Madison Fields Solar Project, LLC
Case No. 19-1881-EL-BGN

Application Part 1 of 8

Part 1 includes:

- **Letter**
- **Affidavit of Scott Zeimetz, Vice President, Madison Fields Solar Project, LLC**
- **Application Narrative**
- **Figure 03-1 Project Two-Mile Radius Map**
- **Figure 03-2 Project Site Layout Map**
- **Figure 03-3 Project Schedule**
- **Figure 04-1 Project Constraints Map**
- **Figure 07-1 Aviation Facilities**
- **Figure 08-1 Sensitive Receptors**
- **Figure 08-2 Water Wells, Source Water Protection Areas, and Floodplains**
- **Figure 08-3 Geological and Topographic Features**
- **Figure 08-4 Ecological Communities**
- **Figure 08-5 Field Survey**
- **Figure 08-6 Land Use**

Date Filed: July 17, 2020

Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
Phone: (614) 591-5461
Email: cpirik@dickinsonwright.com
todonnell@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

DICKINSON WRIGHT PLLC

150 E. GAY STREET, 24TH FLOOR
COLUMBUS, OH 43215-3192
TELEPHONE: (614) 591-5461
FACSIMILE: (844) 670-6009
http://www.dickinsonwright.com

CHRISTINE M.T. PIRIK
CPirik@dickinsonwright.com

July 17, 2020

Ms. Tanowa Troupe, Secretary
Ohio Power Siting Board
Docketing Division
180 East Broad Street, 11th Floor
Columbus, Ohio 43215-3797

Re: Application
Case No. 19-1881-EL-BGN
In the Matter of the Application of Madison Fields Solar Project, LLC for a Certificate of Environmental Compatibility and Public Need to Construct a Solar-Powered Electric Generation Facility in Madison County, Ohio.

Dear Ms. Troupe:

Accompanying this letter is an application by Madison Fields Solar Project, LLC ("Applicant") for a Certificate of Environmental Compatibility and Public Need to Construct a Solar-Powered Electric Generation Facility in Madison County, Ohio ("Facility"). The original application was electronically filed, and the required number of copies both in hard copy and electronic have been provided to the Docketing Division.

Along with this filing, we also provided the Docketing Division copies of the redacted portions of the application, and have filed a Motion for Protective Order and Memorandum in Support requesting protective treatment of the confidential information contained therein.

The Applicant further notes that the information presented in the preapplication notification letter has not been revised by the Applicant since the filing of the preapplication letter.

In accordance with Ohio Administrative Code Rule 4906-2-04, we make the following declarations:

Name of the Applicant:

Madison Fields Solar Project, LLC
422 Admiral Boulevard
Kansas City, Missouri 64106

Name and location of the facility:

Madison Fields Solar Project, LLC
Pike Township
Madison County, Ohio

Name of authorized representative:

Christine M.T. Pirik
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio, 43215
(614) 591-5461
cpirik@dickinsonwright.com

Notarized Statement:

See attached Affidavit of Scott Zeimetz,
Vice President of Madison Fields Solar Project, LLC

Respectfully submitted,

/s/ Christine M.T. Pirik
Christine M.T. Pirik (0029759)
(Counsel of Record)
William V. Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
Phone: (614) 591-5461
Email: cpirik@dickinsonwright.com
wvorys@dickinsonwright.com
(*Counsel agree to receive service by email.*)

Attorneys for Madison Fields Solar Project, LLC

CMTP:AP
Enclosures

4841-5585-5043 v1 [88534-2]

BEFORE THE
OHIO POWER SITING BOARD

In the Matter of the Application of Madison Fields Solar Project, LLC for a Certificate of Environmental Compatibility and Public Need to Construct a Solar-Powered Electric Generation Facility in Madison County, Ohio.	)))))	Case No: 19-1880-EL-BGN

AFFIDAVIT OF
MADISON FIELDS SOLAR PROJECT, LLC

STATE OF MISSOURI :
: ss
COUNTY OF Jackson :

I, Scott Zeimetz, 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 on my personal knowledge:

1. I am the Vice President of Madison Fields Solar Project, LLC, which is the applicant under this Application.

2. I have reviewed Madison Fields Solar Project, LLC's Application for a Certificate to Construct a Solar-Powered Electric Generation Facility in Madison County, Ohio.

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 Application is complete.

Scott Zeimetz, Vice President of
Madison Fields Solar Project, LLC

Sworn to before and signed in my presence this 15th day of July 2020.

SUZANNE RIPLEY
Comm. Exp. 10/07/2023
NOTARY PUBLIC NOTARY SEAL 19927343
Jackson County
STATE OF MISSOURI

Suzanne Ripley
Notary Public

Application to the Ohio Power Siting Board for a Certificate of Environmental Compatibility and Public Need for the Madison Fields Solar Project, LLC

Case No: 19-1881-EL-BGN

Table of Contents

List of Tables

List of Figures

List of Exhibits

List of Abbreviations and Acronyms

AC	alternating current
ANSI	American National Standards Institute
Applicant	Madison Fields Solar Project, LLC
BMP	best management practice
B&M	Burns & McDonnell
DC	direct current
Certificate	Certificate of Environmental Compatibility and Public Need
Commonwealth	Commonwealth Heritage Group, Inc.
CWA	Clean Water Act
dBA	A-weighted decibels
E & E	Ecology and Environment, Inc., member of WSP Global Inc.
EMFs	electromagnetic fields
Epsilon	Epsilon Associates, Inc.
Gen-tie	generation tie-line
HDD	horizontal directional drilling
IEEE	Institute of Electrical and Engineers
IPaC	Information for Planning and Construction
KOP	Key Observation Point
kV	kilovolt
kWac/year	kilowatt alternating current per year
kW_{DC}	kilowatts DC
L_{eq}	equivalent sound level
Macquarie	Macquarie Group
MET	meteorological
module	solar panel
mph	miles per hour
MV	medium voltage
MVA	megavolt amp
MW	megawatt

NAAQS	National Ambient Air Quality Standards
NEC	National Electrical Code
NESC	National Electrical Safety Code
NPDES	National Pollutant Discharge Elimination System
NPV	net present value
NRHP	National Register of Historic Places
O&M	operation and maintenance
OAC	Ohio Administrative Code
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
Olsson	Olsson & Associates
OPSB	Ohio Power Siting Board
ORC	Ohio Revised Code
PILOT	Payment in lieu of taxes
PJM	PJM Interconnection, LLC
POI	Point of Interconnection
PPA	power purchase agreement
Project	Madison Fields Solar Project
PV	photovoltaic
RIMS II	Regional Input-Output Modeling System
RUMA	Road Use Maintenance Agreement
Savion	Savion, LLC
SHPO	State Historic Preservation Office
SPCC	Spill Prevention, Control, and Countermeasure
Stantec	Stantec Consulting, Inc.
SWPPP	Stormwater Pollution Prevention Plan
T/E	threatened and endangered
UL	Underwriters Laboratories
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

4906-4-01 PURPOSE AND SCOPE

(A) GENERAL

This application is intended to satisfy the requirements of the Ohio Administrative Code (OAC) Rule 4906-4 for issuance by the Ohio Power Siting Board (OPSB) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the Madison Fields Solar Project (Project) as submitted by Madison Fields Solar Project, LLC (Applicant).

(B) WAIVERS

The Applicant is not requesting any waivers at this time.

4906-4-02 PROJECT SUMMARY AND APPLICANT INFORMATION

(A) PROJECT SUMMARY AND APPLICANT INFORMATION

The Applicant, a wholly owned subsidiary of Savion, LLC (Savion), proposes to construct and operate the Project, a utility-scale solar-powered electric generation facility in Madison County, Ohio, with a nameplate capacity of 180-megawatts (MW) alternating current (AC), (hereinafter referred to as MW). The Project will connect to the regional transmission grid via a switchyard to be constructed at the site. The Project is anticipated to operate for at least 30 years.

(1) General Purpose of the Facility

The purpose of the Project is to provide 180-MW of clean, cost-effective, renewable energy to the PJM Interconnection, LLC (PJM) transmission grid. The Project will generate electricity using virtually no fuels or water and with effectively zero air emissions and waste generation. This Project is intended to fill the need for a more diverse national energy portfolio that will include a higher percentage of energy generated through use of renewable resources. In addition, the Project is in line with Ohio's desire for in-state carbon free resources as supported by House Bill 6, passed in 2019.

(2) General Location, Size, and Operating Characteristics of the Proposed Facility

The Project is in Pike Township, Madison County, Ohio, near the communities of Rosedale to the east, and Mechanicsburg to the west. The Project will be located entirely on privately owned parcels where the Applicant has secured long-term leases or purchase options with the landowners. Several local roads surround the Project, including Irwin Road, which makes up the Project's westernmost boundary, Rosedale-Milford Center Road, which makes up the easternmost boundary, and Finely Guy Road, which makes up the southernmost boundary. The total Project Area encompasses 1,932 acres. The Applicant is proposing to permit the entirety of the Project Area. Based on the current Project design, the Facility, which is composed of all components and infrastructure necessary for solar energy generation, will occupy approximately 1,000 acres of the Project Area. The Applicant has made considerable effort to depict the Facility layout in its final form to the extent possible at this stage of development. However, the exact placement of the Facility is subject to change prior to construction. The additional permitted area will allow for any adjustments to the Facility design that may be necessary in the future. The studies included in this application were completed for all 1,932 acres of the Project Area or within the Facility footprint as applicable based on the individual resource.

The Project will have a generating capacity of 180-MW and will include photovoltaic (PV) solar panels (modules) mounted on a racking system, either tracking or fixed, to maximize solar energy capture and electric generation of the array. Electricity generated by the modules is sent to inverters located throughout the array that would convert the electricity from direct current (DC) to AC. A series of medium voltage (MV) underground and/or overhead electric collection lines will transfer the electricity from the inverters to a Project substation; and a short overhead generation tie-line (gen-tie) will deliver electricity to a new point of interconnection (POI) switchyard that connects to the regional transmission grid. A detailed description of each Project component can be found in OAC Section 4906-4-03(B) in this application.

(3) Suitability of the Site for the Proposed Facility

The Applicant has determined the Project Area to be suitable for utility-scale solar facility development based on the following factors: proximity to available transmission capacity, landowner and community interest, economic analysis, and evaluation of site suitability. A detailed description of Savion's siting process and the Project Area's suitability is included in OAC Section 4906-4-04 of this application.

(4) Project Schedule

The Project has been under development since 2018 and, during that time, multiple transmission, environmental, engineering, and cultural studies have been completed. In addition, interconnection studies with PJM commenced in the first quarter of 2018. In accordance with Rule 4906-3-03, the Applicant held two public meetings in November 2019 at Rosedale Bible College. In addition, the Applicant held two virtual public meetings in June and July of 2020 in accordance with the OPSB entry issued on May 21, 2020. A presentation was made available to the public on June 9, 2020 with live phone question and answer sessions held on June 16, 2020 and July 15, 2020. Project construction is expected to begin as early as the fourth quarter of 2021, with commercial operations beginning in the fourth quarter of 2022 or first quarter of 2023. Additional information regarding Project schedule can be found in Section 4906-4-03(C) of this application.

(B) Future Plans for Additional Generation Units or Facilities in the Region

(1) Description of any plans for future additions of electric power generation units

The Applicant is seeking an OPSB Certificate to construct a 180-MW solar energy project located within the Project Area included within this application. Currently, there are no plans to add additional electric power generation units to the Project.

(2) Description of the Applicant's history, affiliate relationships and current operations

The Applicant is a wholly owned subsidiary of Savion and was formed specifically for the purpose of developing the Project. Founded in 2019, the Savion team is comprised of utility-scale solar and energy storage experts that have developed over 10 gigawatts of solar projects across 25 states that are either in operation, under construction, or in development. Savion has 92 employees and is headquartered in Kansas City, Missouri. Savion develops projects and secures power purchase agreements (PPA) that are ultimately transferred to other entities. The Project will be constructed, operated, and maintained by the Applicant.

4906-4-03 PROJECT DESCRIPTION IN DETAIL AND PROJECT SCHEDULE IN DETAIL

(A) DESCRIPTION OF THE PROJECT AREA'S GEOGRAPHY, TOPOGRAPHY, POPULATION CENTERS, MAJOR INDUSTRIES, AND LANDMARKS

(1) Project Area Map

Figure 3-1 shows the geographic features of the proposed Project Area, at a scale of 1:24,000, as well as those features within a 2-mile radius. The proposed features specifically include:

(a) The proposed Facility;
(b) Population centers and administrative boundaries;
(c) Transportation routes and gas and electric transmission corridors;
(d) Named rivers, streams, lakes, and reservoirs; and
(e) Major institutions, parks, cemeteries, and recreational areas.

The Facility layout depicted in Figure 3-1, and all subsequent figures, represents the current design of the Project. The Applicant has made considerable effort to depict the layout in its final form to the extent possible at this stage of development. However, the exact placement of the Facility is subject to change prior to construction but will remain within the limits of the Project Area. Final engineering will depend on various considerations including the exact make and

model of the equipment procured for the Project. Given the length of time for the OPSB certification process and market realities for utility-scale solar facilities, it is not economically feasible at the time of the permit application to identify the models to be used and give the precise location within the fence of the various components. Because of rapidly advancing technology (both as to cost and performance) and dynamic markets, the final model selections must occur close to the start of construction. Further, the financing for procurement and construction of the Project will be attracted by, and based on, the final model choices and final engineering and design based on those models. Only after the models have been selected and final design and engineering is completed can the precise locations of the key components be identified. Those locations, in turn, will drive those of the ancillary components, including the piles, collection lines, and roads. Requiring the submission of the final site plan with the application would result in procurement decisions and final design and engineering that are obsolete by the time of financing and construction start. In fact, the technology could likely be obsolete before a certificate is issued for the Project.

The final Facility layout will remain within the Project Area that has been studied for environmental, engineering, and visual impacts. The cultural resource surveys were based on the Facility footprint rather than the larger Project Area, therefore additional cultural resource surveys will be completed for any portion of the final Facility layout that extends beyond the Facility footprint identified within this application. Any final adjustments to the Facility layout will not cause additional impacts beyond what is discussed in this application. The final Facility layout will be provided to OPSB no later than 30 days prior to the start of construction.

(2) Project Area, in acres, of all Owned and Leased Properties

The Facility will occupy approximately 1,000 acres within the Project Area, which includes 1,932 acres of private land secured under agreements with the landowners. Individual Project parcels are depicted in the preliminary site plan included as Exhibit A. The additional land in the Project Area was secured to allow flexibility for the Project design to be optimized. Project infrastructure most likely will not be constructed on all the parcels.

(B) DESCRIPTION OF THE GENERATION FACILITY

The Project is a 180-MW solar facility capable of providing clean, renewable electricity. Solar modules convert sunlight into DC electricity which is then converted to AC electricity through inverters. Transformers step up the AC electricity to a higher voltage so that it can connect to the regional transmission grid.

Project components will include PV solar modules mounted on either a tracking or fixed racking system supported by steel posts. Other components of the PV system include combiner boxes, inverters, high voltage transformers, junction boxes, DC and AC electrical collection systems, a Project substation, and a 138-kilovolt (kV) gen-tie line. In addition, the Project will include an operation and maintenance (O&M) building, POI switchyard, four meteorological (MET) towers, access roads, and perimeter fencing. During construction, the Project will include a temporary laydown area, temporary construction management trailers, and stormwater management features. Project components are discussed in more detail in OAC Section 4906-4-03(B)(1) in this application and are depicted in the preliminary site plan included as Exhibit A.

Approximately 42,892 linear feet of all-weather private access roads will be constructed with gravel. Roads will not exceed 20 feet (6.1 meters) in width, except for turning radii, which will not exceed 53 feet (16.2 meters) in radius. The Project solar arrays will be secured with approximately 39,851 linear feet of perimeter fence, which will not exceed 7 feet (2.1 meters) in height.

PV solar modules will be mounted on a tracking or fixed racking system and oriented in rows running from north to south for tracking systems and east to west for fixed systems. Both systems are angled at a degree that maximizes solar resource efficiency. To improve efficiency, a tracker system rotates approximately +/- 60-degrees east-west to track the sun as it moves through the sky each day. The racking system will be supported by approximately 85,000 steel posts installed with a pile-driving machine. The center height of the racking structures will be approximately 4 feet (1.2 meters) to 8 feet (2.4 meters) above the ground. When the modules are tilted at their maximum angle, the highest point of each module will be approximately 6 feet (1.8 meters) to 15 feet (4.5 meters) above the ground. The modules will be connected using DC

cables that can either be buried in a trench or attached to the racking system. The DC cables gather at the end of racking systems to combiner boxes which are connected to cables routing to an inverter.

Approximately 60 inverters will be installed throughout the Project to convert the DC power from the 1,500 volt DC collection system to AC power, which will then be transmitted to a Project substation via the 34.5-kilovolt (kV) AC collection system. The AC collection system will include underground and/or overhead segments. Underground segments of the AC collection system will be buried a minimum of 3 feet (0.9 meters) below grade; and overhead portions will not exceed a maximum height of 30 feet (9.1 meters) above grade. The AC collection system will be comprised of MV cable that will transfer electricity to the Project substation. Approximately 861,705 linear feet of DC collection system cables and 261,560 linear feet of AC collection cables will be installed throughout the Project.

The Project will require one substation that will include two 105-megavolt ampere (MVA) transformers and all necessary equipment to step up incoming MV electricity to the high voltage electricity necessary to interconnect via a gen-tie line into a new 138-kV three ring bus POI switchyard that will be owned and operated by FirstEnergy. The 138-kV gen-tie line will be no more than 1,000 feet (304.8 meters) in length and will be constructed by the Applicant. FirstEnergy will be responsible for the transmission equipment within the switchyard. It is anticipated that gen-tie line poles and substation components will not exceed 110 feet (33.5 meters) above grade.

Currently, two possible locations for the substation/switchyard complex are being evaluated within the Project Area, with both locations depicted in all Facility mapping. The primary substation location is situated near the western boundary of the Project Area and the secondary substation location is situated near the eastern boundary of the Project Area. The final substation/switchyard location will be selected once the PJM Facilities Study is complete and the Interconnection Agreement is executed.

(1) Description of the Generation Equipment

Project generation equipment includes PV solar modules that will convert sunlight directly to electricity. Bi-facial modules are being considered for this Project that will convert both direct sunlight and reflected sunlight to electrical power. The remaining Project equipment either transmits, converts, or transforms electricity generated by the solar modules.

(a) Type, Number of Units, Estimated Net Demonstrated Capacity, Heat Rate, Annual Capacity Factor, and Hours of Annual Generation

PV solar modules have not been procured for the Project as explained in 4906-4-03(A)(1); however, it is anticipated that the Facility will be composed of 380-watt to 505-watt panels, comparable to Talesun, Risen, Trina, Longi, Jinko or other similar module suppliers. Table 3-1 below summarizes the potential module type, technology, wattage, and the approximate number of panels needed for the Facility. Regardless of the specific model, the solar modules will be approximately 3 to 3.5 feet (0.9 to 1.1 meters) wide by 6 to 7.5 feet (1.8 to 2.3 meters) tall and approximately 1 to 2 inches (2.5 to 5 centimeters) deep. Manufacturer specifications for Talesun, Risen, Trina, Longi, and Jinko modules are provided in Exhibit B, which has been filed under seal. In addition, manufacturer specifications for potential tracking systems and inverter models that may be used by the Project are also included in Exhibit B. If the Applicant uses a technology other than those included in Exhibit B, the appropriate manufacturer specification will be provided to the OPSB no later than 30 days prior to the start of construction.

Table 3-1 Solar Module Specifications

Solar Module Manufacturer	Module Type	Module Technology	Module Wattage	Approximate Number of Panels
Talesun	Polycrystalline/ Monocrystalline	Mono-Facial, Bi-Facial, PERC, Half Cut Cells	380W – 415W	616,000 – 575,000
Longi	Polycrystalline/ Monocrystalline	Mono-Facial, Bi-Facial, PERC, Half Cut Cells	415W – 455W	564,000 – 524,000
Risen	Polycrystalline/ Monocrystalline	Mono-Facial, Bi-Facial, PERC, Half Cut Cells	370W – 505W	633,000 – 472,000
Trina	Polycrystalline/ Monocrystalline	Mono-Facial, Bi-Facial, PERC, Half Cut Cells	390W – 505W	600,000 – 472,000

Table 3-1 Solar Module Specifications

Solar Module Manufacturer	Module Type	Module Technology	Module Wattage	Approximate Number of Panels
Jinko	Polycrystalline/ Monocrystalline	Mono-Facial, Bi-Facial, PERC, Half Cut Cells	410W – 475W	570,000 – 502,000

Key:
W = watt

Racking system technology has not been procured for the Project; however, it is anticipated that the Facility will include a NEXTracker, Array Technologies, FTC Solar, Gamechange Solar, Soltec, Sunfolding, or similar racking system. Manufacturer specifications for NEXTracker, Array Technologies, FTC Solar, Gamechange Solar, Soltec, and Sunfolding racking systems being considered are included in Exhibit B, which has been filed under seal. If the Applicant uses a racking technology other than those included in Exhibit B, the appropriate manufacturer specification will be provided to the OPSB no later than 30 days prior to the start of construction.

Inverters have not been procured for the Project; however, it is anticipated that the Facility will include TMEIC, SMA, Ingeteam, Sungrow or similar inverters. Manufacturer specifications for TMEIC, SMA, Ingeteam, and Sungrow inverters being considered are included in Exhibit B, which has been filed under seal. If the Applicant uses an inverter technology other than those included in Exhibit B, the appropriate manufacturer specification will be provided to the OPSB no later than 30 days prior to the start of construction.

The annual net capacity factor for the Facility is expected to be approximately 24.82% and the hours of annual generation are expected to be 391,402 megawatt hours. Net demonstrated capacity will be 180-MW delivered to the regional transmission grid. Heat rate is not applicable to solar facilities.

(b) For Wind Farms, Turbine Size

This section is not applicable for solar facilities.

(c) Fuel Quantity and Quality

Fuel quantity and quality are not applicable for solar facilities.

(d) Pollutant Emissions and Estimated Quantities

The Project will generate electricity without producing pollutant emissions. Therefore, this section is not applicable to solar facilities.

(e) Water Volume Requirement, Source, Treatment, and Discharge

The Project will not require any cooling water during operation and, therefore, will not need to treat or discharge water. However, the Project will include an O&M building that will require a water source and sanitary sewer capacity. In addition, Project modules may require occasional cleaning. Water can be obtained from an on-site well or brought in from off site. The Project will either connect to the public sanitary sewer or a septic system will be installed. The Applicant will coordinate with local authorities to determine the availability of public utility infrastructure in the vicinity of the Project and will obtain all necessary permits prior to construction.

(2) Construction Method, Site Preparation and Reclamation Method, Materials, Color and Texture of Surfaces, and Dimensions of Facility Components

In general, the Project construction will include securing the land, installation of stormwater detention basins and other erosion control plans, clearing vegetation (Project anticipates minimal clearing), grading (Project anticipates minimal grading), installation of temporary power, and construction of temporary laydown yards and access roads. Further detail on each component is provided.

(a) Electric power generation plant or wind-powered electric generation turbines, including towers and foundations

Solar modules will be installed on steel posts that are approximately 6 inches by 7 inches (15.2 by 17.8 centimeters). Posts are typically 10 to 15 feet (3.0 to 4.6 meters) long and will be driven 7 to 11 feet (2.1 to 3.4 meters) below grade, depending on soil conditions. Posts will be primarily installed by pile drivers. The Project as designed will require installing approximately 85,000

posts. Modules will be supported on posts with the help of a racking mechanism. Forklifts will be used to deliver the steel frame required for the racking structures. Once the posts are driven in the ground, racking mechanisms will be installed primarily by hand and modules will then be bolted to the frame.

(b) Fuel, waste, water, and other storage facilities

There will be no fuel, waste, water, and other storage facilities on site during operations. Diesel fuel for construction vehicles and equipment will be stored in appropriate containment in the laydown yards located away from any stream or wetland areas.

(c) Fuel, waste, water, and other processing facilities

There will be no fuel, waste, water, or other processing facilities associated with the Project.

(d) Water supply, effluent, and sewage lines

The Project will include an O&M building that will require a water source and sanitary sewer capacity. Water can be obtained from an on-site well or brought in from off site. The Project will either connect to the public sanitary sewer or a septic system will be installed. The Applicant will coordinate with local authorities to determine the availability of public utility infrastructure in the vicinity of the Project and will obtain all necessary permits prior to construction.

(e) Associated electric transmission and distribution lines and gas pipelines.

No new gas pipelines will be needed for the Project. One short gen-tie line will be constructed to deliver electricity from the Project substation to a new POI switchyard that will connect to the regional transmission grid. The O&M building may require a distribution line to deliver station power to the building. Arrangements for that connection will be made with the local power distribution company, as required.

(f) Electric collection lines

There are two types of collection systems (also called collection circuits or collection lines) for a solar project: AC collection and DC collection.

DC collection lines (1,500 volt) will connect the modules to the inverter electrically. Modules will be connected electrically above ground on the rear side and at the end of each row. Collection lines will be trenched underground or hung over the racking systems using a cable system which feeds to the combiner box. The DC collection from the combiner boxes to the inverters will be run underground. Approximately 861,705 linear feet of DC collection system cables will be installed throughout the Project.

AC collection lines (34.5kV) will connect the inverters to the Project substation. The collection lines connected to the inverters create circuits generally loaded up to 30MW. The number and loading of circuits will be determined by electrical, geotechnical, and equipment parameters. The AC collection system will be installed underground via open cut trench or plowed methods or installed overhead via self-supporting or guyed poles. Horizontal directional drilling (HDD) may also be used. Approximately 261,560 linear feet of AC collection cables will be installed throughout the Project.

(g) Substations, switching substations, and transformers

Preliminary design includes one Project substation with two 105-MVA transformers and all necessary equipment to step up incoming MV electricity to the high voltage electricity necessary to interconnect via a gen-tie line into a new 138-kV three ring bus POI switchyard owned and operated by FirstEnergy. Currently, two possible locations for the substation/switchyard complex are being evaluated within the Project Area, with both locations depicted in all Facility mapping. The primary substation location is situated near the western boundary of the Project Area and the secondary substation location is situated near the eastern boundary of the Project Area. The final substation/switchyard location will be selected once the PJM Facilities Study is complete and the Interconnection Agreement is executed.

There will be one 34.5kV collection system bus with individual 34.5kV feeder breakers for each collection feeder. All breakers will be supplemented with disconnect switches according to industry practices. A common control enclosure will be installed on site that will house the protection, communication, and supervisory control and data acquisition equipment necessary to safely operate the substation. The substation and POI switchyard will be located adjacent to each

other and will be less than approximately eight acres total in area. The substation/switchyard complex will be fenced in and protected according to the National Electric Safety Code (NESC).

(h) Temporary and permanent meteorological towers

The Project will include four permanent MET towers that will be approximately 14 feet (4.3 meters) tall and installed on a concrete base adjacent to inverters. MET stations consist of a pyranometer to measure the solar irradiance, an anemometer to measure the wind speed and direction, and a thermometer. The location of the MET towers will be determined during the final design stage.

(i) Transportation facilities, access roads, and crane paths

Approximately 42,892 linear feet of new access roads will be constructed as part of the Project. These roads will be private, constructed of aggregate gravel, and will not exceed 20 feet (6.1 meters) in width, except for turning radii, which will not exceed 53 feet (16.2 meters) in radius. Access roads will be constructed to support the size and weight of vehicle traffic on site.

The highest traffic volume will occur during peak construction periods, when racking systems are being installed and PV solar modules are being assembled concurrently. Except for the transformer deliveries, construction traffic is not expected to include oversize or overweight loads.

The construction of the solar array will not utilize large cranes and, therefore, crane paths are not necessary. A crawler-type crane will be used to erect the substation and switchyard. The crane will be positioned just off the substation access road which will eliminate the need for a designed crane path.

(j) Construction laydown areas

The Project will include one laydown area throughout construction that will be no more than six acres in size. Currently, two possible locations for the laydown area are being evaluated, with both locations depicted in all Facility mapping. The laydown area will include construction contractor trailers, equipment storage containers, diesel fuel storage for construction equipment,

a laydown area for materials and supplies, including solar modules and racking equipment, and an employee parking area. The laydown area may require temporary electrical lines to connect to the laydown facilities. The laydown area will be restored once construction is complete, provided it is not used for other Project components. Any temporary electrical lines will be removed once construction is complete.

(k) Security, operations, and maintenance facilities or buildings

The Project will include an O&M building that will house administrative, operation, and maintenance equipment and an office space for Project personnel. The O&M building and associated infrastructure would occupy approximately 2 acres. The Facility will be surrounded by approximately 39,851 linear feet of 7-foot (2.1-meter) perimeter fencing. Security lighting will be installed near the O&M building, Project substation and Project access points. A lighting plan will be provided to the OPSB with the final site design, no later than 30 days prior to construction.

Currently, two possible locations for the O&M building are being evaluated, with both locations depicted in all Facility mapping.

(l) Other pertinent installations

After construction, temporarily disturbed areas will be restored, graded to natural contours where possible and prepared for final seeding. Once construction is complete, the permanent access roads will be dressed as necessary to ensure their long-term function. Erosion control methods during and after construction will depend on the contours of the land, as well as requirements of relevant permits.

(3) New Electric Transmission Line

The only new transmission lines associated with the Project will be the 138kV gen-tie line delivering electricity to the new POI switchyard owned and operated by FirstEnergy. The gen-tie line will be no more than 1,000 feet (304.8 meters) in length and will not exceed 110 feet (33.5 meters) above grade.

(4) Project Area Aerial Map

Figure 3-2 depicts the proposed Project and its nearby roads and property lines at a scale of at least 1:12,000 and includes the following features:

(a) An aerial photograph;
(b) The proposed Facility, including all components listed in paragraph (B)(2) of this rule;
(c) Road names; and
(d) Property lines.

(C) PROJECT SCHEDULE

(1) Project schedule in Gantt Format

The Project schedule is provided in Figure 3-3 and includes the following milestones:

(a) Acquisition of land and land rights

The Project will be built on private land under purchase option, lease, and easement to the Applicant. OAC Section 4906-4-06(A) in this application details the acquisition of land and land rights for the Project.

(b) Wildlife, environmental, and cultural surveys/studies

Wildlife, environmental, and cultural surveys/studies were completed between May 2019 and May 2020, and included the following:

- Construction route study (Exhibit J);
- Geotechnical engineering report (Exhibit L);
- Glint and glare analysis (Exhibit N);
- Sound level assessment (Exhibit O);
- Wetland and waterbody delineation field survey (Exhibit P);

- Threatened and endangered (T/E) species habitat field survey (Exhibit Q);
- Critical issues analysis (CIA; Exhibit S);
- Hydrology Assessment (Exhibit T);
- Architectural history survey (Exhibit U);
- Desktop cultural resources review (Exhibit V);
- Archaeological field survey (Exhibit W); and
- Visual resources assessment (Exhibit X).

The results of these surveys are summarized in OAC Section 4906-4-08 in this application.

(c) Receipt of grid interconnection studies and other critical path milestones for project construction

Interconnection studies commenced in the first quarter of 2018 and are ongoing, with an anticipated completion in the third quarter of 2020, at which time a signed interconnection agreement is expected.

(d) Preparation of the application

Development of the application commenced in fall 2019 and has been ongoing since then.

(e) Submittal of the application for certificate

This application will be submitted in the third quarter of 2020.

(f) Issuance of the certificate

The Applicant anticipates that OPSB will issue a Certificate by the third quarter of 2021.

(g) Preparation of the final design

The Applicant anticipates that preparation of the final design will commence shortly after receipt of a Certificate in the third or fourth quarter of 2021 and be completed during the first quarter of 2022.

(h) Construction of the facility

Construction of the Project is planned to commence as early as the fourth quarter of 2021 and be completed by the end of 2022.

(i) Placement of the facility in service

The Project is expected to be in service by the end of the fourth quarter of 2022 or first quarter of 2023.

(2) Proposed construction sequence

An engineering procurement and construction contractor will be selected prior to construction. Construction will begin after the necessary permits are received and the electrical interconnection process is finalized. Project construction will begin with workforce mobilization and the initial site preparation work including grading, placement of erosion control measures, and any necessary vegetation and tree removal. Localized site grading is expected to be required to smooth areas of rolling terrain within the array to accommodate the racking system. Some grading will be required for the Project substation and POI switchyard, and the O&M building, but access roads will be constructed at grade when possible.

Next, general site improvements will be made such as access improvements and preparation of the construction laydown area. The Facility components (racking system, PV solar modules, collection system, and inverters) will be installed next, along with access roads. The Project will be constructed in blocks, and multiple blocks will be constructed simultaneously.

Commissioning of electrical equipment will be conducted prior to placement of the Project in service. As portions of the Project near completion, temporary laydown areas will be vacated, and disturbed areas will be reseeded and re-vegetated consistent with the vegetation management plan (Exhibit C). Once installation is complete, the O&M building and associated permanent infrastructure (storage, lighting, etc.) will be completed. All temporary restroom facilities will be removed upon completion of the O&M building.

After construction, temporarily disturbed areas, including the construction laydown area, will be restored, graded to natural contours where possible and prepared for final seeding. Once construction is complete, the permanent access roads will be dressed as necessary to ensure their long-term function. Erosion control methods during and after construction will depend on the contours of the land, as well as requirements of relevant permits.

(3) Impact of Critical Delays on the In-Service Date

Due to the complexity of preparing a utility-scale solar facility for permitting, construction, financing, off-takes, etc., impacts of any delays can vary widely. Critical delays may have material impacts and adverse effects on Project financing, including the Applicant's ability to procure PV solar modules and other Facility components. Such delays may push the in-service date back, which would cause significant financial burden to the Applicant, as discussed in OAC Section 4906-4-06(D) of this application.

4906-4-04 PROJECT AREA SELECTION AND SITE DESIGN

(A) SELECTION OF THE PROJECT AREA

(1) Description of the Study Area or Geographic Boundaries of the Area Considered for Development and Rationale for Selection

The Project is in Pike Township, Madison County, Ohio, near the communities of Rosedale to the east, and Mechanicsburg to the west. The Applicant chose to develop in this area because the properties either contain or are adjacent to an existing transmission line that distributes power to the greater Columbus and Cincinnati metropolitan areas and this portion of the state has a relatively strong solar resource. In addition, Madison County is currently designated as an Alternate Energy Zone.

(2) Map of the Study Area and General Sites Evaluated

A map of the Project Area (Study Area) is provided as Figure 3-2. The Applicant evaluated land within Madison County to determine whether it was suitable for solar development.

(3) Qualitative and Quantitative Siting Criteria Utilized

From a qualitative perspective, open, flat ground, access to transmission, and interested landowners were key to identifying the site. Quantitative siting criteria is based upon estimates of solar resource from data collected on-site, required transmission upgrade and interconnection costs, and project size.

(4) Description of the Process and how the Siting Criteria were Utilized

Savion's solar site selection process is comprised of four primary components: transmission proximity, geophysical and environmental review, landowner and community interest, and competition research.

The process begins with identifying areas with access to nearby transmission facilities. Once a point of interconnection onto the grid is identified, large areas of open ground are analyzed to determine suitability based on land use and environmental concerns. Areas with large concentrations of wetlands, sloped terrain, or undisturbed forested areas are generally avoided, narrowing the number of potential project areas considerably. Research into county parcel data is then completed in order to identify land ownership. Several potential landowners are contacted in order to determine interest and to refine the initial site boundary. Research into the community and competitor's actions may then be completed in order to determine if a site is likely to be successful. A project only moves into advanced development if there is landowner support, competitive power pricing, and positive results from initial environmental and transmission studies.

(5) Description of the Project Area(s) Selected for Evaluation

The Applicant selected the subject site for further development because of interest and positive feedback from landowners and local officials, and positive results from initial transmission studies. In addition, due to the nature of the site (i.e., previously disturbed cultivated cropland), solar development construction and operations will not have a significant impact on natural resources.

(B) Designing the Facility Layout

(1) Constraint Map

Figure 4-1 presents a map of the Project Area with the setbacks and other constraints.

(2) Criteria Used to Determine the Facility Layout and Site Design

The layout of the Project has been optimized to utilize available land and still provide environmental and visual setbacks to achieve a minimal impact to natural resources and adjacent residents' viewshed. All of these setbacks have been made proactively by the Applicant in order to limit impacts to the various resources. The ground coverage ratio was selected to obtain the most efficient energy production. The solar modules have been setback a minimum of 300 feet (91.4 meters) from the adjacent residences and 50 feet (15.2 meters) from public road centerlines and 65 feet (19.8 meters) from the existing transmission line that bisects the Project Area. There is also a setback of at least 75 feet (22.9 meters) from a small cemetery to the east of the Project Area. The Project has been designed such that the wetlands delineated at the site and streams have been avoided. Should it become necessary to impact wetlands in the final design, the Applicant will coordinate with U.S. Army Corps of Engineers (USACE) and the Ohio Environmental Protection Agency (OEPA) to obtain the required permits.

(3) Description of Number and Type of Comments Received

The Applicant has held four public information meetings to date regarding the Madison Fields Solar Project. Two were held on November 5, 2019, and November 6, 2019, at the Rosedale Bible College located at 2270 Rosedale Rd. Irwin, Ohio, 43029. The meetings were held from 5:30 p.m. to 7:30 p.m. The Applicant provided stations where Project personnel explained the proposed Project and answered questions from the community members. Comment sheets were also provided to meeting attendees to use to submit comments. Approximately 40 residents were in attendance the first night and 15 the second night, with some residents attending both sessions. OPSB staff members were present at both meetings.

Two public information meetings were held virtually. A presentation about the Project, including information similar to what was provided during the previous in-person meetings, was posted online on June 9, 2020. The presentation was just over one hour in length and included a combination of slides and narrative from subject matter experts providing Project details, answers to frequently asked questions, and study findings. The presentation concluded with information from both the Applicant and the OPSB on the many avenues to ask questions and provide comments on the Project to both the development team and the OPSB. On June 16, 2020, a live phone-in question and answer session was conducted with approximately five residents participating. Three residents participated in a second live phone-in session held on July 15, 2020.

Community feedback throughout the process has been overwhelmingly positive. All submitted comments are included in Exhibit D. Twelve comments were left at the public information meetings in November 2019. Many residents were excited about the opportunity and the idea of renewable energy in Madison County. Seven of the 12 comments were encouraging remarks cheering solar and/or expressing excitement about the Project. Two comments discussed employment needs and the desire to keep jobs local. One comment suggested additional speed limit signs will be needed in Rosedale due to increased traffic during construction. One comment was looking for more local benefits, such as high-speed internet or lower electricity bills from the Project. Two comments requested a speaker and presentation at the next meeting.

A summary of some of the questions/concerns posed during the public information meeting include:

- Where exactly will everything be?
- What will the Project look like?
- How soon will the Project be constructed?
- How does the Project benefit me personally?
- Will my electric bills go down?
- 400+workers in Rosedale will change the personality of the community.
- Will the powerlines "hum" by adding extra power at the site?
- Would you consider adding my land?

- Are you hiring?

Only a few questions were asked on the live phone-in question and answer session held on June 6, 2020:

- What will the Project do to property values?
- Will there be increased flooding due to tile damage?
- What is the economic impact of the Project to the local community and how does the payment in lieu of taxes (PILOT) work?

Two questions were submitted through the project website:

- "Exactly where are the panels going to be placed. I would like to know how close the eye sore will be to my home/views. Historically what will the facility impact in terms of property values?"
- "We already have flooding when there is heavy rain and fields are off. If this causes more flooding, and potentially causing our properties unsuitable for housing, do we have recourse through the law after this project is approved?"

Nine questions were submitted via email prior to the live phone-in question and answer session held on July 15, 2020 and were discussed on the call:

- "The land being used for the Madison Fields Solar Project, is it being leased from present landowners or will it be purchased by Savion?"
- "We have many large warehouses in Madison county, particularly in West Jefferson, why are we using good farmland for this project and not putting the solar panels on top of large warehouses?"
- "The electricity produced by this project, will it be used by the people of Ohio or is it being shipped to other states?"
- "Will Savion manage this site after it is build or will it be sold to another entity or utility like AEP? How do we know that the environmental concerns will be managed properly?"
- "The solar panels that will be used in this project, are they made in the USA or are the coming from China?"

- "How much government support (federal, state and local) is Savion receiving for this project?"
- "Is Savion a stock holder company?"
- "I heard that the Microsoft founder and billionaire Bill Gates is involved with this company/project. Is that true?"
- "Other solar companies have received millions of dollars in government grants and then declared bankruptcy (eg. Solaria which received $500 million from the Obama administration). What guarantees do we have that Savion will not do something similar?"

The Applicant's responses to the inquiries are consistent with the information provided in this application. In addition, the Applicant launched a Facebook page (https://www.facebook.com/MadisonFieldsSolar/) and website (https://www.madisonfieldssolarproject.com/) to provide interested individuals a way to seek Project related information and to connect with Project representatives. Both residents who submitted questions via the website, as well as anyone who left their contact information at either of the two in-person public meetings, were contacted personally by the Project developer and subject matter expert pertaining to the individual inquiry to discuss the concerns and follow-up with their submission. Topics discussed included drain tiles, specific location of the Project, local benefits, visual impacts, and the OPSB process. Online inquiries received from bots, ad generators, or any other false pretense were addressed but not responded to directly.

The Applicant has used social media as a communication tool throughout development. As of July 15, 2020, the Facebook page messaging has resulted in approximately 4,825 interactions with the page. Of the interactions, 98% were supportive of the Project as indicated in the third-party Facebook Metrics report included in Exhibit E. Since launching the social media sites, approximately eight local residents have reached out to Project representatives to inquire about the Project. These inquiries have resulted in several phone calls and in-person meetings to further engage the community and garner local support for the Project.

4906-4-05 ELECTRIC GRID INTERCONNECTION

(A) CONNECTION TO THE REGIONAL ELECTRIC GRID

PJM is the Regional Transmission Operator that coordinates the movement of wholesale electricity throughout 13 states and the District of Columbia in the Midwest and Mid-Atlantic, including Ohio. The Applicant will be connecting the Project to a new switchyard that will be owned and operated by FirstEnergy and will connect to the PJM grid.

(B) INFORMATION ON INTERCONNECTION OF THE FACILITY TO THE REGIONAL ELECTRIC POWER GRID

(1) Generation Interconnection Request Information

The Applicant submitted one transmission filing with PJM for the Project with a total capability of 180-MW under Madison Fields Solar Project, LLC. The PJM assigned queue position AD2-163. To date, a Feasibility Study and System Impact Study (SIS) have been completed for the Project. In the latest SIS, no network upgrades were identified, and the total cost of the interconnection was estimated at $12.39 million. Similar results are expected in the Facilities Study. The Facilities Study is in progress and the report is expected to be issued by July 31, 2020. An Interconnection Service Agreement will be executed upon completion of the Facilities Study and is anticipated to be executed in the third quarter of 2020. The completed system studies for queue position AD2-163 are attached in Exhibit F.

(2) System Studies on Generation Interconnection Request

The Project queue position AD2-163 received its Feasibility Study on July 31, 2018, and SIS on February 28, 2019. A Facilities Study is in progress and it is expected to be completed by July 31, 2020. The completed studies are contained in Exhibit F.

4906-4-06 ECONOMIC IMPACT AND PUBLIC INTERACTION

(A) CURRENT AND PROPOSED OWNERSHIP OF THE PROPOSED FACILITY

The Applicant is a wholly owned subsidiary of Savion. Savion develops projects and secures PPAs that are ultimately transferred to other entities. The Project will be constructed, operated, and maintained by the Applicant.

The Applicant holds all landowner agreements. These agreements will not change the ownership status of the private lands except for one purchase option within the Project Area. All landowner agreements are summarized in Table 6-1 below.

Table 6-1 Participating Landowners

Parcel Number	Owner	Status	Approximate Size (Acres)
15-00069.001	Spring Fork Farms, Inc.	Purchase Option	306.0
15-00128.001	Shannon Farms, Inc.	Leased	511.1
15-00128.002	Shannon Farms, Inc.	Leased	153.7
15-00144.000	Spring Fork Farms, Inc.	Leased	384.7
15-00144.001	Spring Fork Farms, Inc.	Leased	73.2
15-00145.001	Spring Fork Farms, Inc.	Leased	152.9
15-00145.002	Spring Fork Farms, Inc.	Leased	62.4
15-00145.003	Spring Fork Farms, Inc.	Leased	31.9
15-00146.003	Shannon Farms, Inc.	Leased	102.5
15-00195.000	Gary M. Burns and Mary E. Burns Trust	Access Agreement[1] / Pending Lease	72.8
15-00201.000	Gary L. Scheiderer Trust 1/2 Interest Carol Pope Scheiderer Trust 1/2 Interest	Leased	80.9

Notes:
[1]Access agreements allow the Applicant to study and include the land in the Certificate of Environmental Compatibility and Public Need application while the Applicant and landowner negotiate a lease or easement. Facility placement on these lands is predicated on finalization of a lease or easement.

(B) CAPITAL AND INTANGIBLE COSTS

(1) Estimates of Capital and Intangible Costs for the Various Alternatives

The Applicant will invest more than [redacted] million to develop the Project with capital costs totaling [redacted] million and intangible costs including permitting, other development costs, and business overhead totaling approximately [redacted] million.

Alternative project areas were ruled out prior to conducting detailed cost analyses.

(2) Cost Comparison with Similar Facilities

Based on the current estimated cost per kilowatt of [redacted]/kilowatts DC (kW_{DC}), which has some variability based on things like discount rates, the Project's costs are consistent with other solar facilities in the Midwest and with others developed by Savion. Lazard's Levelized Cost of Energy Analysis provides a means of quantifying and comparing the cost of different energy generation technologies in the U.S., reporting that utility-scale solar PV projects using thin-film technology across the U.S. range from $950 to $1,250 per kW_{DC}, so the anticipated cost for this Project is within the national range (Lazard 2018).

(3) Present value and Annualized Cost for Capital Costs

Capital costs spent through the second quarter of 2020 are accounted for and all additional capital costs will be incurred through permitting and construction, culminating with the Project's commercial operation date in the fourth quarter of 2022 or the first quarter of 2023. Because of the short timeline to the Project's COD, the present value and annualized capital costs will be similar to the costs presented above.

As no other Project location alternatives were pursued, no additional present value or annualized cost estimates for capital costs are provided.

(C) Operation and Maintenance Expenses

(1) Estimated Annual Operation and Maintenance Expenses

The O&M costs for the Project during the first two years of commercial operation are estimated to be approximately [redacted] million annually, for a total of [redacted] million for the first two years combined (excluding costs associated with tax and lease payments or increases due to inflation).

(2) Operation and Maintenance Cost Comparison

The Applicant expects the annual O&M cost of the Project, including labor, to be approximately [redacted] million (excluding taxes, land leases, and inflation) or [redacted] per kilowatt alternating current per year (kWac/year). The U.S. Department of Energy, National Renewable Energy Laboratory, issued a report benchmarking the cost of installed solar energy in the first quarter of 2018 across the U.S. and found that annual O&M costs for utility-scale, fixed-tilt PV solar was approximately $9.10 per kWac/year and $10.40 per kWac/year when using tracking systems (NREL 2018). These costs exclude inverter replacements. The Project is below the national average for annual O&M costs.

(3) Present value and Annualized Expenditures for Operating and Maintenance Costs

The present value of the total annual O&M cost (excluding taxes, land leases, and inflation) can be calculated using a nominal 8% discount rate and 2% escalation over the approximate 30-year lifespan of the Project. Based on these assumptions, the net present value (NPV) of the O&M costs over the life of the Project is approximately [redacted] million.

(D) Estimated Cost for a Delay

Due to the complexity of preparing a modern solar energy facility for permitting, construction, financing, off-takes, etc., impacts of any delays can vary widely. Critical delays may have material, adverse effects on Project financing, including the Applicant's ability to procure PV solar modules and other Project components. Such delays may push the in-service date back. A

monthly delay in the in-service date is estimated to have an NPV loss of a minimum of [redacted]

(E) Economic Impact of the Project

The Project will have a positive impact on the local economy primarily through construction spending and jobs, and related tax revenue benefits for the local governments and school districts as described below. Ecology and Environment, Inc. (Member of WSP Global Inc.) conducted a thorough economic impact assessment of the Project and the resulting report is provided in Exhibit G. To quantify the potential impact on the local economy, the Regional Input-Output Modeling System (RIMS II) was utilized in the economic assessment. RIMS II multipliers can be used to model changes in economic activity, based on the initial spending of a project. The model multipliers are based on assessed linkages among and within industries in each county and across the country. For the Project, three types of expenditures were considered: direct expenditures, indirect expenditures, and induced expenditures. In order to determine construction impacts, final demand multipliers were used to estimate the total economic outputs at the county and state levels.

The inputs used for the RIMS II model were based off impacts of projects of a similar size and magnitude. The Project's construction expenditures in Madison County, of which the majority will be construction payroll expenses, are estimated to total $28.7 million and a total of $39.4 million in the state of Ohio. The Applicant estimated that construction of the Project will create approximately 453 jobs in Madison County, with an additional 143 laborers pulled from the surrounding areas in Ohio. The Applicant has estimated that the Project will create the equivalent of 19.9 full time positions in the state of Ohio and payrolls for those jobs are estimated to total approximately $699,082 in Madison County and a total of $1.4 million annually in the state of Ohio.

(1) Annual Total and Present Value of Construction and Operation Payroll

Per the RIMS II model, the Project will create employment opportunities primarily during the approximate 12-month construction period and it is estimated that the annual total and present value of payroll will equal approximately $39.4 million in the state of Ohio.

Onsite O&M labor is expected to total approximately $1.4 million annually over the 30--year life of the Project. Assuming an 8% discount rate and 2% escalation, the present value of the annual O&M payroll is approximately $19.1 million.

(2) Construction and Operation Employment and Estimates

As a result of the construction and operation of the Project, both short- and long-term jobs will be created. During construction, Project development staff and on-site labor are anticipated to include 453 workers from Madison County and another approximately 143 workers from across Ohio, bringing the total number of direct jobs from the Project to approximately 596 workers statewide. Further, it is predicted with the RIMS II model that more than 768 indirect and induced jobs, including 107 in Madison County, would be created within the State of Ohio as a result of an increased need for jobs related to truck transportation, manufacturing, and food and beverage stores. In total, approximately 1,364 new direct, indirect, and induced jobs will be created in the state of Ohio, which includes 560 new jobs in Madison County.

Estimating the portion of projected employment that would come directly from the region is difficult. Eighty percent of the construction and installation workers will be from the state of Ohio in compliance with the PILOT criteria in Ohio Revised Code (ORC) 5727.75. While many positions can be filled utilizing local labor, such as equipment operators, truck drivers, laborers, and electricians, there will also be some specialized skilled positions required for construction of the Project. It is anticipated that some of these specialized positions will need to be filled using non-regional workers, due to the specialized training required for each position.

The local housing market will not be impacted during construction of the Project for two reasons: 1) most of the construction positions will be filled by laborers from the local community, and 2) construction workers not from the local community will only temporarily relocate to the area and it is anticipated that they will return home after construction is complete. Thus, there is no anticipated impact on supply in the local housing market.

During the operational phase of the Project, the Applicant expects that approximately 20 full time equivalent positions will be created as a result of the Project and an additional 61 indirect and induced jobs will be created within the state of Ohio during operations. This includes a full-time operation and maintenance crew of 3 to 4 people.

(3) Estimated County, Township, and Municipal Tax Revenue

The Applicant anticipates entering into a PILOT agreement with Madison County, whereby real property and tangible personal property taxes will be abated. This agreement would result in annual local government revenues of approximately $1.62 million, and more than $48.6 million over the 30-year life of the Project. The tax abatement structure is currently being discussed with the county and will be finalized after application submission. The PILOT is estimated to be an annual payment of $7,000/MW to the local taxing district and an additional annual payment of up to $2,000/MW directly to the Madison County General Fund, in accordance with ORC 5727.75. Pike Township will receive approximately $100,000 each year. The economic impact assessment of the Project and resulting report, provided as Exhibit G, was prepared considering a 30-year Project lifespan. However, the PILOT will continue throughout the life of the Project.

(4) Estimated Economic Impact of the Proposed Facility on Local Commercial and Industrial Activities

The Project will result in a positive overall economic impact on the local economy, including local commercial and industrial activities. There will be direct, indirect, and induced "multiplier effects" from the construction and operation of the Project. These effects can create indirect impacts, such as employment created in producing and transporting solar modules, and induced impacts resulting from the increase in the employees' income and spending (i.e., local restaurants hiring additional staff to accommodate construction laborers spending their wages on meals).

The total output (value of production) from the construction of the Project is anticipated to be nearly $36.6 million in Madison County and nearly $92.4 million in the state of Ohio. Annual operations of the Project are expected to result in almost $699,082 of direct earnings in Madison County and $1.4 million in the state of Ohio. The estimated impact of direct, indirect, and induced earnings totals nearly $3.3 million for the state of Ohio.

In addition, there will be significant benefits to the local economy through lease payments to landowners.

Additional value to local economies will result from the increased diversification of the county and state economic bases. Economic diversification ensures greater stability of the economy by minimizing the effects of business cycles associated with specific industries.

(F) PUBLIC RESPONSIBILITY

(1) Public Interaction

Representatives of the Applicant have conducted meetings with the local government and the general public to gather support for the Project and assure that, to the extent possible, their comments and suggestions have been incorporated into the construction and design of the Project. The Project is located within Pike Township in Madison County, and does not encompass any municipalities.

The Project has been under development since 2018. Since that time, Project representatives have met with multiple landowners and residents to discuss the Project. In addition, Project representatives have formed strong relationships with the following local organizations:

- Madison County Commissioners and Administrator;
- Pike Township Trustees;
- Madison County 4-H/Ohio State University Extension; and
- Madison County Soil and Water Conservation District.

The Applicant's involvement in the local community has included supporting the local 4-H through the Ohio State University Extension with a donation to Camp Clifton 4-H camp.

The Applicant launched a Facebook page and created a Project website to engage the public, provide Project information, answer questions, and solicit feedback from the local community. Social media has proven to be an effective communication tool for the Project, as the Facebook page has resulted in over 4,825 interactions and additionally, has been used to conduct opinion polls. These interactions have given the Applicant valuable insights into community interests and allowed Project representatives to respond to questions. The Project Facebook page is monitored and maintained by a third party and a recent Facebook Page Metrics Report for the Project is included in Exhibit E.

During the construction period, the Applicant's contractor will establish a 24 hour a day, seven day a week "hot line" for emergency and complaint notices. During operations, site staff will be qualified to attend to requests and complaints with the necessary corporate support. Surrounding landowners will be provided with contact information for site staff. Additionally, emergency contact numbers will be on posted placards at Project entrances that will allow anyone from the public to contact operations staff. The Applicant has also developed a Complaint Resolution Plan to address how complaints will be handled and potential mitigation techniques to be implemented for the Project.

No less than seven days prior to commencing construction, the Applicant will distribute this Complaint Resolution Plan to the affected property owners and tenants via first class mail. A copy of the Complaint Resolution Plan and the notification letter are included in Exhibit H.

(2) Insurance

Liability insurance will be maintained at all times during development, construction, and operation of the Project. The Applicant, a wholly owned subsidiary of Savion, has general liability and excess liability policies on the development phase of the Project.

All solar modules will be installed on property under lease or easement or owned by the Applicant. Terms of the leases or easements include requirements for the Applicant to pay annual rent; to pay for all tax-related payments resulting from the solar installation; to minimize impacts on the landowner's current use of the property; and to remove the solar modules upon termination of the land agreement. In addition, the terms of the leases require the Applicant to provide insurance for all Project components and to indemnify the landowner and other third parties from liability claims resulting from the construction and operation of the Project. The Applicant will carry insurance during development, construction, operation, and decommissioning that will ensure proper indemnification for the landowner and other third parties and for the interests of the Applicant.

A Certificate of Development Liability Insurance is provided as Exhibit I, a portion of which has been filed under seal.

(3) Road and Bridge Impacts

Burns & McDonnell (B&M) conducted a construction route study to identify road surface type and conditions, bridge and culvert locations and conditions, road and bridge posted load restrictions, and potential overhead clearance issues along the roads that will be used during construction. The findings of the B&M construction route study are summarized below, and the complete report is provided in Exhibit J.

It is anticipated that there will be two access points to the Facility that will be utilized during construction, one along County Road 11 (Rosedale Milford Center Road) and a second on County Route 25 (Rosedale Road). Construction equipment, supplies, and general construction traffic will enter the Project along those access roads. Based on those access points, B&M evaluated the roadways immediately surrounding the Project Area for their use as potential construction routes (Exhibit 2 within the Construction Route Study included as Exhibit J).

B&M obtained Annual Average Daily Traffic volumes for the state and county roads along the construction routes, combined with field observations, it was determined that the roadways have good sight distance and do not carry high traffic volumes.

The field survey found that there are four bridges along the construction routes, all of which appear to be in good condition and have no posted load restrictions. There is one 60-inch culvert that is also in good condition. All the roads along the construction routes are asphalt and in good condition. Township Route 84 (Bates Road)/County Route 11 (Rosedale Milford Center Road) has a permanent load restriction of 11 tons, and three roads have temporary load restrictions involving a 25% weight reduction for freeze-thaw observed from February 1 through June 1.

No issues related to vehicle clearance at overhead electrical crossings or tree overhang locations were identified and no other significant concerns to the existing roads were identified by B&M.

During construction, local drivers may experience minor delays as a result of waiting for safe passage on the construction routes when construction and delivery vehicles enter and exit the Project. When possible, deliveries will be scheduled during off-peak hours to avoid disruption to existing traffic patterns. Road closures, lane closures, or access restrictions are not anticipated during construction or operation of the Project. The Project will not generate a significant volume of traffic during construction or operation, so any additional future traffic associated with the Project will be negligible.

Roadway damage could occur during construction as a result of the additional traffic and drivers using the road shoulder, resulting in rutting on the shoulder and rutting or heaving of the pavement on the edges. Impacts to road pavement could be exacerbated if winter construction occurs as a result of the cold and wet conditions. In order to ensure that a corrective action process is established to address any damaged elements of the roadway caused by vehicle trips generated by construction, a Road Use Maintenance Agreement (RUMA) between the Applicant and Madison County will be executed. The RUMA will also address implementation of work zone measures to ensure the safety of the public as well as the construction team.

(4) Transportation Permits

The Madison County Engineer's Office is responsible for maintaining their roadway system, the local Township Trustees maintain jurisdictional authority on their roadway system, and State

Routes 4 and 161 are maintained by the Ohio Department of Transportation. All necessary permits will be coordinated with the applicable entities prior to the start of construction. In addition to the RUMA executed with Madison County, the Project will require a driveway permit from Madison County for each of the access points to the Facility. No special hauling permits are anticipated for the Project with the exception of overweight permits that will be required for delivery of the transformers. There is no plan to utilize public rights-of-way for the Project, however if needed, right-of-way permits will be obtained from the entity responsible for the affected roadway. All permits will be obtained at least 30 days prior to the start of construction.

Any necessary traffic controls will be implemented in accordance with Ohio Department of Transportation standards and specifications.

(5) Decommissioning

At the end of the life of the Project, estimated to be at least 30 years, the Applicant will decommission the Project following the Decommissioning Plan prepared by Environmental Consulting & Technology, Inc., for the Project and included in Exhibit K. The Project will have only modest impacts to the land and will be relatively easy to decommission. Decommissioning the Project should not require any soil or groundwater remediation as operation of the Project will not generate hazardous waste or wastewater. All aboveground features and buried structures up to a depth of 36 inches (0.6 meters) will be removed and disposed of offsite. The only materials that may be left in place at the Facility are access roads requested by landowners and switchyard, interconnection facilities, and similar utility facilities that are not owned by the Applicant. Buried structures greater than 36 inches (0.6 meters) below grade (e.g. collection lines, foundations, etc.) will remain in place. Project restoration efforts will return the land to substantially its original topography. Restoration shall include returning the soil to its pre-development state to allow any prior agricultural use to resume if the landowner so chooses.

Decommissioning costs for the Project will be recalculated prior to commencing construction and will consider salvage of the solar components (Net Decommissioning Cost). If the decommissioning cost exceeds the salvage value of the solar components and therefore, the Net

Decommissioning Cost is a positive value, then the Applicant will post decommissioning funds in the form of a performance bond where the company is the Principal, the insurance company is the Surety, and the OPSB is the Obligee. The Decommissioning Plan and financial assurance will be reviewed again in year 10 of Project operations and every five years thereafter to assess the value of the financial assurance per the current Net Decommissioning Cost estimate.

4906-4-07 COMPLIANCE WITH AIR, WATER, SOLID WASTE, AND AVIATION REGULATIONS

(A) REGULATION CONTEXT

The Project will be constructed and operated in compliance with all federal, state, and local regulations for air and water pollution, solid and hazardous wastes, and aviation.

(B) AIR QUALITY REGULATIONS

(1) Preconstruction Air Quality and Permits

(a) Ambient Air Quality of the Proposed Project Area

Air quality within a geographic area is classified by the U.S. Environmental Protection Agency (USEPA) based on National Ambient Air Quality Standards (NAAQS). Areas with pollutant levels below the NAAQS are considered to be in attainment, whereas areas with persistent air quality problems are designated as nonattainment areas. Madison County is in attainment for all criteria pollutants regulated by the USEPA: Particulate Matter <10 μm and <2.5 μm (PM_{10} and $PM_{2.5}$), sulfur dioxide (SO_2), carbon Monoxide (CO), nitrogen oxide (NO_2) and ozone (O_3). The County was previously classified as a nonattainment area for ground-level ozone, but currently has sufficient controls in place to meet and maintain the most recent standards (USEPA 2020). The USEPA also administers the Regional Haze Program to reduce air pollution that causes visibility impairment. There are no areas in the state of Ohio protected by the Regional Haze Program as listed under 40 CFR § 51.300 (OEPA 2011).

OEPA conducts air quality monitoring to identify exceedances of criteria pollutants in the atmosphere. An air monitoring network is maintained by the agency that includes 135

monitoring sites within the state of Ohio. To provide a general characterization of ambient air quality in the Project Area, the most recent data collection from the nearest monitoring sites was reviewed. Table 7-1 provides mean and maximum measurements of criteria pollutants at nearby (within 50 miles of the site) monitoring sites in Columbus (Franklin County) and Springfield (Clark County), Ohio from 2018 (OEPA 2019).

Table 7-1 2018 Ambient Air Quality Monitoring near the Project Area

Pollutant	Closest Monitoring Site ID	City/ County	Averaging Period	NAAQS Standard*	Mean	Highest Maximum Reading
PM_{10}	39-049-0024	Columbus/ Franklin	24-hour	150 µg/m³	20.2	57
$PM_{2.5}$	39-023-0005	Springfield/ Clark	24-hour	35 µg/m³	10.28	35.4
Sulfur dioxide	39-049-0034	Columbus/ Franklin	1-hour	75 ppb	0.03	5.0
Carbon monoxide	39-049-0038	Columbus/ Franklin	8-hour	9 ppm	0.95	1.0
			1-hour	35 ppm	1.2	1.2
Nitrogen dioxide	39-049-0038	Columbus/ Franklin	1-hour	100 ppb	10.28	49.0
Ozone**	39-023-0001	Springfield/ Clark	8-hour	0.070 ppm	0.073	0.089

*Source: https://www.epa.gov/criteria-air-pollutants/naaqs-table

**Note: Violation only occurs when the annual 4th highest daily maximum 8-hour concentration averaged over three years exceeds the standard.

Source: OEPA 2019.

Key:

µg/m³ = micrograms per cubic meter

NAAQS = National Ambient Air Quality Standards

PM_{10} = Particulate Matter ≤10µm

$PM_{2.5}$ = Particulate Matter ≤2.5µm

ppb = Parts per billion

ppm = Parts per million.

(b) Air Pollution Control Equipment for the Proposed Facility

No air pollutants are associated with the operation of the Project. Therefore, no air pollution control equipment is needed.

(c) Applicable Federal and/or Ohio Air Quality Standards and Limitations

There are no federal or state regulations related to New Source Performance Standards, applicable air quality limitations, NAAQS, or Prevention of Significant Deterioration increments that are applicable to the Project as there are no emissions associated with the operation of the Project.

(d) Required Permits to Install and Operate Air Pollution Sources

No air pollutants are associated with the operation of the Project. Therefore, no air permits are required.

(e) Air Monitoring Station Locations and Major Pollution Point Sources

There are no emissions associated with the Project, therefore, the location of air monitoring stations and other current or anticipated point source locations are not provided.

(f) Compliance with Permits and Standards

As described above, no air pollutants are associated with the operation of the Project. Therefore, no federal or state regulations apply, and no air permits are required.

(2) Plan for Emissions and Fugitive Dust Control During Construction

The operation of heavy construction equipment and vehicles will produce some particulate emissions from engine exhaust and fugitive dust generation during travel on unpaved roads and construction activities. These operations will be temporary and limited to active areas of construction and, therefore, will not result in significant impacts on air quality.

Best management practices (BMPs) will be followed during site preparation and construction to control fugitive dust emissions, including using water to wet down open soil surfaces to prevent dust emission. Water will be used only in periods of high heat and when the soil is deemed dry enough so as not to reach saturation during normal travel.

(3) Air Quality for the Operation of the Proposed Facility

(a) Ambient Air Quality Monitoring Plans

No air pollutants are associated with the operation of the Project. Therefore, no air quality monitoring plan is needed.

(b) Map of Estimated Concentrations in Excess of Significant Emission Rates

There are no air emissions from operation of the Project, therefore, a map of the estimated concentrations in excess of USEPA "Significant Emission Rates" is unnecessary.

(c) Air Pollution Control Equipment Failure

No air pollutants are associated with the operation of the Project. Therefore, no air pollution control equipment is needed and there is no potential for equipment failure.

(C) WATER QUALITY

(1) Preconstruction Water Quality and Permits

(a) List of Water Quality Permits

If necessary, based on the final layout of the Project, the following water quality permits will be obtained by the Applicant prior to Project construction:

- An Ohio National Pollutant Discharge Elimination System (NPDES) construction stormwater general permit, OEPA Permit No. OHC000005.
- A USACE permit under Section 404 of the Clean Water Act (CWA) for disturbances to waters of the United States (if/as necessary for stream and wetland crossings, although not required based on current design and construction methodologies).
- An OEPA Water Quality Certification under Section 401 of the CWA (if/as necessary for disturbance to streams and wetlands, although not required based on current design and construction methodologies).

(b) Map of Water Monitoring and Gauging Stations

There will be no water discharge into streams or waterbodies as a result of the Project; therefore, no mapping of water monitoring and gauging stations is provided.

(c) Monitoring and Gauging Station Information

No water discharge will occur as a result of the Project; therefore, no monitoring and gauging station information is provided.

(d) Existing Water Quality of the Receiving Stream

No water discharge will occur as a result of the Project; therefore, there will be no receiving stream and no water quality information is provided.

(e) Water Discharge Permit Application Data

No water discharge will occur as a result of the Project; therefore, no data for a water discharge permit are provided.

(2) Water Quality During Construction

(a) Map of Water Monitoring and Gauging Stations

No water discharge will occur as a result of the Project; therefore, no mapping of monitoring and gauging stations is provided.

(b) Estimated Quality and Quantity of Aquatic Discharges

Aquatic discharges to streams or wetlands are unlikely to occur during construction of the Project. However, a Spill Prevention, Control, and Countermeasure (SPCC) Plan will be developed to manage hazardous material storage on site to prevent accidental releases and will address the proper methods to contain and mitigate a spill, and the agencies to notify, in the rare event that a spill occurs. The Applicant will follow all measures indicated in the SPCC Plan and monitor for any aquatic discharges draining from the site, such as an oily sheen on storm water, etc. to ensure that the water resources are not at-risk during construction.

There is the potential for erosion and sedimentation to occur within the nearby streams and wetlands as a result of ground disturbance during construction. However, the Applicant will implement a Stormwater Pollution Prevention Plan (SWPPP) to limit erosion from stormwater within the Project Area and minimize sedimentation of nearby streams and wetlands.

Shallow groundwater was observed in a majority of the geotechnical soil test borings conducted by Olsson & Associates (Olsson), with depths ranging from 3.0 to 14.5 feet during drilling and 0.5 to 18.5 feet immediately following drilling completion. At two of the geotechnical borings, groundwater was not observed either during drilling or immediately following drilling (see Exhibit L). These areas of shallow groundwater will be considered during foundation design and addressed in the final design plans.

(c) Mitigation Plans

While aquatic discharges during construction of the Project is not expected to be significant, several measures will be implemented to ensure surface water quality protection, including a SWPPP and SPCC Plan. The SWPPP and SPCC Plan will be provided to the OPSB no later than 30 days prior to construction.

The SPCC Plan, as required by the USEPA, will address methods to prevent the potential release of hazardous substances during construction of the Project. If any spills do occur during construction, the SPCC Plan will also detail the proper methods to address the spill and agencies to notify. Hazardous materials stored on site during construction will be stored in accordance to the SPCC Plan to prevent a release. If a spill were to occur during construction and inadvertently reaches a waterway, it is only expected to cause a minor increase in turbidity over a short timeframe. A minor increase in turbidity for a short duration is unlikely to cause a serious threat to the drinking water quality of the particular water body in which the aquatic discharge occurs.

The SWPPP, required by OEPA as part of the NPDES Construction Storm Water General Permit Number OHC000005, will require the use of sediment and erosion control measures and BMPs during construction to implement storm water pollution prevention measures. BMPs that will be used during construction to prevent excess stormwater runoff from the construction areas will be

defined in the SWPPP, when developed. Any increase in stormwater discharges resulting directly from the construction of the Project will be documented in the SWPPP and permitted through the NPDES Construction Storm Water General Permit, OEPA Permit Number OHC000005.

Furthermore, measures will be taken to maintain the site with BMPs for post-construction runoff control, as required, to ensure that all new facilities associated with the operation of the Project do not create any additional storm water runoff than was generated during preconstruction conditions. The Applicant will implement OEPA Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays to further ensure that stormwater runoff is minimized at the site.

Groundwater impacts will be minimized through SWPPP implementation. However, should shallow groundwater be encountered during excavation, it may be pumped out and discharged into a designated area (approved by the landowner) that will either direct the flow toward existing waterbodies or temporarily retain the water until it can infiltrate back into the ground. Specific details relating to the pumping of groundwater from an excavation area will be included in the SWPPP. Temporary sediment traps or the controlled release of water over vegetated areas will be utilized during construction to intercept and manage sediment-laden runoff from any dewatering activities that are necessary, allowing sediment to settle prior to discharge.

Direct impacts to streams and wetlands have been avoided in the Project design; however, if it becomes necessary to impact a stream to accommodate a fence, electrical, or road crossing in the final design, the crossing(s) will be coordinated with USACE and the OEPA. There is the potential for erosion and sedimentation to occur within the nearby streams and wetlands. To mitigate any potential impacts that may occur to these aquatic resources, appropriate erosion and sediment control measures (e.g., silt fences or straw bale dikes or other stormwater control measures) will be used to limit the area of impact to surface waters. Further, the construction corridors and any clearing of vegetation in or near these features will be minimized to reduce potential impacts. These specific measures will be outlined in more detail once the SWPPP has been developed.

If necessary, the Project intends to employ HDD techniques to install cables underneath roads and streams. There are no HDDs proposed as part of the current site design. If the final site design requires HDDs, it will be conducted per local codes and AHJ guidelines and a Standard Horizontal Directional Drilling Construction Inadvertent Return Control Plan (Frac Out Plan; Exhibit M) will be implemented should an inadvertent drilling fluid release occur. Before any drilling operations begin, all erosion and sedimentation controls included in the SWPPP will be installed and inspected by a qualified environmental inspector. The SWPPP, state permit(s), landowner restriction list, and any other applicable documents will be reviewed before any disturbance occurs.

HDD has the potential for surface disturbance through an inadvertent drilling fluid release. In order to mitigate any potential impacts from HDD fluid releases, the Frac Out Plan (Exhibit M) provides a framework for HDD efforts and steps to take should a release occur. The areas that present the highest potential for fluid release are the drill entry and exit points where the overburden depth is minimal. A pit will be constructed, in the upland areas away from streams and wetlands, at the entrance and exit points to provide temporary storage for the drilling fluid seepage until it can be removed. The pits will be lined with geotextile and be sized to accommodate the maximum volume of drilling fluid that may need to be contained within the pits. A secondary containment around the pits will be created with straw bales and silt fencing to contain any seepage and minimize any migration of the mud to the work area. If any fluid releases occur, a containment structure will be placed at the affected area to prevent migration of the release. If the release is large enough for collection, the drilling mud will be collected and disposed of per the HDD Fluid/Cutting Disposal procedures. If the release is not large enough for collection, the affected area will be diluted with fresh water and restored as necessary. Proper steps will be taken to prevent silt-laden water from entering a wetland or stream. If the release occurs in a stream, the contractor will attempt to place containment structures to prevent the spread. If public health and safety are threatened due to the release, drilling operations will be shut down until the threat is eliminated. All disturbed areas will be stabilized and restored per specifications in the SWPPP. The construction environmental manager will be contacted immediately if the release is returned to a stream, wetland, or other water body.

These mitigation measures will ensure that impacts to groundwater, surface waters, and wetlands are avoided or minimized to the maximum extent practicable during the construction of the Project.

(d) Changes in Flow Patterns and Erosion

Given the BMPs and mitigation measures that will be implemented during construction of the Project as specified in the SWPPP, it is not expected that the flow patterns in the Project Area will be significantly changed from preconstruction conditions. Impacts to wetlands and streams have also been avoided with the current design. Once final design of the Project is complete, potential impacts to streams and wetlands will be evaluated to determine if any permits are required for the Project.

Steep slopes have been avoided that would exacerbate erosion. The majority of the Project has been sited on agricultural land and, therefore, only minimal clearing and grading will be required. Additionally, the BMPs that will be implemented during construction will control erosion and sediment that may result from site clearing and grading.

(e) Equipment Proposed for Control of Effluents

There will be no effluent associated with construction of the Project. Therefore, no equipment is needed for control of effluent discharge and no impacts on water resources are expected.

(3) Water Quality During Operation of the Facility

(a) Map of Water Monitoring and Gauging Stations

No water discharge will occur as a result of the Project; therefore, no water monitoring and gauging station information is provided.

(b) Water Pollution Control Equipment and Treatment Processes

No pollutants will be associated with the operation of the Project that would be released into surface water. Furthermore, the proposed Project will have minimal staffing requirement.

Therefore, the O&M building is not expected to consume significant water or generate large amounts of sanitary waste. The O&M building will have a wastewater source to be determined.

(c) Schedule for Receipt of NPDES Permit

There is no expected discharge of water related to the operation of the Project. As such, no NPDES point source permits will be necessary for operations.

As implemented during construction, the Applicant will apply OEPA Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays to further ensure that stormwater runoff is minimized at the site.

(d) Flow Diagram for Water and Water-borne Wastes

No water or water-borne waste discharge will occur as a result of the Project; therefore, a quantitative flow diagram is not provided.

(e)Water Conservation Practices

Minimal water may be required to clean solar modules if necessary. In addition, the O&M building will include a water source. Given the low volume of water anticipated for Project operations, water conservation practices will not be necessary.

(D) SOLID WASTE

(1) Preconstruction Solid Waste

(a) Nature and Amount of Debris and Solid Waste

Construction of the Project is not expected to result in the removal of any structures that are currently present in the Project Area. Limited amounts of woody vegetation debris may be generated during the preconstruction site clearing and grubbing activities described in 4906-4-03(B)(2).

(b) Plans to Deal with Waste

Woody debris generated during construction will be chipped and either used or composted within the Project Area. However, if that is not feasible, then a private contractor will be hired to properly dispose of the debris at an authorized solid waste disposal facility.

(2) Solid Waste During Construction

(a) Nature and Amounts of Debris and Solid Waste Generated During Construction

Construction of the Project will generate minimal non-hazardous solid waste. This material will consist primarily of plastic, wood, cardboard, metal packing/packaging materials, construction scrap, and general refuse.

(b) Storage and Disposal of Wastes

The solid waste generated will be collected from the construction sites and other work areas and disposed of in dumpsters located at the construction laydown areas. In addition, multiple dumpsters will be located at construction office trailers, restrooms, and parking areas during construction. On an as-needed basis, a private contractor will empty the dumpsters and dispose of the refuse at an authorized solid waste disposal facility.

(3) Solid Waste During Operation

(a) Amount, nature, and composition of Solid Waste Generated During Operation

The Project will generate a small amount of non-hazardous waste from the O&M building that will be recycled or disposed of properly.

(b) Storage, Treatment, Transport, and Disposal of Solid Waste

Generation of solid waste by the O&M building is expected to be minimal and will be monitored by O&M staff members who will coordinate removal with local waste disposal services, as needed.

(4) Waste Permits

Operation of the Project will not require acquisition of licenses or permits for the generation, storage, treatment, transportation, and/or disposal of waste.

(E) AVIATION

(1) Aviation Facilities

The Darby Airport, a private airport in Milford Center, Ohio, is the closest airport, located approximately 5 miles from the Project Area (Figure 7-1).

(2) FAA Filing Status

The Applicant hired Capitol Airspace Group to conduct a glint and glare analysis to identify any potential Project impacts to roads and nearby residents. The findings of the analysis indicated that no glare from the Project is predicted to impact roadways or residents adjacent to the Project, and show the Project is compliant with the interim policy for *FAA review of Solar Energy System Projects on Federally Obligated Airports* (78 Federal Register 63276 – 63279). The complete glint and glare analysis report is contained in Exhibit N.

4906-4-08 HEALTH AND SAFETY, LAND USE AND ECOLOGICAL INFORMATION

(A) HEALTH AND SAFETY

Consistent with OAC Rule 4906-4-08(A), the following details the Applicant's commitment to comply with health and safety regulations.

(1) Safety and Reliability of Equipment

(a) Major Public Safety Equipment

Measures to prevent unauthorized site entry and unsafe practices will be implemented during Project construction and operation. During the construction phase, temporary, highly visible, plastic mesh fencing will be erected around equipment and spare part storage yards, laydown

areas, and other potential construction hazards. The temporary fencing will be supplemented by signs cautioning the public of potential dangers, and providing 24-hour emergency numbers, operator contact information, and instructions for emergency personnel.

During the construction phase, the Applicant will coordinate with local emergency responders to discuss proper rescue techniques and other items specific to on-site equipment safety. Training programs may be recommended to ensure that responders are prepared to address Project-specific emergencies should they arise. On-site construction workers will adhere to industrial safety standards to avoid injury. Regulations set forth by the national Occupational Safety and Health Administration cover safety issues associated with electricity, construction equipment operation, and other hazards that may be encountered at the Project during construction.

(b) Equipment Reliability

The proposed solar PV modules are designed to have a typical lifespan of at least 30 years and will conform to all Underwriters Laboratories (UL), Institute of Electrical and Engineers (IEEE), National Electrical Code (NEC), NESC, and American National Standards Institute (ANSI) listings. A licensed professional engineer will certify the electrical system design. The Applicant will ensure that inspections of all components are completed regularly to provide safe and reliable operation.

(c) Generation Equipment Manufacturer's Safety Standards

Generation equipment manufacturer's safety standards will be provided after PV solar module technology has been selected for the Project. All Project equipment is expected to be compliant with applicable UL, IEEE, NEC, NESC, and ANSI listings.

(d) Measures to Restrict Public Access

The Project will be enclosed by a 7-foot (2.1-meter) chain link fence or agricultural fence around the perimeter of the Project. Access will be controlled by gates.

(e) Fire Protection, Safety, and Medical Emergency Plan(s)

An Emergency Response Plan will be prepared for the Project. Construction and maintenance personnel will be trained and will have the equipment to deal with emergency situations that could occur at the Project. In addition, the Applicant will ensure all local emergency responders will be trained prior to commissioning of the Project on how to respond to any emergencies related to the Project.

(2) Impact of Air Pollution Control Equipment Failure

As described above, no air pollutants will be associated with the operation of the Project. Therefore, no on-site air pollution control equipment will be necessary.

(3) Sound from Construction and Operation of the Facility

(a) Construction Sound Levels at the Nearest Property Boundary

Epsilon Associates, Inc. (Epsilon) conducted a sound level assessment to establish existing sound levels in the Project Area and evaluate potential sound impacts from the construction of the Project on nearby residences and other sensitive receptors. Epsilon's Sound Level Assessment Report is included in Exhibit O. Epsilon utilized the Federal Highway Administration's Roadway Construction Noise Model software to predict the sound levels associated with construction of the Project. Depending on the phase of construction, primary noise-producing equipment could include backhoes, bulldozers, dump trucks, impact pile drivers, cranes, and flatbed trucks. Sound levels during each phase of construction were predicted assuming that the equipment was located at the closest solar module to a property line and at the closest receptor, which were 33.5 feet and 1,032 feet, respectively. The sound level modeling for the different aspects of Project construction are detailed below.

(i) Blasting Activities

Blasting activities will not be necessary for the Project and, therefore, will not result in sound impacts.

(ii) Operation of Earth Moving Equipment

Earthmoving equipment anticipated to be used during construction include a dump truck, bulldozer, and backhoe. The operation of this equipment could range in sound level from 84 A-weighted decibels (dBA) to 85 dBA at a distance of 35 feet (10.7 meters) (closest property line), and 54 dBA to 55 dBA at a distance of 1,030 feet (313.9 meters) (closest monitoring receptor). The sound resulting from these operations reflects the worst-case sound levels and will occur infrequently and over a short duration at each location.

(iii) Driving of Piles, Rock Breaking or Hammering, and Horizontal Directional Drilling

The solar modules are mounted on racks which are supported by posts. There are approximately 85,000 posts that will need to be driven to support the racks. The posts will be embedded at a depth between 7 and 11 feet (2.1 to 3.4 meters) below grade, depending on soil conditions. The operation of an impact pile driver used to drive the posts could result in sound levels ranging from 98 dBA to 105 dBA at a distance of 35 feet (10.7 meters) and 68 dBA to 75 dBA at a distance of 1,030 feet (313.9 meters). The sound resulting from these pile driving activities reflects the worst-case sound levels and will occur infrequently and over a short duration at each location.

(iv) Erection of Structures

The erection of solar PV modules and inverters will require the use of cranes and flatbed trucks. The predicted sounds levels for this equipment range from 78 dBA to 84 dBA at a distance of 35 feet (10.7 meters) and 48 to 54 dBA at 1,030 feet (313.9 meters). The sound resulting from these operations will occur infrequently and over a short duration at each location.

(v) Truck Traffic

The use of dump trucks and flatbed trucks will be necessary during construction of the Project in order to transport materials and equipment throughout the Project Area. Predicted sound levels for truck traffic is included as part of the operation of earth moving equipment and erection of structures activities detailed above. The sound resulting from these operations will occur infrequently and over a short duration at each location.

(vi) Installation of Equipment

Installation of the equipment for the Project will primarily be related to the use of cranes and flatbed trucks as detailed in the erection of structures activities detailed above. The sound resulting from these operations will occur infrequently and over a short duration at each location.

(b) Operational Sound Levels at the Nearest Property Boundary

In order to assess the impact of sound that will result from operation of the Project, Epsilon conducted field surveys to establish the ambient sound levels in the Project Area and then utilized Cadna/A modeling software to predict the sound levels that will result from operation of the Project at nearby residences. Operational sound at the Project will result from the Project inverters and collector substation.

Epsilon conducted field sampling surveys at five different sound monitoring locations throughout the Project Area in order to establish the background (equivalent sound level [L_{eq}]) sound levels within the Project Area. Background sound monitoring in the Project Area indicated that the average daytime L_{eq} for the area ranged from 44 to 51 dBA while the average nighttime L_{eq} ranged from 36 to 43 dBA. While there are no existing federal, state, or local regulations applicable to the Project, operational sound predicted for the Project was evaluated against the 5 dBA increase over ambient sound level used by OPSB to evaluate wind energy facilities. The predicted operational Project sound levels at the nearest residence (approximately 1,660 feet from the nearest inverter) is 38 dBA, which is less than the 5 dBA increase over ambient threshold used to evaluate wind energy facilities.

(i) Operational Sound from Generation Equipment

Epsilon modeled a total of 60 inverters conservatively operating at full load, and a collector substation with two transformers. Broadband L_{eq} sound levels produced by the inverters and collector substation range from 23 to 37 dBA for the primary substation location and up to 39 dBA at the secondary substation location and represent the worst-case sound levels associated with the Project. Therefore, even under a conservative nighttime evaluation when solar equipment is not generating energy and therefore is not generating sound, the Project is below the 5 dBA sound level increase limit for wind energy projects. Upon procuring inverter

technology for the Project, the Applicant will provide inverter noise data and the modeled worst-case noise impact at a non-participating residence based on noise data on the selected inverter.

(ii) Processing Equipment

Processing equipment is not associated with the Project and, therefore, will not result in sound impacts.

(iii) Associated Road Traffic

Vehicle traffic to access the Project will not significantly contribute to route road traffic sound. Road traffic associated with construction of the Project is addressed above in OAC Section 4906-4-08(A)(3) of this application.

(c) Sound-sensitive Areas within One Mile

The sensitive receptors identified in the Project Area or within a 1-mile buffer around the Project Area are depicted in Figure 8-1. There are 109 residences, one church, and six college school buildings within a 1-mile radius of the Project Area. Of these, six residences are within 1,500 feet of generation equipment (e.g., solar modules, inverters, or substations).

The Applicant does not anticipate major sound impacts at these locations as all but six sensitive receptors are more than 1,500 feet from the solar modules and inverters. Project worst-case sound levels are below the 5 dBA increase over L_{eq} limit for wind energy projects applied to the sound evaluation for this Project.

(d) Mitigation of Sound Emissions During Construction and Operation

The Project is not expected to have significant sound impacts at any resides or other sensitive receptors during construction or operation of the Project as minimization and mitigation measures have been included in the Project design.

The Applicant maximized Project setbacks from property lines to the extent practical to minimize impact to adjacent residences. In addition, the following sound minimization and mitigation procedures will be implemented during construction:

- General construction activity shall be limited to the hours of 7 a.m. to 7 p.m., or until dusk when sunset occurs after 7 p.m. If noise-generating construction needs to occur outside of this time frame, then neighbors adjacent to the sound generating construction will be notified prior to conducting those construction activities.
- During the construction period, the Applicant's contractor will establish a 24 hour a day, seven day a week "hot line" for emergency and complaint notices. During operations, site staff will be qualified to attend to requests and complaints with the necessary corporate support. Surrounding landowners will be provided with contact information for site staff. The Applicant has also developed a Complaint Resolution Plan to address how complaints will be handled and potential mitigation techniques to be implemented for the Project (Exhibit H).

(e) Preconstruction Background Sound Study

Epsilon conducted a sound level assessment to establish existing sound levels in the Project Area and evaluate potential sound impacts from the construction and operation of the Project on nearby residences and other sensitive receptors. Epsilon's Sound Level Assessment Report is included in Exhibit O.

(4) Water Impacts

(a) Impacts to Public and Private Water Supplies from Construction and Operation

Groundwater well information for the Project Area and surrounding vicinity was obtained from OEPA and are depicted in Figure 8-2 (OEPA 2020a). There are two water wells within the Project Area and 83 water wells within a 1-mile radius. Given that minimal excavation is associated with the Project and pile driving will only occur to depths of 7 to 11 feet (2.1 to 3.4 meters) below grade, the Applicant does not anticipate impacts to the water supply as the two water wells within the Project Area are over 40 feet deep. Additionally, both wells within the Project Area are more than 1,000 feet away from the nearest infrastructure component. There is no additional excavation within the Project that would affect water wells.

One drinking water source protection area is located within 1-mile of the Project Area at Rosedale Bible College and depicted in Figure 8-2. No source water protection plan was available for review but given the localized radius of the Source Water Protection Area, it is not expected that construction of the Project would affect groundwater at that location. No surface water emergency management zones are within 1 mile of the Project. To provide protection for water resources within the Project Area and the surrounding area, a SWPPP and SPCC Plan will be implemented during construction to minimize and prevent the potential for discharges to surface waters. The potential exists for aquatic discharges (e.g., sediment, oil, etc.) to occur during construction. If discharges do occur, they are anticipated to be limited in quantity and duration, resulting in minor changes to water quality of the particular water body in which the aquatic discharge occurs and impacts to water supplies would be minor.

(b) Impacts to Public and Private Water Supplies Due to Pollution Control Equipment Failures

As described above, no water pollutants will be associated with the operation of the Project. Therefore, no on-site water pollution control equipment will be necessary and no impact to public and private water supplies will occur.

(c) Aquifers, Water Wells, and Drinking Water Source Protection Areas Directly Affected by the Proposed Facility

The Project Area is underlain by the Cable Complex Aquifer and Mad River Outwash/Kame, which are unconsolidated aquifers. The Mad River Buried Valley Aquifer and Prairie Complex Aquifers are also located within 1-mile of the Project Area and are depicted in Figure 8-2 (ODNR 2000). Eighty-five water wells and one drinking water source protection area are located within a 1-mile radius of the Project Area as depicted in Figure 8-2. However, no impacts to these water sources are anticipated as described above.

(d) Compliance with Drinking Water Source Protection Plans

One drinking water source protection area is present at the Rosedale Bible College within one mile of the Project Area. However, there are no concerns with compliance for these protection areas as described above.

(e) Flood Potential and Mitigation

No FEMA-designated 100-year floodplain is present within the Project Area, therefore the probability of annual flooding in the Project Area is less than 1%.

(5) Geological Features, Topographic Contours, and Wells

Figure 8-3 depicts the proposed Project, geological features of the proposed Project Area, and topographic contours. There are no existing gas and oil wells or injection wells within the Project Area.

(a) Site Geology Suitability

The Applicant hired Olsson to conduct a geotechnical investigation for the Project Area. The findings of the Olsson geotechnical engineering study are contained in Exhibit L and briefly summarized below.

The geotechnical investigation consisted of 81 geotechnical borings, standard penetration tests, split-spoon soil sampling, bulk soil sampling, test pits, general soil laboratory testing, electrical resistivity testing, thermal resistivity testing, and axial and lateral pile load testing. This geotechnical investigation supports evaluation of the strength, compressibility, stiffness, and density characteristics of the soil in the Project Area, as well as evaluates the general suitability of the Project equipment proposed.

In general, the geotechnical investigation results indicate that Project Area soils are suitable for support of the proposed project infrastructure. A limited number of boring locations indicated the potential need for replacement of the existing soil with compacted engineered fill but may be unnecessary depending on final site design. Further, the study confirmed that the access roads and additional infrastructure such as substation and switchyard locations can be designed using typical best practices, which are summarized in Exhibit L.

(b) Site Soil Suitability

The geotechnical investigation found that a layer of cultivated topsoil is located on top of primarily clayey soil types, with some sand present in localized areas below six feet. In general, the results of Olsson's geotechnical engineering study indicates Project Area soils are suitable for support of the proposed project infrastructure.

(c) Test Borings

As indicated above, 81 test borings were conducted by Olsson within the Project Area in May 2020. All test borings were completed in accordance with American Society for Testing and Materials standards and were analyzed at a qualified laboratory for moisture content, particle-size, Atterberg limits, unconfined and consolidation tests, and other tests, as required. Test boring logs are provided in Appendix C of Exhibit L.

(6) Wind Velocity

Climate data from the Ohio State University College of Food, Agricultural and Environmental Sciences was reviewed to characterize wind velocities in the vicinity of the Project. Table 8-1 summarizes daily average wind speeds recorded in 2019 at the closest weather station to the Project Area, located in Columbus, Ohio (OSU 2020).

Data provided in Table 8-1 indicates that wind speeds were most commonly observed in the range of 2 to 6 miles per hour (mph) with 76 percent of daily average measurements within this range. Wind effects at these speeds are generally described as light breezes, where wind is felt on the face (RMetS 2018). There were no daily averages above 11 mph, which would be moderate breezes where dust is lifted, and small tree branches move. As such, the Project does not include plans to mitigate wind velocities.

Table 8-1 Daily Average Wind Speeds in Columbus, Ohio in 2019

Average Daily Wind Speed (mph)	Number of Days	Percent of Total Days
0 to 0.5	6	1.7
0.6 to 1	3	0.9

Table 8-1 Daily Average Wind Speeds in Columbus, Ohio in 2019

Average Daily Wind Speed (mph)	Number of Days	Percent of Total Days
1.1 to 1.5	7	2.0
1.6 to 2	7	2.0
2 to 2.5	21	6.0
2.6 to 3	33	9.4
3.1 to 3.5	56	15.9
3.6 to 4	42	11.9
4.1 to 4.5	40	11.3
4.6 to 5	32	9.1
5.1 to 5.5	25	7.1
5.6 to 6	22	6.2
6.1 to 6.5	20	5.7
6.6 to 7	7	2.0
7.1 to 7.5	13	3.7
7.6 to 8	5	1.4
8.1 to 8.5	4	1.1
8.6 to 9	3	0.9
9.1 to 9.5	3	0.9
9.6 to 10	1	0.3
10.1 to 10.5	1	0.3
10.6 to 11	2	0.6
11.1+	0	0
Total	**353**	**100%**

Source: OSU 2020
mph = miles per hour

(7) Blade Shear

The Project is not a wind facility; therefore, there are no potential impact from blade shear.

(8) Ice Throw

The Project is not a wind facility; therefore, there is no potential impact from ice throw.

(9) Shadow Flicker

The Project is not a wind facility; therefore, there is no potential impact from shadow flicker.

(10) Radio and TV Reception

The maximum height of the solar modules will be 15 feet (4.6 meters) and, therefore, interference with radio and TV reception is not anticipated as the Project will lack tall structures, exposed moving parts, and will only generate very weak electromagnetic fields (EMFs) that dissipate rapidly over short distances.

(11) Radar Interference

The maximum height of the solar modules will be 15 feet (4.6 meters) and, therefore, interference with military or civilian radar systems is not anticipated as the Project will lack tall structures, exposed moving parts, and will only generate very weak EMFs that dissipate rapidly over short distances.

(12) Navigable Airspace Interference

There are no public airports or heliports within five miles of the Project Area and only one private airport located approximately five miles from the Project Area. Given the distance to the airport, no interference is anticipated.

(13) Communication Interference

The maximum height of the solar modules will be 15 feet (4.6 meters) and, therefore, interference with any microwave communication paths or systems is not anticipated as the Project will lack tall structures, exposed moving parts, and will only generate very weak EMFs that dissipate rapidly over short distances.

(B) ECOLOGICAL RESOURCES

(1) Ecological Resources in the Project Area

(a) Ecological Resources Map

Figure 8-4 is a map at 1:24,000 scale of the Project Area and a 0.5-mile radius from the Project Area and contains the following information:

(i) The proposed Facility and Project Area;
(ii) Undeveloped or abandoned land such as wood lots or vacant fields;
(iii) Wildlife areas, nature preserves, and other conservation areas;
(iv) Surface bodies of water, including wetlands, ditches, streams, lakes, reservoirs, and ponds; and
(v) Highly erodible soils and slopes of twelve percent or greater.

(b) Field Survey Map of Vegetation and Surface Waters

Figure 8-5 provides a map at a scale of 1:12,000 of the area within 100 feet (30.5 meters) of the potential construction impact area of the Facility and all field-delineated features, including vegetation, wetlands, and streams.

E & E conducted wetland delineation and T/E habitat field surveys to assess the vegetative communities as well as delineate and characterize surface water and wetland resources in the Project Area. The results of the survey were used to inform the Project design and minimize impacts to wetlands, streams, and native vegetative communities. E & E conducted field surveys on August 20 to 21, 2019, and April 22 to 23, 2020 and the results are provided in the Wetland and Waterbody Delineation Report included in Exhibit P and the Threatened and Endangered Species Habitat Survey Report included in Exhibit Q.

Habitat within the Project Area is predominately composed of corn (*Zea mays*) and soybean (*Glycine max)* cropland (agriculture) (1,917.7 acres; approximately 99.3% of the Project Area). Areas of scrub-shrub are present and composed of two overstory species, white oak (*Quercus alba*) and hackberry (*Celtis occidentalis*), a sapling-shrub layer dominated by poison hemlock

(*Conium maculatum*), multiflora rose (*Rosa multiflora*), black cherry (*Prunus serotine*), and Tatarian honeysuckle (*Lonicera tatarica*), and a herbaceous layer dominated by sticky bedstraw (*Galium aparine*) and garlic mustard (*Alliara petiolate*) (4.5 acres; 0.2%). Areas of oak – hickory successional forest are composed of four overstory species, chestnut oak (*Quercus montana*), burr oak (*Quercus macrocarpa*), shagbark hickory (*Carya ovata*), and pignut hickory (*Carya glabra*) and the understory is dominated by slippery elm (*Ulmus rubra*) and white ash (*Fraxinus americana)* (4.3 acres; 0.2%). Limited developed areas (2.9 acres; 0.2%) are also present in the Project Area. The remainder of the site is composed of wetlands which are dominated by reed canary grass (*Phalaris arundinacea*) (1.7 acres; 0.1%) and old fields which are dominated by orchard grass (*Dactylis glomerate*), smooth brome (*Bromus inermis*), Queen Anne's lace (*Daucus carota*), teasel (*Dipsacus fullonum*), slippery elm, Canada goldenrod (*Solidago canadensis*), and ragweed (*Ambrosia artemisiifolia*) (1.2 acres; 0.1%). Below, Table 8-2 provides a summary of the acreages of vegetative communities delineated within the Project Area.

Table 8-2 Habitat Types Identified within the Madison Fields Solar Project Area

Habitat Category	Acres	Land Use (%)
Agriculture	1,917.7	99.3%
Scrub-Shrub	4.5	0.2%
Oak-Hickory Successional Forest	4.3	0.2%
Developed	2.9	0.2%
Wetlands	1.7	0.1%
Old Field	1.2	0.1%
Total	**1,932**	**100%**

Two wetlands, W-T01-001 (1.1 acres) and W-T01-002 (0.6 acres), were delineated during field surveys within the Project Area. Wetlands identified during the survey were palustrine emergent wetlands and totaled approximately 1.7 acres. No streams, drains, or ponds were delineated during the survey. Figure 8-5 depicts the locations of the delineated wetlands within the Project Area. This Project Area is located within the jurisdiction of the USACE Huntington District.

The functions and values of these wetlands were assessed using the Ohio Rapid Assessment Method for wetlands. The categorization of the wetlands was conducted in accordance with OAC

Rule 3745-1-54. Both wetlands are expected to be considered jurisdictional by USACE and based on the Ohio Rapid Assessment Method scores are low quality wetlands.

(c) Literature Survey of Plant and Animal Life

E & E conducted a desktop literature review and corresponding field habitat assessment for federally and state-listed T/E species for Madison County to assess their potential occurrence within the Project Area (Exhibit Q). The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Construction (IPaC) screening tool was used to evaluate federal T/E species that might be potentially present within the Project Area (USFWS 2020). Six federally listed endangered species and two federally listed threatened species were identified during the IPaC review to be potentially present in the Project Area. Further correspondence with USFWS on April 13, 2020 is provided in Exhibit R and reduced the number of species with the potential to be present within the Project Area to just two, the Indiana bat (*Myotis sodalis;* federal and state-listed endangered) and northern long-eared bat (*Myotis septentrionalis*; federal and state-listed threatened) within the Project Area. There is no designated critical habitat for any of the federally listed T/E species that overlaps with the Project Area.

The ODNR does not have a publicly available state-maintained screening tool for specific project sites; therefore, the list of potential state-listed T/E species within the Project Area was generated based on the comprehensive list for Madison County (ODNR 2016). The ODNR reports 11 state-listed endangered species and nine state-listed threatened species that occur in Madison County. To refine the potential state-listed T/E species within the Project Area, ODNR was consulted and in their response received May 28, 2020, a list of 15 state-listed T/E bird, fish, mammal, mussel, and plant species were provided, as listed in Table 8-3.

Table 8-3 List of Potential State Threatened and Endangered Species Within or Near the Project Area

Common Name	Scientific Name	Status	Habitat
Birds			
King Rail	*Rallus elegans*	SE	Marshes with open water
Northern Harrier	*Circus hudsonius*	SE	Herbaceous wetlands, grasslands, cropland.

Common Name	Scientific Name	Status	Habitat
Upland Sandpiper	*Bartramia longicauda*	SE	Cropland/hedgerow and grasslands.
Fish			
Scioto Madtom	*Noturus trautmani*	FE, SE	High-quality, clear streams with moderate current and sandy gravel substrate. Not seen in the wild since 1957.
Spotted Darter	*Etheostoma maculatum*	SE	Creeks and river with moderate to high gradients with large rocks and boulders near riffles and pools.
Tippecanoe Darter	*Etheostoma Tippecanoe*	ST	Medium to large streams with a medium gravel to small cobble bed.
Mammals			
Indiana Bat	*Myotis sodalis*	FE, SE	Forests, riparian corridors, and wetlands for summer roosting and foraging.
Northern Long-eared Bat	*Myotis septentrionalis*	FT, ST	Forests, riparian corridors, and wetlands for summer roosting and foraging.
Mussels			
Clubshell	*Pleurobema clava*	FE, SE	Medium to small rivers with clean, loose sand and gravel substrate.
Elephant-ear	*Elliptio crassidens crassidens*	SE	Creeks, medium to large rivers with low to moderate gradients with sandy, muddy, or rocky substrates.
Northern Rifflesheell	*Epioblasma torulosa rangiana*	FE, SE	Variety of stream sizes with packed sand or gravel bottoms.
Rabbitsfoot	*Quadrula cylindrica cylindrica*	FT, SE	Creeks, medium to large rivers with moderate gradients and sand, gravel, or cobble substrate.
Rayed Bean	*Villosa fabalis*	FE, SE	Sand, gravel, or cobble substrates in swift small and medium-sized rivers.
Snuffbox	*Epioblasma triquetra*	FE, SE	Creeks, medium to large rivers, lakeshores with sand, gravel, or cobble substrate.
Plants			
Southern wild rice	*Zizania aquatica*	ST	Slow moving water along muddy shores of rivers.

Key: FE – Federal Endangered; FT – Federal Threatened; SE – State Endangered; ST – State Threatened

Sources: NatureServe Explorer 2020; ODNR 2016 n.d., 2000, 1984; and USFWS 2020.

(d) Plant and Animal Field Survey Results

To supplement the desktop literature review, E & E assessed potential habitat availability for federally or state-listed T/E species in the Project Area during field surveys as detailed in Exhibit Q. During field surveys, the vast majority of the Project Area was delineated as agricultural land

(99.3%), with minimal areas of higher-quality natural habitat that could provide potentially suitable habitat for T/E species. No T/E plant or animal species were observed during the field survey. The habitat assessment concluded that the Indiana bat and northern long-eared bat may inhabit or utilize portions of the Oak-Hickory Successional Forest, while the Northern Harrier may utilize agricultural habitat for hunting.

(e) Additional Ecological Studies

In June 2019, E & E conducted a preliminary desktop critical issues analysis (CIA) for a previous iteration of the Project Area. The CIA did not identify significant development constraints that could potentially impact the proposed Project, including potential impacts to ecological resources. The desktop CIA report is provided as Exhibit S.

(2) Potential Impacts to Ecological Resources During Construction

(a) Construction Impacts on Ecological Resources

The development of the Project is not likely to result in significant impacts to ecological resources that may potentially occur within the Project Area or surrounding vicinity as a result of micro-siting efforts to avoid impacts to potentially suitable habitat or construction outside of critical periods.

No impacts to state-listed T/E fish and mussel species, southern wild rice, or King Rail will occur within the Project Area as no instream work or wetland disturbance will occur. No impacts are expected to the Upland Sandpiper as there is no nesting habitat present within the Project Area. The Northern Harrier has the potential to forage in the area but there should not be any impacts as a result of Project construction as there is no planned disturbance to grasslands or wetlands where the species nests.

With the Applicant committing to implementation of tree-clearing activities in the delineated Oak-Hickory Successional Forest habitat outside of the active season (October 1 through March 31), the Indiana bat and northern long-eared bat will not be adversely affected by Project construction or operation.

The remainder of the Project will be constructed exclusively in agricultural or developed land, which provides minimal habitat for wildlife and is not the preferred habitat for any of the other identified federal or state-listed T/E species.

The Applicant undertook an extensive siting process to minimize and avoid impacts to wetlands. No wetlands will be impacted by the Project as currently proposed and field surveys confirmed that there are no streams within the Project Area. Therefore, the Applicant anticipates that no wetland permits will be required from the OEPA or USACE. Avoidance of wetland and stream habitat during Project construction will avoid potential impacts to the fish, insect, and mussel species identified during the desktop or field-based T/E habitat review.

Less than five acres of forested land will be disturbed during construction, primarily for the installation of the solar modules. The impact on wildlife as a result of clearing less than five acres of forested habitat is expected to be almost negligible due to its small size and isolated location. In addition, to further minimize removal of woody vegetation, whenever possible, trees and brush will be manually pruned or trimmed rather than removed.

(b) Mitigation Procedures for Construction Impacts

In addition to the extensive micro-siting efforts mentioned above, the Applicant will work to avoid, minimize and, if necessary, mitigate ecological construction impacts. These include specific efforts to minimize disturbance to soils, a Frac Out Plan (Exhibit M), delineation and marking of surface waters and wetlands, prepare procedures for inspection and repair of erosion control measures, and methods to protect vegetation in proximity to the Project.

(i) Restoration and Stabilization of Disturbed Soils

After construction, temporarily disturbed areas will be restored, graded to natural contours where possible and prepared for final seeding. Once construction is complete, the permanent access roads will be dressed as necessary to ensure their long-term function. Erosion control methods during and after construction will be specified within the SWPPP and will depend on the contours of the land, as well as requirements of relevant permits.

Permanent stabilization seeding will be completed immediately following the completion of construction. To the extent possible, the Applicant will implement the pollinator habitat recommendations provided by ODNR Division of Wildlife and the Madison County Soil & Water Conservation District pertaining to the Ohio Pollinator Habitat Initiative. This could include reseeding areas disturbed during construction with a low-growth, native grass seed mix or native prairie grasses, under the solar modules and a native species, pollinator-friendly seed mix in select open areas outside of the array and within the Project perimeter fence line. Agricultural areas will be seeded with a temporary cover crop as specified by the landowner after construction. Natural areas will be seeded with an appropriate seed mixture to control erosion and allow revegetation to the pre-construction vegetative community.

The Project is considered to be permanently stabilized when all soil disturbed activities have been completed and a uniform perennial vegetative cover with a density of 70% has been achieved in all areas of the site not covered by other permanent ground covers. Any seed, straw, and/or matting used within the Project Area will meet Ohio stormwater standards (OH-DSWC 2006).

(ii) Frac Out Contingency Plan

If necessary, the Project will employ HDD techniques to install cables underneath roads and streams, although none have been identified within the Project Area. The Frac Out Plan has been prepared for the Project and is included in Exhibit M. There are no HDDs proposed as part of the current site design. If the final site design requires HDDs, they will be conducted per local codes and AHJ guidelines. Before any drilling operations begin, all erosion and sedimentation controls included in the SWPPP will be installed and inspected by a qualified environmental inspector. The SWPPP, state permit(s), landowner restriction list, and any other applicable documents will be reviewed before any disturbance occurs.

HDD has the potential for surface disturbance through an inadvertent drilling fluid release. The areas that present the highest potential for fluid release are the drill entry and exit points where the overburden depth is minimal. A pit will be constructed at the entrance and exit points to

provide temporary storage for the drilling fluid seepage until it can be removed. The pits will be lined with geotextile and be sized to accommodate the maximum volume of drilling fluid that may need to be contained within the pits. A secondary containment around the pits will be created with straw bales and silt fencing to contain any seepage and minimize any migration of the mud to the work area. If any fluid releases occur, a containment structure will be placed at the affected area to prevent migration of the release. If the release is large enough for collection, the drilling mud will be collected and disposed of per the HDD Fluid/Cutting Disposal procedures. If the release is not large enough for collection, the affected area will be diluted with fresh water and restored as necessary. Proper steps will be taken to prevent silt-laden water from entering a wetland or water body. If the release occurs in a water body, the contractor will attempt to place containment structures to prevent the spread. If public health and safety are threatened due to the release, drilling operations will be shut down until the threat is eliminated. All disturbed areas will be stabilized and restored per specifications in the SWPPP. The construction environmental manager will be contacted immediately if the release is returned to a stream, wetland, or other water body.

(iii) Demarcation of Surface Waters and Wetlands

Wetlands within the Project Area were identified during a field survey and will be flagged in advance of the start of construction to ensure that construction teams are aware of their location. Impacts to surface water and wetlands during construction will be minimized through the implementation of a SWPPP to prevent erosion and sedimentation into nearby waterbodies under OEPA's NPDES General Permit for Construction Activities. Silt fencing will be installed along the construction right-of-way in all areas adjacent to wetlands, in accordance with the SWPPP. Further, areas disturbed during construction will be restored to preconstruction conditions as soon as possible in order to further minimize the impact of construction.

(iv) Procedures for Inspection and Repair of Erosion Control Measures

A SWPPP will be prepared prior to construction as a condition of OEPA's NPDES General Permit that is required for the Project. The SWPPP will prescribe specific erosion and sediment control measures to be used and the location in which these measures will be implemented. Generally, structural erosion control devices such as straw bales, berms, and check dams will be

implemented to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff from exposed areas of the site. Silt fences will be installed immediately after completing each phase of work to effectively retain sediment where erosion would occur in the form of sheet and rill erosion (e.g., clearing and grubbing, excavation, embankment, and grading).

Langan Engineering and Environmental Services, Inc. conducted a hydrology analysis and scour evaluation for the Project Area in May 2020. Reports for these studies are included in Exhibit T. The proposed conditions will result in an increase of impervious area (e.g., driveways, electrical equipment, and substation) and a change in vegetation (agricultural to meadow). As the flow depth and velocities increase due to these changes so will the potential of scour. The potential for scour to occur is likely only in areas where the flow velocities are greater than 2.0 feet per second. Potential for ponding at depths greater than 2 feet (0.6 meters) was identified in four locations on site. This potential can be mitigated through the addition of stormwater basins or by filling in the low areas to increase the elevation.

(v) Methods to Protect Vegetation

Tree clearing has been minimized with the site design and will result in less than five acres of tree clearing. Vegetation surveys conducted for the Project did not identify any sensitive vegetative communities or plant types, therefore, no specific vegetation protection methods are needed. Additional details regarding vegetative management during construction are presented in Exhibit C.

(vi) Disposing of Downed Trees, Brush, and Other Vegetation

Any vegetation removed during construction will be chipped and either used or composted within the Project Area. However, if that is not feasible, then a private contractor will be hired to properly dispose of the debris at an authorized solid waste disposal facility.

(vii) Avoidance Measures for State and Federally Listed and Protected Species and Habitat

To minimize impacts to federally and state-listed T/E species, the Project has been sited, to the extent practicable, within previously disturbed areas, such as agricultural fields and along

existing farm roads and forest edges. The minimal tree clearing associated with Project construction will be conducted outside the active season for bats to avoid potential impacts to Indiana and northern long-eared bats. Should clearing need to occur within the restrictions, consultation with the USFWS would be initiated to determine the most appropriate measures to ensure impacts to the species are minimized.

(3) Potential Impact to Ecological Resources During Operation and Maintenance

(a) Evaluation of the Impact of Operation and Maintenance on Undeveloped Areas and Animals

Adverse impacts to ecological resources during operation and maintenance of the Facility, including undeveloped areas, are not anticipated. O&M activities will include site visits for firmware updates, fixing faulty equipment, cleaning solar modules, standard test procedures and a security patrol. A light-duty vehicle will be used for the maintenance. Gravel roads will be installed to provide site and inter-row access with the Project.

(b) Procedures to Avoid, Minimize, and Mitigate Impacts of Operation and Maintenance

Once the Project is in operation and site restoration is complete, no impacts to wetlands or streams, trees or natural habitats, are expected. Operation of the Project will not involve the discharge of water or wastewater into streams or water bodies, nor will Project operation require the use of water for cooling or other activities. Therefore, no measurable impacts on the quality and quantity of surrounding water resources (including wetlands, surface waters, and groundwater) are anticipated. Grasses and other invasive plant species will be managed through mowing and spot applications of herbicides. Additional details regarding vegetative management during O&M are presented in Exhibit C.

(c) Post-construction Monitoring of Wildlife Impacts

Post-construction monitoring of wildlife is not anticipated as no adverse impacts to wildlife species are expected.

(C) Land Use and Community Development

(1) Land Use in the Region and Potential Impacts of the Facility

(a) Land Use Map

Figure 8-6 is a 1:24,000 scale map depicting the following features within 1-mile of the Project Area:

(a) The proposed Project Area;

(b) Land use;

(c) Structures; and

(d) Incorporated areas and population centers.

(b) Structures Near the Facility

Table 8-4 provides additional detail related to the proximity of identified structures to Project facilities, specifically:

(i) Structures within 1,500 feet (457.2 meters) of the generation equipment, the distance between the structure or property line and the equipment;

(ii) Structures within 250 feet (76.2 meters) of a collection line, access road, or other associated components, the distance between both the structure and the property line and the associated facility; and

(iii) Lease status of the property.

There are six residences within 1,500 feet (457.2 meters) of generation equipment (e.g., solar modules, inverters, or substations). The residences range in distance from 1,032 feet (314 meters) to 1,453 feet (443 meters) from generation equipment.

Table 8-4 Structures Near Project Facilities

Structure Type	Facility Type	Distance (feet)	Direction from Project Facilities	Lease Status
Residence	Collection Line	1,036	West	Not Leased
Residence	Solar Modules	1,279	West	Not Leased
Residence	Solar Modules	1,032	East	Leased
Residence	Solar Modules	1,387	East	Not Leased
Residence	Solar Modules	1,430	East	Not Leased

Table 8-4 Structures Near Project Facilities

Structure Type	Facility Type	Distance (feet)	Direction from Project Facilities	Lease Status
Residence	Solar Modules	1,453	East	Not Leased

There are no residences or other structures within 250 feet (76.2 meters) of any Project component.

(c) Evaluation of the Land Use Impacts

More than 99% of the land use within the Project Area is agriculture. The remainder of the Project Area (<1%) includes natural areas (i.e. forest, scrub-shrub areas, old field, and wetlands) and developed land uses (see Table 8-2).

The Applicant took a conservative approach to calculating the land use impact of the Facility by assuming that all disturbance and land use impacts during construction would be permanent. Permanent impacts include all area inside the perimeter fence of the Facility and the space in between the Facility components (i.e. solar modules, inverter pads, access roads, construction laydown areas, O&M building, substation, and POI switchyard) and access roads outside the perimeter fence. Using this conservative assumption, approximately 1,000.6 acres of agricultural land and 5.7 acres of natural areas and developed land will be permanently impacted by the Facility. Table 8-5 presents permanent land use impacts anticipated for each Project component.

Table 8-5 Project Land Use Impacts by Project Component

Project Component	Permanent Disturbance (acres)
Agricultural	
Solar Field[1]	1000.6
Developed	
Solar Field[1]	<0.1
Forest	
Solar Field[1]	4.3
Scrub-Shrub	
Solar Field[1]	1.4

[1] includes all Project infrastructure within the fence line including construction laydown areas, O&M building, substation, and POI switchyard as well as access roads outside perimeter fence

(d) Structures to be Removed or Relocated

The Applicant does not anticipate removing structures to accommodate the Project.

(2) Wind Farm Map

The Project is not a wind farm; therefore, this section is not applicable.

(3) Setback Waivers

No setback waivers are applicable to this Project as it is not a wind farm.

(4) Land Use Plans

(a) Formally Adopted Plans for Future Use of the Project Area and Surrounding Lands

The Madison County 2014 Comprehensive Plan does not propose changes to future land use of the Project Area or the vicinity (Madison County 2014). However, the Project would not hinder development in adjacent areas if changes in land use are proposed in the future.

(b) Applicant's Plans for Concurrent or Secondary Uses of the Site

The Applicant has no plans for concurrent or secondary uses of the site.

(c) Impact on Regional Development

The Project is expected to aid regional development by increasing local tax revenues and contributing to the local economy, as shown in Exhibit G, the Economic Impact Report and discussed in OAC Section 4906-4-06(C) of this Application. Aside from these benefits, including a significant increase in funding to schools, the Project is not expected to significantly impact housing, transportation system development, or other public services and facilities.

(d) Compatibility with Current Regional Plans

As proposed, the Project is consistent with the overall goals of the Madison County 2014 Comprehensive Plan. In particular, the Project will support the Plan's goal to "achieve a high-quality living environment through a wise distribution of compatible land use patterns." Solar facilities are compatible with rural landscapes in that they will not significantly impact schools,

housing, and transportation; and upon decommissioning of the Project, the land can return to agricultural use. In addition, solar facilities provide supplemental income to rural property owners and increase local tax revenues and contribute to the local economy. Construction and operation of the Project will not interfere with planned future uses identified in the Madison County 2014 Comprehensive Plan.

(e) Current Population Counts and 10-year Population Projections

The population of Madison County from the 2010 Census was 43,435. The most recent population counts from the U.S. Census estimate that the population for Madison County in 2019 was 44,731, an annualized percentage change of 0.3%. The projected population for Madison County is 45,670 in 2020 and 47,420 in 2030 (Ohio Office of Research 2019a). The population of Pike Township from the 2010 Census was 580 and was estimated to be 584 in 2018 (Ohio Office of Research 2019b). This projects to an estimated population of 590 in 2030. The population of the village of Mechanicsburg from the 2010 Census was 1,644, a 5.7 percent decrease from 2000, when the population was estimated to be 1,744. Assuming this trend continues, the estimated population of Mechanicsburg would be 1,461 in 2030.

(D) CULTURAL AND ARCHAEOLOGICAL RESOURCES

(1) Recreation Areas and Registered Landmarks

Figure 8-7 depicts all recreation areas and registered landmarks of cultural significance within a 10-mile radius of the Project Area.

(2) Impacts on Registered Landmarks

Stantec Consulting Inc. (Stantec), with assistance from Commonwealth Heritage Group, Inc. (Commonwealth), identified registered landmarks of cultural significance within a 10-mile radius of the Project Area. To identify these resources, Stantec and Commonwealth reviewed cultural resource GIS data obtained from the National Park Service's website for National Register of Historic Places (NRHP) and National Historic Landmark listings, as well as known archaeological sites, historic aboveground structures, cemeteries, and survey data information from the Ohio Online Mapping System, which is maintained by the State Historic Preservation

Office (SHPO). This review was part of an extensive background research effort conducted in support of an archeological assessment and historic architectural surveys completed by Commonwealth in spring 2020. The findings of the assessment and surveys are summarized below.

A reconnaissance-level architectural history field survey was completed in March 2020 within 0.5 miles of the Facility footprint, referenced as the Project footprint within the architectural history field survey report (Exhibit U). Prior to completing the field survey, Commonwealth reviewed all structures identified as part of the desktop cultural resources review (see Exhibit V) and conducted a literature review for the area within 10 miles (16 km) of the Project. The architectural history field survey resulted in the identification of 13 newly recorded resources over 50 years of age within 0.5 miles (0.8 kilometers) of the Facility footprint during the architectural history field survey consisting of residential and agricultural structures. Of the 13 newly surveyed resources, one was recommended for additional research and another was recommended eligible for listing in the NRHP. The remaining 11 newly surveyed resources were recommended not eligible for further research or listing in the NRHP because they are common examples of their form and lack historic integrity and significance under any NRHP evaluation criteria. In addition, the survey included identification of any NRHP-listed properties within 2 miles (3.2 kilometers) of the Project. Commonwealth identified one NRHP-listed property that continues to retain a high degree of historic integrity and should remain listed in the NRHP.

No aboveground historic structures or historic districts are in the Project Area; therefore, the Project should have no direct effect on these resources. No indirect effects are expected to the NRHP-listed property, the architectural resource determined NRHP eligible, or the resource recommended for additional research by Commonwealth because views to the Project will be limited or non-existent from these resources. The limited view is in part due to distance but is also related to the terrain and existing vegetation. The architectural history survey report was submitted to the SHPO in May 2020 for comment. Agency response was received on June 10, 2020 concurring with the report results and recommendations that no additional history/architecture investigations are necessary to meet the Application requirements. The SHPO concurrence letter is included in Exhibit U.

Commonwealth also conducted archaeological investigations within the entire Facility footprint, referenced as the Project footprint within the archaeological field survey report (Exhibit W). A Project-specific *Work Plan for Archaeological Survey* was submitted to the SHPO on April 14, 2020. The SHPO reviewed and accepted the proposed survey methodology on April 15, 2020. The survey was completed between April and May 2020 to identify and document previously unrecorded archaeological sites that are eligible for listing in the NRHP and that may be impacted by the ground disturbing activities of the proposed development. A total of approximately 1,007 acres were surveyed either by pedestrian reconnaissance and surface collection or shovel testing. Twenty-seven previously unrecorded archaeological sites were documented as a result of the archaeological survey. The sites were typically prehistoric lithic scatter and other isolated features or historic period refuse scatters. Commonwealth recommended all 27 sites not eligible for listing in the NRHP primarily due to a lack of information potential and impaired integrity. Field surveys also confirmed the location of the Morse Cemetery adjacent to the eastern edge of the Project Area. The desktop assessment noted this cemetery was within 1-mile of the Project Area, but its location was incorrectly identified.

It is the opinion of Commonwealth that the Project would have no impacts on archaeological sites listed, or eligible for listing, in the NRHP, and that no additional archaeological testing was necessary. The archaeological survey report was submitted to the SHPO in July 2020 for comment. Agency response is pending and will be submitted to the OPSB upon receipt.

(3) Impacts on Recreational Areas

Stantec identified recreational areas within 10 miles of the Project Area using publicly available GIS data sources which are depicted in Figure 8-7. Forty-one recreational areas were identified that included state and local parks, golf courses and country clubs, watercraft launches, natural areas and preserves, state conservation areas and recreation areas, and agricultural easements related to the Ohio Farm and Ranch Lands Protection and Clean Ohio Fund Farmland Preservation programs. While 41 recreational areas are within 10 miles, none are within 2 miles of the Project Area. The Bigelow Cemetery State Nature Preserve is the closest, approximately

2.7 miles east of the Project. The Project will have no direct impacts on the Nature Preserve or any other recreational areas.

Stantec conducted a visual resources assessment within the Project Area, and within a 2-mile (3.2 kilometers) and 10-mile (16.0 kilometers) radius. The findings of the Stantec visual resources assessment are summarized below and the complete report is contained in Exhibit X.

(4) Visual Impact

(a) Visibility and Viewshed Analysis

A viewshed analysis was conducted by Stantec using GIS software to determine locations within 10 miles of the Project Area that could potentially have views of the Project. A viewshed analysis is a GIS raster model output that shows a project's theoretical visibility in its surrounding vicinity based on topography and the dimension of project components. Stantec created a digital elevation model based on available topographical data and assuming the maximum height of Project components would be 15 feet, which is the maximum height of the solar modules under consideration by the Applicant for the Project. A Visual Resources Technical Report is provided as Exhibit X that describes the methods and assumptions used for the viewshed analysis in more detail.

A graphical representation of the results of the viewshed analysis is provided in Figure 2 of Exhibit X and is shaded to show the ranges of visibility of the Project Area, from full view to partial views. Because the viewshed model does not account for intervening vegetation or structures, and because of the flat terrain upon which the model was based, potential visibility of the Project appears to be high, and there are few areas within a 10-mile radius of the Project Area that would not theoretically have visibility of the Project. However, as a result of factors such as vegetation, structures, atmospheric conditions, and distance decay associated with the declining visibility of 15-foot-tall solar modules over long distances, and the results of the simulations at distances of approximately 2 miles, it is unlikely that the Project would actually be visible at those distances so the analysis therefore focused on views within 2 miles of the Project Area. Sites within 2 miles of the Project Area valued for scenic quality and other potentially sensitive receptors include a historic farmstead (Elmwood Place), Rosedale Bible College, Rosedale Free

Will Baptist Church, five cemeteries, and a segment of the Big Darby Plains Scenic Byway. The analysis suggests the Project would have a high potential to be visible from these. The Visual Resources Technical Report provided as Exhibit X includes the locations of these resources, as well as other scenic resources within 10 miles of the Project Area (see Figure 8-7 and Exhibit X, Figure 3).

The distance between the Project Area and its nearest publicly accessible areas, namely nearby local roads, along with the frequent presence of intervening vegetation or structures means that the entire expanse of the Project Area would rarely be visible and any view of the Project from vehicles traveling along roadways would be intermittent and of short duration.

(b) Existing Landscape and Scenic Quality

Agricultural land use is the dominant feature in this broad, open landscape of west-central Ohio. The visual character of this part of Madison County is defined by the contrast between predominantly flat farmlands, the vegetation that appears to partially segment such lands, and roads that bound them. Outside of the clustered residences in Rosedale, Irwin, Mechanicsburg, and at some crossroads, homes and farm structures are dispersed, appearing at a relatively low density and generally aligned with roadways. Cemeteries are the only nearby non-agricultural and non-residential land use.

The Facility footprint, which contains all infrastructure contained within the fenceline, is almost entirely farmland, with a small forested block in the north-central part of the Facility footprint. The Facility footprint is bisected by an existing, northeast-southwest trending transmission line that consists of wooden H-frame structures. While the flat, mostly undeveloped nature of the Project Area allows for open views within the Facility footprint itself, vegetation in lands adjacent to or near the Project Area reduces visibility of the Project from much of the surrounding area, including adjacent farms, communities, and other sites. The nearest designated visual resource in the vicinity is located north of the Project Area, in Union County, where the Big Darby Plains Scenic Byway passes within 2 miles of the northeastern portion of the Project Area. The Bigelow Cemetery State Nature Preserve is 2.7 miles to the northeast, near the Union County border.

Stantec reviewed available comprehensive and land use plans for jurisdictions within 10 miles of the Project Area to determine if any visual resources were noted for their scenic or visual qualities and characteristics.

The Madison County Comprehensive Plan (Madison County, 2014) makes multiple references to the scenic qualities of its rural landscape, mainly within the context of limiting growth. It also mentions its scenic rivers. No specific scenic resources or protected views are identified. Among the open space/recreation/preservation areas identified, Bigelow Cemetery State Nature Preserve is the only one in the vicinity of the Project.

Though the Project is located entirely within Madison County, portions of Union County, Champaign County, and Clark County are located within a 10-mile radius of the Project Area. The Union County Engineer's Road Map (Union County, 2017) identifies a number of points of interest along the Big Darby Plains Scenic Byway, in the southern portion of Union County, most of which are within 10 miles of the Project Area, but none of which are nearer than approximately 2.5 miles. The Draft 2020 Update to the Champaign County Comprehensive Plan (Logan-Union-Champaign Regional Planning Commission, 2019) includes references to local scenic beauty, in the context of agriculture and the rural landscape. No specific resources within 10 miles of the Project Area are identified. Finally, the Clark County Comprehensive Plan (Clark County, 2018) includes several designated scenic trails and a potentially scenic river, though none of these resources are within 10 miles of the Project.

(c) Landscape Alterations and Impacts

In general, while a development of this type and size will be unique to the local landscape, the existing visual character and elements that contribute visual qualities will be retained with the Project. As can be seen in the simulations contained in Exhibit X, the Project will only be partially visible from locations as near as 0.2 to 0.3 miles away. Its location, set back from the viewpoints, will retain visibility of both foreground and background features that will result in the Project appearing contained within the existing landscape. At increasing distances of one to two miles, individual modules, or even rows of modules, are not distinguishable. The articulation

of modules and mounting racks visible in closer views recedes with distance and the Project will be visible as a polygon or linear feature that is smoother in texture. The Project will very likely appear less visible in views from distances further away, particularly views from elevations more consistent with the Project Area. An exception are views towards the northwest where the removal of the trees within the Project Area will alter the character of the existing view by removing a prominent source of vividness and opening up the landscape. While eliminating the vivid, natural-appearing border that serves to delineate the foreground from the larger uninterrupted agricultural landscape within the rest of the Project Area, it will also open up views toward more distant hills and other features beyond the Project Area. It is not anticipated that these effects will be substantial enough to warrant mitigation to the general landscape, however, consideration will be given to adjacent residents as discussed in OAC Section 4906-4-08(D)(4)(f).

(d) Visual Impacts to Cultural and Archaeological Resources

As discussed in OAC Section 4906-4-08(D) of this application, the architecture history survey completed for the Project by Commonwealth identified one NRHP-listed property within 2 miles of the Facility footprint. Also, one NRHP-eligible property and one requiring additional research to determine eligibility were identified within 0.5 miles of the Facility footprint. Since no aboveground historic structures or historic districts are in the Project Area, the Project should have no direct effect on these resources. No indirect visual effects are expected because views of the Project from these resources will likely be minimal or non-existent due to distance, terrain, and existing vegetation.

Additionally, archaeological investigations conducted by Commonwealth identified 27 previously unrecorded archaeological sites either by pedestrian reconnaissance and surface collection or shovel testing. Commonwealth recommended all 27 sites not eligible for listing in the NRHP. Therefore, direct or indirect visual effects to archaeological resources listed, or eligible for listing in the NRHP, will not occur.

(e) Photographic Simulations

Stantec visual resources specialists reviewed Project plans, aerial imagery, and other data to identify potential viewpoints in the vicinity of the Project to be used in creating photographic visual simulations. Photographs were taken in April 2020. The view from each viewpoint was photographed at eye level using a 35-millimeter, 24-megapixel, full-frame, single lens reflex camera equipped with a 25-75-millimeter focal length lens set to 50 millimeters. This focal length is the industry-accepted standard for approximating the field of vision in a static view of the human eye. The time at which each viewpoint was photographed was documented to allow for accurate matching between the sun's position in the sky and the orientation of the tracking modules in the simulations.

Stantec, in coordination with the Applicant, selected a representative subset of photographed viewpoints for use as Key Observation Points (KOPs). The location of the five KOPs in relation to the Project Area are shown on Figure 1 in Exhibit X. The photographs from the KOPs were used to generate photo-realistic simulations of the Project in order to compare the existing and proposed conditions. The simulations were developed through a three-dimensional computer model using a combination of AutoCAD files and GIS layers and exported to Autodesk's 3-dimensional Studio Max for production and incorporating the Project facility specifications.

The simulations generated for the Project show minimal visual changes at the five KOPs (see Figures 7 – 11 in Exhibit X). A more detailed description of existing and proposed conditions for each of the KOPs is provided in Exhibit X, but overall while a development of this type and size would be unique to the local landscape, the existing visual character and elements that contribute visual qualities would be retained with the construction of the Project.

(f) Visual Impact Minimization

Photo simulations developed to evaluate visual impacts established that the Project would only be partially visible from locations as near as 0.2 to 0.3 miles away. At distances of one to two miles, the Project would not be distinguishable to the naked eye. Because of the minimal visibility of the Project at nearby residences visual mitigation efforts are expected to be minimal. However, as part of its stakeholder outreach efforts, the Applicant has mapped all residences

within 0.5 mile of the Facility footprint and prepared aerial imagery to show the degree to which existing built or natural features may partially to fully block residential views toward the Project. This information is included in the Madison Fields Visual Impact Mitigation Plan provided as Exhibit Y. This exercise helped to further the understanding of the limited locations throughout the local landscape where the entirety of the proposed Project would be visible without obstruction. Where necessary, the Applicant will work with adjacent landowners to analyze the impact to their viewshed and determine the best mitigation options.

(E) Agricultural Districts and Impacts to Agricultural Land

(1) Mapping of Agricultural Land

Figure 8-8 depicts all agricultural land within the Project Area, including parcels 15-00195.000 and 15-00201.000, which are enrolled in Madison County's Agricultural District Program based on information provided by the Madison County Auditor (electronic mail communication June 4, 2020). Two Concentrated Animal Feeding Operations are in Madison County but are not near the Project Area (OEPA 2020b).

(2) Agricultural Information

(a) Acreage Impacted

Land use in the Project Area is primarily agricultural with approximately 1,918 acres, or 99% of the total Project Area, dedicated to corn and soybean cultivation. For the life of the Project, approximately 1,000 acres of agricultural land will be converted to accommodate the Project facilities.

(b) Evaluation of the Impact of Construction, Operation, and Maintenance of the Proposed Facility

(i) Field Operations

The Project will occupy approximately 1,000 acres of land currently utilized primarily for agricultural production. Field operations will cease prior to commencing construction. However, following decommissioning of the Project, the land can be reverted to agricultural production.

(ii) Irrigation

The land used for agriculture within the Project Area is not currently irrigated, therefore there are no proposed impacts to irrigation usage as a result of construction, operation, or maintenance of the Project.

(iii) Field drainage systems

The Applicant conducted a Project Drainage Tile Assessment and Construction Impact Report for the Project that is included as Exhibit Z. The known drain tile locations within the Project Area are depicted in Figure 8-8. The purpose of the assessment was to identify the location of subsurface drain tiles within the Project Area and develop mitigation for potential impacts. The Applicant was able to use publicly available GIS data and drain tile layout maps provided by the landowners, when available, to prepare a schematic of the drain tile system within the Project Area. The majority of the drain tiles within the Project Area are lateral tiles that provide localized drainage – damage to these lateral tiles would rarely affect adjacent landowners. Lateral tiles feed to larger main tiles. Damage to a larger main could cause drainage issues on adjacent properties and will therefore be avoided with the Project design or repaired or rerouted if unavoidable.

The Applicant has determined that spacing between lateral tiles within the Project Area is between 30 and 50 feet. This spacing does not impose a significant constraint on the Project design, as project components, such as the solar modules, can be placed between the drain tiles. However, there is potential for impacts to the drain tile system from steel posts and transmission line poles driven into the ground and cutting trenches to install underground collection systems. The final site layout will take the drain tile locations into consideration to minimize potential impacts. The Applicant plans to avoid impacts to all main tiles and lateral tiles will be avoided to the extent practicable. Procedures will be developed to identify locations where tiles have been damaged and repairs performed, as necessary, as part of the overall construction and site restoration (post-construction) process. During operations, facility personnel will monitor the site for signs of damaged tile (i.e. saturated soils or areas of ponding). A local contractor who specializes in the installation and repair of agricultural drain tiles will be hired to perform any necessary repairs.

(iv) Structures used for Agricultural Operations

No agricultural-related structures will be impacted by Project construction, operation, or maintenance.

(v) Viability as Agricultural District Land

Figure 8-8 depicts Project parcels that are enrolled in Madison County's Agricultural District Program. Once the Project is operational, these parcels will no longer be eligible for inclusion in the program. Once the Project is decommissioned, the parcels could be re-enrolled in the program.

(c) Avoidance and Mitigation Procedures During Construction, Operation, and Maintenance to Reduce Impacts to Agricultural Land, Structures, and Practices

The Project has been designed to minimize its impact and reduce its overall footprint to the extent practicable, reducing the amount of agricultural land removed from production during the life of the Project. However, agricultural production within the perimeter fence line will cease prior to construction activities commencing. The Applicant will compensate the landowner for destruction or loss of any crops caused by the Project.

(i) Avoidance or Minimization of Damage to Field Tile Drainage Systems and Soils

The Applicant has prepared a Project Drain Tile Assessment and Construction Impact Report for the Project that is included as Exhibit Z. The known drain tile locations within the Project Area are depicted in Figure 8-8. The assessment involved the use of publicly available GIS data and maps provided by the landowners, when available, to map the locations of drain tiles, both lateral and main tiles, within the Project Area. The Applicant will take the mapped drain tile system into consideration when preparing the final site layout to minimize potential impacts. The Applicant plans to avoid impacts to all main tiles and to the extent practicable, lateral tiles will be avoided. Procedures will be developed to identify locations where tiles have been damaged and repairs performed, as necessary, as part of the overall construction and site restoration (post-construction) process. During operations, facility personnel will monitor the site for signs of damaged tile (i.e. saturated soils or areas of ponding). A local contractor who specializes in the

installation and repair of agricultural drain tiles will likely be hired to perform any necessary repairs.

(ii) Timely repair of Damaged Field Tile Systems

The Applicant will use commercially reasonable efforts during construction to promptly repair any drain tile that is noticeably damaged. Also, if the Applicant becomes aware during operation of circumstances indicating that the Project has damaged functioning drain tiles that are adversely affecting adjacent landowners or public drains, then the Applicant will promptly investigate the matter and use commercially reasonable efforts to promptly repair any such damage.

(iii) Segregation of Excavated Topsoil Decompaction and Restoration of Topsoil

The Applicant will segregate excavated topsoil, and de-compact and restore all topsoil to original conditions unless otherwise agreed to by the landowner. Topsoil will not be significantly compacted during the laying of the substation foundation or racking posts. Additionally, areas below the solar arrays will be planted with low-growth native grass seed mix to promote precipitation infiltration and reduce stormwater run-off and soil erosion.

4906-4-09 REGULATIONS ASSOCIATED WITH WIND FARMS

The Project is not a wind farm; therefore, these regulations are not applicable.

References

Clark County 2018. CONNECT Clark County, Comprehensive Plan. Accessed online July 6, 2020 at: https://www.clarkcountyohio.gov/DocumentCenter/View/3556/CONNECT-Clark-County-Comprehensive-Plan?bidId=

Lazard. 2018. "Lazard's Levelized Cost of Energy Analysis – Version 12.0." November 2018. Accessed online July 6, 2020 at: https://www.lazard.com/media/450784/lazards-levelized-cost-of-energy-version-120-vfinal.pdf

Logan-Union-Champaign Regional Planning Commission. 2019. Draft 2020 Update to the Champaign County Comprehensive Plan. Accessed online July 6, 2020 at: https://2614136b-fd50-499b-9466-da7a47425c09.filesusr.com/ugd/540e57_a15383ded7e74e4b946fefda81969623.pdf

Madison County, Ohio. 2014. 2014 Comprehensive Plan. Accessed online May 4, 2020 at: https://sharepoint.co.madison.oh.us/publicaccess/2014%20Comprehensive%20Plan/Forms/AllItems.aspx?RootFolder=%2Fpublicaccess%2F2014%20Comprehensive%20Plan%2F2014&FolderCTID=&View=%7B3560C7E6%2D6A1B%2D403E%2DA950%2D77995FB75EC7%7D.

National Renewable Energy Laboratory (NREL). 2018. U.S. Solar Photovoltaic System Cost Benchmark: Q1 2018. Accessed online July 6, 2020 at: https://www.nrel.gov/docs/fy19osti/72399.pdf

NatureServe Explorer. 2020. Data Search. Accessed online April 2020 at: http://explorer.natureserve.org/servlet/NatureServe.

Ohio Department of Natural Resources, Division of Wildlife (ODNR). 2016. State Listed Plant and Wildlife Species by County. Accessed online July 6, 2020 at: https://ohiodnr.gov/wps/wcm/connect/gov/e214f489-a9a9-4407-8787-2c0df6749005/State+Listed+Animals+-+All+Counties.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-e214f489-a9a9-4407-8787-2c0df6749005-naEpZXs

Ohio Department of Natural Resources, Division of Soil and Water Conservation (OH-DSWC). 2006. Rainwater and Land Development: Ohio's Standards for Stormwater Management Land Development and Urban Stream Protection. Third Edition.

Ohio Department of Natural Resources (ODNR). 2000. Aquifer – Unconsolidated Aquifers of Ohio. Accessed online June 2020 at https://ohiodnr.gov/wps/portal/gov/odnr-core/home/resources/metadata-downloads

Ohio Environmental Protection Agency (OEPA). 2020a. Drinking Water Source Protection Areas. Accessed June 2020 at https://oepa.maps.arcgis.com/apps/webappviewer/index.html?id=3b39e11ba7fc43c3b41801e3580e6d21

Ohio Environmental Protection Agency (OEPA). 2020b. Concentrated Animal Feeding Operations. Division of Surface Water. Accessed April 6, 2020 at: https://www.epa.state.oh.us/dsw/cafo/index#126567134-cafo-npdes-permits-in-ohio.

Ohio Environmental Protection Agency (OEPA). 2019. Division of Air Pollution Control. State of Ohio, Air Quality, Calendar Year 2018. Accessed December 19, 2019 at: https://epa.ohio.gov/Portals/27/ams/Ohio_Air_Quality_2018_final.pdf.

Ohio Environmental Protection Agency (OEPA). 2011. Regional Haze State Implementation Plan for Ohio. Division of Air Pollution Control. Accessed May 18, 2020 at: https://www.epa.ohio.gov/portals/27/SIP/regional/Regional_Haze_SIP_Revised_Final_3-11-11.pdf.

Ohio Office of Research. 2019a. Ohio County Profiles: Pickaway County. Accessed April 6, 2020 at https://development.ohio.gov/files/research/C1050.pdf.

Ohio Office of Research. 2019b. 2018 Population Estimates: Cities, Villages and Townships by County. Accessed April 6, 2020 at https://development.ohio.gov/files/research/P5027.pdf.

The Ohio State University. 2019. Ohio Agricultural Research and Development Center (OARDC) Weather System. Columbus Station. Accessed July 6, 2020 at: http://www.oardc.ohio-state.edu/weather1/stationinfo.asp?id=14.

Royal Meteorological Society (RMetS). 2018. The Beaufort Scale. Accessed July 6, 2020 at: https://www.rmets.org/resource/beaufort-scale

Union County Engineer. 2017. Road Map. Accessed July 6, 2020 at: https://evogov.s3.amazonaws.com/media/52/media/50737.pdf

U.S. Environmental Protection Agency (USEPA). 2020. Ohio Nonattainment/Maintenance Status for Each County by Year for All Criteria. Current as of June 30, 2020. Accessed July 6, 2020 at: https://www3.epa.gov/airquality/greenbook/anayo_oh.html.

U.S. Fish and Wildlife Service (USFWS). 2019. Information for Planning and Conservation (IPaC). IPaC Resource List. Accessed online on October 29, 2019 at: https://ecos.fws.gov/ipac/.

Figure 03-1
Project Two-Mile Radius Map

Respectfully submitted,

/s/ *Christine M.T. Pirik*
Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

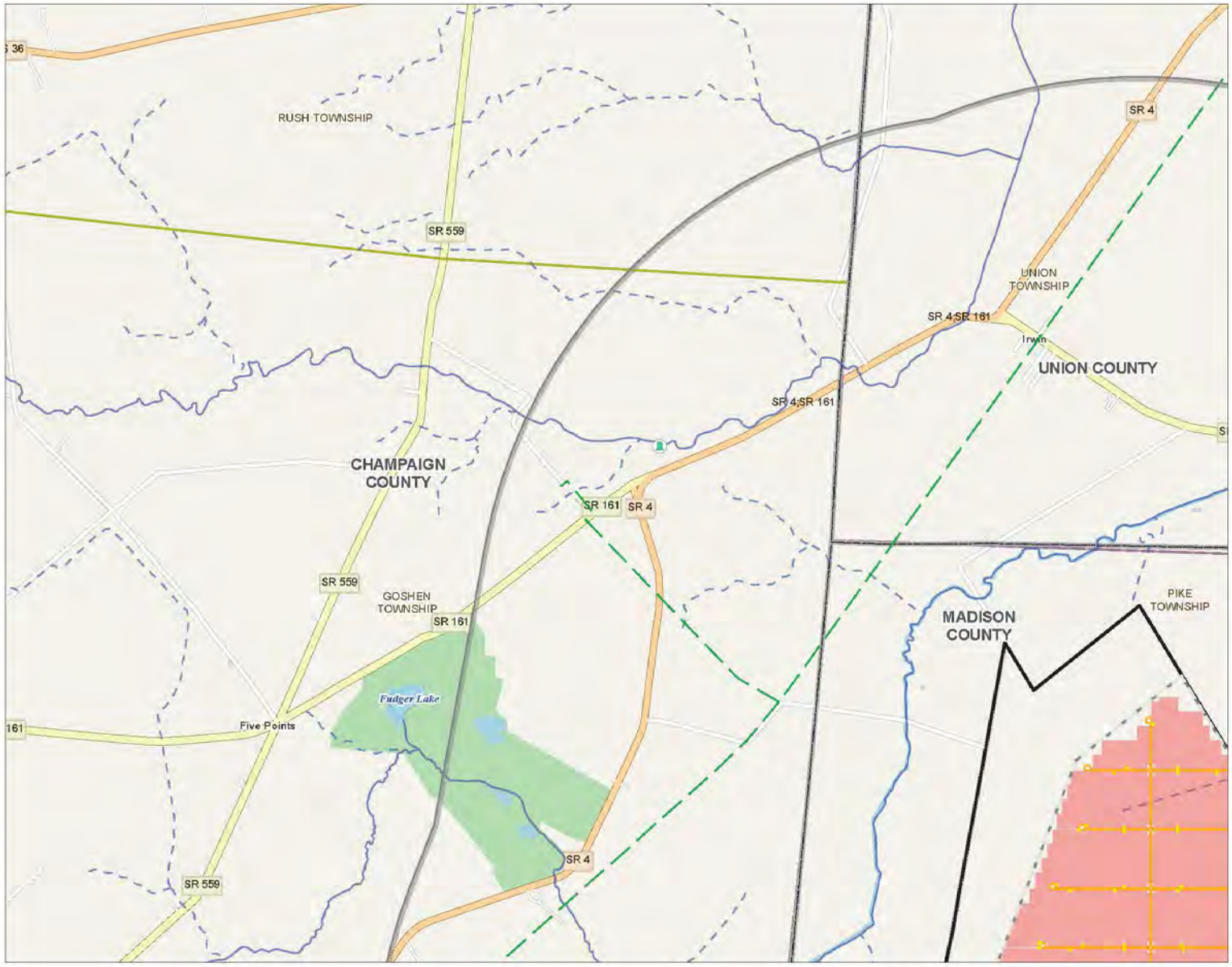


Figure No.
3-1

Title
Project Two-Mile Radius Map

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

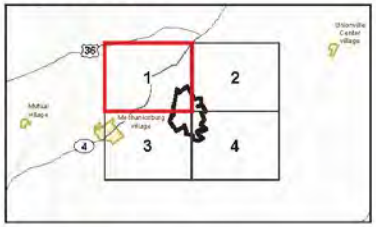
N

0 1,000 2,000 US Feet
(At original document size of 11x17)
1:24,000

Legend

- Project Boundary
- 2 Mile Buffer
- Church
- College/University
- Cemetery
- Existing Electric Transmission Line
- Gate
- Generation Tie-Line
- Fence
- Access Road
- Solar Array
- Inverter
- Substation
- Switchyard
- Laydown Area
- O&M Building
- Wildlife or Conservation Area
- County Boundary
- Township Boundary
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Waterbody

Preliminary Design - Not for Construction



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, ODNR, ODOT, PADUS, ODNR
3. Background: Esri

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

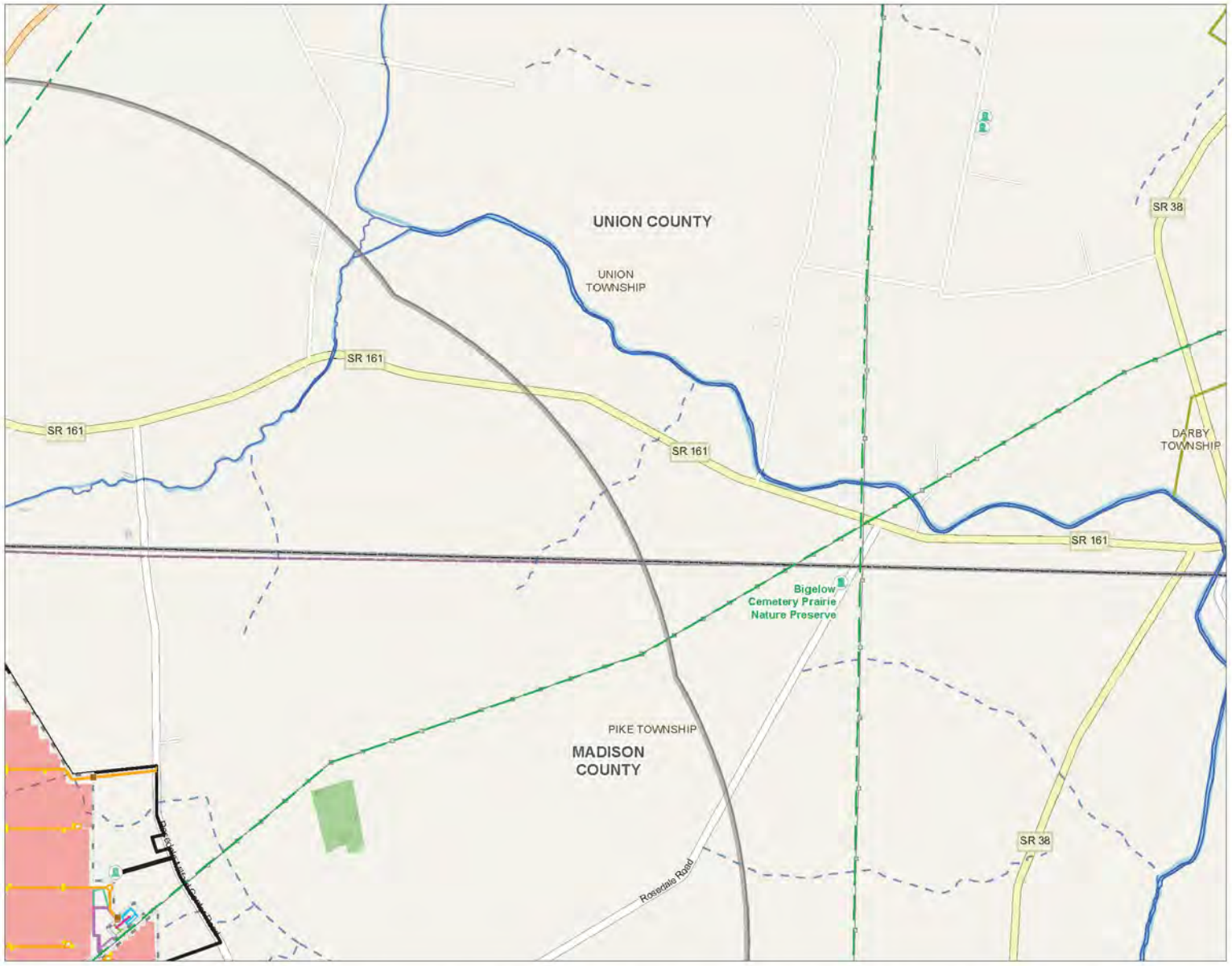


Figure No.
3-1

Title
Project Two-Mile Radius Map

Client/Project 2028113208
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-06-18

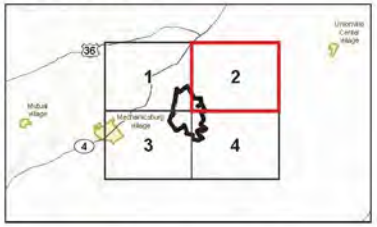
N

0 1,000 2,000 US Feet
(At original document size of 11x17)
1:24,000

Legend

- Project Boundary
- 2 Mile Buffer
- Church
- College/University
- Cemetery
- Existing Electric Transmission Line
- Gate
- Generation Tie-Line
- Fence
- Access Road
- Solar Array
- Inverter
- Substation
- Switchyard
- Laydown Area
- O&M Building
- Wildlife or Conservation Area
- County Boundary
- Township Boundary
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Waterbody

Preliminary Design - Not for Construction



Notes:
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, ODNR, ODOT, RADIUS, ODNR
3. Background: Esri

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure No.
3-1

Title
Project Two-Mile Radius Map

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 1,000 2,000 US Feet
(At original document size of 11x17)
1:24,000

Legend

- Project Boundary
- 2 Mile Buffer
- Church
- College/University
- Cemetery
- Existing Electric Transmission Line
- Gate
- Generation Tie-Line
- Fence
- Access Road
- Solar Array
- Inverter
- Substation
- Switchyard
- Laydown Area
- O&M Building
- Wildlife or Conservation Area
- County Boundary
- Township Boundary
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Waterbody

Preliminary Design - Not for Construction

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, ODNR, ODOT, PADUS, ODNR
3. Background: Esri

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

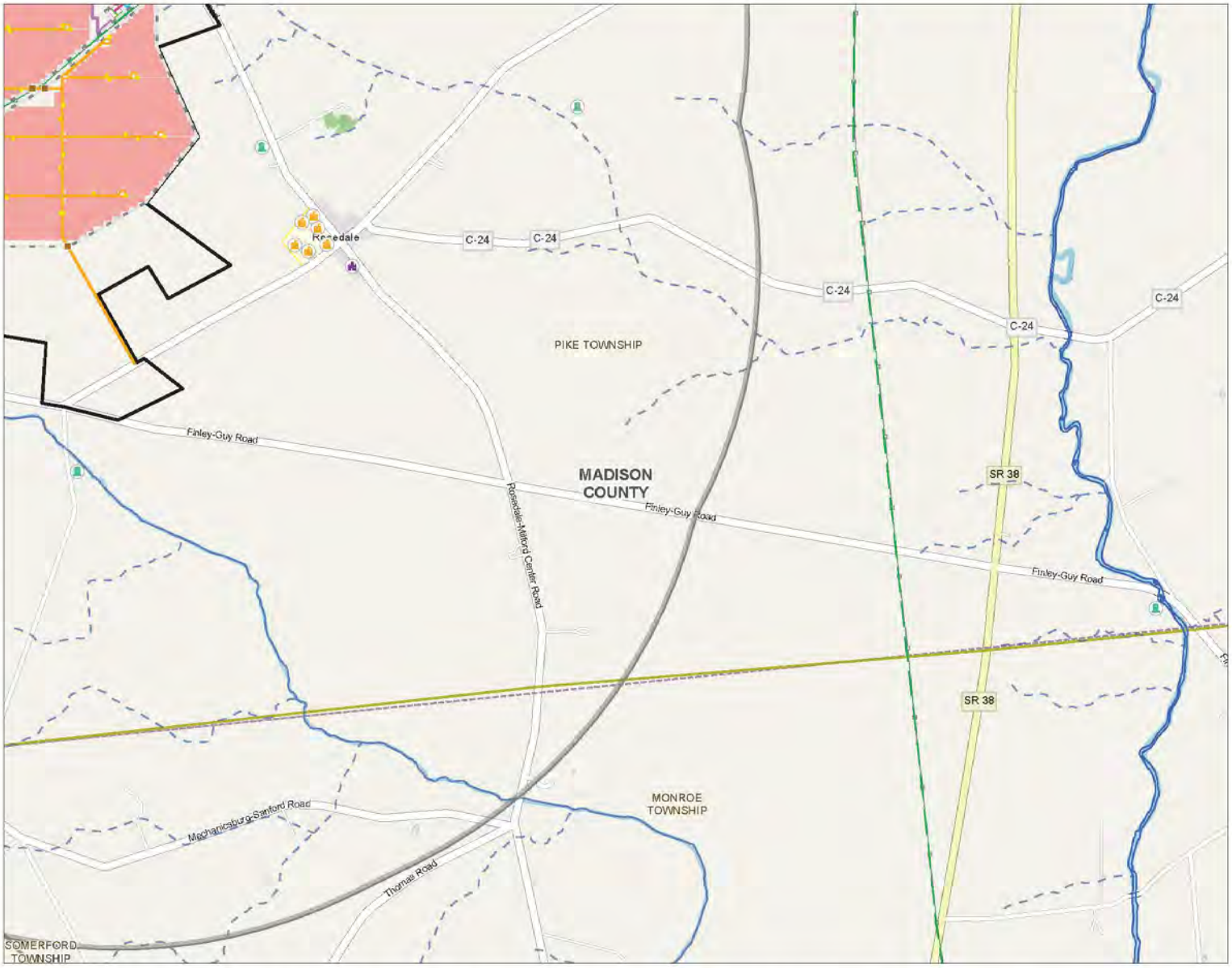


Figure No.
3-1

Title
Project Two-Mile Radius Map

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

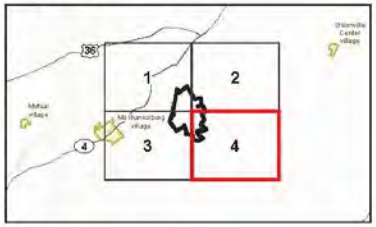
N

0 1,000 2,000 US Feet
(At original document size of 11x17)
1:24,000

Legend

- Project Boundary
- 2 Mile Buffer
- Church
- College/University
- Cemetery
- Existing Electric Transmission Line
- Gate
- Generation Tie-Line
- Fence
- Access Road
- Solar Array
- Inverter
- Substation
- Switchyard
- Laydown Area
- O&M Building
- Wildlife or Conservation Area
- County Boundary
- Township Boundary
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Waterbody

Preliminary Design - Not for Construction



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, ODNR, ODOT, PADUS, ODNR
3. Background: Esri

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 03-2
Project Site Layout Map

Respectfully submitted,

/s/ Christine M.T. Pirik

Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

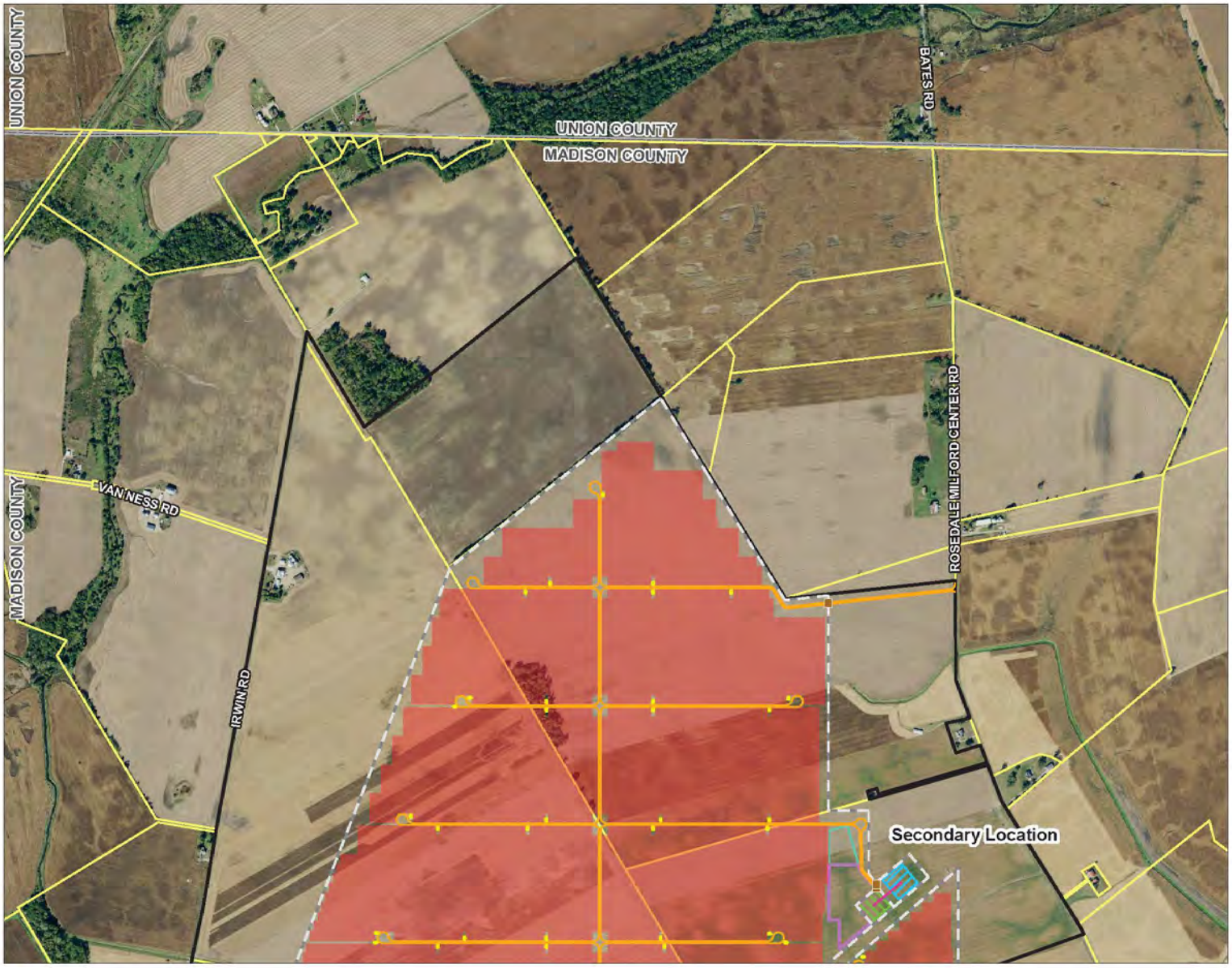


Figure No.
3-2

Title
Project Site Layout Map

Client/Project 202811298
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

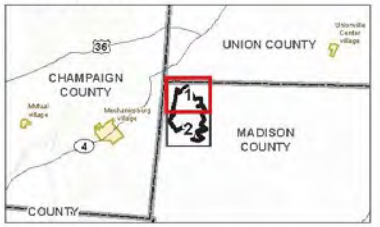
Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 500 1,000 US Feet
(At original document size of 11x17)
1:12,000

Legend
- Project Boundary
- Property Boundary
- Gate
- Inverter
- Generation Tie-Line
- Access Road
- Fence
- Solar Array
- Laydown Area
- O&M Building
- Substation
- Switchyard
- County Boundary

Preliminary Design – Not for Construction



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, OGRIP, NADS, Madison County
3. Background: 2018 NAIP

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

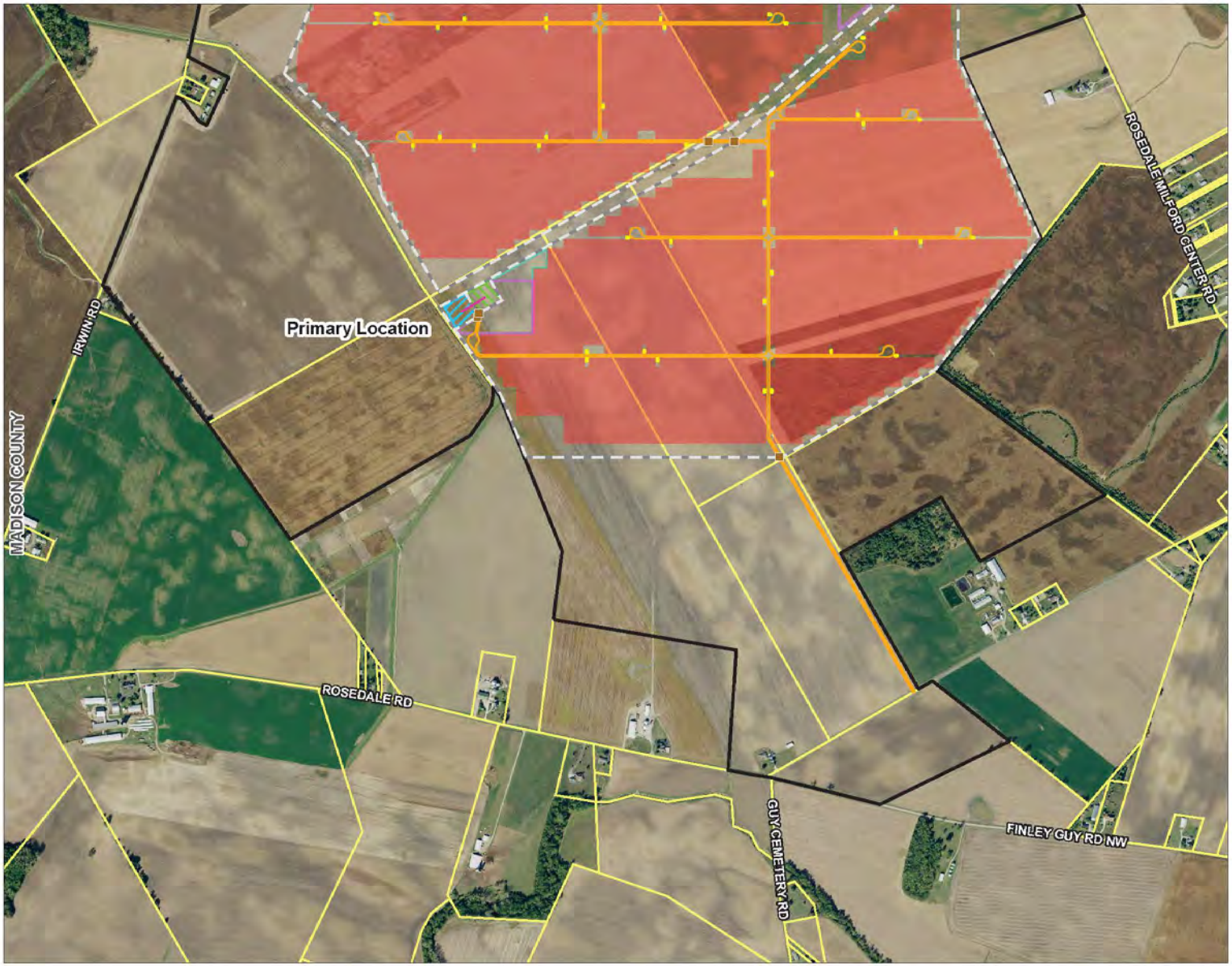


Figure No.
3-2

Title
Project Site Layout Map

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project

202811298

Project Location
Madison County
Ohio

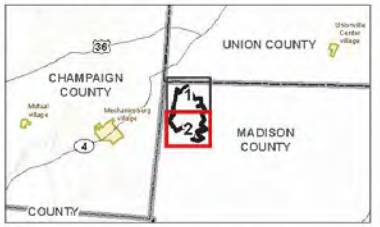
Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 500 1,000 US Feet
(At original document size of 11x17)
1:12,000

Legend
- Project Boundary
- Property Boundary
- Gate
- Inverter
- Generation Tie-Line
- Access Road
- Fence
- Solar Array
- Laydown Area
- O&M Building
- Substation
- Switchyard
- County Boundary

Preliminary Design - Not for Construction



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, OGRIP, NADS, Madison County
3. Background: 2019 NAIP

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 03-3
Project Schedule

Respectfully submitted,

/s/ *Christine M.T. Pirik*
Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

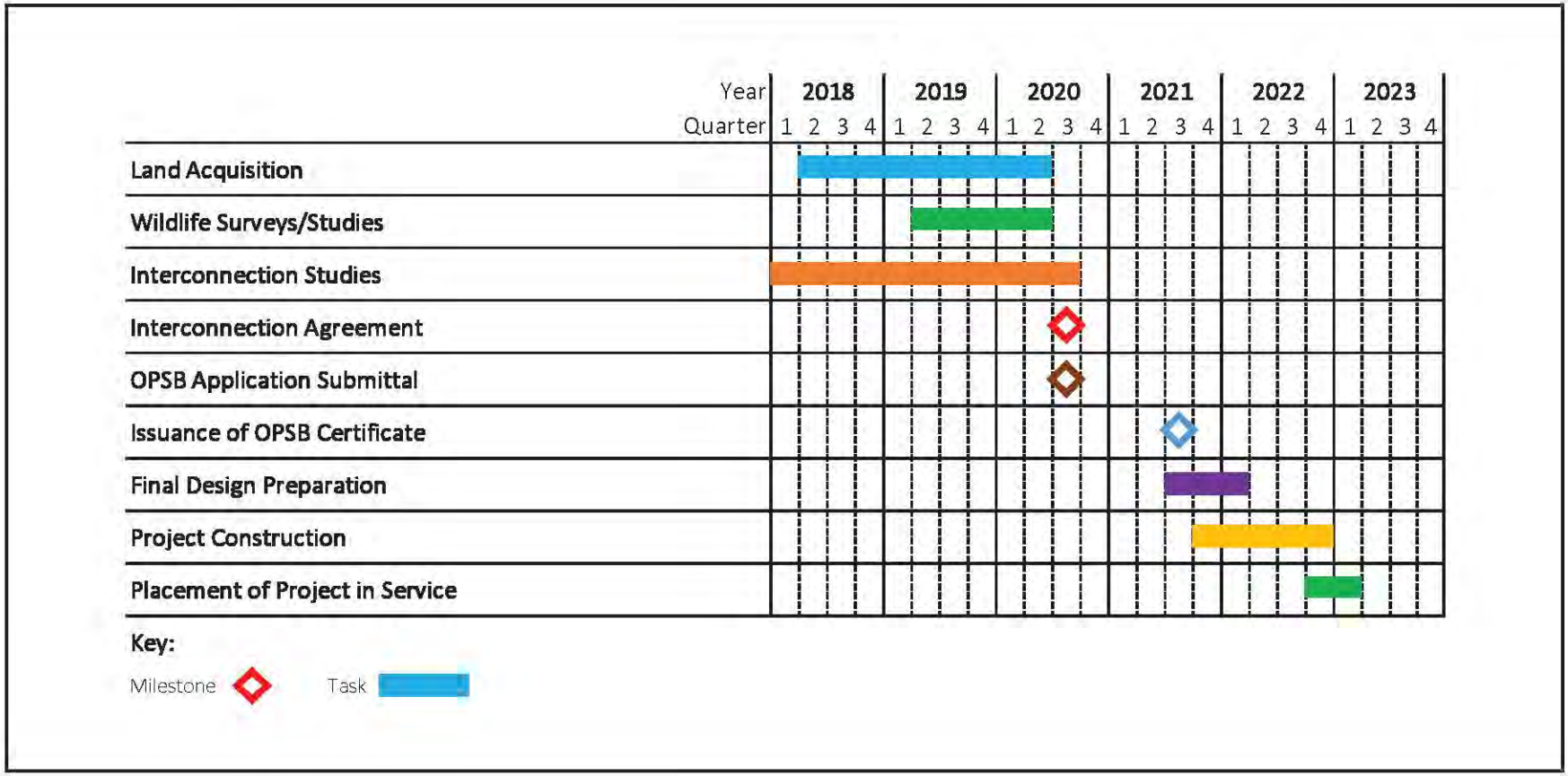

Year
2018
2019
2020
2021
2022
2023
Quarter
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
Land Acquisition
Wildlife Surveys/Studies
Interconnection Studies
Interconnection Agreement
OPSB Application Submittal
Issuance of OPSB Certificate
Final Design Preparation
Project Construction
Placement of Project in Service
Key:
Milestone
Task

Figure 04-1
Project Constraints Map

Respectfully submitted,

/s/ *Christine M.T. Pirik*

Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

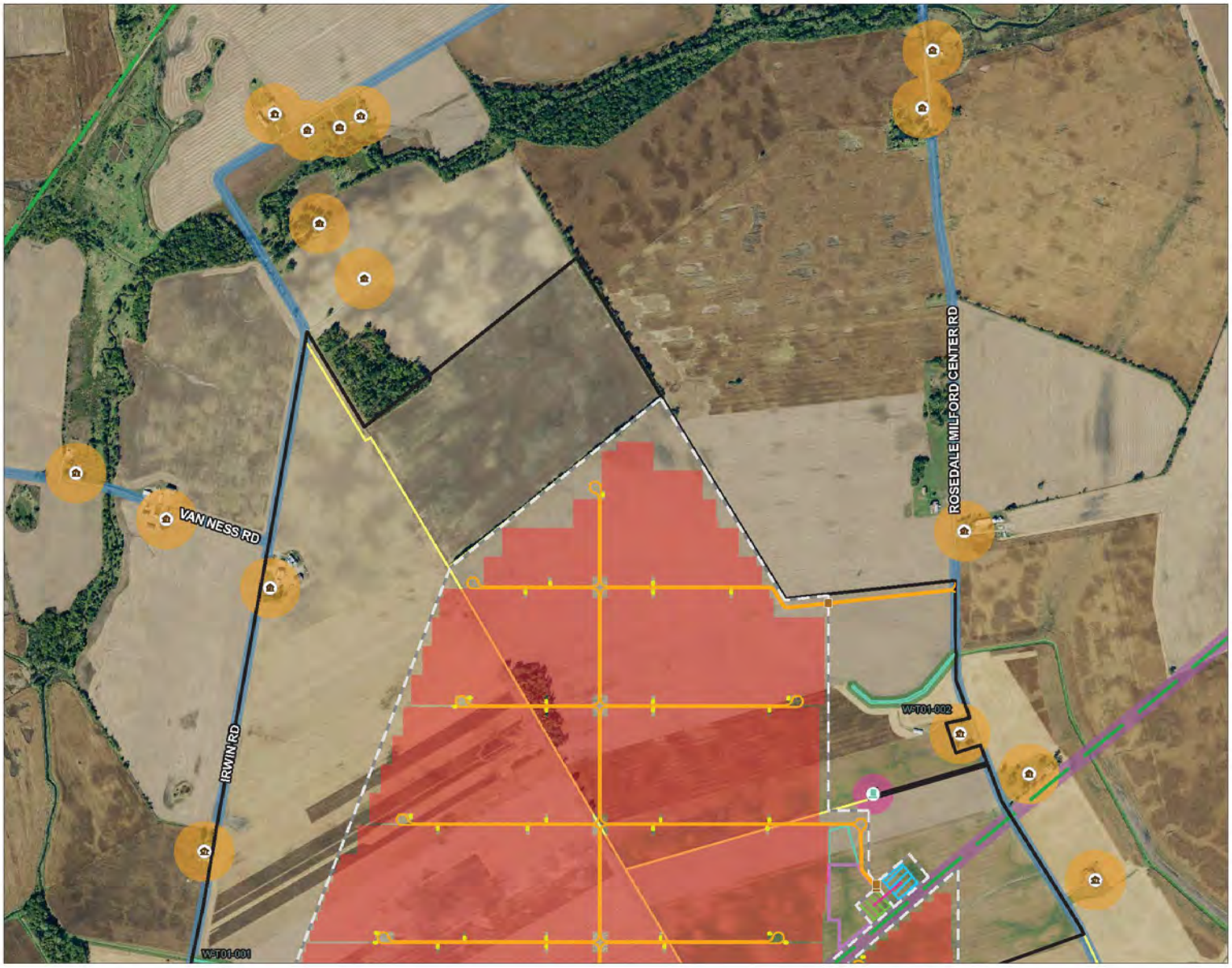


Figure No.
4-1

Title
Project Constraints Map

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project

202811298

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 500 1,000 US Feet
(At original document size of 11x17)
1:12,000

Legend
- Project Boundary
- Property Boundary
- Gate
- Residence
- Cemetery
- Generation Tie-Line
- Access Road
- Fence
- Inverter
- Solar Array
- Laydown Area
- O&M Building
- Substation
- Switchyard
- Existing Electric Transmission Line
- PEM Wetland

Setback Type
- Cemetery
- Roads
- Structure
- Transmission Line
- Wetlands

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, Madison County, EnE, USFWS, NADS, OGRIP
3. Background: 2019 NAIP

Preliminary Design - Not for Construction

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

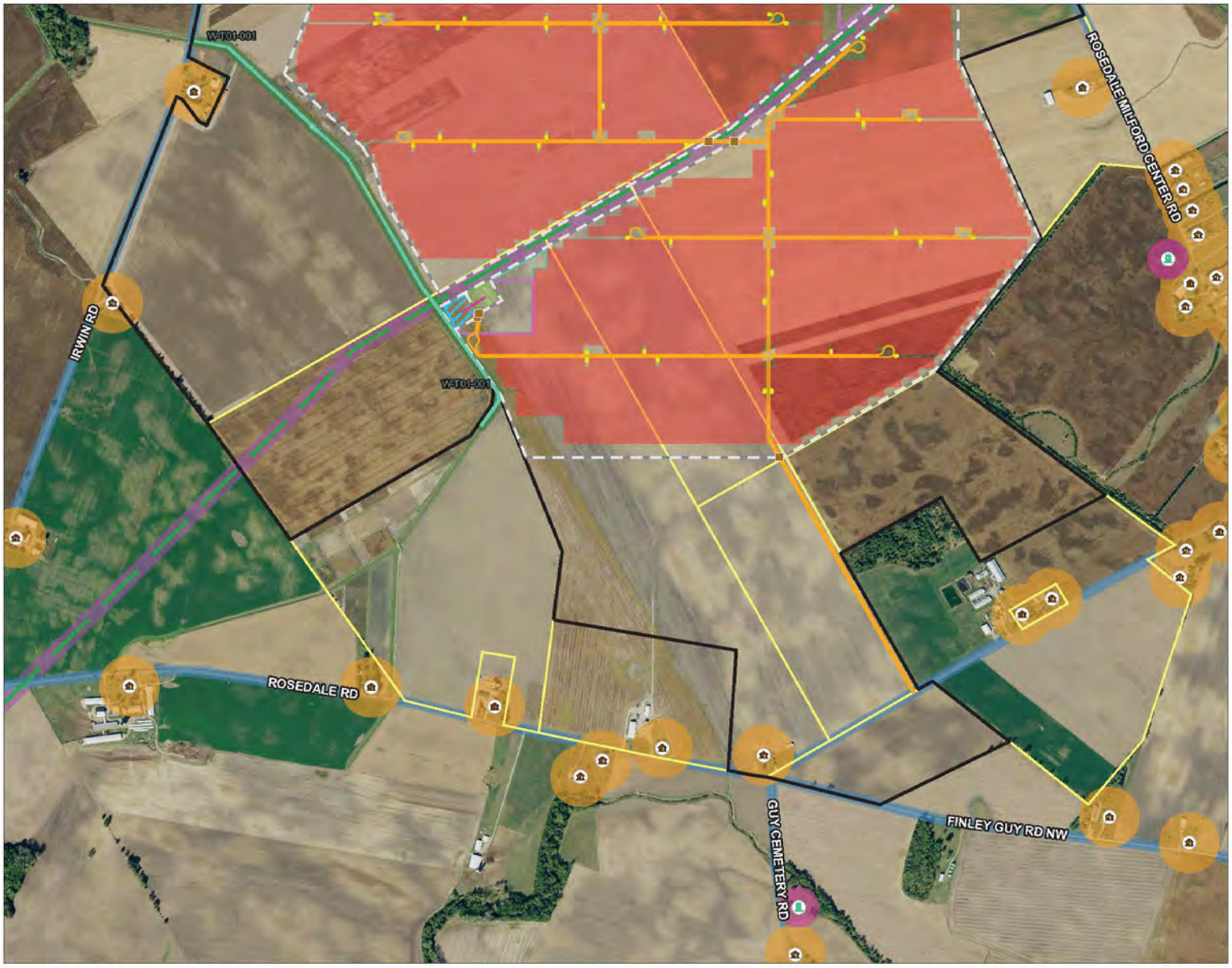


Figure No.
4-1

Title
Project Constraints Map

Client/Project 202811298
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 500 1,000 US Feet
(At original document size of 11x17)
1:12,000

Legend
- Project Boundary
- Property Boundary
- Gate
- Residence
- Cemetery
- Generation Tie-Line
- Access Road
- Fence
- Inverter
- Solar Array
- Laydown Area
- O&M Building
- Substation
- Switchyard
- Existing Electric Transmission Line
- PEM Wetland

Setback Type
- Cemetery
- Roads
- Structure
- Transmission Line
- Wetlands

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Savion, Esri, USGS, Madison County, EnE, USFWS, NADS, OGRIP
3. Background: 2019 NAIP

Preliminary Design - Not for Construction

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 07-1
Aviation Facilities

Respectfully submitted,

/s/ *Christine M.T. Pirik*
Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

Figure No.
7-1

Title
Airports

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project

202811298

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 0.75 1.5 Miles
(At original document size of 11x17)
1:95,040

Legend
- Project Boundary
- 5 Mile Buffer
- FAA Airport

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, Madison County, FAA, NADS, OGRIP
3. Background: 2019 NAIP

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 08-1
Sensitive Receptors

Respectfully submitted,

/s/ *Christine M.T. Pirik*
Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

Figure No.
8-1

Title
Sensitive Receptors

Client/Project 202811298
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 0.25 0.5 Miles
(At original document size of 11x17)
1:31,680

Legend
- Project Boundary
- 1 Mile Buffer
- Church
- College/University
- Residence

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, Madison County, EnE, USFWS, NADS, OGRIP
3. Background: 2019 NAIP

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 08-2
Water Wells, Source Water Protection Areas, and Floodplains

Respectfully submitted,

/s/ Christine M.T. Pirik

Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

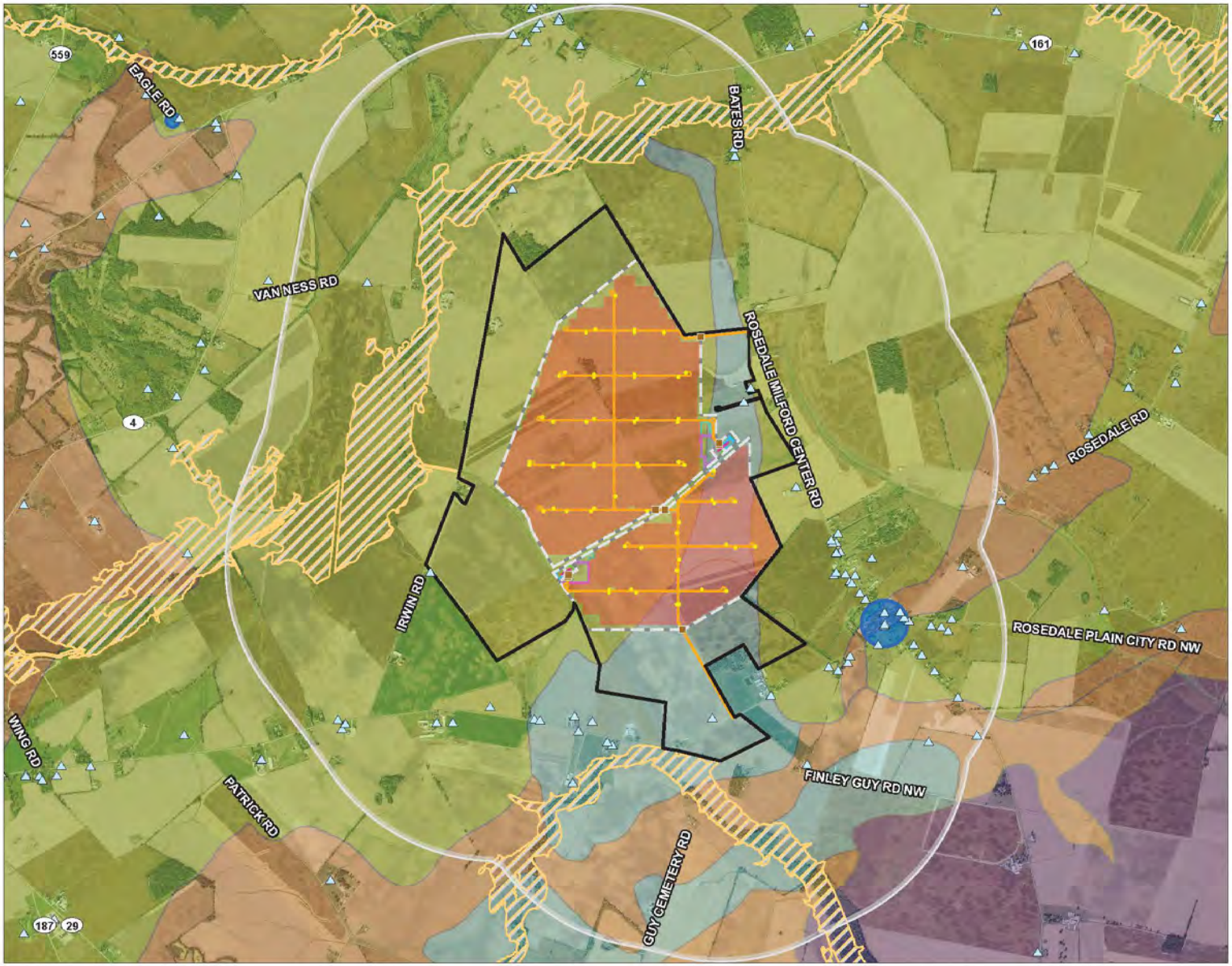


Figure No.
8-2

Title
Water Wells, Source Water Protection Areas, and Floodplains

Client/Project 202811298
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 0.25 0.5 Miles
(At original document size of 11x17)
1:31,680

Legend
- Project Boundary
- 1 Mile Buffer
- Water Well
- Source Water Protection Area
- Gate
- Generation Tie-Line
- Access Road
- Fence
- Inverter
- Solar Array
- Laydown Area
- O&M Building
- Substation
- Switchyard

FEMA Flood Hazard Area
- 100-year Flood Zone

Unconsolidated Aquifer
- Cable Complex Aquifer
- Mad River Buried Valley Aquifer
- Mad River Outwash/Kame Aquifer
- Prairie Complex Aquifer

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, ODNR, FEMA, NADS, OGRIP
3. Background: 2018 NAIP

Preliminary Design - Not for Construction

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 08-3
Geological and Topographic Features

Respectfully submitted,

/s/ Christine M.T. Pirik

Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

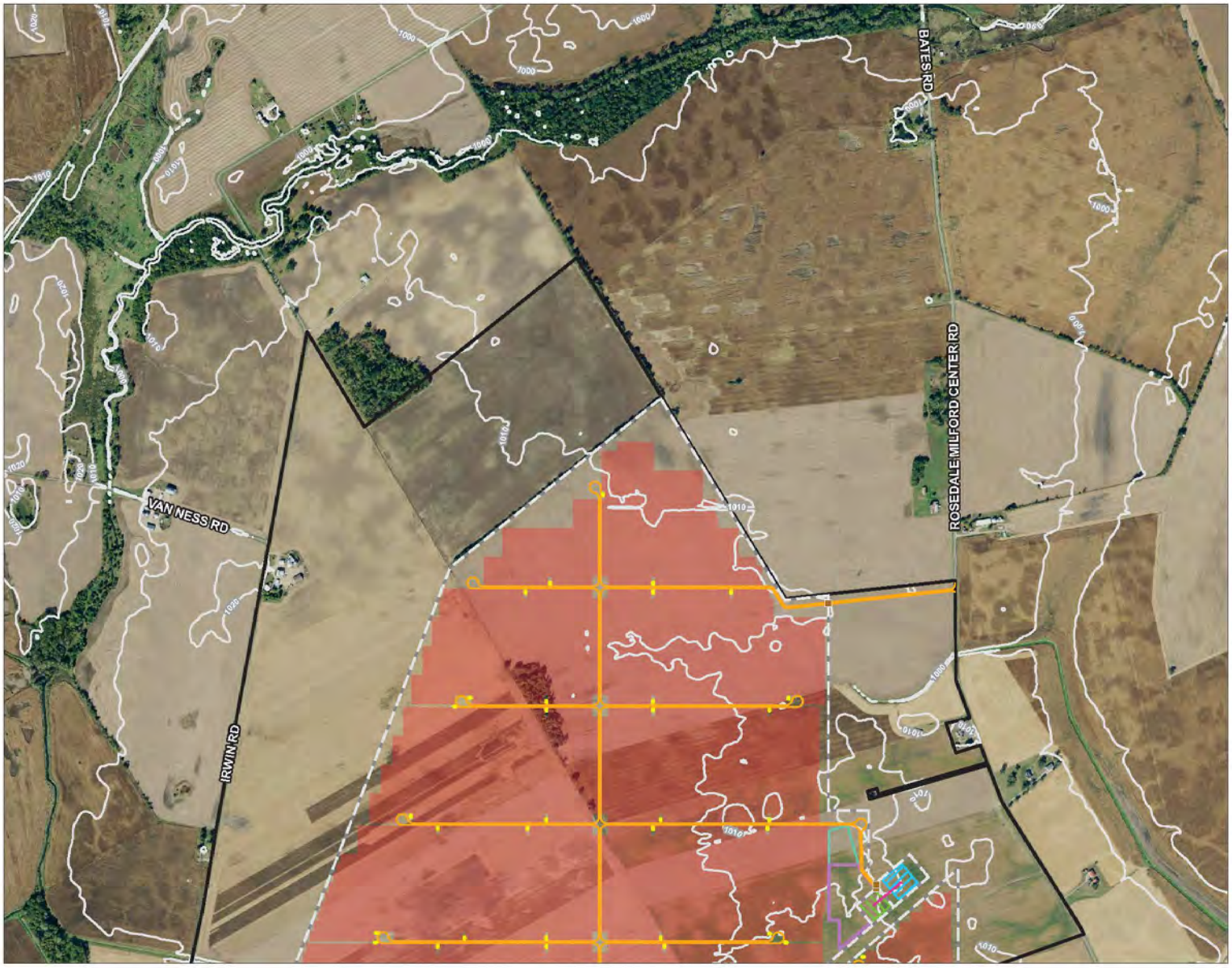


Figure No.
8-3

Title
Geological and Topographic Features

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project

202811298

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 500 1,000 US Feet
(At original document size of 11x17)
1:12,000

Legend
- Project Boundary
- 10ft Elevation Contour
- Gate
- Generation Tie-Line
- Access Road
- Fence
- Inverter
- Laydown Area
- O&M Building
- Substation
- Switchyard
- Solar Array

Preliminary Design - Not for Construction

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, ODNR, OGRIP, NADS
3. Background: 2018 NAIP

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

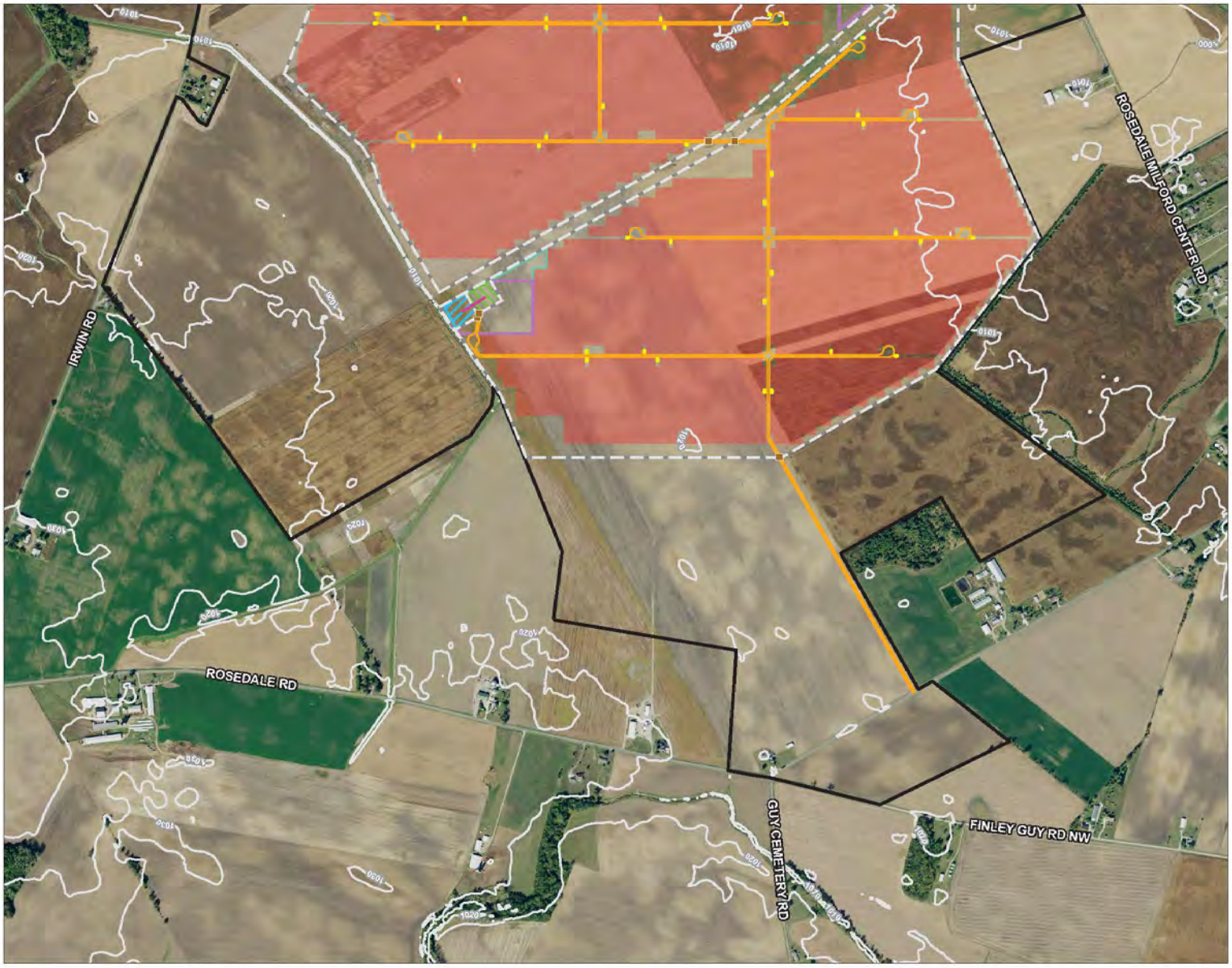


Figure No.
8-3

Title
Geological and Topographic Features

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project

202811298

Project Location
Madison County
Ohio

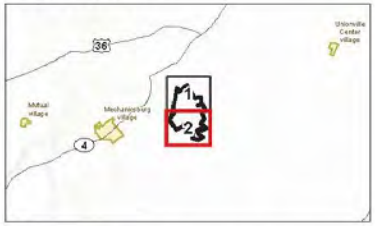
Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 500 1,000 US Feet
(At original document size of 11x17)
1:12,000

Legend
- Project Boundary
- 10ft Elevation Contour
- Gate
- Generation Tie-Line
- Access Road
- Fence
- Inverter
- Laydown Area
- O&M Building
- Substation
- Switchyard
- Solar Array

Preliminary Design - Not for Construction



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, ODNR, OGRIP, NADS
3. Background: 2018 NAIP

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 08-4
Ecological Communities

Respectfully submitted,

/s/ *Christine M.T. Pirik*
Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

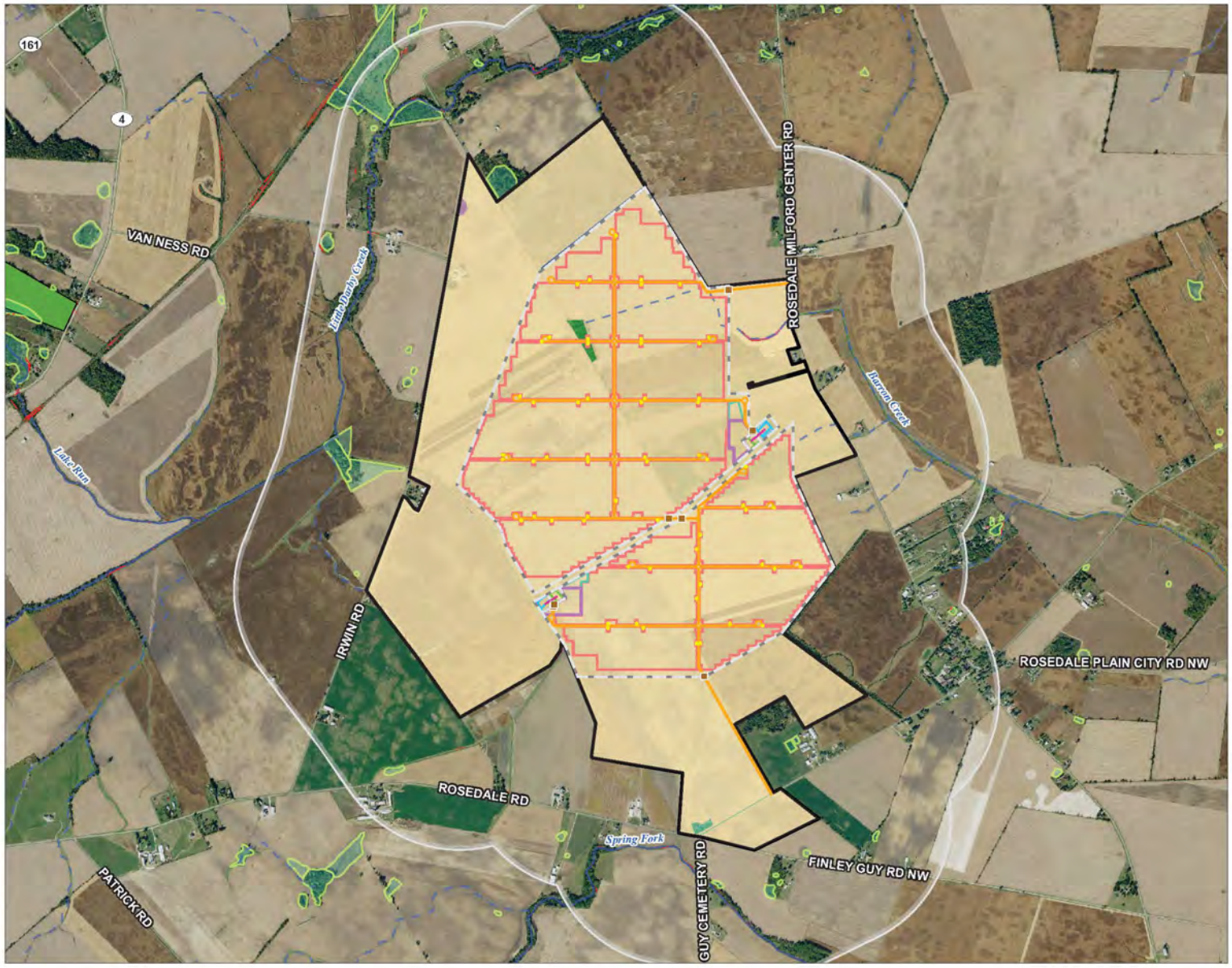


Figure No.
8-4

Title
Ecological Communities

Client/Project 202811208
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-06-18

N

0 1,000 2,000 US Feet
(At original document size of 11x17)
1:24,000

Legend

- Project Boundary
- 0.5 Mile Buffer
- Slopes Greater than 12%
- Wildlife or Conservation Area
- Gate
- Generation Tie-Line
- Access Road
- Fence
- Inverter
- Laydown Area
- O&M Building
- Substation
- Switchyard
- Solar Array
- National Wetlands Inventory Feature

Habitat Area

- Agriculture
- Developed
- Oak-Hickory Successional Forest
- Old Field
- Scrub-Shrub
- Wetlands

National Hydrography Dataset

- Perennial Stream
- Intermittent Stream
- Waterbody

Preliminary Design - Not for Construction

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Savion, Esri, USGS, ODNR, Open Street, EnE, USFWS, OGRIP, NADS
3. Background: 2019 NAIP

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 08-5
Field Survey

Respectfully submitted,

/s/ *Christine M.T. Pirik*
Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

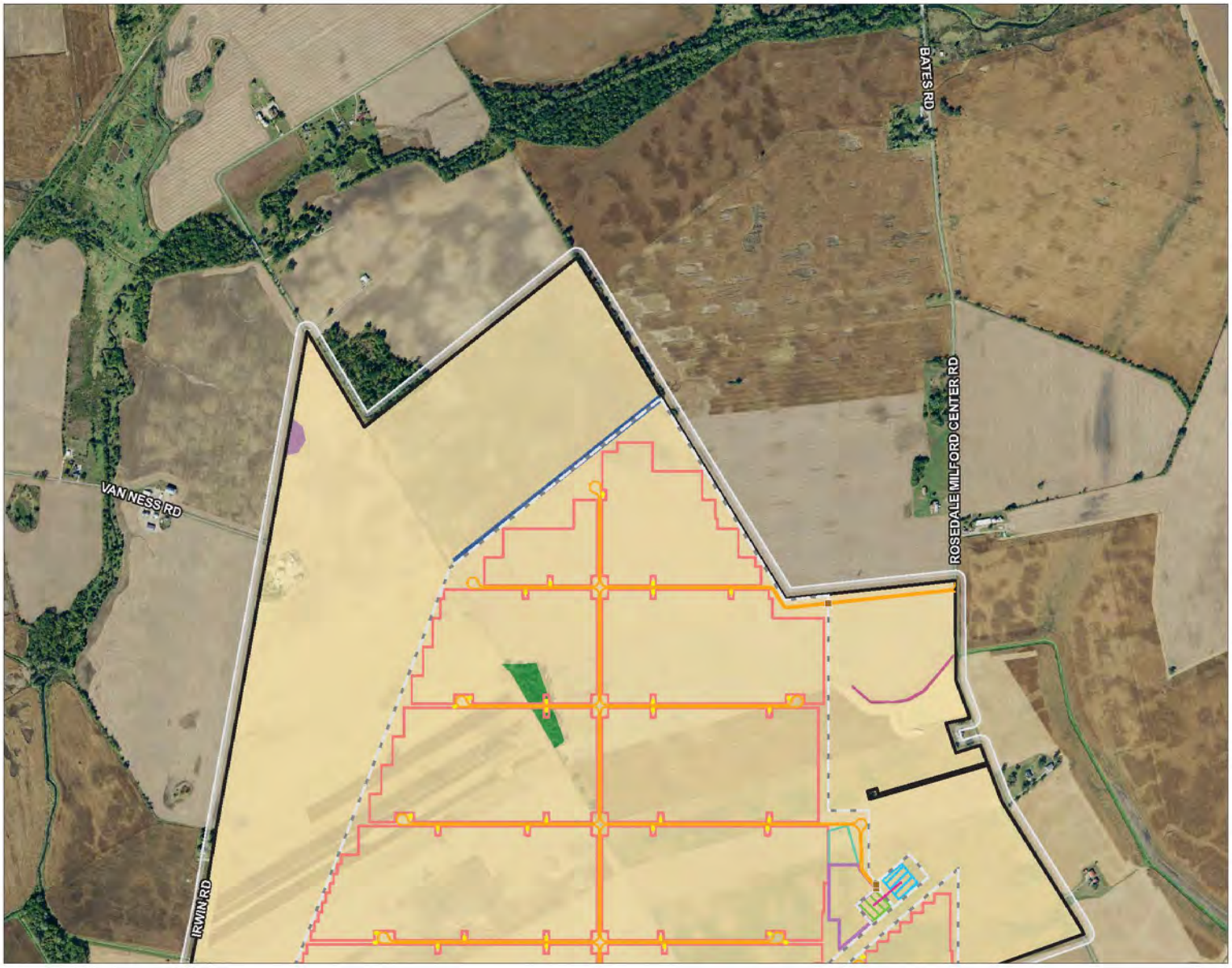


Figure No.
8-5

Title
Field Survey

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project

202811298

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 500 1,000 US Feet
(At original document size of 11x17)
1:12,000

Legend
- Project Boundary
- 100 Foot Buffer
- Gate
- Generation Tie-Line
- Access Road
- Fence
- Inverter
- Laydown Area
- O&M Building
- Substation
- Switchyard
- Solar Array

Habitat Area
- Agriculture
- Developed
- Oak-Hickory Successional Forest
- Old Field
- Scrub-Shrub
- Wetlands

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, EnE, USFWS, NADS, OGRIP
3. Background: 2018 NAIP

Preliminary Design - Not for Construction

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

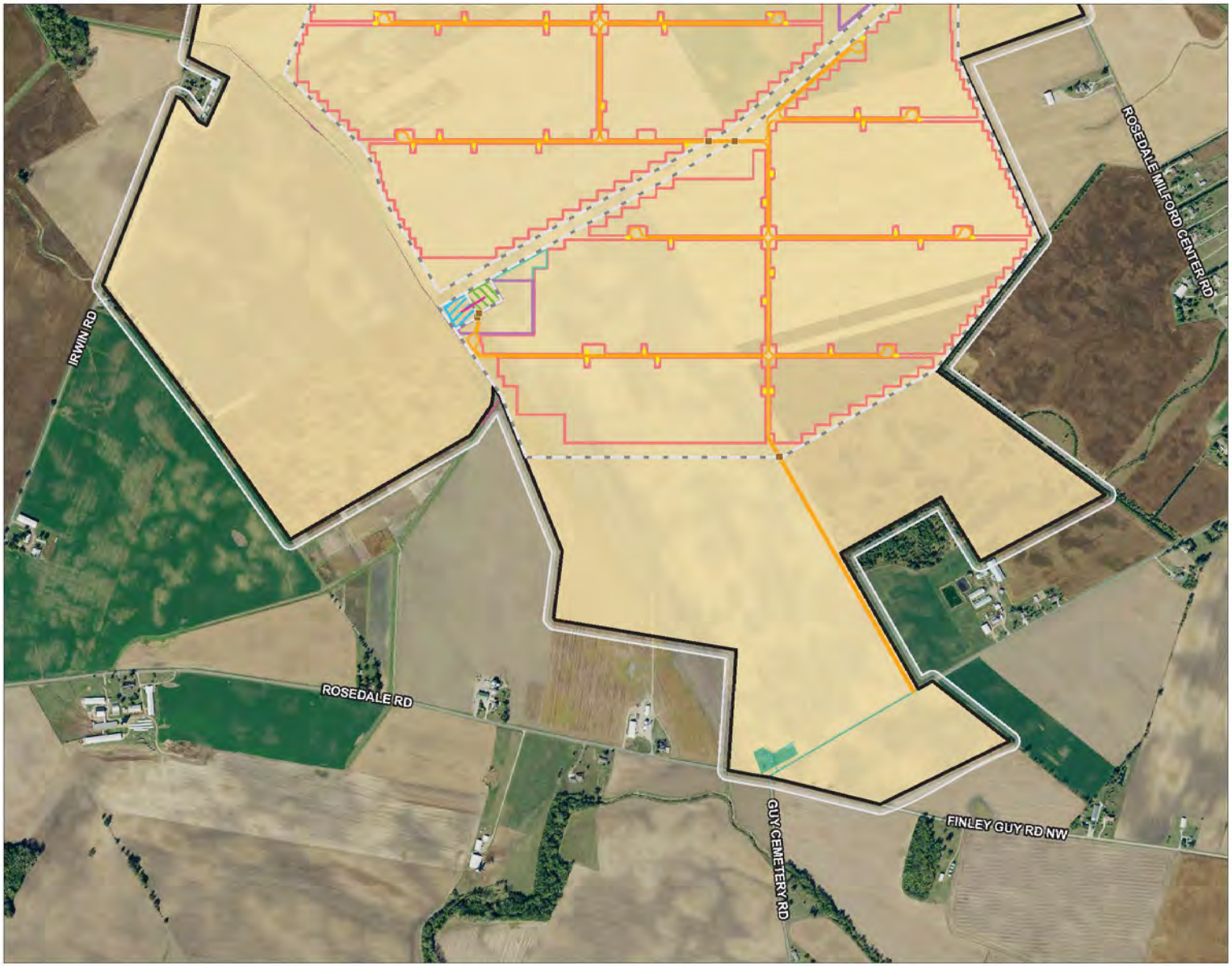


Figure No.
8-5

Title
Field Survey

Client/Project
Madison Fields Solar Project, LLC
Madison Fields Solar Project
202811298

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

N

0 500 1,000 US Feet
(At original document size of 11x17)
1:12,000

Legend

- Project Boundary
- 100 Foot Buffer
- Gate
- Generation Tie-Line
- Access Road
- Fence
- Inverter
- Laydown Area
- O&M Building
- Substation
- Switchyard
- Solar Array

Habitat Area

- Agriculture
- Developed
- Oak-Hickory Successional Forest
- Old Field
- Scrub-Shrub
- Wetlands

Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, EnE, USFWS, NADS, OGRIP
3. Background: 2018 NAIP

Preliminary Design - Not for Construction

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 08-6
Land Use

Respectfully submitted,

/s/ Christine M.T. Pirik

Christine M.T. Pirik (0029759)
(Counsel of Record)
William Vorys (0093479)
Dickinson Wright PLLC
150 East Gay Street, Suite 2400
Columbus, Ohio 43215
(614) 591-5461
cpirik@dickinsonwright.com
wvorys@dickinsonwright.com

Attorneys for Madison Fields Solar Project, LLC

Figure No.
8-6

Title
Land Use

Client/Project 2028113208
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-06-18

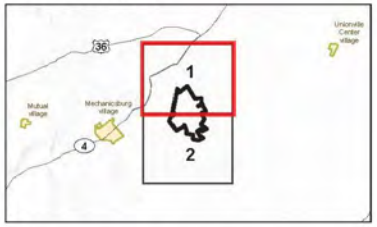
N

0 1,000 2,000 US Feet
(At original document size of 11x17)
1:24,000

Legend
- Church
- College/University
- Residence
- Project Boundary
- 1 Mile Buffer
- Township Boundary
- County Boundary

Madison County Land Use
- Agriculture
- Barren
- Forest Land
- Rangeland
- Urban or Built-up
- Water
- Wetlands

Preliminary Design - Not for Construction



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, Madison County, ENE, OGRIP, NADS
3. Background: 2019 NAIP

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

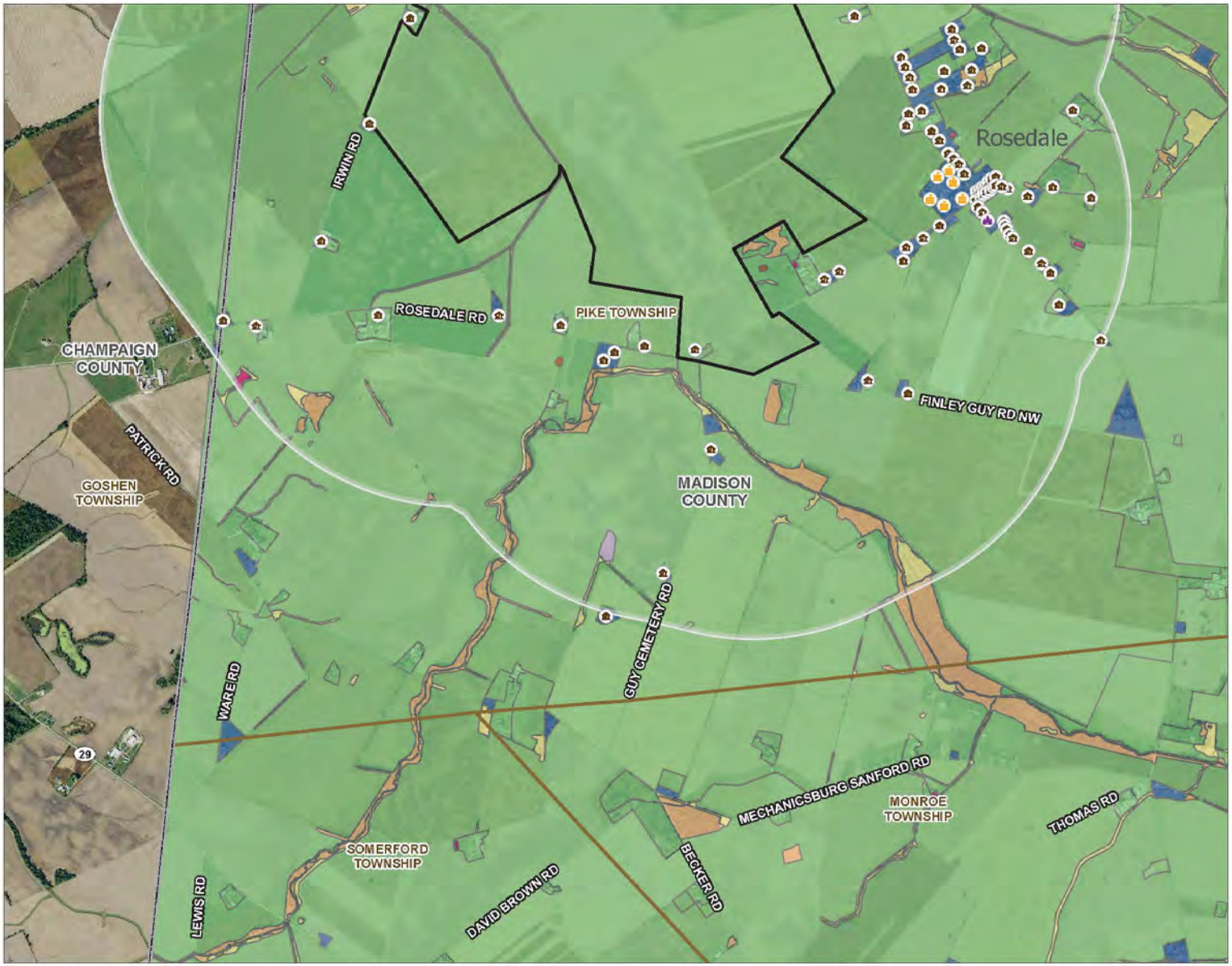


Figure No.
8-6

Title
Land Use

Client/Project 202811298
Madison Fields Solar Project, LLC
Madison Fields Solar Project

Project Location
Madison County
Ohio

Prepared by JD on 2020-05-04
Technical Review by JH on 2020-05-04
Independent Review by CD on 2020-05-18

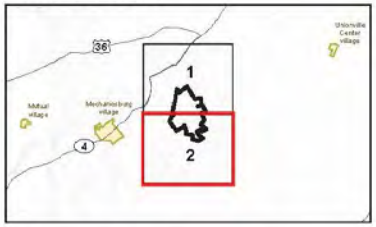
N

0 1,000 2,000 US Feet
(At original document size of 11x17)
1:24,000

Legend
- Church
- College/University
- Residence
- Project Boundary
- 1 Mile Buffer
- Township Boundary
- County Boundary

Madison County Land Use
- Agriculture
- Barren
- Forest Land
- Rangeland
- Urban or Built-up
- Water
- Wetlands

Preliminary Design - Not for Construction



Notes
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet
2. Data Sources: Stantec, Sanborn, Esri, USGS, Madison County, EnE, ORIP, NADS
3. Background: 2018 NAIP

Stantec

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

7/17/2020 4:42:36 PM

in

Case No(s). 19-1881-EL-BGN

Summary: Application - Part 1 of 8 (Text and Figures 03-1 - 08-6) electronically filed by Christine M.T. Pirik on behalf of Madison Fields Solar Project, LLC