, and surrounding urban and industrial land uses. CEC utilized available LIDAR data and GIS technology and did not account for visual screening from vegetation or other structures in this analysis.

CEC performed a desktop assessment for potential presence of “significant archaeological or cultural resources” within the viewshed by examining resources listed in the National Register of Historic Places (NRHP) and found 21 NRHP resources and 13 NRHP Historic Districts within the viewshed. No NRHP-listed resources are located within 1-mile of the Project. These NRHP resources are depicted on Figure 2 and listed in Attachment A - Sensitive Features within 5-mile Radius Tables.

CEC performed a desktop assessment for presence of “areas of ecological concern” by querying the Protected Areas of the US Database, National Park Service Wild and Scenic Rivers, and City of Columbus GIS data regarding parks. A recreational area, known as Three Creeks Metropark, was at the eastern limit of the 5-mile radius search area. No other areas of ecological concern were identified within the 5-mile radius.

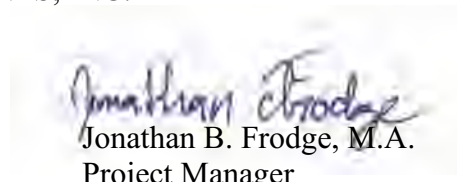
If you have any questions or need other information, please contact Jon Frodge at 513-985-0226 or e-mail at jfrodge@cecinc.com.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Mel H. Simkins
Assistant Project Manager



Jonathan B. Frodge, M.A.
Project Manager

Attachments: Figure 1 – Viewshed Analysis Topographic Map
Figure 2 – Viewshed Analysis Results Map
Attachment A – NRHP Resources within 5-mile Viewshed Tables

P:\300-000\303-966\Final Documents\Task 0050 - OPSB\Viewshed_Analysis\303-966.0050 Viewshed Analysis Results Memo.docx



FIGURES



NORTH



LEGEND

 Project Area  Viewshed Analysis Study Area (5-mile)

1,000 0 1,000 2,000
Feet



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FRANKLIN COUNTY, OHIO

VIEWSHED ANALYSIS TOPOGRAPHIC MAP


DRAWN BY:	MHS	CHECKED BY:	JBF	APPROVED BY:	JBF*	FIGURE NO:	1-A1
DATE:	17 MAR 2023	DWG SCALE:	1" = 2,000'	PROJECT NO:	303-966		



NORTH



LEGEND

 Project Area  Viewshed Analysis Study Area (5-mile)

1,000 0 1,000 2,000
Feet



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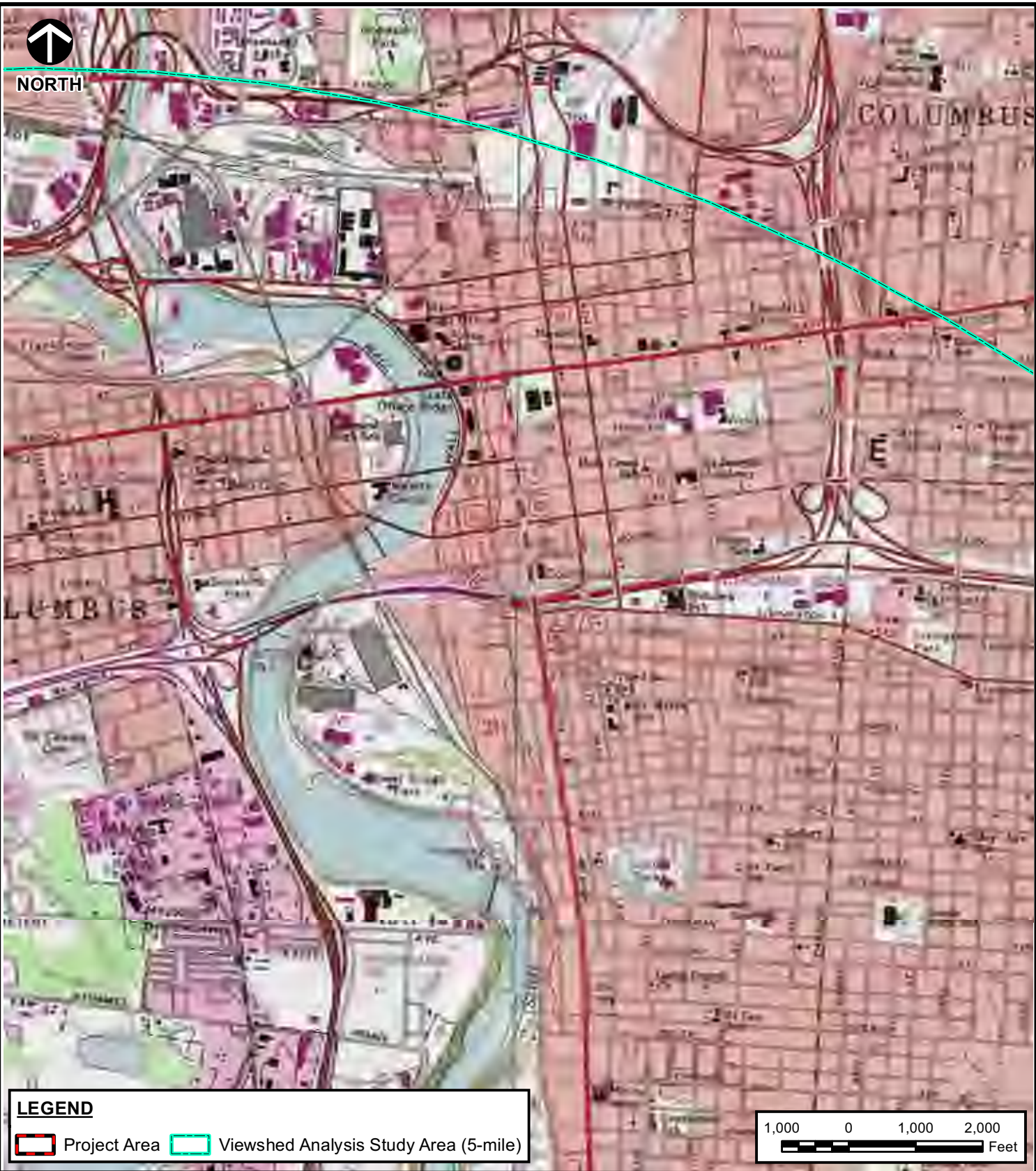
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FRANKLIN COUNTY, OHIO

VIEWSHED ANALYSIS TOPOGRAPHIC MAP

DRAWN BY:	MHS	CHECKED BY:	JBFB	APPROVED BY:	JBFB*	FIGURE NO:	1-A2
DATE:	17 MAR 2023	DWG SCALE:	1" = 2,000'	PROJECT NO:	303-966		

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VIEWSHED ANALYSIS TOPOGRAPHIC MAP



DRAWN BY:	MHS	CHECKED BY:	JBF	APPROVED BY:	JBF*	FIGURE NO:	1-A3
DATE:	17 MAR 2023	DWG SCALE:	1" = 2,000'	PROJECT NO:	303-966		



NORTH



LEGEND

 Project Area  Viewshed Analysis Study Area (5-mile)

1,000 0 1,000 2,000
Feet



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MHS

CHECKED BY:

JBF

APPROVED BY:

JBF*

FIGURE NO:

DATE:

17 MAR 2023

DWG SCALE:

1" = 2,000'

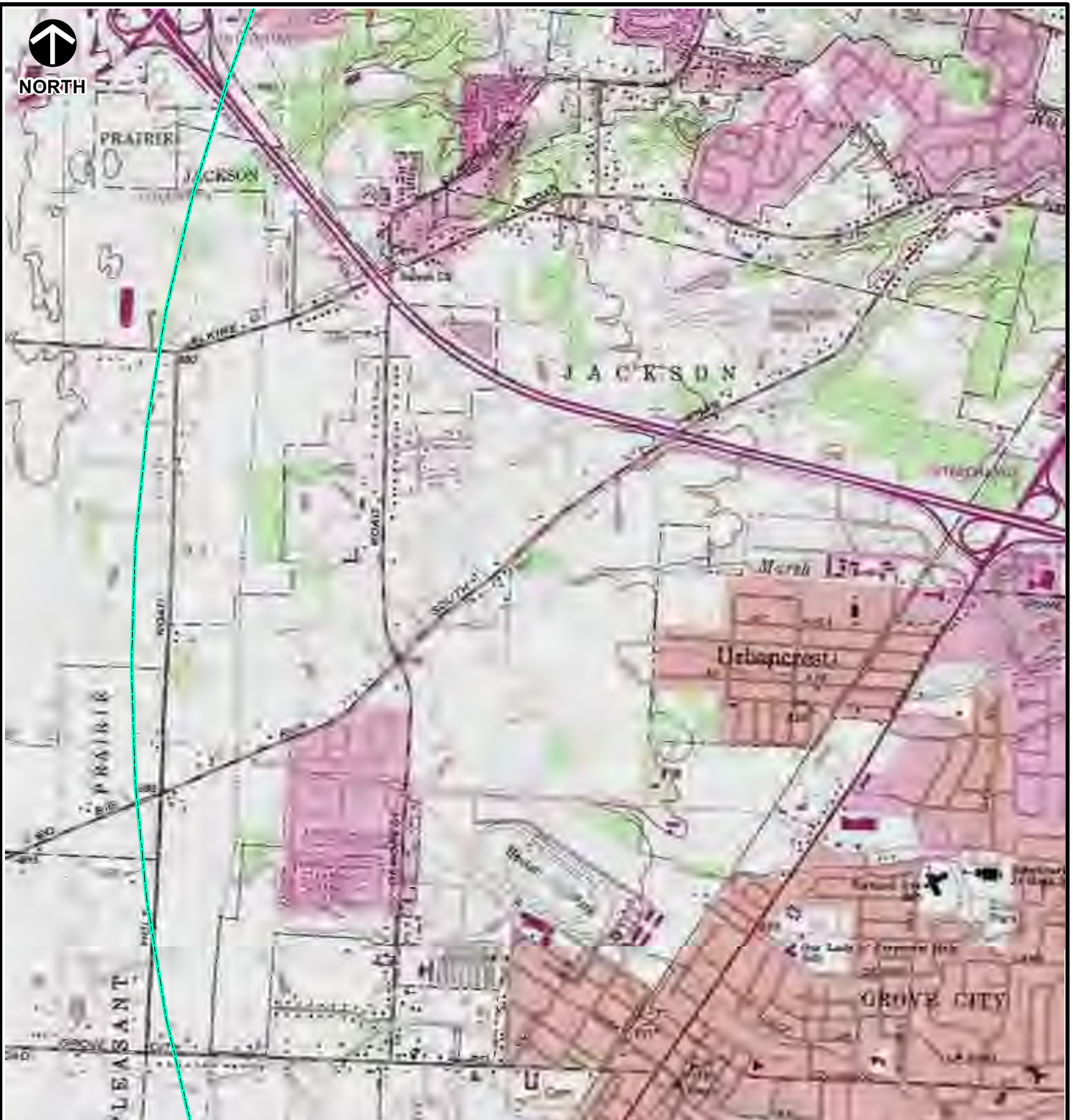
PROJECT NO:

303-966

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NORTH



LEGEND

 Project Area Viewshed Analysis Study Area (5-mile)

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Feet



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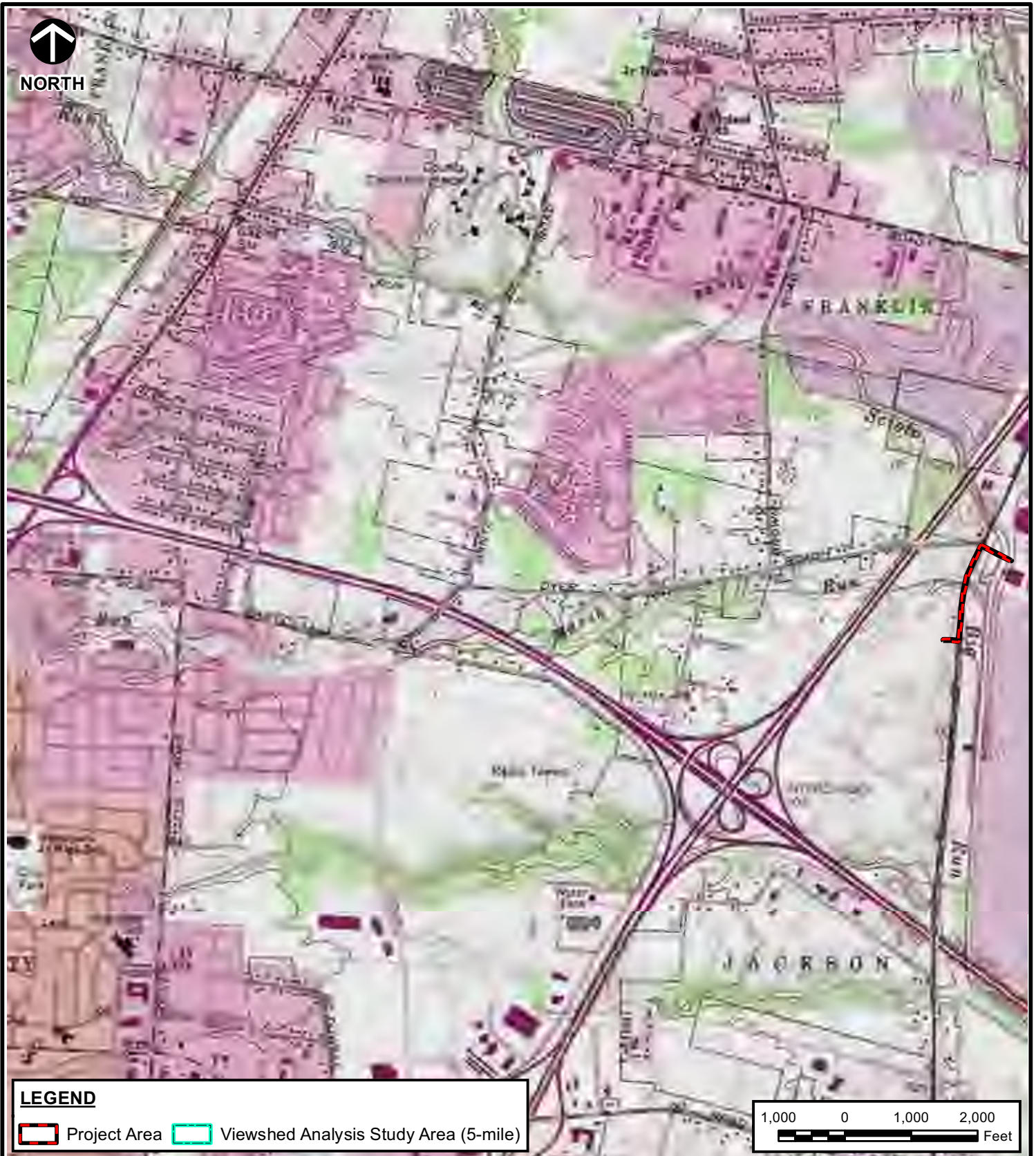
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DATE:	17 MAR 2023	DWG SCALE:	1" = 2,000'	PROJECT NO:	303-966		



NORTH



LEGEND

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Feet



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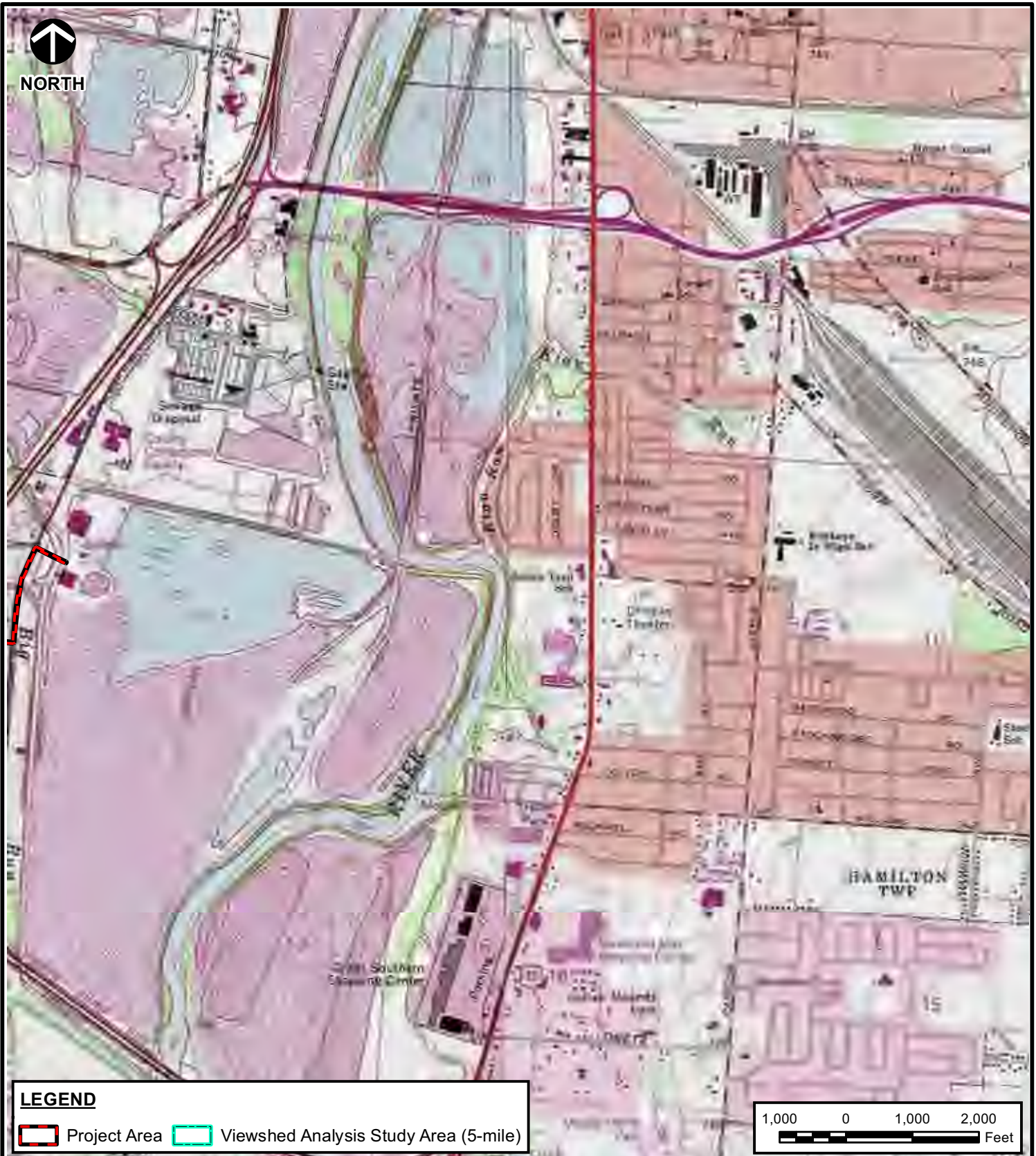
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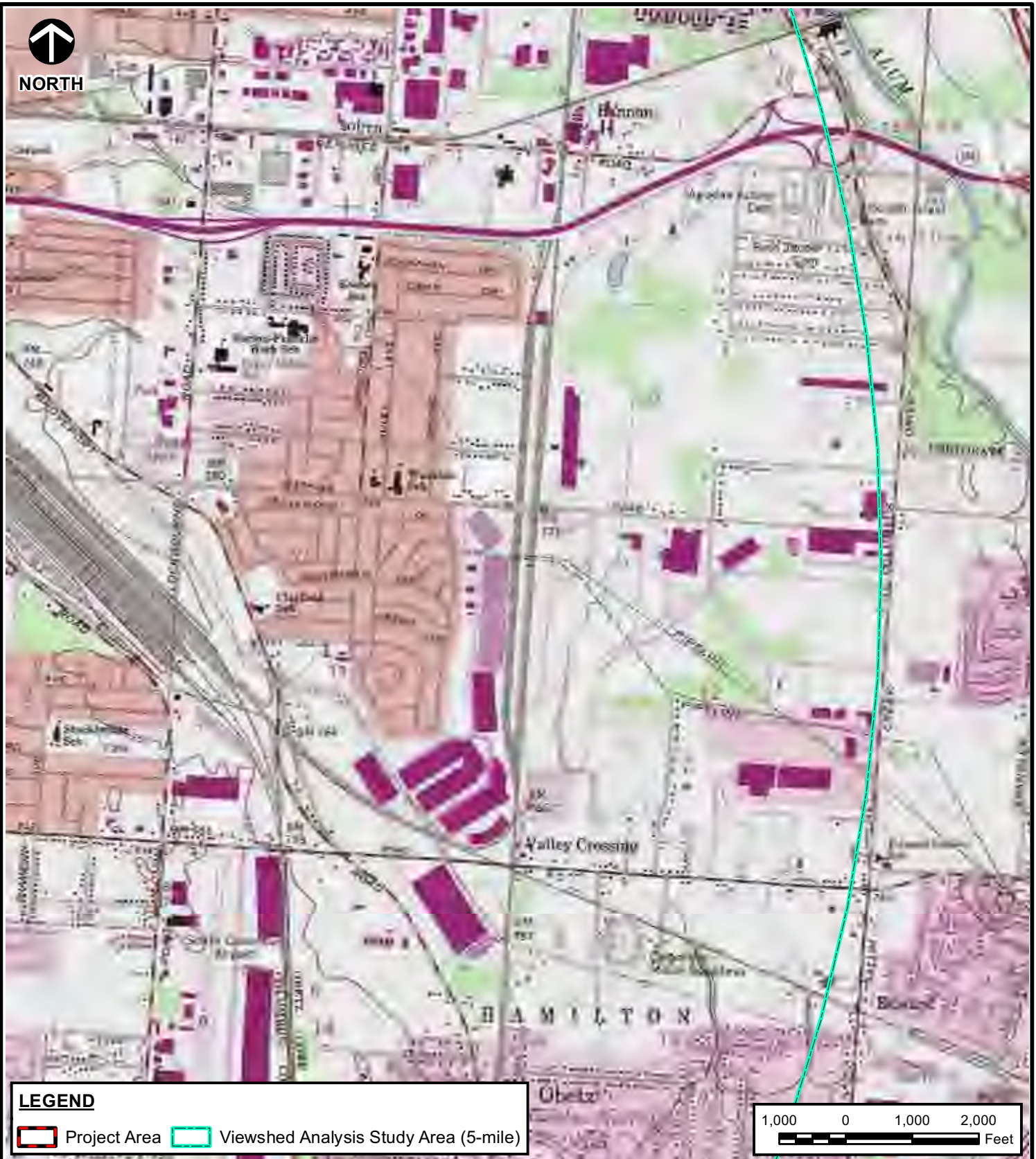
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Project Area Viewshed Analysis Study Area (5-mile)



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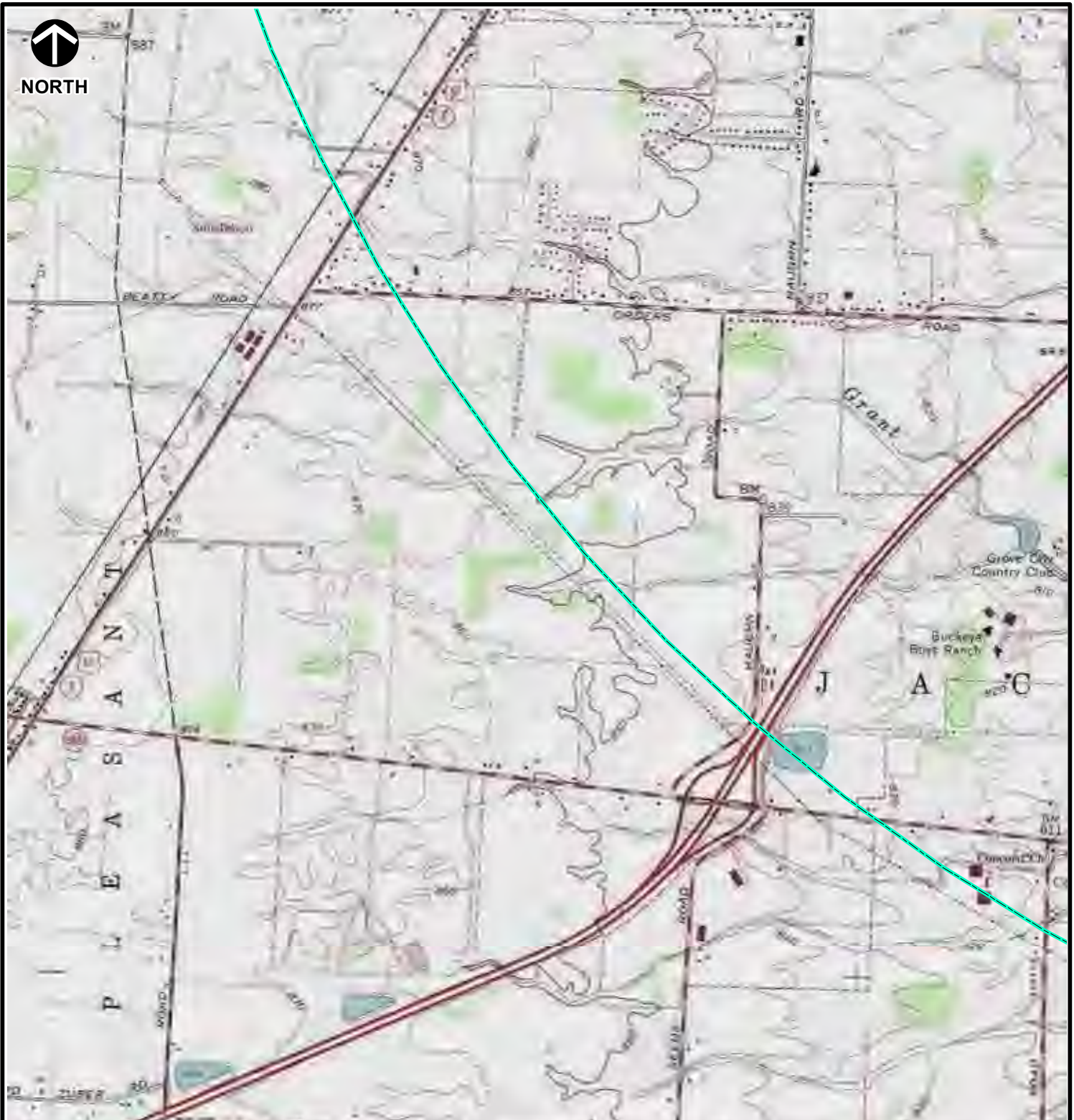
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NORTH



LEGEND

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1,000 0 1,000 2,000
Feet



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NORTH



LEGEND

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1,000 0 1,000 2,000
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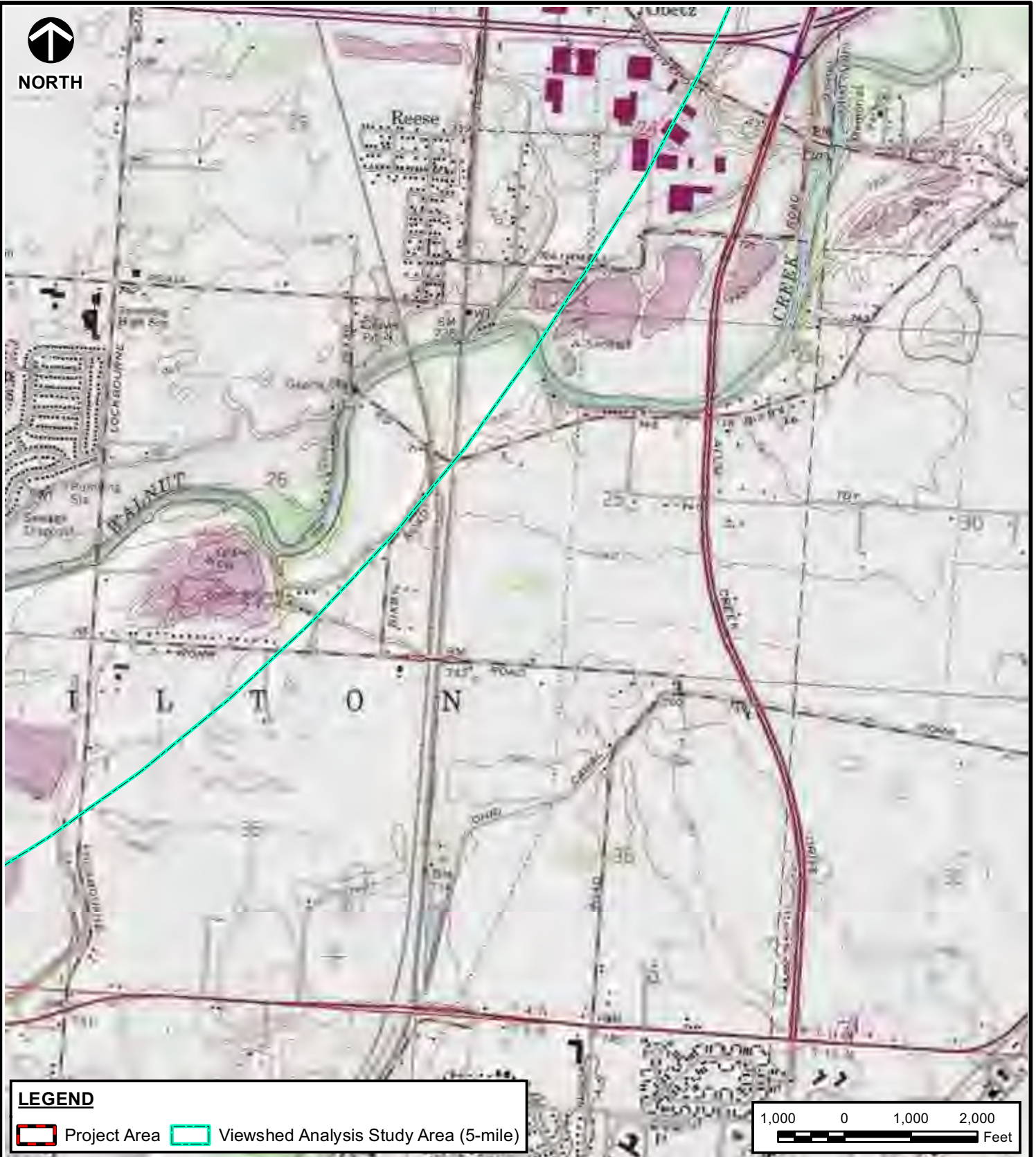
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NORTH



LEGEND

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1,000 0 1,000 2,000
Feet



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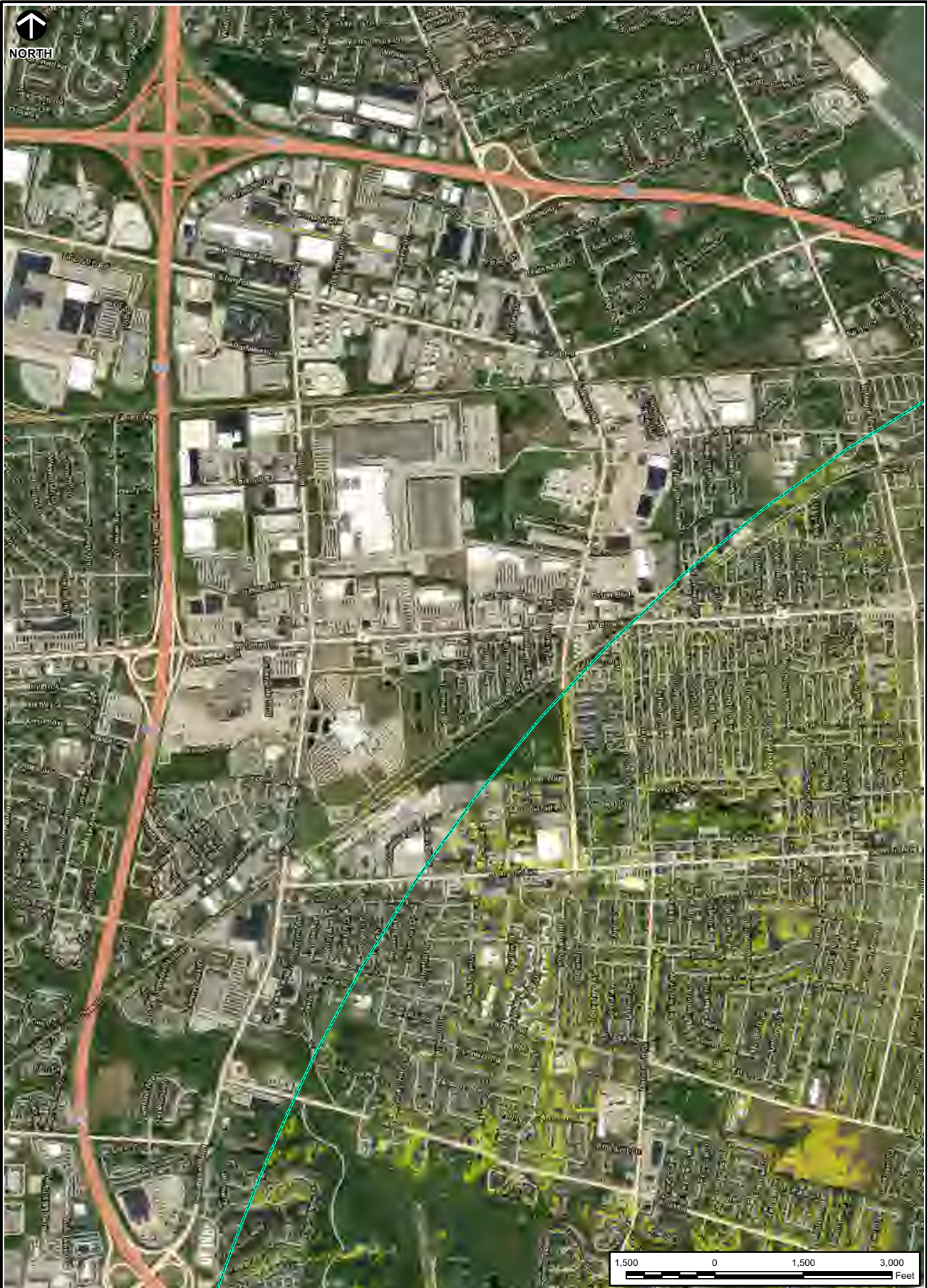
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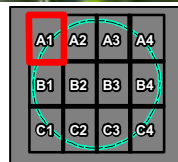
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LEGEND

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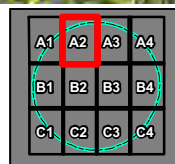
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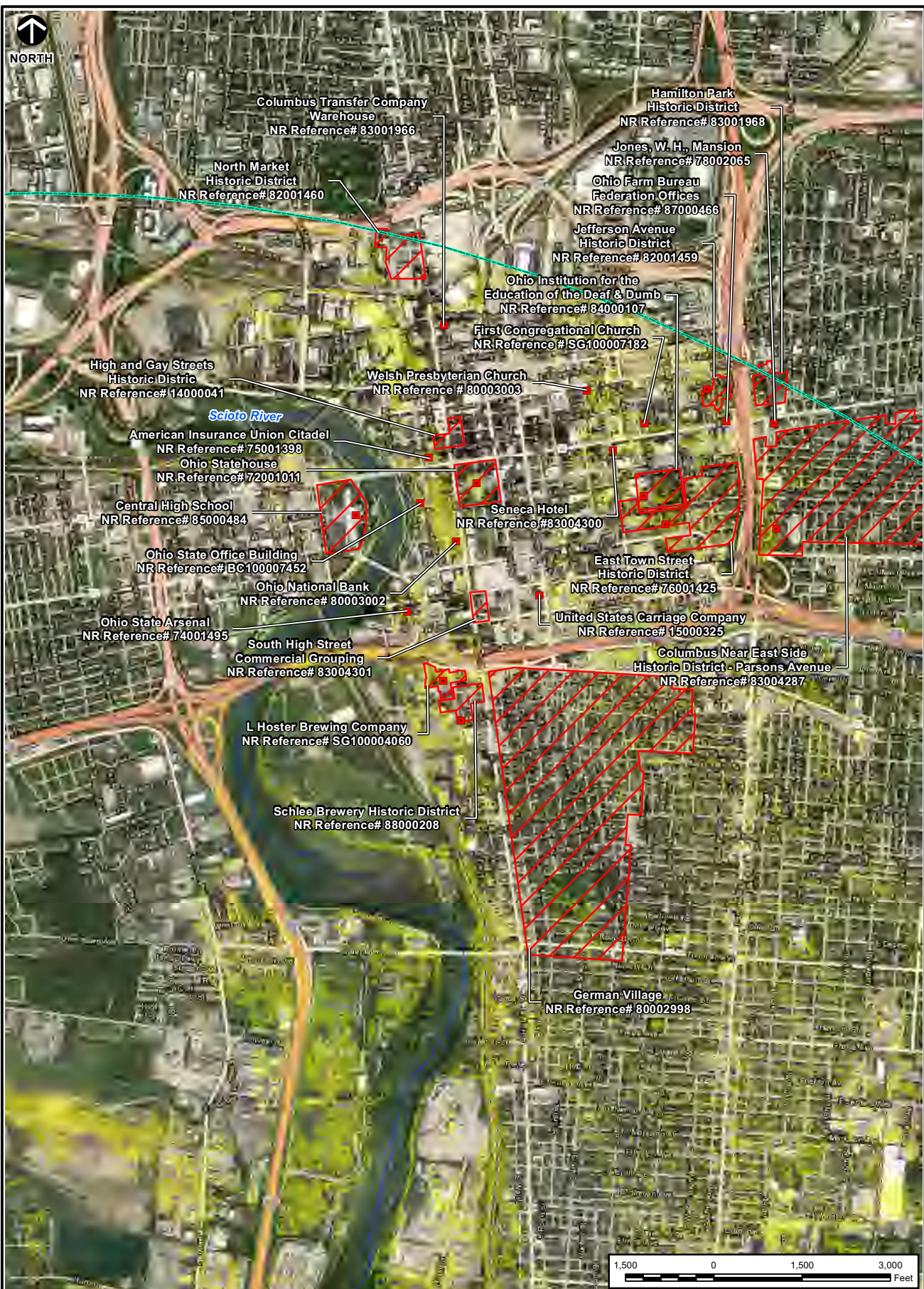


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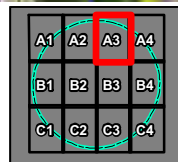
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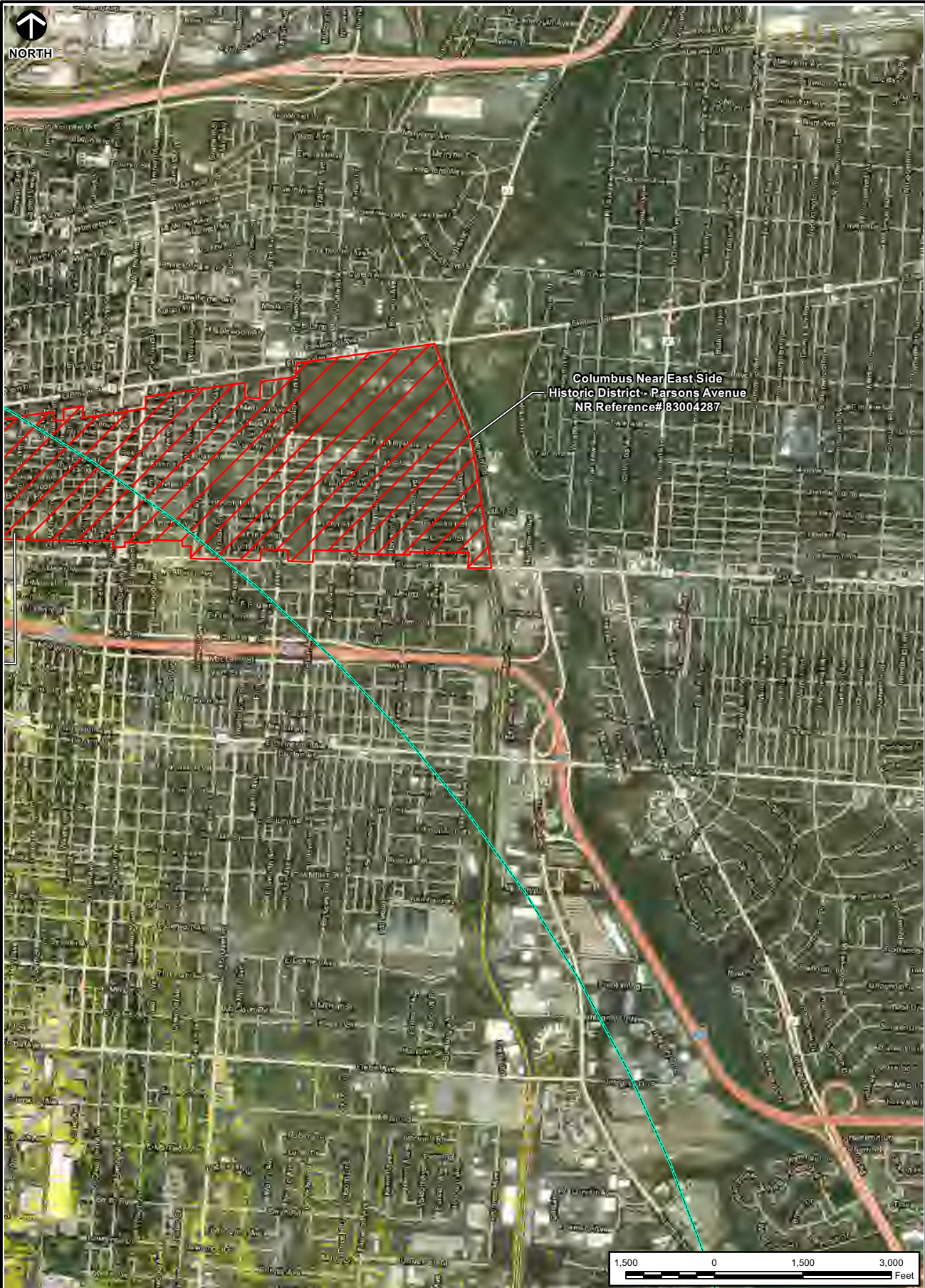
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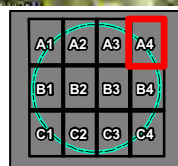
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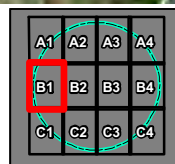
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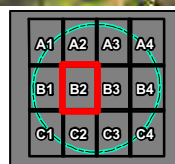
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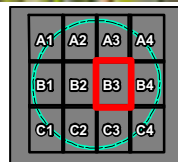
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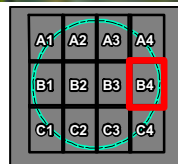
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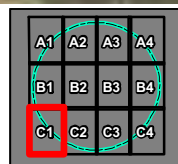
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SOURCES: ESRI WORLD IMAGERY / ARCGIS MAP SERVICE / IMAGERY DATE: 2022.

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B1	B2	B3	B4
C1	C2	C3	C4

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 PROJECT NO: 303-966



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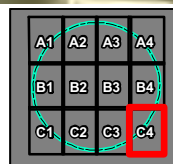
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2-C4

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ATTACHMENT A

NRHP RESOURCES WITHIN 5-MILE RADIUS TABLES

TABLE 1: National Register of Historic Places - Visible from Project within 5-Miles

FIGURE NUMBER	NR REFERENCE NUMBER	RESOURCE NAME	STREET ADDRESS	CITY	ZIP CODE	NATIONAL REGISTER STATUS	CULTURAL FUNCTION	ARCHITECTURAL STYLE	SIGNIFICANCE PERIOD
A3	87000466	Ohio Farm Bureau Federation Offices	620 & 630 E Broad St	Columbus	43215	Listed in the National Register	COMMERCE/TRADE	Second Empire	1871-1872, 1928
A3	72001011	Ohio Statehouse	SEC High & Broad Sts	Columbus	43215	Designated National Landmark	GOVERNMENT: GOVERNMENT	Greek Revival	1839-1861
A3	80003002	Ohio National Bank	167 S High St	Columbus	43215	Listed in the National Register	COMMERCE/TRADE	Classical Revival	1900-1930
A3	85000484	Central High School	75 S Washington Blvd	Columbus	43215	Listed in the National Register	VACANT/NOT IN USE	Classical Revival	1900-1935
A3	76001425	East Town Street Historic District	Roughly bounded by Grant & Franklin Aves, Lester Dr, & E Rich St	Columbus	43215	Listed in the National Register	DOMESTIC, COMMERCE/TRADE	Italianate, Second Empire, Queen Anne	1800-1926
A3	75001398	American Insurance Union Citadel	50 W Broad St	Columbus	43215	Listed in the National Register	COMMERCE/TRADE	Art Deco, Other, Late 19th and Early 20th Century American Movements	1926
A3	78002065	Jones, W. H., Mansion	731 E Broad St	Columbus	43205	Listed in the National Register	DOMESTIC, COMMERCE/TRADE	Late Victorian	1800-1899
A3	83001966	Columbus Transfer Company Warehouse	55 Nationwide Blvd	Columbus	43215	Listed in the National Register	VACANT/NOT IN USE	No Style Listed	1800-1933
A3	79001840	Thurber, James, House	77 Jefferson Ave	Columbus	43215	Listed in the National Register	VACANT/NOT IN USE	No Style Listed	1800-1899
A3	80003003	Welsh Presbyterian Church	315 E Long St	Columbus	43215	Listed in the National Register	COMMERCE/TRADE	Romanesque	1800-1899
A3	84000107	Ohio Institution for the Education of the Deaf & Dumb	408 E Town St	Columbus	43215	Listed in the National Register	VACANT/NOT IN USE	No Style Listed	1800-1899
A3	SG100007182	First Congregational Church	444 E Broad St	Columbus	43215	Listed in the National Register		Late Gothic Revival	1931-1972
A3	SG100004060	L Hoster Brewing Company	477 Front St	Columbus	43215	Listed in the National Register		Romanesque, Queen Anne	c1885-1920
A3	83004300	Seneca Hotel	361 E Broad St	Columbus	43215	Listed in the National Register	COMMERCE/TRADE, GOVERNMENT: GOVERNMENT	Late 19th and 20th Century Revivals, Other	1900-1933
A3	74001495	Ohio State Arsenal	139 W Main St	Columbus	43215	Listed in the National Register	DEFENSE	Italianate	19th century
A3	73001436	Ohio Asylum for the Blind	240 Parsons Ave	Columbus	43205	Listed in the National Register	GOVERNMENT: GOVERNMENT	Second Empire	19th century
A3	BC100007452	Ohio State Office Building (+Boundary Increase)	65 S Front St	Columbus	43215	Listed in the National Register	GOVERNMENT: GOVERNMENT	Art Deco, Modern Movement	1931-1965
A3	09000442	Born Capital Brewery Bottling Works	570 S Front St	Columbus	43215	Listed in the National Register		Romanesque	c1895-c1920
A3	15000325	United States Carriage Company	309-319 S 4th St	Columbus	43215	Listed in the National Register		Late 19th and Early 20th Century American Movements	1902-1935
B2	79001842	Gantz Homestead	2233 Gantz Rd	Grove City	43123	Listed in the National Register	VACANT/NOT IN USE	No Style Listed	1800-1899
C3	74001492	Hartman Stock Farm Historic District (DELISTED)	S of Columbus on US 23	Columbus	43137	Removed From National Register	DOMESTIC, AGRICULTURE/SUBSISTENCE	Queen Anne	20th century

TABLE 2: National Register of Historic Places (Districts) - Visible from Project within 5-Miles

FIGURE NUMBER	NR REFERENCE NUMBER	DISTRICT NAME	NUMBER OF PROPERTIES
A3	83001968	Hamilton Park Historic District	17
A3	83004301	South High Street Commercial Grouping	9
A3	SG100004060	L Hoster Brewing Company	9
A3	14000041	High and Gay Streets Historic District	18
A3	80002998	German Village (plus Boundary Increase)	1868
A3	88000208	Schlee Brewery Historic District	6
A3	84000107	Ohio Institution for the Education of the Deaf & Dumb	1
A3	76001425	East Town Street Historic District	95
A3	82001459	Jefferson Avenue Historic District	8
A3	85000484	Central High School	1
A3	72001011	Ohio Statehouse	1
A3	82001460	North Market Historic District	15
A3 & A4	83004287	Columbus Near East Side Historic District-Parsons Avenue (+ Boundary Increase)	1909

Appendix C Wetland Delineation Report

**PRELIMINARY JURISDICTIONAL WATERS
DETERMINATION REPORT**

**COLUMBUS SOLAR PARK, LLC
138 kV TRANSMISSION LINE
MODEL LANDFILL SOLAR PROJECT
JACKSON TOWNSHIP, FRANKLIN COUNTY, OHIO**

Prepared For:

**COLUMBUS SOLAR PARK, LLC
400 MARKET INDUSTRIAL PARK, SUITE 32
WAPPINGER FALLS, NY 12590**

Prepared By:

**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
WORTHINGTON, OHIO**

CEC Project 303-966

March 17, 2023



Civil & Environmental Consultants, Inc.

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1.0 INTRODUCTION

This report presents the findings of a Preliminary Jurisdictional Waters Determination (PJWD) conducted on behalf of Columbus Solar Park, LLC (CSP) for an approximately 17-acre site located along State Route 102 (Jackson Pike), Jackson Township, Franklin County, Ohio (the Site). CSP intends to construct a new approximately 0.44-mile 138kV electric transmission line in Jackson Township, Franklin County, Ohio. The proposed 138 kV transmission line will serve to connect a less than 50 MW capacity solar photovoltaic generating facility to an existing substation. The Site is located northwest of the intersection of Interstate 71 and Interstate 270. The proposed transmission line will exit the generating facility, a former landfill, and cross existing overhead utility corridor on the west side of Jackson Pike, and turn north occupying an existing electric utility corridor along the east side of Jackson Pike before turning west to connect with the existing Columbus Power substation owned by the City of Columbus. The proposed monopole transmission line tower structures will replace existing utility line poles and the existing conductor(s) will share the new structures with the new 138 kV conductor. The location of the Site relative to roads and principal surface features is indicated on Figure 1 – Site Location Map.

1.1 PURPOSE

The purpose of the PJWD was to identify and delineate wetlands, streams, and other water features within the Site, and to make preliminary jurisdictional determinations for the identified features.

1.2 SITE CHARACTERISTICS

The approximately 17-acre Site consists of Jackson Pike, industrial and commercial properties, and the closed Model Landfill. Surrounding land uses include industrial and commercial properties, and Interstate 70 and 270. According to Southwest Columbus (1983) U.S. Geological Survey (USGS) topographic quadrangle map (Figure 1 – Site Location Map), land surface elevation on the Site is approximately 720-700 feet above mean sea level (amsl). The approximate Site coordinates are 39.900255° N, -83.026153° W.

The Site is located in the Scioto Big Run watershed (Hydrologic Unit Code [HUC]-12: 050600012302). Drainage from the majority of the Site generally flows north towards Scioto Big Run or Marsh Run. Marsh Run flows into Scioto Big Run. Scioto Big Run flows off-site and generally southeast into the Scioto River, a traditional navigable water (TNW). The Scioto River is located approximately 0.9 aerial miles southeast of the Site.

1.2.1 Existing Non-jurisdictional Ditches

Ditch 1 through Ditch 4 appears to have been constructed in uplands as roadside ditches to capture surface run-off from adjacent Jackson Pike. Based on historical aerial photographs, the absence of stream characteristics, the appearance of continual maintenance in the form of mowing, does not exhibit relatively permanent flow or wetland criteria, and the general absence of established woody vegetation within the ditch, it is CEC's belief that these ditches would meet the definition of a non-jurisdictional roadside ditch.

2.0 METHODS

2.1 OFFICE DATA REVIEW

CEC personnel first reviewed the background sources listed below to establish the Site characteristics that could aid in the identification of possible wetlands and streams. Data from these sources are presented in Figure 2 – Background Environmental Data Map, Appendix A – Soils, and Appendix B – Antecedent Precipitation.

- U.S. Fish & Wildlife Service (UFWS) National Wetlands Inventory (NWI), 2018;
- Soil Survey Geographic (SSURGO) Database for Franklin County, Ohio (U.S. Department of Agriculture, National Resource Conservation Service [USDA, NRCS], 2021a);
- National List of Hydric Soils (USDA, NRCS 2021b);
- National Hydrography Dataset (NHD) streams (U.S. Geological Survey [USGS]);
- Ohio Administrative Code (OAC) 3745-1 Beneficial Use Designations;
- Ohio Environmental Protection Agency (Ohio EPA) Stream Eligibility Web Map;
- Ohio Mussel Survey Protocol (Ohio Department of Natural Resources [ODNR and USFWS], 2020);
- Digital Flood Insurance Rate (D-Firm) Map (Federal Emergency Management Agency [FEMA], 2012); and,
- U.S. Army Corps of Engineers (USACE) Antecedent Precipitation Tool

2.2 SITE RECONNAISSANCE

On October 19, 2021, CEC biologists traversed the Site by foot to identify and delineate wetlands, streams, and other water features (e.g., open water features, swales, ditches, and retention basins) within the Site. On March 1, 2023 CEC biologists re-visited the Site to verify field conditions were similar to the original delineation. CEC biologists confirmed that previously delineation features remained constant with the original delineation and that no new streams, wetlands or other aquatic features were present on the Site. Updated photographs from the 2023 visit are included in Attachment C. The locations and extents of identified water features were recorded using a sub-meter accuracy GPS receiver.

The wetland delineation was based on CEC's professional judgment and interpretation of the routine determination methodology and technical criteria presented in the following documents: *Corps of Engineers Wetlands Delineation Manual* (Corps Manual) (USACE Environmental Laboratory, 1987); *Regional Supplement to the Corps of Engineers Wetland Delineation Manual*:

Midwest, Version 2.0 (Supplement; USACE, 2012); *The National Wetland Plant List, Version 3.4* (USACE, 2018); and, *Field Indicators of Hydric Soils in the United States* (USDA, NRCS, 2018).

Streams were characterized in accordance with the USACE and National Register's regulations defining ephemeral, intermittent, and perennial streams. Stream Ordinary High Water Marks (OHWM) were identified using the definition defined in the Regulatory Guidance Letter No. 05-05, (USACE 2005). The drainage areas of on-site streams were greater than one (1) square mile; therefore the streams were evaluated using Ohio EPA's Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI) (Ohio EPA 2006). The QHEI forms for Stream 1 (Marsh Run) and Stream 2 (Scioto Big Run) are presented in Appendix E.

2.3 PRELIMINARY JURISDICTIONAL DETERMINATIONS

Preliminary jurisdictional determinations for surface water features consider both those regulated by the USACE and the Ohio EPA. Preliminary jurisdictional determinations for identified water features were made using CEC's professional judgment and interpretation of the Jurisdictional Determination Form Instructional Guidebook (USACE, 2007). For the purposes of this report, non-jurisdictional is defined as aquatic features that are not regulated by either the USACE under the provisions of Section 404 of the Clean Water Act (CWA) or the Ohio EPA under the provisions of Section 401 of the CWA. Isolated wetlands do not have a significant nexus to a TNW and are non-jurisdictional features that are regulated by the Ohio EPA.

3.0 RESULTS

3.1 OFFICE DATA REVIEW

3.1.1 National Wetlands Inventory Data

According to NWI database, one NWI features was identified on the Site (Figure 2 – Background Environmental Data Map). One riverine feature, classified as R5UBH, was identified within the Site. This feature corresponds with Marsh Run/Stream 1 and Scioto Big Run/Stream 2.

3.1.2 Site Soils Surveys

Four soil map units are located within the Site (USDA, NRCS 2019a). Three of these units are classified as non-hydric, and one unit is classified as non-hydric with the potential for hydric soil inclusions (USDA, NRCS 2019b). NRCS Hydric Soil Web Survey information is provided in Appendix A.

3.1.3 NHD Streams

NHD data indicates there are two mapped NHD streams within the Site (Figure 2 – Background Environmental Data Map). These features corresponds with Marsh Run/Stream 1 and Scioto Big Run/Stream 2.

3.1.4 Ohio EPA Use Designations

Both Marsh Run/Stream 1 and Scioto Big Run/Stream 2, (Figure 3 – Preliminary Jurisdictional Waters Determination Map) are listed on the Site as having a Warmwater Habitat (WWH) beneficial use designation (Figure 2 – Background Environmental Data Map) per OAC 3745-1-09.

3.1.5 Ohio Stream Eligibility Web Map

Ohio EPA’s [Stream Eligibility Web Map](#) data indicate that the Site falls within an area “eligible” for 401 Certification under the Nationwide Program. Therefore, no further evaluation under Ohio EPA’s Stream Eligibility Determination Process should be required.

3.1.6 Ohio Mussel Survey Protocol

All native mussels are protected in the State of Ohio under Section 1533.324 of the Ohio Revised Code. Federally listed species (FLS) that occur in the State are also protected under the Endangered Species Act (ESA). Marsh Run (Stream 1) has a drainage basin area less than 5 square miles (3.14 square miles). Therefore, the on-site portion of Marsh Run (Stream 1) does not represent potential mussel habitat and mussel surveys are would not be needed. Scioto Big Run (Stream 2) within the Site is listed in the Ohio Mussel Survey Protocol (2020) as a Group 1 stream and has a watershed more than 5mi². Therefore, the portion of Scioto Big Run (Stream 2) on the Site represents potential mussel habitat and a mussel survey would be needed if the on-Site portion were to be impacted. Scioto Big Run (Stream 1) has a drainage basin area of 18.4 square miles.

3.1.7 Floodplain Considerations

The Digital Flood Insurance Rate Map (D-Firm) data dated October 16, 2012 indicates that the Site is entirely located within a mapped 100-year floodplain. Impacts in the floodplain will require coordination with the Franklin County Floodplain Coordinator in accordance with the National Flood Insurance Program (NFIP). A Letter of Map Revision (LOMR-F) was submitted to FEMA requesting the southwestern portion of the Site be removed from the regulatory floodplain (LOMR-F, Oct. 18, 2021, Case No. 22-05-0186A). The floodplain and area pending revision are depicted in Figure 2.

3.1.8 Antecedent Precipitation Tool

Based on the USACE Antecedent Precipitation Tool Version 1.0 (2020), climatic data for the three 30-day periods prior to the October 19, 2021 delineation visit was consistent with normal conditions for the rolling 30-year period. CEC biologists considered this data and used a weight of evidence approach during the delineation field visit to evaluate the site and delineate aquatic feature boundaries. A copy of the Antecedent Precipitation Tool results are included in Appendix B.

3.2 SITE RECONNAISSANCE

The approximate locations of the identified surface water features are shown on the attached Figure 3 – Preliminary Jurisdictional Waters Determination Map. Representative photographs are provided in Appendix C. Wetland determination data forms are provided in Appendix D.

3.2.1 Wetlands

Data was collected from 1 sample point to characterize the representative vegetative communities, hydrologic conditions, and soil composition within the Site. Based on the findings at this sample point, no wetlands were identified. The approximate location of the sample point and wetland is presented in Figure 3 – Preliminary Jurisdictional Waters Determination Map.

3.2.2 Streams

CEC identified two perennial stream channels, Marsh Run (Stream 1) and Scioto Big Run (Stream 2) within the Site. The approximate location of the streams are shown in Figure 3-Preliminary Jurisdictional Waters Determination Map. Photographs of the stream are included in Appendix C. Additional details regarding this resource is provided in Table 1 – Stream Features Summary below.

Marsh Run (Stream 1) is a mapped NHD and NWI stream with a Warm Water Habitat designation. Marsh Run originates off-site from the west and flows beneath Jackson Pike, to its confluence with Scioto Big Run off-site to the east. Stream 1 exhibits perennial flow and is approximately 139 linear feet (LF) in length on-site. The bankfull measurements of the stream channel are generally 17 feet wide and 4.5 feet deep. The OHWM was 15 feet wide and the water depth observed in the pools during the field visit was 8.5 inches deep. The substrate consists predominantly of gravel, sand, boulder, leafy debris, and cobble. The maximum pool depth was approximately 1.4 feet. At the time of the field visit the stream channel was flowing at near base-flow conditions. The QHEI score for Stream 1 is 75, consistent with the Warmwater Habitat aquatic life use designation.

Scioto Big Run (Stream 2) is a mapped NHD and NWI stream with a Warm Water Habitat designation. It is also a Group 1 stream for mussels. Scioto Big Run originates off-site from the northern boundary of the site and flows southeast off-site. Stream 2 exhibits perennial flow and is approximately 611 LF in length on-site. The bankfull measurements of the stream channel are generally 40 feet wide and 3.7 feet deep. The OHWM was 26.5 feet wide and the water depth observed in the pools during the field visit was 5.7 inches deep. The substrate consists predominantly of gravel, sand, and cobble. The maximum pool depth was approximately 5 feet. At the time of the field visit the stream channel was flowing at near base-flow conditions. The QHEI score for Stream 1 is 76, consistent with the Warmwater Habitat aquatic life use designation.

TABLE 1: STREAM FEATURES SUMMARY

Stream ID	Classification	Coordinates (Latitude, Longitude)	Photograph Number(s)	QHEI ¹	Delineated Length (LF)	Delineated Area (ac)
Stream 1/ Marsh Run	Perennial	39.9007, -83.0261	4-6	75	139	0.06
Stream 2/ Scioto Big Run	Perennial	39.9017, -83.0248	7-9	76	611	0.57
Approximate Extent of Streams On-Site					750	0.63

¹Based on the Field Methods for Evaluating Primary Headwater Streams in Ohio (Ohio EPA, 2018)

3.2.3 Other Features

CEC identified four ditches within the Site and previously discussed in Section 1.2.1. The approximate location of the ditches is shown in Figure 3 – Preliminary Jurisdictional Waters Determination Map. Photographs of the ditches are included in Appendix C. Additional details regarding this resource is provided in Table 2 – Other Features Summary below.

Ditch 1 through Ditch 4 appear to have been constructed in uplands as roadside ditches to capture surface run-off from adjacent Jackson Pike. Based on historical aerial photographs, the absence of stream characteristics, the appearance of continual maintenance in the form of mowing, does not exhibit relatively permanent flow or wetland criteria, and the general absence of established woody vegetation within the ditch, it is CEC’s belief that these ditches would meet the definition of a non-jurisdictional roadside ditch.

TABLE 2: OTHER FEATURES SUMMARY

ID	Latitude	Longitude	Photograph Numbers	Delineated Length (LF)
Ditch 1	39.8915	-83.0272	10-11	2,324
Ditch 2	39.8987	-83.0263	12-13	1,432
Ditch 3	39.8958	-83.0265	14-15	77
Ditch 4	39.8915	-83.0270	16-17	495
Approximate Extent of Other features				4,328

4.0 PRELIMINARY WATERS OF THE U.S. DETERMINATION

4.1 PRELIMINARY WATERS OF THE U.S.

The following water features were preliminarily determined to be jurisdictional: Stream 1 and Stream 2. These features appear to have a significant nexus to the Scioto River, a TNW.

4.2 OTHER FEATURES

Ditch 1 through Ditch 4 appear to have been constructed in uplands to drain surface-water runoff from Jackson Pike. Based on historical aerial photographs, the absence of stream characteristics, the appearance of continual maintenance in the form of mowing, and the general absence of established woody vegetation within the ditch, it is CEC's belief that these ditches would meet the definition of a non-jurisdictional ditch.

5.0 REGULATORY CONSIDERATIONS

The USACE and Ohio EPA regulate impacts to jurisdictional waters in the state of Ohio. A permit must be obtained from the USACE under the provisions of Section 404 of the CWA and from the Ohio EPA under the provisions of Section 401 of the CWA prior to discharging dredged or fill material into waters of the U.S. Isolated wetlands in Ohio that do not have a significant nexus to navigable waterways are regulated by the Ohio EPA; therefore, an isolated wetland permit must be obtained from Ohio EPA prior to discharging dredged or fill material into isolated wetlands.

If the USACE confirms that the wetlands on the Site are non-jurisdictional, then any impacts to these areas would require an Isolated Wetlands Permit from Ohio EPA.

If CWA Section 404/401 authorization and/or other federal permits are required for the proposed project, consultation with the USFWS relative to potential affects to the Indiana bat and northern long-eared bat will likely be required pursuant to Section 7 of the Endangered Species Act. Furthermore, consultation with the State Historic Preservation Office may also be required relative to potential effects to resources listed on or eligible for listing on the National Register of Historic Places.

It is the responsibility of any party that intends to discharge dredge or fill material into jurisdictional Waters of the United States (WOTUS) and/or Waters of the State to comply with all applicable regulations.

6.0 CONCLUSIONS

CEC identified the following within the Site:

- Four potentially non-jurisdictional ditches (Ditch 1 through 4), totaling approximately 4,328 LF and;
- Two potentially jurisdictional streams (Marsh Run/Stream 1 and Scioto Big Run/Stream 2), totaling approximately 750 LF (0.63 acres).

Since the USACE has authority to determine and/or verify the geographical boundaries of waters of the United States, this investigation was termed “preliminary” to this point. As requested, CEC will submit a copy of this report to the Huntington District of the USACE for written verification of the findings.

7.0 LEVEL OF CARE

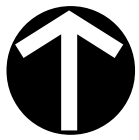
The PJWD services performed by CEC were conducted in a manner consistent with the criteria contained in the Corps Manual and Supplement and with the level of care and skill ordinarily exercised by members of the environmental consulting profession practicing contemporaneously under similar conditions in the locality of the Site. It must be recognized the jurisdictional waters determination was based on field observations and CEC's professional interpretation of the criteria in the Corps Manual at the time of our fieldwork. PJWD reports may change subsequent to CEC's determination based on changes in the regulatory criteria, seasonal variations in hydrology, alterations to drainage patterns and other human activities and/or land disturbances.

8.0 REFERENCES

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FIGURES



NORTH

REFERENCE(S):

USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:
[HTTP://GOTO.ARCGISONLINE.COM/MAPS/
USA_TOPO_MAP](http://gto.arcgis.com/maps/USA_TOPO_MAP), ACCESSED 3/16/2023

USGS 7.5 MINUTE TOPOGRAPHIC MAP:
SOUTHWEST COLUMBUS, OHIO QUADRANGLE
PUBLISHED 1983

Approximate Site
Location
(39.8961260,
-83.0291087)

LEGEND

 Approximate Site Boundary

SCALE IN FEET

0 1,000 2,000 4,000

APPROXIMATE SITE LOCATION



Civil & Environmental Consultants, Inc.

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www.cecinc.com

COLUMBUS SOLAR PARK, LLC
MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO

SITE LOCATION MAP

DRAWN BY:

MAK/WSG

CHECKED BY:

JCD

APPROVED BY:

JBF*

FIGURE NO:

1

DATE:

3/16/2023

SCALE:

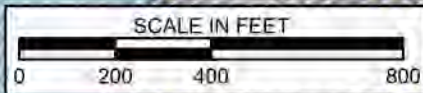
1"=2,000'

PROJECT NO:

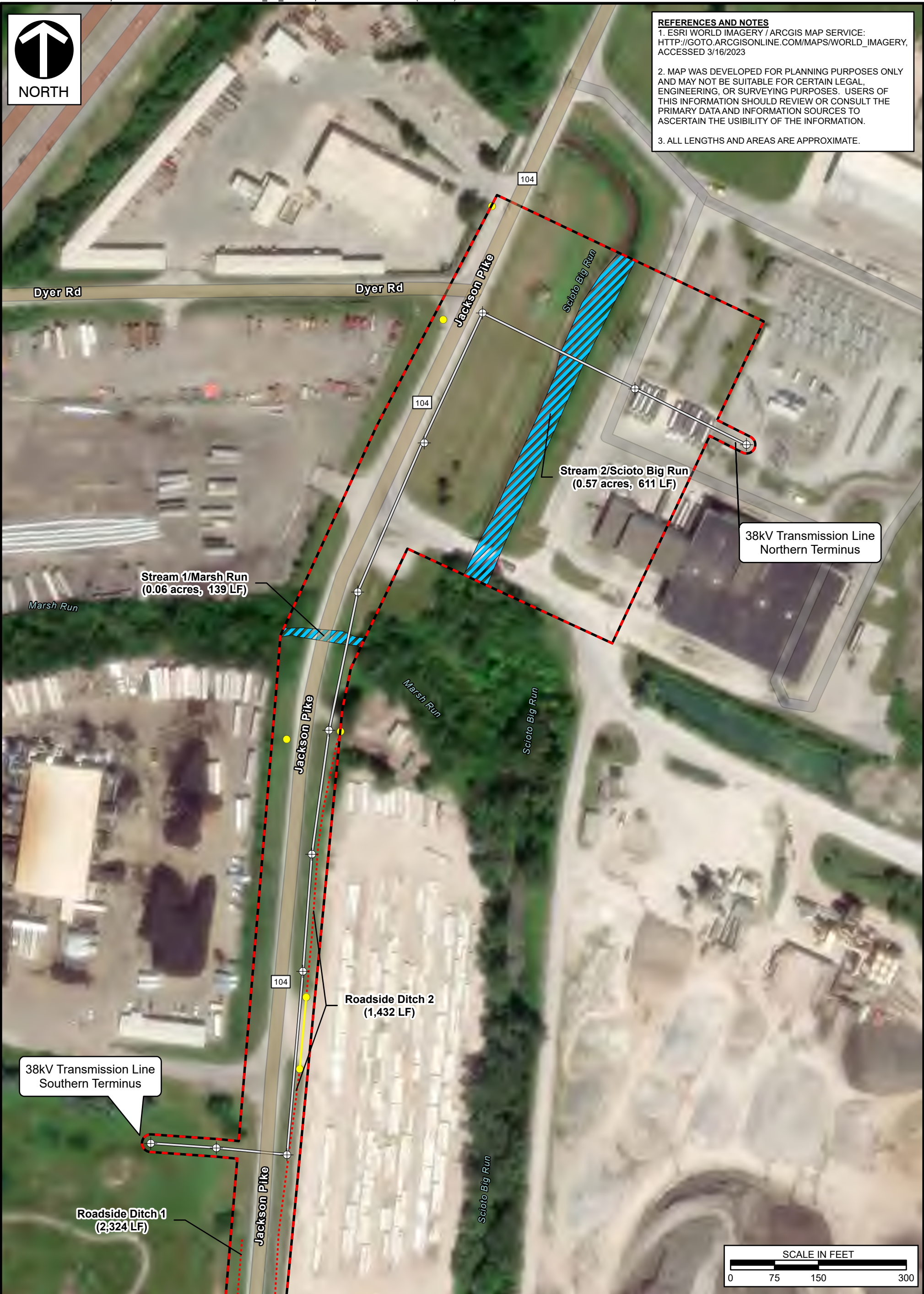
303-966

*Hand Signature on file

7. A REQUEST (LOMR-F) HAS BEEN SUBMITTED TO FEMA TO UPDATE AND REMOVE THE 'FEMA MAP REVISION PENDING' AREA FROM THE FLOODPLAIN (FEMA CASE NO. 22-08-0186A)



<div><div>LEGEND</div><div><div><div></div></div><div>Approximate Site Boundary</div></div><div><div><div></div></div><div>FEMA Map (Floodplain Elevation)</div></div><div><div><div></div></div><div>100-Yr Floodplain</div></div><div><div><div></div></div><div>NWI - Freshwater Forested/Shrub Wetlands</div></div><div><div><div></div></div><div>NWI - Freshwater Pond</div></div><div><div><div></div></div><div>NWI - Lake</div></div><div><div><div></div></div><div>NWI - Riverine</div></div><div><div><div></div></div><div>EPA Use Designation - LRW</div></div><div><div><div></div></div><div>EPA Use Designation - RWH</div></div><div><div><div></div></div><div>NHD Flowline</div></div></div> <div><div><div><div></div></div><div></div></div><div><div>Civil & Environmental Consultants, Inc.</div><div>250 Old Wilson Bridge Road, Suite 250 - Worthington, OH 43085</div><div>614-540-6633 • 866-568-6808</div><div>www.cecinc.com</div></div></div> <div><div><div>COLUMBUS SOLAR PARK, LLC</div><div>MODEL LANDFILL SOLAR PROJECT</div><div>FRANKLIN COUNTY, OHIO</div></div></div>
<div><div><div>DRAWN BY:</div><div>MAR/WSG</div></div><div><div>CHECKED BY:</div><div>JCD</div></div><div><div>APPROVED BY:</div><div>JBF*</div></div><div><div>FIGURE NO.</div><div>2</div></div></div> <div><div><div>DATE:</div><div>11/30/2021</div></div><div><div>SCALE:</div><div>1"=400'</div></div><div><div>PROJECT NO:</div><div>303-966</div></div></div>



LEGEND	
	Approximate Site Boundary
	Overhead Interconnection Path Center Line
	Proposed Structure
	Ditch
	Culvert Line
	Existing Culvert

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www.cecinc.com

DRAWN BY:	MAK/WSG	CHECKED BY:	JCD/MHS
DATE:	3/16/2023	SCALE:	1"=150'

COLUMBUS SOLAR PARK, LLC MODEL LANDFILL SOLAR PROJECT FRANKLIN COUNTY, OHIO	
TRANSMISSION CORRIDOR PRELIMINARY JURISDICTIONAL WATERS DETERMINATION MAP	
APPROVED BY:	JBF*
PROJECT NO:	303-966
FIGURE NO:	3-1



REFERENCES AND NOTES

1. ESRI WORLD IMAGERY / ARCGIS MAP SERVICE:
HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY,
ACCESSED 3/16/2023

2. MAP WAS DEVELOPED FOR PLANNING PURPOSES ONLY
AND MAY NOT BE SUITABLE FOR CERTAIN LEGAL,
ENGINEERING, OR SURVEYING PURPOSES. USERS OF
THIS INFORMATION SHOULD REVIEW OR CONSULT THE
PRIMARY DATA AND INFORMATION SOURCES TO
ASCERTAIN THE USIBILITY OF THE INFORMATION.

3. ALL LENGTHS AND AREAS ARE APPROXIMATE.

LEGEND <div><div><div></div></div><div>Approximate Site Boundary</div></div> <div><div><div></div></div><div>Overhead Interconnection Path Center Line</div></div> <div><div><div></div></div><div>Proposed Structure</div></div> <div><div><div></div></div><div>Ditch</div></div> <div><div><div></div></div><div>Culvert Line</div></div> <div><div><div></div></div><div>Existing Culvert</div></div>	<div><div><div><div></div></div><div>CEL</div><div>Civil & Environmental Consultants, Inc.</div><div>250 Old Wilson Bridge Road, Suite 250 - Worthington, OH 43085</div><div>614-540-6633 · 888-598-6808</div><div>www.cecinc.com</div></div></div>	COLUMBUS SOLAR PARK, LLC MODEL LANDFILL SOLAR PROJECT FRANKLIN COUNTY, OHIO	TRANSMISSION CORRIDOR PRELIMINARY JURISDICTIONAL WATERS DETERMINATION MAP
	DRAWN BY: MAK/WSG	CHECKED BY: JCD/MHS	APPROVED BY: JBF*
DATE: 3/16/2023	SCALE: 1"=150'	PROJECT NO: 303-966	FIGURE NO: 3-2



REFERENCES AND NOTES

1. ESRI WORLD IMAGERY / ARCGIS MAP SERVICE:
HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY,
ACCESSED 3/16/2023

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<div><div>LEGEND</div><div><div><div></div></div> Approximate Site Boundary</div><div><div><div></div></div> Ditch</div><div><div><div></div></div> Existing Culvert</div><div><div><div></div></div> Wetland Determination Sample Point</div></div>	<div><div><div><div></div></div></div><div>Civil & Environmental Consultants, Inc.</div><div>250 Old Wilson Bridge Road, Suite 250 - Worthington, OH 43085</div><div>614-540-6633 · 888-598-6808</div><div>www.cecinc.com</div></div>		<div>COLUMBUS SOLAR PARK, LLC</div> <div>MODEL LANDFILL SOLAR PROJECT</div> <div>FRANKLIN COUNTY, OHIO</div>	
			<div>TRANSMISSION CORRIDOR PRELIMINARY</div> <div>JURISDICTIONAL WATERS DETERMINATION MAP</div>	
	<div>DRAWN BY: MAK/WSG</div> <div>DATE: 3/16/2023</div>	<div>CHECKED BY: JCD/MHS</div> <div>SCALE: 1"=150'</div>	<div>APPROVED BY: JBF*</div> <div>PROJECT NO: 303-966</div>	<div>FIGURE NO:</div> <div>3-3</div>


APPENDIX A
NRCS SOILS REPORT

Hydric Rating by Map Unit—Franklin County, Ohio
(303966_EcoSurveyArea_20211014)









MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available


Soil Rating Lines

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available






Soil Rating Points

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Ohio
Survey Area Data: Version 20, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 4, 2014—Aug 27, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
EID2	Eldean silt loam, 12 to 18 percent slopes, eroded	0	1.1	6.6%
Mh	Medway silt loam, occasionally flooded	5	14.2	83.1%
Up	Udorthents, loamy, rolling	0	0.8	4.6%
Ur	Udorthents, loamy, sloping	0	1.0	5.6%
Totals for Area of Interest			17.1	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

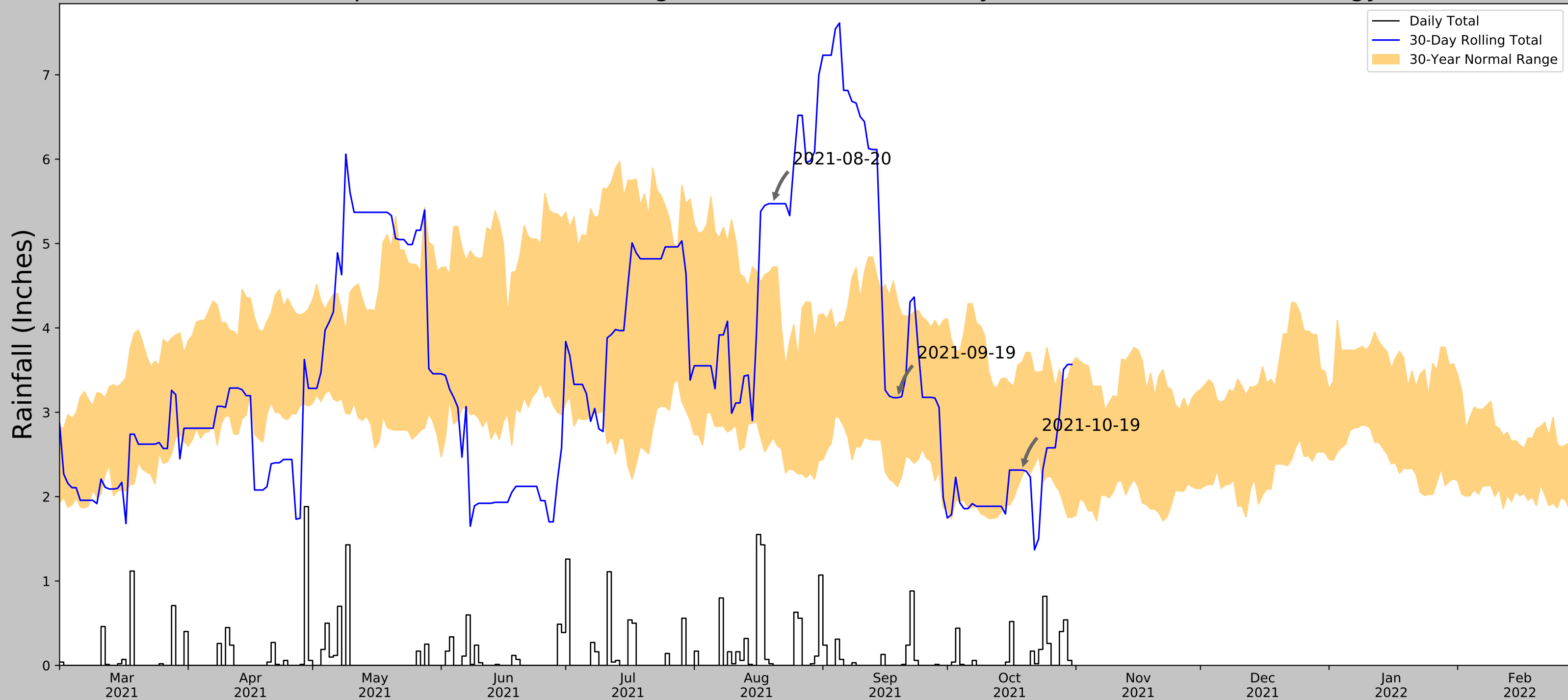
Component Percent Cutoff: None Specified

Tie-break Rule: Lower

APPENDIX B

ANTECEDENT PRECIPITATION TOOL RESULTS

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	39.8984, -83.0259
Observation Date	2021-10-19
Elevation (ft)	701.76
Drought Index (PDSI)	Incipient wetness (2021-09)
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-10-19	2.242126	3.595669	2.314961	Normal	2	3	6
2021-09-19	2.117717	4.31378	3.173228	Normal	2	2	4
2021-08-20	2.699606	4.722441	5.472441	Wet	3	1	3
Result							Normal Conditions - 13



Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
COLUMBUS PORT COLUMBUS INTL AP	39.9914, -82.8808	810.039	10.018	108.279	5.593	11353	90

APPENDIX C
SITE PHOTOGRAPHS



Photograph 1: View of SP-2, facing south.



Photograph 2: Overview of Marsh Run/Stream 1 looking upstream, facing west.



Civil & Environmental Consultants, Inc.
Worthington, Ohio 43085

Phone: 614-540-6633 Toll Free: 888-598-6808

**COLUMBUS SOLAR PARK, LLC
TRANSMISSION CORRIDOR
MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO
CEC PROJECT 303-966**

Photographs Taken On: October 19, 2021 and March 1, 2023



Photograph 3: Overview of Marsh Run/Stream 1 looking downstream, facing southeast.



Photograph 4: Overview of Marsh Run/Stream 1, looking across, facing northeast.



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Photograph 5: View of Marsh Run/Stream 1 substrate.



Photograph 6: Overview of Scioto Big Run/Stream 2 looking upstream, facing northeast.



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Photograph 7: Overview of Scioto Big Run/Stream 2 looking downstream, facing southwest.



Photograph 8: Overview of Scioto Big Run/Stream 2 looking across, facing east.



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Photograph 9: View of Scioto Big Run/Stream 2 substrate.



Photograph 10: Overview of Ditch 1, looking down-gradient, facing north.



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Photograph 11: Overview of Ditch 1, looking up-gradient, facing south.



Photograph 12: Overview of Ditch 2, looking down-gradient, facing north.



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Photograph 13: Overview of Ditch 2, looking up-gradient, facing south.



Photograph 14: Overview of Ditch 3, looking up-gradient, facing south.



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Photograph 15: Overview of Ditch 3, looking down-gradient, facing north.



Photograph 16: Overview of Ditch 4, looking up-gradient, facing north.



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Photograph 17: Overview of Ditch 4, looking down-gradient, facing south.



Photograph 18: Overview of general habitat in the southern portion of the site, facing northwest.



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Photograph 19: Overview of general habitat in the southern portion of the site, facing southeast.



Photograph 20: Overview of general habitat in the south-central portion of the site along Jackson Pike, facing northeast.



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Photographs Taken On: October 19, 2021 and March 1, 2023



Photograph 21: Overview of general habitat in the central portion of the site along Jackson Pike, facing south.



Photograph 22: Overview of general habitat in the northern portion of the site along Jackson Pike, facing north.



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Photographs Taken On: October 19, 2021 and March 1, 2023



Photograph 23: Overview of general habitat in the north-central portion of the site, west of Jackson Pike, facing southeast.



Photograph 24: Overview of general habitat in the northern-central portion of the site along Jackson Pike, facing north.



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Photographs Taken On: October 19, 2021 and March 1, 2023



Photograph 25: Overview of general habitat in the northeast portion of the site, east of Jackson Pike, facing south.



Photograph 26: Overview of general habitat in the northern portion of the site along Jackson Pike, facing southwest.



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Photographs Taken On: October 19, 2021 and March 1, 2023

APPENDIX D

WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: MODEL LANDFILL SOLAR PROJECT City/County: Jackson Township/Franklin Sampling Date: October 29, 2021
 Applicant/Owner: BQ ENERGY, LLC State: OH Sampling Point: SP-2
 Investigator(s): Tyler Gillette Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None

Slope (%): 0 Lat: 39.89308021 Long: -83.02690467 Datum: NAD83

Soil Map Unit Name: Medway silt loam, occasionally flooded NWI classification: None

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

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	
Remarks: SP in roadside ditch along Jackson Pike	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15</u>)			
1. <u>N/A</u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
5. <u> </u>				
		=Total Cover		
Herb Stratum	(Plot size: <u>10</u>)			
1. <u>Poa pratensis</u>		<u>70</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Plantago major</u>		<u>20</u>	<u>Yes</u>	<u>FAC</u>
3. <u>Taraxacum officinale</u>		<u>10</u>	<u>No</u>	<u>FACU</u>
4. <u> </u>				
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
8. <u> </u>				
9. <u> </u>				
10. <u> </u>				
		<u>100</u> =Total Cover		
Woody Vine Stratum	(Plot size: <u>5</u>)			
1. <u>N/A</u>				
2. <u> </u>				
		=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>90</u>	x 3 = <u>270</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>310</u> (B)
Prevalence Index = B/A = <u>3.10</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes X No

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

SOIL

Sampling Point: SP-2

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		
Field Observations:			
Surface Water Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	<input type="text"/>
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	<input type="text" value="2"/>
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches):	<input type="text" value="2"/>
(includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

APPENDIX E
QHEI FORMS

Stream & Location: Stream 1 (Marsh Run)/Tributary to Scioto River RM: Date: 11/12/2021
Tyler Gillette Scorers Full Name & Affiliation: CEC Inc.
River Code: - STORET #: Lat./ Long.: 39.9007402483.02616609 Office verified location ☐

1] **SUBSTRATE** Check ONLY Two substrate TYPE BOXES; estimate % or note every type present

Check ONE (Or 2 & average)

BEST TYPES			OTHER TYPES			ORIGIN			QUALITY		
<input type="checkbox"/>	<input type="checkbox"/>	BLDR /SLABS [10]	<input type="checkbox"/>	<input type="checkbox"/>	HARDPAN [4]	<input type="checkbox"/>	<input type="checkbox"/>	LIMESTONE [1]	<input type="checkbox"/>	<input type="checkbox"/>	HEAVY [-2]
<input type="checkbox"/>	<input type="checkbox"/>	BOULDER [9]	<input type="checkbox"/>	<input type="checkbox"/>	DETRITUS [3]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	TILLS [1]	<input type="checkbox"/>	<input type="checkbox"/>	MODERATE [-1]
<input type="checkbox"/>	<input type="checkbox"/>	COBBLE [8]	<input type="checkbox"/>	<input type="checkbox"/>	MUCK [2]	<input type="checkbox"/>	<input type="checkbox"/>	WETLANDS [0]	<input type="checkbox"/>	<input type="checkbox"/>	NORMAL [0]
<input checked="" type="checkbox"/>	<input type="checkbox"/>	GRAVEL [7]	<input type="checkbox"/>	<input type="checkbox"/>	SILT [2]	<input type="checkbox"/>	<input type="checkbox"/>	HARDPAN [0]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	FREE [1]
<input checked="" type="checkbox"/>	<input type="checkbox"/>	SAND [6]	<input type="checkbox"/>	<input type="checkbox"/>	ARTIFICIAL [0]	<input type="checkbox"/>	<input type="checkbox"/>	SANDSTONE [0]	<input type="checkbox"/>	<input type="checkbox"/>	EXTENSIVE [-2]
<input type="checkbox"/>	<input type="checkbox"/>	BEDROCK [5]	(Score natural substrates; ignore)			<input type="checkbox"/>	<input type="checkbox"/>	RIP/RAP [0]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MODERATE [-1]
						<input type="checkbox"/>	<input type="checkbox"/>	LACUSTURINE [0]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NORMAL [0]
						<input type="checkbox"/>	<input type="checkbox"/>	SHALE [-1]	<input type="checkbox"/>	<input type="checkbox"/>	NONE [1]
						<input type="checkbox"/>	<input type="checkbox"/>	COAL FINES [-2]			

NUMBER OF BEST TYPES: ☒ 4 or more [2] sludge from point-sources) ☐ 3 or less [0]

Comments

2] **INSTREAM COVER** Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

AMOUNT

Check ONE (Or 2 & average)

<u>1</u> UNDERCUT BANKS [1]	<u>2</u> POOLS > 70cm [2]	<u>0</u> OXBOWS, BACKWATERS [1]	<input type="checkbox"/>	<input type="checkbox"/>	EXTENSIVE >75% [11]
<u>2</u> OVERHANGING VEGETATION [1]	<u>1</u> ROOTWADS [1]	<u>1</u> AQUATIC MACROPHYTES [1]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MODERATE 25-75% [7]
<u>0</u> SHALLOWS (IN SLOW WATER) [1]	<u>2</u> BOULDERS [1]	<u>2</u> LOGS OR WOODY DEBRIS [1]	<input type="checkbox"/>	<input type="checkbox"/>	SPARSE 5-<25% [3]
<u>1</u> ROOTMATS [1]			<input type="checkbox"/>	<input type="checkbox"/>	NEARLY ABSENT <5% [1]

Comments

Cover
Maximum
20

19

3] **CHANNEL MORPHOLOGY** Check ONE in each category (Or 2 & average)

SINUOSITY	DEVELOPMENT	CHANNELIZATION	STABILITY
<input type="checkbox"/> HIGH [4]	<input type="checkbox"/> EXCELLENT [7]	<input checked="" type="checkbox"/> NONE [6]	<input type="checkbox"/> HIGH [3]
<input type="checkbox"/> MODERATE [3]	<input checked="" type="checkbox"/> GOOD [5]	<input checked="" type="checkbox"/> RECOVERED [4]	<input checked="" type="checkbox"/> MODERATE [2]
<input checked="" type="checkbox"/> LOW [2]	<input type="checkbox"/> FAIR [3]	<input type="checkbox"/> RECOVERING [3]	<input type="checkbox"/> LOW [1]
<input type="checkbox"/> NONE [1]	<input type="checkbox"/> POOR [1]	<input type="checkbox"/> RECENT OR NO RECOVERY [1]	

Comments

Channel
Maximum
20

14

4] **BANK EROSION AND RIPARIAN ZONE** Check ONE in each category for EACH BANK (Or 2 per bank & average)

River right looking downstream

EROSION		RIPARIAN WIDTH		FLOOD PLAIN QUALITY	
<input type="checkbox"/> NONE / LITTLE [3]	<input checked="" type="checkbox"/> MODERATE [2]	<input type="checkbox"/> WIDE > 50m [4]	<input checked="" type="checkbox"/> MODERATE 10-50m [3]	<input type="checkbox"/> FOREST, SWAMP [3]	<input checked="" type="checkbox"/> SHRUB OR OLD FIELD [2]
<input checked="" type="checkbox"/> MODERATE [2]	<input type="checkbox"/> HEAVY / SEVERE [1]	<input type="checkbox"/> NARROW 5-10m [2]	<input type="checkbox"/> VERY NARROW < 5m [1]	<input type="checkbox"/> RESIDENTIAL, PARK, NEW FIELD [1]	<input checked="" type="checkbox"/> FENCED PASTURE [1]
<input type="checkbox"/> HEAVY / SEVERE [1]		<input type="checkbox"/> NONE [0]		<input type="checkbox"/> OPEN PASTURE, ROWCROP [0]	<input type="checkbox"/> CONSERVATION TILLAGE [1]
					<input checked="" type="checkbox"/> URBAN OR INDUSTRIAL [0]
					<input checked="" type="checkbox"/> MINING / CONSTRUCTION [0]

Comments

Indicate predominant land use(s)
past 100m riparian.

Riparian
Maximum
10

5

5] **POOL / GLIDE AND RIFFLE / RUN QUALITY**

MAXIMUM DEPTH

Check ONE (ONLY!)

☐ > 1m [6]
☐ 0.7-<1m [4]
☒ 0.4-<0.7m [2]
☐ 0.2-<0.4m [1]
☐ < 0.2m [0]

CHANNEL WIDTH

Check ONE (Or 2 & average)

☐ POOL WIDTH > RIFFLE WIDTH [2]
☒ POOL WIDTH = RIFFLE WIDTH [1]
☒ POOL WIDTH < RIFFLE WIDTH [0]

CURRENT VELOCITY

Check ALL that apply

☐ TORRENTIAL [-1] ☒ SLOW [1]
☐ VERY FAST [1] ☐ INTERSTITIAL [-1]
☒ FAST [1] ☐ INTERMITTENT [-2]
☒ MODERATE [1] ☐ EDDIES [1]

Indicate for reach - pools and riffles.

Recreation Potential

Primary Contact

Secondary Contact

(circle one and comment on back)

Comments

Pool /
Current
Maximum
12

6

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:

Check ONE (Or 2 & average).

☐ NO RIFFLE [metric=0]

RIFFLE DEPTH	RUN DEPTH	RIFFLE / RUN SUBSTRATE	RIFFLE / RUN EMBEDDEDNESS
<input type="checkbox"/> BEST AREAS > 10cm [2]	<input type="checkbox"/> MAXIMUM > 50cm [2]	<input checked="" type="checkbox"/> STABLE (e.g., Cobble, Boulder) [2]	<input checked="" type="checkbox"/> NONE [2]
<input checked="" type="checkbox"/> BEST AREAS 5-10cm [1]	<input checked="" type="checkbox"/> MAXIMUM < 50cm [1]	<input type="checkbox"/> MOD. STABLE (e.g., Large Gravel) [1]	<input type="checkbox"/> LOW [1]
<input type="checkbox"/> BEST AREAS < 5cm [metric=0]		<input type="checkbox"/> UNSTABLE (e.g., Fine Gravel, Sand) [0]	<input type="checkbox"/> MODERATE [0]
			<input type="checkbox"/> EXTENSIVE [-1]

Comments

Riffle /
Run
Maximum
8

6

6] **GRADIENT** (45 ft/mi) ☐ VERY LOW - LOW [2-4]
DRAINAGE AREA (3.14 mi²) ☐ MODERATE [6-10]
☒ HIGH - VERY HIGH [10-6]

%POOL: 40 %GLIDE: 0
%RUN: 30 %RIFFLE: 30

Gradient
Maximum
10

8

AJ SAMPLED REACH

Check ALL that apply

METHOD

- ☐ BOAT
☒ WADE
☐ L. LINE
☐ OTHER

STAGE

1st -sample pass- 2nd

- ☐ HIGH
☐ UP
☒ NORMAL
☐ LOW
☐ DRY

DISTANCE

- ☐ 0.5 Km
☐ 0.2 Km
☐ 0.15 Km
☐ 0.12 Km
☒ OTHER

meters

CANOPY

- ☐ > 85%- OPEN
☐ 55%-<85%
☐ 30%-<55%
☒ 10%-<30%
☐ <10%- CLOSED

CLARITY

1st --sample pass-- 2nd

- ☒ < 20 cm
☐ 20-<40 cm
☐ 40-70 cm
☐ > 70 cm/ CTB
☐ SECCHI DEPTH

BJ AESTHETICS

- ☐ NUISANCE ALGAE
☐ INVASIVE MACROPHYTES
☐ EXCESS TURBIDITY
☐ DISCOLORATION
☐ FOAM / SCUM
☐ OIL SHEEN
☒ TRASH / LITTER
☐ NUISANCE ODOR
☐ SLUDGE DEPOSITS
☐ CSOs/SSOs/OUTFALLS

DJ MAINTENANCE

- PUBLIC / PRIVATE / BOTH NA
ACTIVE / HISTORIC / BOTH NA
YOUNG SUCCESSION OLD
SPRAY / SNAG / REMOVED
MODIFIED / DIPPED OUT NA
LEVEED / ONE SIDED
RELOCATED / CUTOFFS
MOVING-BEDLOAD STABLE
ARMOURED / SLUMPS
ISLANDS / SCoured
IMPOUNDED / DESICCATED
FLOOD CONTROL / DRAINAGE

Circle some & COMMENT

EJ ISSUES

- WWTP / CSO / NPDES / INDUSTRY
HARDENED URBAN / DIRT&GRIME
CONTAMINATED / LANDFILL
BMPs-CONSTRUCTION-SEDIMENT
LOGGING / IRRIGATION / COOLING
BANK EROSION / SURFACE
FALSE BANK / MANURE / LAGOON
WASH H₂O / TILE / H₂O TABLE
ACID / MINE / QUARRY / FLOW
NATURAL / WETLAND / STAGNANT
PARK / GOLF / LAWN / HOME
ATMOSPHERE / DATA PAUCITY

FJ MEASUREMENTS

- \bar{x} width
 \bar{x} depth
max. depth
 \bar{x} bankfull width
bankfull \bar{x} depth
W/D ratio
bankfull max. depth
floodprone x^2 width
entrench. ratio

Legacy Tree:

CJ RECREATION

AREA DEPTH

POOL: ☐ >100ft² ☐ >3ft

Stream Drawing:



Stream & Location: Stream 2 (Scioto Big Run)/Tributary to Scioto River RM: Date: 11/12 / 2021
 Tyler Gillette Scorers Full Name & Affiliation: CEC Inc.

River Code: - - - - STORET #: Lat./ Long.: / 18 Office verified location ☐

1] **SUBSTRATE** Check **ONLY** Two substrate TYPE BOXES; estimate % or note every type present

Check ONE (Or 2 & average)

BEST TYPES		POOL RIFFLE		OTHER TYPES		POOL RIFFLE		ORIGIN		QUALITY		Substrate 18 Maximum 20
<input type="checkbox"/>	BLDR /SLABS [10]	0%	0%	<input type="checkbox"/>	HARDPAN [4]	0%	0%	<input type="checkbox"/>	LIMESTONE [1]	<input type="checkbox"/>	HEAVY [-2]	
<input type="checkbox"/>	BOULDER [9]	0%	0%	<input type="checkbox"/>	DETRITUS [3]	0%	0%	<input checked="" type="checkbox"/>	TILLS [1]	<input type="checkbox"/>	MODERATE [-1]	
<input checked="" type="checkbox"/>	COBBLE [8]	0%	40%	<input type="checkbox"/>	MUCK [2]	0%	0%	<input type="checkbox"/>	WETLANDS [0]	<input type="checkbox"/>	NORMAL [0]	
<input type="checkbox"/>	GRAVEL [7]	40%	50%	<input type="checkbox"/>	SILT [2]	0%	0%	<input type="checkbox"/>	HARDPAN [0]	<input checked="" type="checkbox"/>	FREE [1]	
<input type="checkbox"/>	SAND [6]	60%	10%	<input type="checkbox"/>	ARTIFICIAL [0]	0%	0%	<input type="checkbox"/>	SANDSTONE [0]	<input type="checkbox"/>	EXTENSIVE [-2]	
<input type="checkbox"/>	BEDROCK [5]	0%	0%	(Score natural substrates; ignore sludge from point-sources)				<input type="checkbox"/>	RIP/RAP [0]	<input type="checkbox"/>	MODERATE [-1]	
								<input type="checkbox"/>	LACUSTURINE [0]	<input type="checkbox"/>	NORMAL [0]	
								<input type="checkbox"/>	SHALE [-1]	<input checked="" type="checkbox"/>	NONE [1]	
								<input type="checkbox"/>	COAL FINES [-2]			

NUMBER OF BEST TYPES: ☐ 4 or more [2] ☒ 3 or less [0]

Comments

2] **INSTREAM COVER** Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

AMOUNT

Check ONE (Or 2 & average)

<u>0</u> UNDERCUT BANKS [1]	<u>3</u> POOLS > 70cm [2]	<u>2</u> OXBOWS, BACKWATERS [1]	<input type="checkbox"/> EXTENSIVE >75% [11]
<u>0</u> OVERHANGING VEGETATION [1]	<u>0</u> ROOTWADS [1]	<u>1</u> AQUATIC MACROPHYTES [1]	<input checked="" type="checkbox"/> MODERATE 25-75% [7]
<u>1</u> SHALLOWS (IN SLOW WATER) [1]	<u>0</u> BOULDERS [1]	<u>2</u> LOGS OR WOODY DEBRIS [1]	<input type="checkbox"/> SPARSE 5-<25% [3]
<u>1</u> ROOTMATS [1]			<input type="checkbox"/> NEARLY ABSENT <5% [1]

Comments

Cover
Maximum
20
17

3] **CHANNEL MORPHOLOGY** Check ONE in each category (Or 2 & average)

SINUOSITY	DEVELOPMENT	CHANNELIZATION	STABILITY
<input type="checkbox"/> HIGH [4]	<input type="checkbox"/> EXCELLENT [7]	<input checked="" type="checkbox"/> NONE [6]	<input type="checkbox"/> HIGH [3]
<input type="checkbox"/> MODERATE [3]	<input checked="" type="checkbox"/> GOOD [5]	<input type="checkbox"/> RECOVERED [4]	<input checked="" type="checkbox"/> MODERATE [2]
<input checked="" type="checkbox"/> LOW [2]	<input type="checkbox"/> FAIR [3]	<input type="checkbox"/> RECOVERING [3]	<input type="checkbox"/> LOW [1]
<input type="checkbox"/> NONE [1]	<input type="checkbox"/> POOR [1]	<input type="checkbox"/> RECENT OR NO RECOVERY [1]	

Comments

Channel
Maximum
20
15

4] **BANK EROSION AND RIPARIAN ZONE** Check ONE in each category for EACH BANK (Or 2 per bank & average)

River right looking downstream

EROSION		RIPARIAN WIDTH		FLOOD PLAIN QUALITY			
<input type="checkbox"/> NONE / LITTLE [3]	<input type="checkbox"/> WIDE > 50m [4]	<input type="checkbox"/> FOREST, SWAMP [3]	<input type="checkbox"/> CONSERVATION TILLAGE [1]				
<input checked="" type="checkbox"/> MODERATE [2]	<input type="checkbox"/> MODERATE 10-50m [3]	<input type="checkbox"/> SHRUB OR OLD FIELD [2]	<input checked="" type="checkbox"/> URBAN OR INDUSTRIAL [0]				
<input type="checkbox"/> HEAVY / SEVERE [1]	<input type="checkbox"/> NARROW 5-10m [2]	<input type="checkbox"/> RESIDENTIAL, PARK, NEW FIELD [1]	<input checked="" type="checkbox"/> MINING / CONSTRUCTION [0]				
	<input checked="" type="checkbox"/> VERY NARROW < 5m [1]	<input type="checkbox"/> FENCED PASTURE [1]					
	<input type="checkbox"/> NONE [0]	<input type="checkbox"/> OPEN PASTURE, ROWCROP [0]					

Comments

Indicate predominant land use(s) past 100m riparian.

Riparian
Maximum
10
3

5] **POOL / GLIDE AND RIFFLE / RUN QUALITY**

MAXIMUM DEPTH

CHANNEL WIDTH

CURRENT VELOCITY

Check ONE (ONLY!)

Check ONE (Or 2 & average)

Check ALL that apply

- ☒ > 1m [6]
☐ 0.7-<1m [4]
☐ 0.4-<0.7m [2]
☐ 0.2-<0.4m [1]
☐ < 0.2m [0]

- ☒ POOL WIDTH > RIFFLE WIDTH [2]
☐ POOL WIDTH = RIFFLE WIDTH [1]
☐ POOL WIDTH < RIFFLE WIDTH [0]

- ☐ TORRENTIAL [-1] ☒ SLOW [1]
☐ VERY FAST [1] ☐ INTERSTITIAL [-1]
☒ FAST [1] ☐ INTERMITTENT [-2]
☒ MODERATE [1] ☒ EDDIES [1]

Indicate for reach - pools and riffles.

Recreation Potential
Primary Contact
Secondary Contact
 (circle one and comment on back)

Comments

Pool /
Current
Maximum
12
12

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:

Check ONE (Or 2 & average).

☐ NO RIFFLE [metric=0]

RIFFLE DEPTH	RUN DEPTH	RIFFLE / RUN SUBSTRATE	RIFFLE / RUN EMBEDDEDNESS
<input type="checkbox"/> BEST AREAS > 10cm [2]	<input type="checkbox"/> MAXIMUM > 50cm [2]	<input checked="" type="checkbox"/> STABLE (e.g., Cobble, Boulder) [2]	<input type="checkbox"/> NONE [2]
<input checked="" type="checkbox"/> BEST AREAS 5-10cm [1]	<input checked="" type="checkbox"/> MAXIMUM < 50cm [1]	<input type="checkbox"/> MOD. STABLE (e.g., Large Gravel) [1]	<input checked="" type="checkbox"/> LOW [1]
<input type="checkbox"/> BEST AREAS < 5cm [metric=0]		<input type="checkbox"/> UNSTABLE (e.g., Fine Gravel, Sand) [0]	<input type="checkbox"/> MODERATE [0]
			<input type="checkbox"/> EXTENSIVE [-1]

Comments

Riffle /
Run
Maximum
8
5

6] **GRADIENT** (71 ft/mi) ☐ VERY LOW - LOW [2-4]
DRAINAGE AREA (18.4 mi²) ☐ MODERATE [6-10]
☒ HIGH - VERY HIGH [10-6]

%POOL: 30 %GLIDE: 0
 %RUN: 60 %RIFFLE: 10

Gradient
Maximum
10
6

AJ SAMPLED REACH

Check ALL that apply

METHOD

- ☐ BOAT
☒ WADE
☐ L. LINE
☐ OTHER

STAGE

- 1st -sample pass- 2nd
☐ HIGH
☐ UP
☒ NORMAL
☐ LOW
☐ DRY

DISTANCE

- ☐ 0.5 Km
☐ 0.2 Km
☐ 0.15 Km
☐ 0.12 Km
☒ OTHER

_____ meters

CANOPY

- ☒ > 85%- OPEN
☐ 55%-<85%
☐ 30%-<55%
☐ 10%-<30%
☐ <10%- CLOSED

CLARITY

- 1st --sample pass-- 2nd
☒ < 20 cm
☐ 20-<40 cm
☐ 40-70 cm
☐ > 70 cm/ CTB
☐ SECCHI DEPTH

1st bottom cm

2nd bottom cm

CJ RECREATION

AREA DEPTH

POOL: ☐ >100ft² ☐ >3ft

BJ AESTHETICS

- ☐ NUISANCE ALGAE
☐ INVASIVE MACROPHYTES
☐ EXCESS TURBIDITY
☐ DISCOLORATION
☐ FOAM / SCUM
☐ OIL SHEEN
☐ TRASH / LITTER
☐ NUISANCE ODOR
☐ SLUDGE DEPOSITS
☐ CSOs/SSOs/OUTFALLS

DJ MAINTENANCE

- PUBLIC / PRIVATE / BOTH / NA
 ACTIVE / HISTORIC / BOTH / NA
 YOUNG / SUCCESSION / OLD
 SPRAY / SNAG / REMOVED
 MODIFIED / DIPPED OUT / NA
 LEVEED / ONE SIDED
 RELOCATED / CUTOFFS
 MOVING-BEDLOAD / STABLE
 ARMoured / SLUMPS
ISLANDS / SCoured
 IMPOUNDED / DESICCATED
 FLOOD CONTROL / DRAINAGE

Circle some & COMMENT

EJ ISSUES

- WWTP / CSO / NPDES / INDUSTRY
 HARDENED / URBAN / DIRT&GRIME
 CONTAMINATED / LANDFILL
 BMPs-CONSTRUCTION-SEDIMENT
 LOGGING / IRRIGATION / COOLING
 BANK / EROSION / SURFACE
 FALSE BANK / MANURE / LAGOON
 WASH H₂O / TILE / H₂O TABLE
 ACID / MINE / QUARRY / FLOW
 NATURAL / WETLAND / STAGNANT
 PARK / GOLF / LAWN / HOME
 ATMOSPHERE / DATA PAUCITY

FJ MEASUREMENTS

- \bar{x} width
 \bar{x} depth
 max. depth
 \bar{x} bankfull width
 bankfull \bar{x} depth
 W/D ratio
 bankfull max. depth
 floodprone x^2 width
 entrench. ratio

Legacy Tree:

Stream Drawing:



Appendix D Agency Consultation

March 20, 2023

Patrice Ashfield
U.S. Fish & wildlife Services
Ohio Ecological Services Field Office
4625 Morse Road
Suite 104
Columbus, OH 43230
Email: ohio@fws.gov

Subject: Threatened and Endangered Species Review Request
Columbus Solar Park, LLC
138kV Transmission Line
Model Landfill Solar Project
Jackson Township, Franklin County, Ohio
CEC Project 303-966.0050

On behalf of BQ Energy, LLC, and its affiliate Columbus Solar Park, LLC (CSP), Civil & Environmental Consultants, Inc. (CEC) requests a U.S. Fish and Wildlife Service (USFWS) Threatened and Endangered Species Review relative to the proposed 138kV electric transmission line corridor located in Franklin County, Ohio. The information provided will be used to support an Ohio Power Siting Board Letter of Notification filing for the proposed electric transmission line.

The approximately 0.44-mile long, 30-foot wide, 1.55-acre transmission line corridor is located along the east side of Jackson Pike in Franklin County, Ohio (herein referred to as the “Project”). The proposed 138 kV transmission line will serve to connect a less than 50 MW capacity solar photovoltaic generating facility to an existing Columbus Power substation owned by the City of Columbus. The proposed transmission line towers will be built so that the existing utility line poles will be removed and the existing circuit will share new poles to be installed as part of the new 138 kV line.

The approximate location of the Project, including coordinates, is shown on the attached topographic map (Figure 1 - Site Location Map). Surrounding land uses include a limestone/aggregate quarry, commercial properties, industrial properties, Jackson Pike, Interstate 71 and Interstate 270.

1.0 PRELIMINARY JURISDICTIONAL WATERS DELINEATION

CEC performed a preliminary jurisdictional waters delineation (PJWD) of a 17.3-acre site including the Project Area on October 19, 2021 and March 1, 2023 and identified the following features on the site:

- Four potentially non-jurisdictional ditches (Ditch 1 through 4), totaling approximately 4,328 linear feet; and,
- Two potentially jurisdictional streams (Marsh Run/Stream 1 and Scioto Big Run/Stream 2), totaling approximately 750 linear feet (0.63 acres).

The Project Area consists of maintained public road right-of-way (ROW), roadside ditch (considered preliminarily non-jurisdictional), two perennial streams (Marsh Run and Scioto Big Run) and manicured commercial lawn. Marsh Run and Scioto Big Run will be spanned by the 138kV conductor and not impacted. The Project will not impact any waters deemed preliminarily jurisdictional to the US Army Corps, nor will it impact any isolated wetlands which could be jurisdictional to Ohio Environmental Protection Agency (EPA). Locations of structures associated with the proposed corridor (poles and existing sub-station) and the PJWD-identified waters are shown in the attached Figure 2.

2.0 RARE, THREATENED, AND ENDANGERED SPECIES HABITAT ASSESSMENT

CEC performed a habitat assessment of the Project on March 1, 2023 concurrent with the PJWD. Within the Project area there were four habitat types (Maintained Herbaceous ROW, Perennial Stream, Herbaceous Riparian, and Developed-High Intensity) identified during the pedestrian survey. Maintained ROW was the most dominant habitat type (1.0-acre, 64.5% of the total 1.55-acre site), followed by Developed-High Intensity (0.45-acre, 29.0%), Herbaceous Riparian (0.08-acre, 5.2%), and Perennial Stream (0.02-acre, 1.3%). Riparian habitat is limited to herbaceous growth due to regular maintenance of the riparian areas within the existing utility easements. These habitats are depicted on Figure 3.

As part of a separate but affiliated project, CEC solicited Environmental Review from Ohio Department of Natural Resources (ODNR) in 2021 for a larger area abutting this Project to the west and south, and received the comments included in Attachment B. Based upon the species listed therein, CEC does not anticipate impacts to state listed aquatic species based on avoidance of waterbodies and use of erosion and sediment control measures and other best management practices (BMPs) during construction.

Based upon CEC's habitat reconnaissance conducted concurrently with the PJWD, no suitable habitat was observed within the Project for the state listed terrestrial species in Attachment B. The Project will require a 30-foot wide maintained easement which coincides with existing overhead utility easement(s) and maintained (mowed) roadside areas. The Project will not result in tree clearing or significant clearing of riparian vegetation. Maintenance of adjacent second-growth wooded areas is ongoing and the proposed easement will not encroach beyond the existing cleared easement in these areas.

The 2021 ODNR Environmental Review identified eight state listed species of migratory birds have ranges within the proposed Project area. Based on the mobility of these listed species that may potentially be present and the types of habitats observed within the Project it may be concluded that the proposed Project will not adversely affect migratory birds.

As part of a separate but affiliated project, CEC solicited Technical Assistance from USFWS in 2021 for a larger area abutting this Project to the west and south, and received the comments included in Attachment C. CEC does not anticipate impacts to federally listed bat species based on the lack of tree clearing for the project. As part of the response USFWS indicated records of a nesting Bald Eagle (*Haliaeetus leucocephalus*) south of the abutting site. CEC field-verified the approximate location of this nest and a second nearby raptor nest, and confirmed avoidance of these nests plus a 660-foot buffer required by USFWS. Communications regarding the raptor nests are included in Attachment C. The transmission line Project Area is approximately 0.75-miles north of the nest; therefore, no adverse effects to this protected nesting species are anticipated from the Project.

CEC conducted a database query of the USFWS' Information for Planning and Consultation (IPaC) and generated a species list (Attachment D, Project Code: 2023-0057650). The IPaC listed the following federally listed endangered and threatened species as occurring, or potentially occurring in the Project area: Indiana Bat (*Myotis sodalis*), Northern Long-eared Bat (*Myotis septentrionalis*), Tricolored Bat (*Perimyotis subflavus*), and Rayed bat (*Villosa fabalis*).

3.0 AREAS OF ECOLOGICAL CONCERN

As part of desktop assessment performed for the Project CEC searched for presence of areas of ecological concern by querying the Protected Areas of the US Database, National Park Service Wild and Scenic Rivers, and City of Columbus GIS data regarding parks. A recreational area,

known as Three Creeks Metropark, was at the eastern limit of the 5-mile radius search area. No other areas of ecological concern were identified within the 5-mile radius.


4.0 CLOSING


Based on the existing land uses and lack of suitable habitats, we do not anticipate adverse impacts to federal or state listed rare, threatened or endangered species, from the Project.

We appreciate your review and comments relative to the proposed Project. If you have any questions or need other information, please contact Jon Frodge at 513-985-0226 or e-mail at jfrodge@cecinc.com.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.


Benjamin A. Silliman
Project Scientist


Jonathan B. Frodge
Project Manager

Attachments: Figures

- Figure 1 – Site Location Map
- Figure 2 – Project Area Aerial Map
- Figure 3 – Habitat Assessment Map
- Attachment A – Site Photographs
- Attachment B – 2021 ODNR Environmental Review response letter
- Attachment C – 2021 USFWS TAILS (03E15000-2021-TA-1509) response letter, and Bald Eagle communication
- Attachment D – USFWS IPaC Official Species List

\\svr-fs-cin\projects\300-000\303-966-Draft Documents\Task 0050 - OPSB\USFWS_Rev\303-966 USFWS Transmission Corridor Environmental Review Request.docx

FIGURES



NORTH

REFERENCE(S):

USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:

[HTTP://GTO.ARCGISONLINE.COM/MAPS/](http://gto.arcgisonline.com/maps/)

USA_TOPO_MAP, ACCESSED 3/7/2023

USGS 7.5 MINUTE TOPOGRAPHIC MAP:

SOUTHWEST COLUMBUS, OHIO QUADRANGLE

PUBLISHED 1983

Approximate Site Location
(39.8961260,
-83.0291087)

LEGEND

 SiteBoundary_303966

SCALE IN FEET

0 1,000 2,000 4,000

APPROXIMATE SITE LOCATION



Civil & Environmental Consultants, Inc.

250 Old Wilson Bridge Road, Suite 250 - Worthington, OH 43085

614-540-6633 · 888-598-6808

www.cecinc.com

COLUMBUS SOLAR PARK, LLC
MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO

SITE LOCATION MAP

DRAWN BY:

MAK/WSG

CHECKED BY:

JCD

APPROVED BY:

DRAFT*

FIGURE NO:

1

DATE:

3/7/2023

SCALE:

1"=2,000'

PROJECT NO:

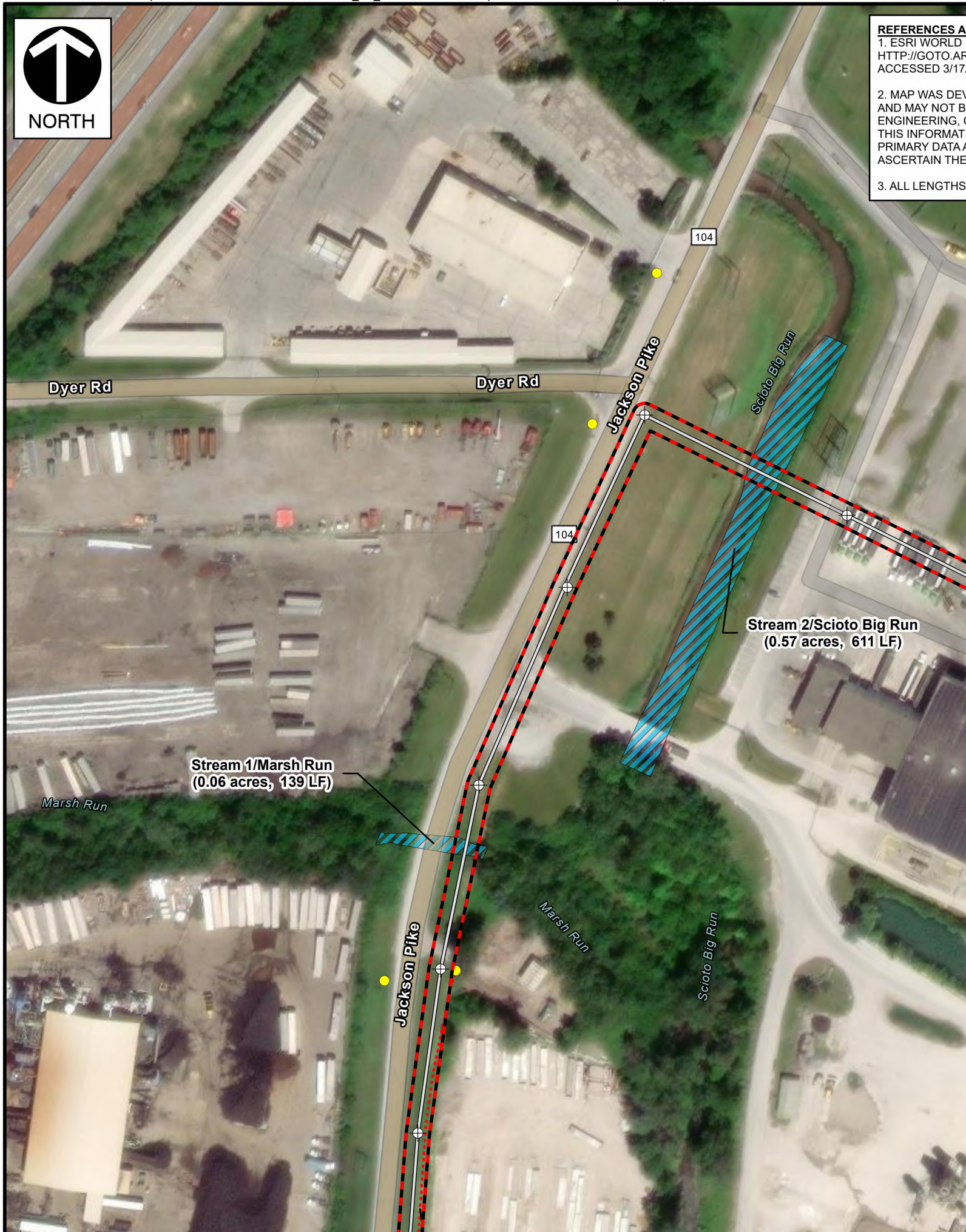
303-966

*Hand Signature on file



REFERENCES

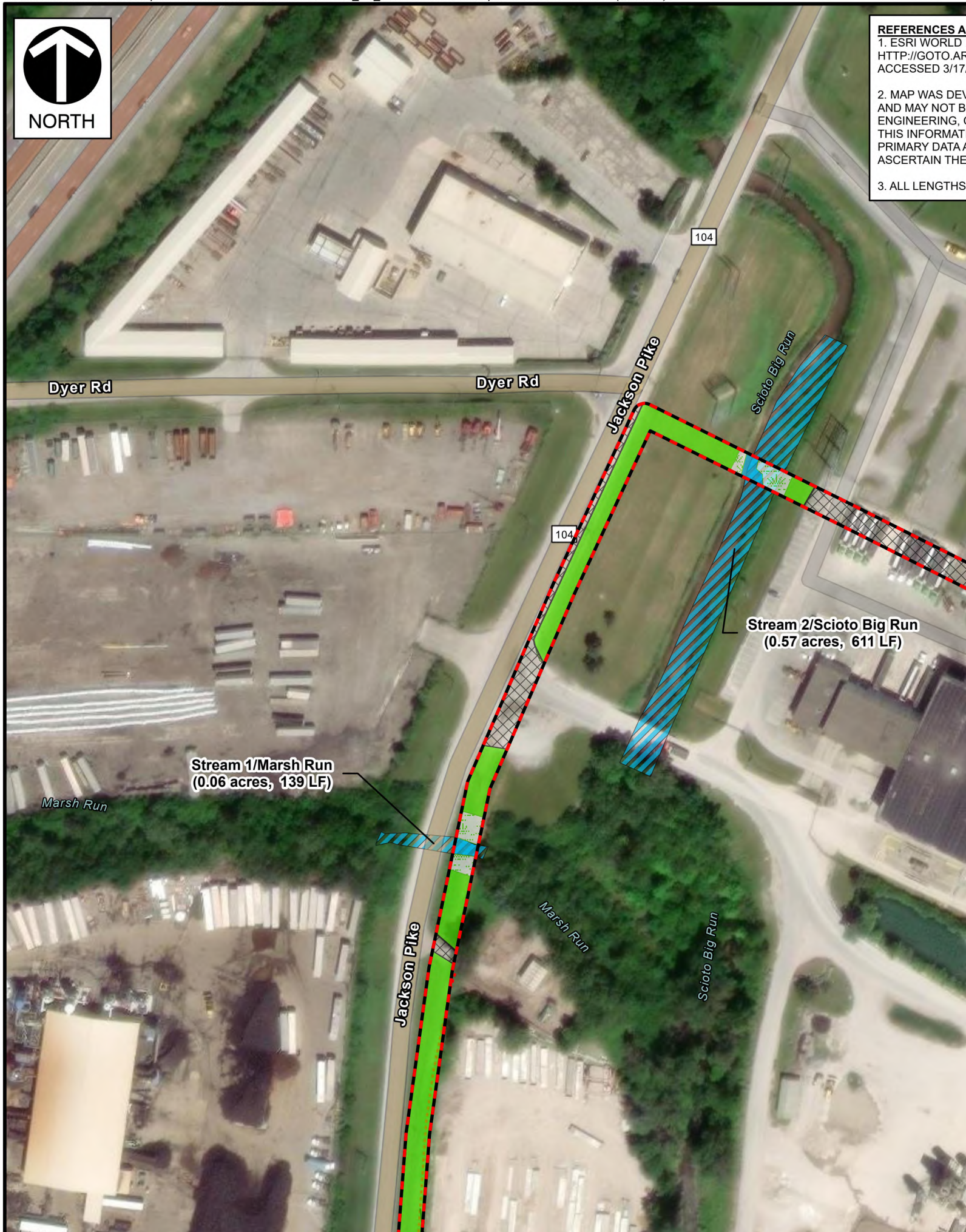
1. ESRI WORLD
HTTP://GOTO.A
ACCESSED 3/17/
2. MAP WAS DEV
AND MAY NOT B
ENGINEERING,
THIS INFORMAT
PRIMARY DATA
ASCERTAIN THE
3. ALL LENGTHS





REFERENCES

1. ESRI WORLD
HTTP://GOTO.A
ACCESSED 3/17/
2. MAP WAS DEV
AND MAY NOT B
ENGINEERING,
THIS INFORMAT
PRIMARY DATA
ASCERTAIN THE
3. ALL LENGTHS



ATTACHMENT A

SITE PHOTOGRAPHS



Photograph 1: General overview photo, facing north.



Photograph 2: Overview of Marsh Run/Stream 1 looking upstream, facing west.



Civil & Environmental Consultants, Inc.
Cincinnati, Ohio 45150
Phone: 513-985-0226

**COLUMBUS SOLAR PARK, LLC
TRANSMISSION CORRIDOR
MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO
CEC PROJECT 303-966
Photographs Taken On: March 1, 2023**



Photograph 3: Overview of Marsh Run/Stream 1 looking downstream, facing southeast.



Photograph 4: Overview of Marsh Run/Stream 1, looking across, facing northeast.



Civil & Environmental Consultants, Inc.
Cincinnati, Ohio 45150
Phone: 513-985-0226

**COLUMBUS SOLAR PARK, LLC
TRANSMISSION CORRIDOR
MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO
CEC PROJECT 303-966
Photographs Taken On: March 1, 2023**



Photograph 5: View of Marsh Run/Stream 1 substrate.



Photograph 6: Overview of Scioto Big Run/Stream 2 looking upstream, facing northeast.



Civil & Environmental Consultants, Inc.
Cincinnati, Ohio 45150
Phone: 513-985-0226

**COLUMBUS SOLAR PARK, LLC
TRANSMISSION CORRIDOR
MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO
CEC PROJECT 303-966
Photographs Taken On: March 1, 2023**



Photograph 7: Overview of Scioto Big Run/Stream 2 looking downstream, facing southwest.



Photograph 8: Overview of Scioto Big Run/Stream 2 looking across, facing east.



Civil & Environmental Consultants, Inc.
Cincinnati, Ohio 45150
Phone: 513-985-0226

**COLUMBUS SOLAR PARK, LLC
TRANSMISSION CORRIDOR
MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO
CEC PROJECT 303-966
Photographs Taken On: March 1, 2023**



Photograph 9: View of Scioto Big Run/Stream 2 substrate.



Photograph 10: Overview of Ditch 2, looking down-gradient, facing north.



Photograph 11: Overview of Ditch 2, looking up-gradient, facing south.



Photograph 12: Overview of general habitat in the north-central portion of the site, west of Jackson Pike, facing southeast.



Photograph 13: Overview of general habitat along Jackson Pike, facing north.



Photograph 14: Overview of general habitat along Jackson Pike, facing south.

ATTACHMENT B

2021 ODNR ENVIRONMENTAL REVIEW RESPONSE LETTER



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

July 26, 2021

Tyler Gillette
CEC Inc.
250 W. Old Wilson Bridge Road, Suite 250
Worthington, Ohio 43085

Re: 21-0538; Columbus Solar Park Franklin County, Ohio CEC Project 303-966.0002

Project: The proposed project involves the construction of a solar park on the closed Model Landfill.

Location: The proposed project is located in Jackson Township, Franklin 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 records at or within a one-mile radius of the project area:

Tippecanoe darter (*Etheostoma tippecanoe*), T
Black Sandshell (*Ligumia recta*), T
Threehorn wartyback (*Obliquaria reflexa*), T
Fawnsfoot (*Truncilla donaciformis*), T
Deertoe (*Truncilla truncata*), SC

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.

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.

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federal endangered, and FT = federal threatened.

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 Division of Wildlife is working closely with our partners at Ohio Pollinator Habitat Initiative (OPHI) to create and enhance pollinator habitat at solar power installations. The OPHI Solar Pollinator Program Advisory Team has developed the Ohio Solar Site Pollinator Habitat Planning and Assessment Form and is available for your use. The form can be found at the following: <http://nebula.wsimg.com/7cf0240c398d5819e3e6ff011f0ba456?AccessKeyId=570E4FC7FCD2ED2F0C1A&disposition=0&alloworigin=1>. We recommend that the areas between and around the solar panels be planted with legumes and wildflowers (i.e. forbs) that are beneficial to pollinators and other wildlife and reduce use of non-native grass and gravel. The recommended legumes and forbs listed below are low-growing so as not to cast shadows on the solar panels and would only require one to two mowings a year for maintenance, which should minimize maintenance costs. For other areas of the installation where vegetation does not have to be low-growing, alternative pollinator mixes are available with a more diverse array of flowering plants. This perennial vegetation will provide beneficial foraging habitat to songbirds and pollinators while reducing storm water runoff, standing water, and erosion. Please contact the Ohio Pollinator Habitat Initiative <http://www.ophi.info/>, and specifically Mike Retterer mretterer@pheasantsforever.org for further information on solar power facility pollinator plantings.

Recommended low-growing grasses and forbs may include:

Little Bluestem	<i>Schizachyrium scoparium</i>
Sideoats Grama	<i>Bouteloua curtipendula</i>
Alfalfa	<i>Medicago spp.</i>
Alsike Clover	<i>Trifolium hybridum</i>
Brown-eyed Susan	<i>Rudbeckia triloba</i>
Butterfly Milkweed	<i>Asclepias tuberosa</i>
Lanceleaf Coreopsis	<i>Coreopsis lanceolata</i>
Partridge Pea	<i>Chamaecrista fasciculata</i>
Timothy	<i>Phleum pratense</i>
Orchardgrass	<i>Dactylis glomerata</i>
Crimson Clover	<i>Trifolium incarnatum</i>
Ladino or White Clover	<i>Trifolium repens</i>

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”. 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

purple cat’s paw (*Epioblasma o. obliquata*)
clubshell (*Pleurobema clava*)
northern riffleshell (*Epioblasma torulosa rangiana*)
rayed bean (*Villosa fabalis*)
snuffbox (*Epioblasma triquetra*)

Federally Threatened

rabbitsfoot (*Quadrula cylindrica*)

State Endangered

elephant-ear (*Elliptio crassidens crassidens*)
Long solid (*Fusconaia maculata maculate*)
Ohio pigtoe (*Pleurobema cordatum*)
pocketbook (*Lampsilis ovata*)
washboard (*Megaloniaias nervosa*)

State Threatened

black sandshell (*Ligumia recta*)
fawnsfoot (*Truncilla donaciformis*)
pondhorn (*Unio merus tetralasmus*)
threehorn wartyback (*Obliquaria reflexa*)

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 following listed fish species.

Federally Endangered

Scioto madtom (*Noturus trautmani*)

State Endangered

goldeye (*Hiodon alosoides*)
Iowa darter (*Etheostoma exile*)
popeye shiner (*Notropis ariommus*)
tippecanoe
northern brook lamprey (*Ichthyomyzon fossor*)
spotted darter (*Etheostoma maculatum*)
shortnose gar (*Lepisosteus platostomus*)
tonguetied minnow (*Exoglossum laurae*)

State Threatened

lake chubsucker (*Erimyzon sucetta*)
paddlefish (*Polyodon spathula*)
Tippecanoe darter (*Etheostoma*

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, the project is not likely to impact this species.

The project is within the range of the black-crowned night-heron (*Nycticorax nycticorax*), a state-threatened bird. Night-herons are so named because they are nocturnal, conducting most of their foraging in the evening hours or at night, and roost in trees near wetlands and waterbodies during the day. Night herons are migratory and are typically found in Ohio from April 1 through December 1 but can be found in more urbanized areas with reliable food sources year-round. Black-crowned night-herons primarily forage in wetlands and other shallow aquatic habitats, and roost in trees nearby. These night-herons nest in small trees, saplings, shrubs, or sometimes on the ground, near bodies of water and wetlands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the cattle egret (*Bubulcus ibis*), a state endangered bird. Cattle egrets are not strictly wetland birds. They often forage in dry pastures and fields. Egrets nest in colonies and will build a nest out of sticks and other materials wherever it can be supported. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 15 through August 15. If no wetland habitat will be impacted, the project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the sandhill crane (*Grus canadensis*), a state threatened species. Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds they require a rather large tract of wet meadow, shallow marsh, or bog for nesting. If grassland, prairie, or wetland habitat will be impacted, construction

should be avoided in this habitat during the species' nesting period of April 1 through August 31. If this habitat will not be impacted, this project is not likely to have an impact on this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

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

Geological Survey: The Division of Geological Survey has the following comment.

Physiographic Region

The proposed project area is in Jackson Township, Franklin County. This project area is on a former landfill site. This area is in the Columbus Lowland physiographic region. This region is characterized by lowland terrain surrounded by relative uplands. There is a broad slope towards the Scioto Valley and many large streams throughout the region. The geology of the region consists of loamy Wisconsinan-age till and extensive outwash in the Scioto Valley covering underlying bedrock (Ohio Department of Natural Resources, Division of Geological Survey, 1998).

Surficial/Glacial Geology

The project area lies within the glaciated margin of the state and includes several Wisconsinan-age glacial features. Much of the project area is highly modified made land that was originally covered by the flat to gently undulating silty loam till of the Late Wisconsinan ground moraine. The northern edge of the project area is covered by alluvium and alluvial terraces (Pavey et al, 1999). Glacial drift throughout most of the study area is between 72 and 152 feet thick. Drift is thinnest in the east and thickest in the west (Powers and Swinford, 2004).

Bedrock Geology

The uppermost bedrock unit in the project area is the Columbus Limestone. This unit is Devonian-age and consists of bluish gray to brown fossiliferous limestone. The unit may be dolomitic in places and frequently contains solution features. Underlying the Columbus Limestone is the Silurian-age Salina Undifferentiated. This unit is characterized by a gray to brown dolomite which contains argillaceous partings, brecciated intervals, algal laminations and anhydrite/gypsum zones. It should be noted that bedrock is not exposed at the surface within the boundaries of the project area due to significant glacial drift (Slucher et al, 2006).

Oil, Gas and Mining

ODNR has record of two oil and gas wells within one mile of the proposed project area. These wells are listed as Plugged and Abandoned (Ohio Department of Natural Resources, Division of Oil and Gas, Ohio Oil and Gas Wells Locator).

ODNR does not have record of any mining operations within the project area. The project area is adjacent to an active sand, gravel, and limestone quarry operated by the Columbus Limestone, Inc. The mine is east of the project area. Adjacent to the southern edge of the project area is a former clay quarry previously operated by the Solid Waste Authority of Central Ohio (Ohio Department of Natural Resources, Division of Mineral Resources, Mines of Ohio).

Seismic Activity

Several small earthquakes have historically been recorded near the site. The three events closest to the site are listed in the chart below (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Earthquake Epicenters):

Date	Magnitude	Distance to Site Boundary	County	Township
October 21, 2013	2.0	15.7 miles	Pickaway	Jackson
January 4, 1873	3.8	20.8 miles	Delaware	Orange
January 16, 1870	2.9	25.8 miles	Fairfield	Berne

Karst

Karst features usually form in areas that are covered by thin or no glacial drift and the bedrock is limestone or dolomite. There are no sinkholes within the bounds of the project area. Although the underlying Columbus Limestone is composed of carbonate bedrock which can be prone to the development of karst features, the thickness of drift makes sinkhole development unlikely. The nearest verified sinkhole to the project area is located 8.9 miles to the north (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Karst).

Soils

According to the USDA Web Soil Survey, Udorthents are the most common soil series found within the boundaries of the project area. These highly modified soils and made land account for over 99% of the project area (USDA Web Soil Survey).

There is a low risk of shrink-swell potential in these soils. Slope is artificially made, with slope seldom exceeding a 2% grade (McLoda and Parkinson 1980, and USDA Web Soil Survey).

Groundwater

Groundwater resources are plentiful throughout the project area. Wells developed in bedrock are likely to yield over 100 gallons per minute. The Columbus Limestone aquifer may produce yields as high as 250 gallons per minute (Schmidt 1993 and Ohio Department of Natural Resources, Division of Water, Bedrock Aquifer Map, 2000). Wells developed in glacial material are likely to yield 5 to 25 gallons per minute. The primary unconsolidated aquifer is the Hilliard Complex Aquifer (Ohio Department of Natural Resources, Division of Water, Statewide Unconsolidated Aquifer Map, 2000).

ODNR has record of 255 water wells drilled within one mile of the project area. These wells range in depth from 20 to 410 feet deep, with an average depth of 108.5 feet. The most common aquifer listed is sand and gravel. Limestone is the most common bedrock aquifer type with 80 wells listing limestone as the primary aquifer. One bedrock well was completed in shale. The remaining wells are completed in glacial deposits with the majority these being sand and gravel aquifer wells. A sustainable yield of 5 to 75 gallons per minute was recorded from wells drilled in this area based on well log records. The average sustainable yield from these records within one mile was 23.8 gallons per minute. This is based on records from 33 wells within one mile of the project area that contain sustainable yield data (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Water Wells).

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)

References

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- Ohio Department of Natural Resources, Division of Oil and Gas, *Ohio Oil and Gas Wells Locator*, online interactive map, <https://gis.ohiodnr.gov/MapView/?config=oilgaswells>.
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- USDA Web Soil Survey, (Last modified 2019). *Web Soil Survey Interactive Map*, United States Department of Agriculture, Natural Resources Conservation Service, online interactive map, <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>.

ATTACHMENT C

**2021 USFWS TAILS (03E15000-2021-TA-1509) RESPONSE LETTER AND
BALD EAGLE COMMUNICATION**

Gillette, Tyler

From: Ohio, FW3 <ohio@fws.gov>
Sent: Wednesday, June 9, 2021 3:37 PM
To: Gillette, Tyler
Cc: nathan.reardon@dnr.state.oh.us; Parsons, Kate; Geho, Robert; Demarest, Jonathan; Wallace, Abigail; Buffalini, Rick
Subject: Columbus Solar Park Landfill Site, Franklin Co. (CEC Project 303-966.0002)
Attachments: Columbus Solar Park.jpg



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# 03E15000-2021-TA-1509

Dear Mr. Gillette,

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

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

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥ 3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, we recommend removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), incidental take of Indiana bats is still

prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Bald Eagle: The project lies within the range of the bald eagle (*Haliaeetus leucocephalus*). Bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, BGEPA), which prohibits, among other things, the killing and disturbance of eagles.

To evaluate your project's potential to affect bald eagles, please visit: <https://www.fws.gov/midwest/eagle/permits/baeatake/index.html>.

Our records indicate that a bald eagle nest is located within approximately 0.1 miles of the southeast corner of the project area (see attached map for approximate nest location). Our database of nest locations may not be complete because new nests are built each year, and nesting pairs sometimes build multiple nests. Therefore, we recommend that the site and surrounding area be evaluated to determine if any additional eagle nests are present and to validate the actual nest location.

In order to avoid take of bald eagles, we recommend that no tree clearing occur within 660 feet of a bald eagle nest or within any woodlot supporting a nest tree. Further we request that work within 660 feet of a nest or within the direct line-of-site of a nest be restricted from January 15 through July 31. This will prevent disturbance of the eagles from the egg-laying period until the young fledge, which encompasses their most vulnerable times. Once site specific eagle nest information is available, we can work with you to determine the appropriate buffer from the nest(s) relative to your proposed activities.

If these recommendations cannot be implemented and take of bald eagles is likely, a bald eagle take permit for this project may be necessary. Further information on eagle take permits can be found at: <https://www.fws.gov/midwest/eagle/permits/baeatake/index.html>.

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

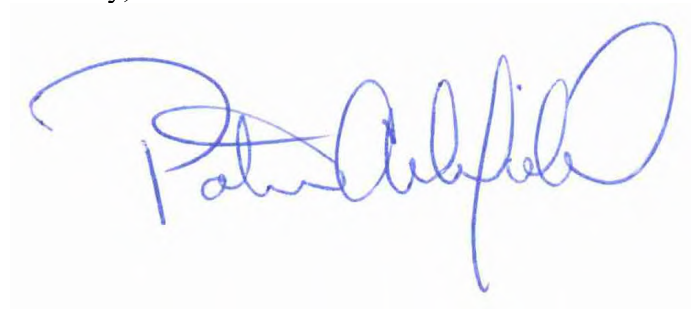
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus it is important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing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

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrice M. Ashfield". The signature is fluid and cursive, with a large initial "P" and "A".

Patrice M. Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW

Frodge, Jon

From: Rheude, Margaret G <margaret_rheude@fws.gov>
Sent: Friday, December 10, 2021 3:05 PM
To: Frodge, Jon
Cc: Michael McNulty; Applegate, Jeromy; Ohio, FW3; Endrizzi, Deanne
Subject: Re: [EXTERNAL] TAILS# 03E15000-2021-TA-1509: no eagle permit needed
Attachments: 303966_Combined_EagleAssessment.pdf; USFWS Response TAILS# 03E15000-2021-TA-1509.pdf

Hi Jon,

thank you for the updated maps. Both of these nests are outside the 660 foot buffer, and these nests are in a fairly busy area where the eagles likely have a tolerance to human activity. Because of this, The USFWS/ Migratory Birds division does not recommend an eagle take permit for your activity, as disturbance to nesting eagles is unlikely. I am cc'ing Deanne Endrizzi in our permit office as well as the Ohio field office, should they get any inquiries.

Please let me know if you have any additional questions or concerns, but there isn't anything additional that you need to do on the federal side with regards to eagles in order for your project to move forward.

Thank you,

Mags Rheude

Mags Rheude (she/her)

US Fish and Wildlife Service

New Address:

Midwest Migratory Bird Program

U.S. Fish and Wildlife Service

5600 American Blvd. West, Suite 990

Bloomington, MN 55437-1458

612-430-1732

margaret_rheude@fws.gov

Currently on a modified telework schedule due to Covid-19.

I am checking phone and email messages frequently.

Response time may be delayed due to modified schedule.

Thank you for your patience.

From: Frodge, Jon <jfrodge@cecinc.com>
Sent: Thursday, December 9, 2021 3:09 PM
To: Rheude, Margaret G <margaret_rheude@fws.gov>
Cc: Michael McNulty <michael.mcnulty@bqenergy.com>; Applegate, Jeromy <jeromy_applegate@fws.gov>
Subject: RE: [EXTERNAL] TAILS# 03E15000-2021-TA-1509 - Request for follow-up call to discuss raptor nest

Good afternoon Mags,

The attached map depicts project boundaries overlaid with both nearby raptor nests and their respective 660-foot buffers. This should confirm that the proposed project is outside of that 660-ft buffer. I would appreciate a brief letter from you if you concur that we would not need a Non-Purposeful Take permit.

I've re-attached our TAILS response for your reference as well.

If you need additional info or have questions please let me know.

Thank you,

-Jon

Jonathan B. Frodge | *Project Manager*

Civil & Environmental Consultants, Inc.

5899 Montclair Blvd., Cincinnati, OH 45150

direct 513.483.3546 **office** 513.985.0226 **mobile** 513.646.6582

www.cecinc.com

From: Rheude, Margaret G <margaret_rheude@fws.gov>

Sent: Thursday, December 9, 2021 10:51 AM

To: Frodge, Jon <jfrodge@cecinc.com>

Cc: Michael McNulty <michael.mcnulty@bqenergy.com>; Applegate, Jeromy <jeromy_applegate@fws.gov>

Subject: Re: [EXTERNAL] TAILS# 03E15000-2021-TA-1509 - Request for follow-up call to discuss raptor nest

Hi Jon,

Looking at the documents you provided, there are two nests; one is likely an eagle nest (east of Jackson Pike) and the other is the nest on the platform, which is west of Jackson Pike. If a project is greater than 660 feet from a nest, we don't anticipate disturbance to the eagle and therefore don't recommend a permit. Looking at your maps it appears that the nest on the platform is greater than 660 feet from your work; it is fine that there is a line of sight between your work and the nest; it's far enough away that we don't expect impacts. Additionally, the nest is right by I-270, so we can assume the birds are pretty used to noise. I can't really tell if the nest is eagle or osprey, but as long as you can confirm that both nests are outside the 660 foot buffer, we don't actually need to know who is using the nest, and you don't need a permit for your work. Let me know if you have questions, and please confirm that both nests are greater than 660 feet from your project, and I can write back with documentation that this project doesn't need an eagle disturbance permit.

Thanks,

Mags

Mags Rheude (she/her)

US Fish and Wildlife Service

New Address:

Midwest Migratory Bird Program

U.S. Fish and Wildlife Service

5600 American Blvd. West, Suite 990

Bloomington, MN 55437-1458

612-430-1732

margaret_rheude@fws.gov

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Response time may be delayed due to modified schedule.

Thank you for your patience.



ATTACHMENT D

USFWS IPAC OFFICIAL 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:

Project Code: 2023-0057650

Project Name: 138kV Transmission Line

March 20, 2023

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

To Whom It May Concern:

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

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the 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 <https://www.fws.gov/birds/policies-and-regulations.php>.

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

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

(614) 416-8993

PROJECT SUMMARY

Project Code: 2023-0057650
Project Name: 138kV Transmission Line
Project Type: Transmission Line - Maintenance/Modification - Above Ground
Project Description: The proposed 138 kV transmission line will serve to connect a less than 50 MW capacity solar photovoltaic generating facility to an existing Columbus Power substation owned by the City of Columbus. The proposed transmission line towers will be built so that the existing utility line poles will be removed and the existing circuit will share new poles to be installed as part of the new 138 kV line.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.8999993,-83.02618011610977,14z>



Counties: Franklin County, Ohio

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 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.

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 does not overlap 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. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

CLAMS

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

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

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

IPAC USER CONTACT INFORMATION

Agency: Civil & Environmental Consultants

Name: Ben Silliman

Address: 5899 Montclair Blvd

City: Cincinnati

State: OH

Zip: 45150

Email: bsilliman@cecinc.com

Phone: 5139850226

March 17, 2023

Mr. Michael Pettegrew
Environmental Services Administrator
Ohio Department of Natural Resources
Office of Real Estate
2045 Morse Road, Building E-2
Columbus, OH 43229

Via email: environmentalreviewrequest@dnr.state.oh.us

Dear Mr. Pettegrew:

Subject: ODNR Environmental Review Request
Columbus Solar Park, LLC
138kV Transmission Line
Model Landfill Solar Project
Jackson Township, Franklin County, Ohio
CEC Project 303-966.0050

On behalf of BQ Energy, LLC, and its affiliate Columbus Solar Park, LLC (CSP), Civil & Environmental Consultants, Inc. (CEC) requests an Ohio Department of Natural Resources (ODNR) Environmental Review relative to the proposed 138kV electric transmission line corridor located in Franklin County, Ohio. Information provided will be used to support an Ohio Power Siting Board Letter of Notification filing for the proposed electric transmission line.

The approximately 0.44-mile long, 30-foot wide, 1.55-acre transmission line corridor is located along the east side of Jackson Pike in Franklin County, Ohio (herein referred to as the “Project”). The proposed 138 kV transmission line will serve to connect a less than 50 MW capacity solar photovoltaic generating facility to an existing Columbus Power substation owned by the City of Columbus. The proposed transmission line towers will be built so that the existing utility line poles will be removed and the existing circuit will share new poles to be installed as part of the new 138 kV line.

The approximate location of the Project, including coordinates, is shown on the attached topographic map (Figure 1 - Site Location Map). Surrounding land uses include a limestone/aggregate quarry, commercial properties, industrial properties, Jackson Pike, Interstate 71 and Interstate 270.

1.0 PRELIMINARY JURISDICTIONAL WATERS DELINEATION

CEC performed a preliminary jurisdictional waters delineation (PJWD) of a 17.3-acre site including the Project Area on October 19, 2021 and March 1, 2023 and identified the following features on the site:

- Four potentially non-jurisdictional ditches (Ditch 1 through 4), totaling approximately 4,328 linear feet; and,
- Two potentially jurisdictional streams (Marsh Run/Stream 1 and Scioto Big Run/Stream 2), totaling approximately 750 linear feet (0.63 acres).

The Project Area consists of maintained public road right-of-way (ROW), roadside ditch (considered preliminarily non-jurisdictional), two perennial streams (Marsh Run and Scioto Big Run) and manicured commercial lawn. Marsh Run and Scioto Big Run will be spanned by the 138kV conductor and not impacted. The Project will not impact any waters deemed preliminarily jurisdictional to the US Army Corps, nor will it impact any isolated wetlands which could be jurisdictional to Ohio Environmental Protection Agency (EPA). Locations of structures associated with the proposed corridor (poles and existing sub-station) and the PJWD-identified waters are shown in the attached Figure 2.

2.0 RARE, THREATENED, AND ENDANGERED SPECIES HABITAT ASSESSMENT

CEC performed a habitat assessment of the Project on March 1, 2023 concurrent with the PJWD. Within the Project area there were four habitat types (Maintained Herbaceous ROW, Perennial Stream, Herbaceous Riparian, and Developed-High Intensity) identified during the pedestrian survey. Maintained ROW was the most dominant habitat type (1.0-acre, 64.5% of the total 1.55-acre site), followed by Developed-High Intensity (0.45-acre, 29.0%), Herbaceous Riparian (0.08-acre, 5.2%), and Perennial Stream (0.02-acre, 1.3%). Riparian habitat is limited to herbaceous growth due to regular maintenance of the riparian areas within the existing utility easements. These habitats are depicted on Figure 3.

As part of a separate but affiliated project, CEC solicited Environmental Review from ODNR in 2021 for a larger area abutting this Project to the west and south, and received the comments included in Attachment B. Based upon the species listed therein, CEC does not anticipate impacts to state listed aquatic species based on avoidance of waterbodies and use of erosion and sediment control measures and other best management practices (BMPs) during construction.

Based upon CEC's habitat reconnaissance conducted concurrently with the PJWD, no suitable habitat was observed within the Project for the state listed terrestrial species in Attachment B. The Project will require a 30-foot wide maintained easement which coincides with existing overhead utility easement(s) and maintained (mowed) roadside areas. The Project will not result in tree clearing or significant clearing of riparian vegetation. Maintenance of adjacent second-growth wooded areas is ongoing and the proposed easement will not encroach beyond the existing cleared easement in these areas.

The 2021 ODNR Environmental Review identified eight state listed species of migratory birds have ranges within the proposed Project area. Based on the mobility of these listed species that may potentially be present and the types of habitats observed within the Project it may be concluded that the proposed Project will not adversely affect migratory birds.

As part of a separate but affiliated project, CEC solicited Technical Assistance from US Fish and Wildlife Service (USFWS) in 2021 for a larger area abutting this Project to the west and south, and received the comments included in Attachment C. CEC does not anticipate impacts to federally listed bat species based on the lack of tree clearing for the project. As part of their response USFWS indicated records of a nesting Bald Eagle (*Haliaeetus leucocephalus*) south of the abutting site. CEC field-verified the approximate location of this nest and a second nearby raptor nest, and confirmed avoidance of these nests plus a 660-foot buffer required by USFWS. Communications regarding the raptor nests are included in Attachment C. The transmission line Project Area is approximately 0.75-miles north of the nest; therefore, no adverse effects to this protected nesting species are anticipated from the Project.

3.0 AREAS OF ECOLOGICAL CONCERN

As part of desktop assessment performed for the Project CEC searched for presence of areas of ecological concern by querying the Protected Areas of the US Database, National Park Service Wild and Scenic Rivers, and City of Columbus GIS data regarding parks. A recreational area, known as Three Creeks Metropark, was at the eastern limit of the 5-mile radius search area. No other areas of ecological concern were identified within the 5-mile radius.

4.0 CLOSING

We have attached GIS shapefiles of the Project Area (Attachment D). Based on the existing land uses and lack of suitable habitats, we do not anticipate adverse impacts to state listed rare, threatened or endangered species, from the Project.

We appreciate your review and comments relative to the proposed Project. If you have any questions or need other information, please contact Jon Frodge at 513-985-0226 or e-mail at jfrodge@cecinc.com.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Benjamin A. Silliman
Staff Scientist



Jonathan B. Frodge
Project Manager

Attachments: Figures

Figure 1 – Site Location Map

Figure 2 – Project Area Aerial Map

Figure 3 – Habitat Assessment Map

Attachment A – Site Photographs

Attachment B – 2021 ODNR Environmental Review response letter

Attachment C – 2021 USFWS TAILS (03E15000-2021-TA-1509) response letter and Bald Eagle communication

Attachment D – GIS Shapefiles (*delivered electronically*)

FIGURES



NORTH

REFERENCE(S):

USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:

[HTTP://GTO.ARCGISONLINE.COM/MAPS/](http://gto.arcgis.com/maps/)

USA_TOPO_MAP, ACCESSED 3/7/2023

USGS 7.5 MINUTE TOPOGRAPHIC MAP:

SOUTHWEST COLUMBUS, OHIO QUADRANGLE

PUBLISHED 1983

Approximate Site Location
(39.8961260,
-83.0291087)

LEGEND

 SiteBoundary_303966

SCALE IN FEET

0 1,000 2,000 4,000

APPROXIMATE SITE LOCATION



Civil & Environmental Consultants, Inc.

250 Old Wilson Bridge Road, Suite 250 - Worthington, OH 43085

614-540-6633 · 888-598-6808

www.cecinc.com

COLUMBUS SOLAR PARK, LLC
MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO

SITE LOCATION MAP

DRAWN BY:

MAK/WSG

CHECKED BY:

JCD

APPROVED BY:

DRAFT*

FIGURE NO:

1

DATE:

3/7/2023

SCALE:

1"=2,000'

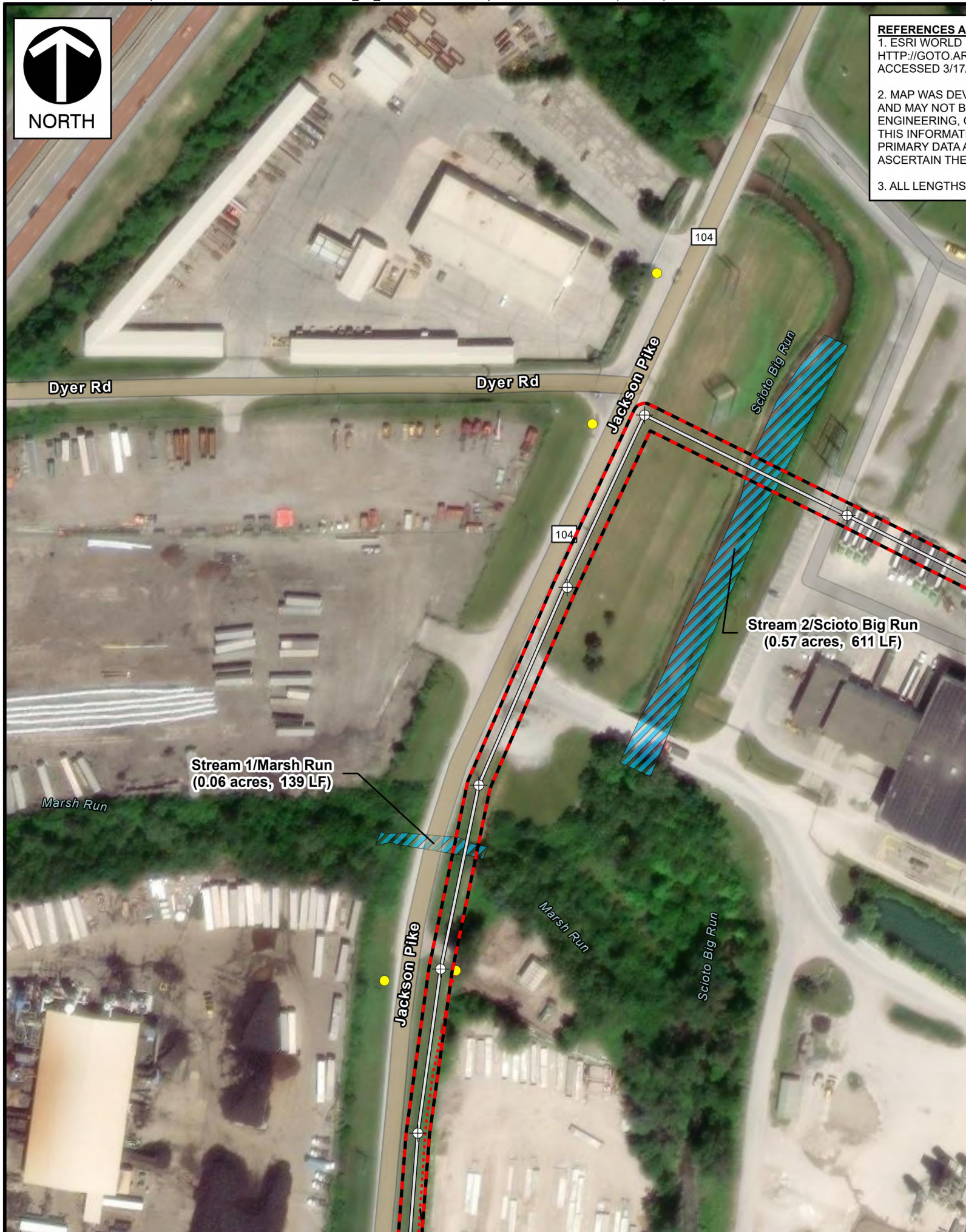
PROJECT NO:

303-966

*Hand Signature on file



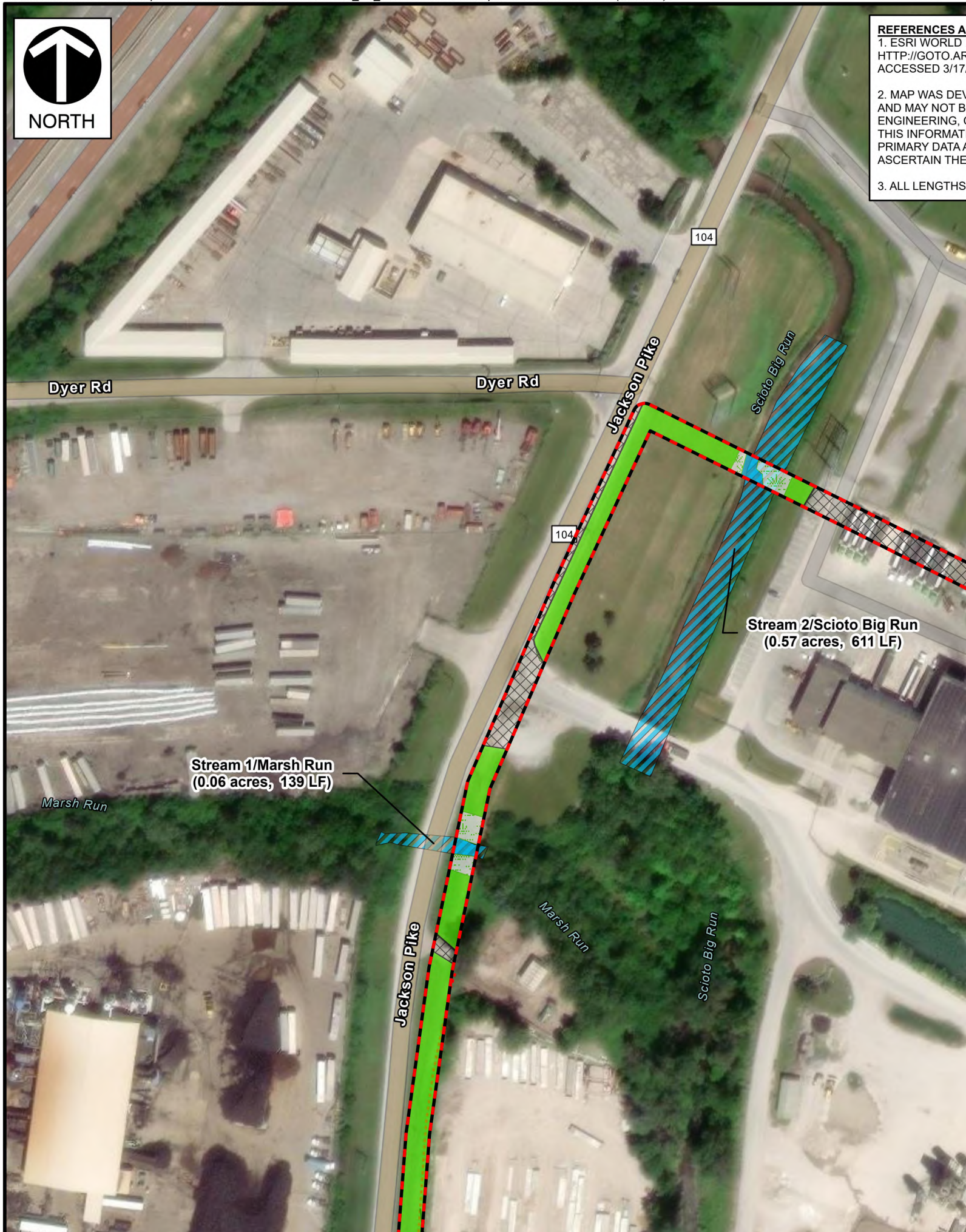
- REFERENCES**
1. ESRI WORLD
HTTP://GOTO.A
ACCESSED 3/17/
 2. MAP WAS DEV
AND MAY NOT B
ENGINEERING,
THIS INFORMAT
PRIMARY DATA
ASCERTAIN THE
 3. ALL LENGTHS





REFERENCES

1. ESRI WORLD
HTTP://GOTO.A
ACCESSED 3/17/
2. MAP WAS DEV
AND MAY NOT B
ENGINEERING,
THIS INFORMAT
PRIMARY DATA
ASCERTAIN THE
3. ALL LENGTHS



ATTACHMENT A

SITE PHOTOGRAPHS



Photograph 1: General overview photo, facing north.



Photograph 2: Overview of Marsh Run/Stream 1 looking upstream, facing west.



Photograph 3: Overview of Marsh Run/Stream 1 looking downstream, facing southeast.



Photograph 4: Overview of Marsh Run/Stream 1, looking across, facing northeast.



Civil & Environmental Consultants, Inc.
Cincinnati, Ohio 45150
Phone: 513-985-0226

**COLUMBUS SOLAR PARK, LLC
TRANSMISSION CORRIDOR
MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO
CEC PROJECT 303-966
Photographs Taken On: March 1, 2023**



Photograph 5: View of Marsh Run/Stream 1 substrate.



Photograph 6: Overview of Scioto Big Run/Stream 2 looking upstream, facing northeast.



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Phone: 513-985-0226

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FRANKLIN COUNTY, OHIO
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Photograph 7: Overview of Scioto Big Run/Stream 2 looking downstream, facing southwest.



Photograph 8: Overview of Scioto Big Run/Stream 2 looking across, facing east.



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MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO
CEC PROJECT 303-966
Photographs Taken On: March 1, 2023**



Photograph 9: View of Scioto Big Run/Stream 2 substrate.



Photograph 10: Overview of Ditch 2, looking down-gradient, facing north.



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Phone: 513-985-0226

**COLUMBUS SOLAR PARK, LLC
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MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO
CEC PROJECT 303-966
Photographs Taken On: March 1, 2023**



Photograph 11: Overview of Ditch 2, looking up-gradient, facing south.



Photograph 12: Overview of general habitat in the north-central portion of the site, west of Jackson Pike, facing southeast.



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FRANKLIN COUNTY, OHIO
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Photographs Taken On: March 1, 2023**



Photograph 13: Overview of general habitat along Jackson Pike, facing north.



Photograph 14: Overview of general habitat along Jackson Pike, facing south.



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MODEL LANDFILL SOLAR PROJECT
FRANKLIN COUNTY, OHIO
CEC PROJECT 303-966
Photographs Taken On: March 1, 2023**

ATTACHMENT B

2021 ODNR ENVIRONMENTAL REVIEW RESPONSE LETTER



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

July 26, 2021

Tyler Gillette
CEC Inc.
250 W. Old Wilson Bridge Road, Suite 250
Worthington, Ohio 43085

Re: 21-0538; Columbus Solar Park Franklin County, Ohio CEC Project 303-966.0002

Project: The proposed project involves the construction of a solar park on the closed Model Landfill.

Location: The proposed project is located in Jackson Township, Franklin 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 records at or within a one-mile radius of the project area:

Tippecanoe darter (*Etheostoma tippecanoe*), T
Black Sandshell (*Ligumia recta*), T
Threehorn wartyback (*Obliquaria reflexa*), T
Fawnsfoot (*Truncilla donaciformis*), T
Deertoe (*Truncilla truncata*), SC

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.

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.

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federal endangered, and FT = federal threatened.

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 Division of Wildlife is working closely with our partners at Ohio Pollinator Habitat Initiative (OPHI) to create and enhance pollinator habitat at solar power installations. The OPHI Solar Pollinator Program Advisory Team has developed the Ohio Solar Site Pollinator Habitat Planning and Assessment Form and is available for your use. The form can be found at the following: <http://nebula.wsimg.com/7cf0240c398d5819e3e6ff011f0ba456?AccessKeyId=570E4FC7FCD2ED2F0C1A&disposition=0&alloworigin=1>. We recommend that the areas between and around the solar panels be planted with legumes and wildflowers (i.e. forbs) that are beneficial to pollinators and other wildlife and reduce use of non-native grass and gravel. The recommended legumes and forbs listed below are low-growing so as not to cast shadows on the solar panels and would only require one to two mowings a year for maintenance, which should minimize maintenance costs. For other areas of the installation where vegetation does not have to be low-growing, alternative pollinator mixes are available with a more diverse array of flowering plants. This perennial vegetation will provide beneficial foraging habitat to songbirds and pollinators while reducing storm water runoff, standing water, and erosion. Please contact the Ohio Pollinator Habitat Initiative <http://www.ophi.info/>, and specifically Mike Retterer mretterer@pheasantsforever.org for further information on solar power facility pollinator plantings.

Recommended low-growing grasses and forbs may include:

Little Bluestem	<i>Schizachyrium scoparium</i>
Sideoats Grama	<i>Bouteloua curtipendula</i>
Alfalfa	<i>Medicago spp.</i>
Alsike Clover	<i>Trifolium hybridum</i>
Brown-eyed Susan	<i>Rudbeckia triloba</i>
Butterfly Milkweed	<i>Asclepias tuberosa</i>
Lanceleaf Coreopsis	<i>Coreopsis lanceolata</i>
Partridge Pea	<i>Chamaecrista fasciculata</i>
Timothy	<i>Phleum pratense</i>
Orchardgrass	<i>Dactylis glomerata</i>
Crimson Clover	<i>Trifolium incarnatum</i>
Ladino or White Clover	<i>Trifolium repens</i>

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”. 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

purple cat’s paw (*Epioblasma o. obliquata*)
clubshell (*Pleurobema clava*)
northern riffleshell (*Epioblasma torulosa rangiana*)
rayed bean (*Villosa fabalis*)
snuffbox (*Epioblasma triquetra*)

Federally Threatened

rabbitsfoot (*Quadrula cylindrica*)

State Endangered

elephant-ear (*Elliptio crassidens crassidens*)
Long solid (*Fusconaia maculata maculate*)
Ohio pigtoe (*Pleurobema cordatum*)
pocketbook (*Lampsilis ovata*)
washboard (*Megaloniaias nervosa*)

State Threatened

black sandshell (*Ligumia recta*)
fawnsfoot (*Truncilla donaciformis*)
pondhorn (*Unio merus tetralasmus*)
threehorn wartyback (*Obliquaria reflexa*)

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 following listed fish species.

Federally Endangered

Scioto madtom (*Noturus trautmani*)

State Endangered

goldeye (*Hiodon alosoides*)
Iowa darter (*Etheostoma exile*)
popeye shiner (*Notropis ariommus*)
tippecanoe
northern brook lamprey (*Ichthyomyzon fossor*)
spotted darter (*Etheostoma maculatum*)
shortnose gar (*Lepisosteus platostomus*)
tonguetied minnow (*Exoglossum laurae*)

State Threatened

lake chubsucker (*Erimyzon sucetta*)
paddlefish (*Polyodon spathula*)
Tippecanoe darter (*Etheostoma*

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, the project is not likely to impact this species.

The project is within the range of the black-crowned night-heron (*Nycticorax nycticorax*), a state-threatened bird. Night-herons are so named because they are nocturnal, conducting most of their foraging in the evening hours or at night, and roost in trees near wetlands and waterbodies during the day. Night herons are migratory and are typically found in Ohio from April 1 through December 1 but can be found in more urbanized areas with reliable food sources year-round. Black-crowned night-herons primarily forage in wetlands and other shallow aquatic habitats, and roost in trees nearby. These night-herons nest in small trees, saplings, shrubs, or sometimes on the ground, near bodies of water and wetlands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the cattle egret (*Bubulcus ibis*), a state endangered bird. Cattle egrets are not strictly wetland birds. They often forage in dry pastures and fields. Egrets nest in colonies and will build a nest out of sticks and other materials wherever it can be supported. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 15 through August 15. If no wetland habitat will be impacted, the project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the sandhill crane (*Grus canadensis*), a state threatened species. Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds they require a rather large tract of wet meadow, shallow marsh, or bog for nesting. If grassland, prairie, or wetland habitat will be impacted, construction

should be avoided in this habitat during the species' nesting period of April 1 through August 31. If this habitat will not be impacted, this project is not likely to have an impact on this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

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

Geological Survey: The Division of Geological Survey has the following comment.

Physiographic Region

The proposed project area is in Jackson Township, Franklin County. This project area is on a former landfill site. This area is in the Columbus Lowland physiographic region. This region is characterized by lowland terrain surrounded by relative uplands. There is a broad slope towards the Scioto Valley and many large streams throughout the region. The geology of the region consists of loamy Wisconsinan-age till and extensive outwash in the Scioto Valley covering underlying bedrock (Ohio Department of Natural Resources, Division of Geological Survey, 1998).

Surficial/Glacial Geology

The project area lies within the glaciated margin of the state and includes several Wisconsinan-age glacial features. Much of the project area is highly modified made land that was originally covered by the flat to gently undulating silty loam till of the Late Wisconsinan ground moraine. The northern edge of the project area is covered by alluvium and alluvial terraces (Pavey et al, 1999). Glacial drift throughout most of the study area is between 72 and 152 feet thick. Drift is thinnest in the east and thickest in the west (Powers and Swinford, 2004).

Bedrock Geology

The uppermost bedrock unit in the project area is the Columbus Limestone. This unit is Devonian-age and consists of bluish gray to brown fossiliferous limestone. The unit may be dolomitic in places and frequently contains solution features. Underlying the Columbus Limestone is the Silurian-age Salina Undifferentiated. This unit is characterized by a gray to brown dolomite which contains argillaceous partings, brecciated intervals, algal laminations and anhydrite/gypsum zones. It should be noted that bedrock is not exposed at the surface within the boundaries of the project area due to significant glacial drift (Slucher et al, 2006).

Oil, Gas and Mining

ODNR has record of two oil and gas wells within one mile of the proposed project area. These wells are listed as Plugged and Abandoned (Ohio Department of Natural Resources, Division of Oil and Gas, Ohio Oil and Gas Wells Locator).

ODNR does not have record of any mining operations within the project area. The project area is adjacent to an active sand, gravel, and limestone quarry operated by the Columbus Limestone, Inc. The mine is east of the project area. Adjacent to the southern edge of the project area is a former clay quarry previously operated by the Solid Waste Authority of Central Ohio (Ohio Department of Natural Resources, Division of Mineral Resources, Mines of Ohio).

Seismic Activity

Several small earthquakes have historically been recorded near the site. The three events closest to the site are listed in the chart below (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Earthquake Epicenters):

Date	Magnitude	Distance to Site Boundary	County	Township
October 21, 2013	2.0	15.7 miles	Pickaway	Jackson
January 4, 1873	3.8	20.8 miles	Delaware	Orange
January 16, 1870	2.9	25.8 miles	Fairfield	Berne

Karst

Karst features usually form in areas that are covered by thin or no glacial drift and the bedrock is limestone or dolomite. There are no sinkholes within the bounds of the project area. Although the underlying Columbus Limestone is composed of carbonate bedrock which can be prone to the development of karst features, the thickness of drift makes sinkhole development unlikely. The nearest verified sinkhole to the project area is located 8.9 miles to the north (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Karst).

Soils

According to the USDA Web Soil Survey, Udorthents are the most common soil series found within the boundaries of the project area. These highly modified soils and made land account for over 99% of the project area (USDA Web Soil Survey).

There is a low risk of shrink-swell potential in these soils. Slope is artificially made, with slope seldom exceeding a 2% grade (McLoda and Parkinson 1980, and USDA Web Soil Survey).

Groundwater

Groundwater resources are plentiful throughout the project area. Wells developed in bedrock are likely to yield over 100 gallons per minute. The Columbus Limestone aquifer may produce yields as high as 250 gallons per minute (Schmidt 1993 and Ohio Department of Natural Resources, Division of Water, Bedrock Aquifer Map, 2000). Wells developed in glacial material are likely to yield 5 to 25 gallons per minute. The primary unconsolidated aquifer is the Hilliard Complex Aquifer (Ohio Department of Natural Resources, Division of Water, Statewide Unconsolidated Aquifer Map, 2000).

ODNR has record of 255 water wells drilled within one mile of the project area. These wells range in depth from 20 to 410 feet deep, with an average depth of 108.5 feet. The most common aquifer listed is sand and gravel. Limestone is the most common bedrock aquifer type with 80 wells listing limestone as the primary aquifer. One bedrock well was completed in shale. The remaining wells are completed in glacial deposits with the majority these being sand and gravel aquifer wells. A sustainable yield of 5 to 75 gallons per minute was recorded from wells drilled in this area based on well log records. The average sustainable yield from these records within one mile was 23.8 gallons per minute. This is based on records from 33 wells within one mile of the project area that contain sustainable yield data (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Water Wells).

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)

References

- McLoda, N. A. and Parkinson, R. J., (1980) *Soil Survey of Franklin County, Ohio*. United States Department of Agriculture, Natural Resources Conservation Science. Retrieved from nrcs.usda.gov
- Ohio Department of Natural Resources, Division of Geological Survey, *Ohio Earthquake Epicenters*, online interactive map, <https://gis.ohiodnr.gov/MapView/?config=earthquakes>
- Ohio Department of Natural Resources, Division of Geological Survey, *Ohio Karst*, online interactive map, https://gis.ohiodnr.gov/website/dgs/karst_interactivemap/
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- Powers, D.M., and Swinford, E.M. (2004). *Shaded drift-thickness map of Ohio*, Ohio Department of Natural Resources, Division of Geological Survey, map, scale 1:500,000
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- USDA Web Soil Survey, (Last modified 2019). *Web Soil Survey Interactive Map*, United States Department of Agriculture, Natural Resources Conservation Service, online interactive map, <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>.

ATTACHMENT C

**2021 USFWS TAILS (03E15000-2021-TA-1509) RESPONSE LETTER AND
BALD EAGLE COMMUNICATION**

Gillette, Tyler

From: Ohio, FW3 <ohio@fws.gov>
Sent: Wednesday, June 9, 2021 3:37 PM
To: Gillette, Tyler
Cc: nathan.reardon@dnr.state.oh.us; Parsons, Kate; Geho, Robert; Demarest, Jonathan; Wallace, Abigail; Buffalini, Rick
Subject: Columbus Solar Park Landfill Site, Franklin Co. (CEC Project 303-966.0002)
Attachments: Columbus Solar Park.jpg



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# 03E15000-2021-TA-1509

Dear Mr. Gillette,

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

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

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥ 3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, we recommend removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), incidental take of Indiana bats is still

prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Bald Eagle: The project lies within the range of the bald eagle (*Haliaeetus leucocephalus*). Bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, BGEPA), which prohibits, among other things, the killing and disturbance of eagles.

To evaluate your project's potential to affect bald eagles, please visit: <https://www.fws.gov/midwest/eagle/permits/baeatake/index.html>.

Our records indicate that a bald eagle nest is located within approximately 0.1 miles of the southeast corner of the project area (see attached map for approximate nest location). Our database of nest locations may not be complete because new nests are built each year, and nesting pairs sometimes build multiple nests. Therefore, we recommend that the site and surrounding area be evaluated to determine if any additional eagle nests are present and to validate the actual nest location.

In order to avoid take of bald eagles, we recommend that no tree clearing occur within 660 feet of a bald eagle nest or within any woodlot supporting a nest tree. Further we request that work within 660 feet of a nest or within the direct line-of-site of a nest be restricted from January 15 through July 31. This will prevent disturbance of the eagles from the egg-laying period until the young fledge, which encompasses their most vulnerable times. Once site specific eagle nest information is available, we can work with you to determine the appropriate buffer from the nest(s) relative to your proposed activities.

If these recommendations cannot be implemented and take of bald eagles is likely, a bald eagle take permit for this project may be necessary. Further information on eagle take permits can be found at: <https://www.fws.gov/midwest/eagle/permits/baeatake/index.html>.

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

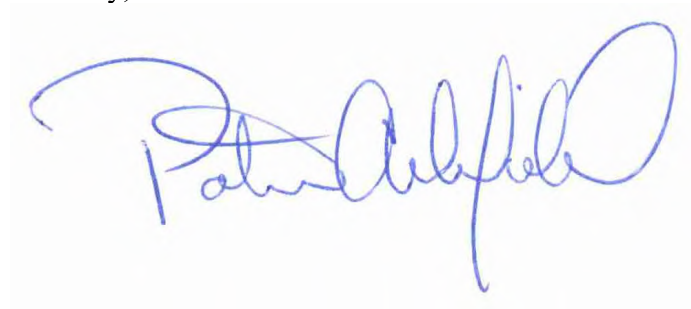
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus it is important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing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

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrice M. Ashfield". The signature is fluid and cursive, with a large initial "P" and "A".

Patrice M. Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW

Frodge, Jon

From: Rheude, Margaret G <margaret_rheude@fws.gov>
Sent: Friday, December 10, 2021 3:05 PM
To: Frodge, Jon
Cc: Michael McNulty; Applegate, Jeromy; Ohio, FW3; Endrizzi, Deanne
Subject: Re: [EXTERNAL] TAILS# 03E15000-2021-TA-1509: no eagle permit needed
Attachments: 303966_Combined_EagleAssessment.pdf; USFWS Response TAILS# 03E15000-2021-TA-1509.pdf

Hi Jon,

thank you for the updated maps. Both of these nests are outside the 660 foot buffer, and these nests are in a fairly busy area where the eagles likely have a tolerance to human activity. Because of this, The USFWS/ Migratory Birds division does not recommend an eagle take permit for your activity, as disturbance to nesting eagles is unlikely. I am cc'ing Deanne Endrizzi in our permit office as well as the Ohio field office, should they get any inquiries.

Please let me know if you have any additional questions or concerns, but there isn't anything additional that you need to do on the federal side with regards to eagles in order for your project to move forward.

Thank you,

Mags Rheude

Mags Rheude (she/her)

US Fish and Wildlife Service

New Address:

Midwest Migratory Bird Program

U.S. Fish and Wildlife Service

5600 American Blvd. West, Suite 990

Bloomington, MN 55437-1458

612-430-1732

margaret_rheude@fws.gov

Currently on a modified telework schedule due to Covid-19.

I am checking phone and email messages frequently.

Response time may be delayed due to modified schedule.

Thank you for your patience.

From: Frodge, Jon <jfrodge@cecinc.com>
Sent: Thursday, December 9, 2021 3:09 PM
To: Rheude, Margaret G <margaret_rheude@fws.gov>
Cc: Michael McNulty <michael.mcnulty@bqenergy.com>; Applegate, Jeromy <jeromy_applegate@fws.gov>
Subject: RE: [EXTERNAL] TAILS# 03E15000-2021-TA-1509 - Request for follow-up call to discuss raptor nest

Good afternoon Mags,

The attached map depicts project boundaries overlaid with both nearby raptor nests and their respective 660-foot buffers. This should confirm that the proposed project is outside of that 660-ft buffer. I would appreciate a brief letter from you if you concur that we would not need a Non-Purposeful Take permit.

I've re-attached our TAILS response for your reference as well.

If you need additional info or have questions please let me know.

Thank you,

-Jon

Jonathan B. Frodge | *Project Manager*

Civil & Environmental Consultants, Inc.

5899 Montclair Blvd., Cincinnati, OH 45150

direct 513.483.3546 **office** 513.985.0226 **mobile** 513.646.6582

www.cecinc.com

From: Rheude, Margaret G <margaret_rheude@fws.gov>

Sent: Thursday, December 9, 2021 10:51 AM

To: Frodge, Jon <jfrodge@cecinc.com>

Cc: Michael McNulty <michael.mcnulty@bqenergy.com>; Applegate, Jeromy <jeromy_applegate@fws.gov>

Subject: Re: [EXTERNAL] TAILS# 03E15000-2021-TA-1509 - Request for follow-up call to discuss raptor nest

Hi Jon,

Looking at the documents you provided, there are two nests; one is likely an eagle nest (east of Jackson Pike) and the other is the nest on the platform, which is west of Jackson Pike. If a project is greater than 660 feet from a nest, we don't anticipate disturbance to the eagle and therefore don't recommend a permit. Looking at your maps it appears that the nest on the platform is greater than 660 feet from your work; it is fine that there is a line of sight between your work and the nest; it's far enough away that we don't expect impacts. Additionally, the nest is right by I-270, so we can assume the birds are pretty used to noise. I can't really tell if the nest is eagle or osprey, but as long as you can confirm that both nests are outside the 660 foot buffer, we don't actually need to know who is using the nest, and you don't need a permit for your work. Let me know if you have questions, and please confirm that both nests are greater than 660 feet from your project, and I can write back with documentation that this project doesn't need an eagle disturbance permit.

Thanks,

Mags

Mags Rheude (she/her)

US Fish and Wildlife Service

New Address:

Midwest Migratory Bird Program

U.S. Fish and Wildlife Service

5600 American Blvd. West, Suite 990

Bloomington, MN 55437-1458

612-430-1732

margaret_rheude@fws.gov

Currently on a modified telework schedule due to Covid-19.

I am checking phone and email messages frequently.

Response time may be delayed due to modified schedule.

Thank you for your patience.



REF
1.ES
http://
ACC

ATTACHMENT D

GIS SHAPEFILES (DELIVERED ELECTRONICALLY)

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

3/28/2023 4:16:59 PM

in

Case No(s). 23-0256-EL-BLN

Summary: Letter of Notification of Columbus Solar Park LLC electronically filed by
Teresa Orahood on behalf of Devin D. Parram.