



ConnectGen Montgomery County LLC

Mill Point Solar I Project

Matter No. 23-00034

§ 900-2.12 Exhibit 11

Terrestrial Ecology

Revised August 2024

TABLE OF CONTENTS

EXHIBIT 11	Terrestrial Ecology	1
11(a)	Plant Communities	1
(1)	Significant Land Cover	1
11(b)	Temporary and Permanent Impacts to Plant Communities	7
11(c)	Avoidance, Minimization, and Restoration Measures for Plant Community Impacts	13
11(d)	Characterization of Wildlife, and Wildlife Habitats	14
(1)	Wildlife Studies.....	14
11(e)	Impacts to Vegetation, Wildlife, and Wildlife Habitat	21
11(f)	Avoidance and Minimization of Impacts to Vegetation, Wildlife, and Wildlife Habitat	28
11(g)	References.....	29

TABLES

Table 11-1.	Land Cover within the Facility Site.....	2
Table 11-2.	Impacts to NYNHP Ecological Communities	11
Table 11-3.	Impacts to NYNHP Ecological Communities by Facility Construction	12

FIGURES

Revised Figure 11-1. Land Cover within the Facility Site

Figure 11-2. Proposed Impacts to Land Cover

LIST OF APPENDICES

Appendix 11-1. IPaC Correspondence

Revised Appendix 11-2. Wildlife Inventory Tables

Appendix 11-3. ORES Pre-Application WSCR Consultation Findings

Glossary Terms

- Applicant:** ConnectGen Montgomery County LLC (ConnectGen), a direct subsidiary of ConnectGen LLC, is the entity seeking a siting permit for the Facility from the Office of Renewable Energy Siting (ORES) under Section 94-c of the New York State (NYS) Executive Law.
- Facility:** The proposed components to be constructed for the generation, collection and distribution of energy for the Project will include: photovoltaic (PV) solar modules and their rack/support systems; direct current (DC) and communications cables connecting the panels to inverters; the inverters, with their support platforms, control electronics, and step-up transformers; buried alternate current (AC) medium voltage collector circuits; fencing and gates around each array of modules; access roads; temporary laydown/construction support areas; a medium voltage-to-transmission voltage substation with associated equipment and fenced areas; a new 3-breaker ring bus point of interconnection switchyard (POI switchyard); two adjacent approximately 305 foot-long 345 kV transmission line segments to interconnect the new POI switchyard to the existing National Grid Marcy – New Scotland 345-kilovolt transmission line; and an operations and maintenance (O&M) building with parking/storage areas as well as any other improvements subject to ORES jurisdiction.
- Facility Site:** The tax parcels proposed to host the Facility, which collectively totals 2,665.59 acres.
- Point of Interconnection (POI) or POI Switchyard:** A new 3-breaker ring bus point of interconnection switchyard will be constructed adjacent to the existing National Grid Marcy – New Scotland 345-kilovolt transmission line; the substation will tie into the new POI switchyard via an overhead span and deliver power produced from the Facility onto the electric grid through two overhead spans tapping the National Grid-owned Marcy – New Scotland 345-kV transmission line. The POI switchyard is located off Ingersoll Road in the northeastern portion of the Facility Site.

Limits of Disturbance (LOD):

The proposed limits of clearing and disturbance for construction of all Facility components and ancillary features are mapped as the LOD. The LOD encompasses the outer bounds of where construction may occur for the Facility, including all areas of clearing, grading, and temporary or permanent ground disturbance. This boundary includes the footprint of all major Facility components, defined work corridors, security fencing, and proposed planting modules, and incorporates areas utilized by construction vehicles and/or personnel to construct the Facility.

Project or Mill Point Solar I

Collectively refers to permitting, construction, and operation of the Facility, as well as proposed environmental protection measures and other efforts proposed by the Applicant.

Study Area:

In accordance with the Section 94-c Regulations, the Study Area for the Facility includes a radius of five miles around the Facility Site boundary, unless otherwise noted for a specific resource study or Exhibit. The 5-mile Study Area encompasses 96,784.84 acres, inclusive of the 2,665.59-acre Facility Site.

Acronym List

AC	Alternating current
BBA	Breeding bird atlas
BBS	Breeding bird survey
BMP	Best Management Practice
DC	Direct current
ECOS	Environmental Conservation Online System
GIS	Geographic information system
HDD	Horizontal directional drilling
Herp Atlas	New York State Amphibian & Reptile Atlas Project
HMANA	Hawk Migration Association of North America
IPaC	Information for Planning and Consultation
kV	Kilovolt
LOD	Limits of disturbance
LOVM	Limit of Vegetation Management
NLDC	National Land Cover Database
NLEB	Northern long-eared bat
NRCS	National Resource Conservation Service
NYNHP	New York Natural Heritage Program
NYS	New York State
NYSDEC	New York State Department of Conservation
NYSOA	New York State Ornithological Association
O&M	Operations and Maintenance
OPRHP	Office of Parks, Recreation, and Historical Preservation
ORES	Office of Renewable Energy Siting
PEM	Palustrine emergent
PFO	Palustrine forested
POI	Point of Interconnection
PSS	Palustrine scrub shrub
PUB	Palustrine open bottom
PV	Photovoltaic
SGCN	Species of Greatest Conservation Need
SGCN-HP	Species of Greatest Conservation Need – High Priority
SWAP	State Wildlife Action Plan
SWPPP	Stormwater Pollution Prevention Plan
T&E	Threatened & endangered
USCs	Uniform Standards and Conditions
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WSCR	Wildlife Site Characterization Report

EXHIBIT 11 Terrestrial Ecology

11(a) Plant Communities

This section provides an identification and description of the type of plant communities present on the Facility Site and adjacent properties within one hundred (100) feet of areas to be disturbed by construction, including the interconnections, based upon field observations and data collection.

The Mill Point Solar I Project (Facility or Project) is located within the Mohawk Lowlands Physiographic Province of New York State (NYS) (NYSM n.d.). This Physiographic Province is defined by the river valleys of the Mohawk and Black Rivers, as well as the broad band of crystalline rocks of the Adirondack Mountains and the steep slopes of Tug Hill and Glaciated Allegheny Plateau uplands. Major landforms within this physiographic province are bedrock-controlled erosion features such as the inner river valleys and relatively level lacustrine terraces. The Mohawk and Black River valleys are separated by an unconsolidated glacial moraine.

(1) Significant Land Cover

The Facility Site encompasses approximately 2,665.59 acres and is composed predominately of agricultural and forested lands. Historical aerial imagery depicts agricultural uses within open areas of the Facility Site dating back to December 1985. Land cover in the Facility Site was determined using the National Land Cover Database (NLCD), New York Natural Heritage Program (NYNHP) ecological communities (Edinger, et al., 2014), NYSDEC Natural Heritage Communities Web Viewer (NYSDEC, 2023c), aerial imagery, and onsite observations conducted from October 26 through November 20, 2020, May 10 through May 21, 2021, June 1 through June 3, 2021, November 1 through November 3, 2021, April 20 through April 21, 2022, April 28, 2022, and August 9, 2022.

The Facility Site is comprised of approximately 63.61 percent cropland/row crops and cropland/field crops, which includes lands used for corn and soybean production and hay/pasture; approximately 19.88 percent forested land; approximately 4.12 percent delineated wetland, including palustrine emergent (PEM) wetlands identified as purple loosestrife marsh and shallow emergent swamp, palustrine forested (PFO), palustrine scrub shrub (PSS) wetlands identified as shrub swamp, and palustrine open bottom (PUB) wetlands identified as farm pond/artificial pond; approximately 4.90 percent developed impervious and pervious areas, including urban structure exterior, paved and unpaved roads, and mowed areas; approximately 3.77 percent successional shrubland;

approximately 2.96 percent successional old field; and approximately 0.77 percent open water which includes farm pond/artificial pond and unconfined river ecological communities. The Facility components are primarily located on agricultural land. A total of 100.31 acres of land are proposed for tree clearing, of which, 87.80 acres will be cleared and grubbed, and 12.51 acres will be cleared with no grubbing. Table 11-1 below summarizes the land cover types identified within the Facility Site and within the limits of disturbance (LOD) for construction of the Facility.

Table 11-1. Land Cover within the Facility Site

Land Use/Vegetation Cover Type ¹	Acres within LOD	Percent of the LOD	Acres within Facility Site ³	Percent of the Facility Site
Cropland/field crops	185.44	14.60	459.80	17.25
Cropland/row crops	922.50	72.61	1,235.62	46.36
Delineated PEM Wetland	3.60	0.28	60.53	2.27
Delineated PFO Wetland	0.24	0.02	18.13	0.68
Delineated PSS Wetland	0.61	0.05	15.27	0.57
Delineated PUB Wetland	2.97	0.23	16.01	0.60
Developed – Impervious	3.27	0.26	11.69	0.44
Developed – Pervious	16.45	1.29	118.89	4.46
Successional southern hardwoods ²	104.86	8.25	529.85	19.88
Successional old field	14.05	1.11	78.87	2.96
Open Water	0.39	0.03	20.47	0.77
Successional Shrubland	16.02	1.26	100.43	3.77
Total	1,270.41	-	2,665.56	-

¹Land cover data were obtained from onsite observations and GIS digitization.

²There are 100.31 acres of tree clearing within the LOD. The remaining 4.74 acres of forest land fall within the LOD but not the 'tree clearing' limits.

³Rounding may result in minor, discountable acreage inconsistencies.

Plant communities occurring within the Facility Site were further characterized according to *Ecological Communities of New York State* (Edinger et. al 2014). Plant communities were identified with the assistance of available geospatial data and aerial imagery, and plant species within the Facility Site were documented during onsite field surveys conducted during the dates listed above under Section 11(a)(1)(i).

In addition to natural communities, *Ecological Communities of New York State* includes descriptions of “cultural” communities, defined as communities “created, or maintained, by

human activities, or are modified by human influence to such a degree, that the physical conformation of the land, or the biological composition of the resident community, is significantly different from the character of land or community prior to modern human influence.” The following sections describe the major natural and cultural communities observed in the Facility Site, all of which are common to NYS. Detailed descriptions of the water resources encountered onsite are provided in Exhibit 13 (Water Resources and Aquatic Ecology). Detailed descriptions of wetland community types encountered during onsite wetland delineations are provided in Exhibit 14 (Wetlands).

Each community type within Edinger et al. (2014) is given a ranking based on its rarity and vulnerability, both on a global (G) scale and on a state (S) scale. The lower the numeral value of the ranking, the greater the commonality of the community type. For example, a ranking of G1 or S1 would signify a rarer community type, while a G4/5 would signify a more common community type. Cultural communities are not tracked by the NYNHP and are therefore considered “unranked” (Edinger et al. 2014).

Agricultural Land

Of the agricultural community types described by Edinger et al. (2014), two are present within the Facility Site: cropland/row crops and cropland/field crops.

Cropland/row crops (Heritage Rank: Unranked cultural) includes agricultural field planted in row crops such as corn, potatoes, and soybeans, and includes vegetable gardens in residential areas. This community type covers a large proportion of the Facility Site and the primary crop grown is corn (Edinger et al. 2014).

Cropland/field crops (Heritage Rank: Unranked cultural) includes agricultural fields planted in field crops, such as alfalfa, wheat, timothy, and oats. This community type also includes hayfields that are rotated to pasture. Several areas within the Facility Site are used for pasture and hay fields (Edinger et al. 2014).

Forestland

Forestland within the Facility Site includes deciduous and mixed deciduous and coniferous forest types. The forestland within the Facility Site is dominated by northern red oak (*Quercus rubra*), eastern cottonwood (*Populus deltoides*), red maple (*Acer rubrum*), and eastern hemlock (*Tsuga canadensis*) in the tree stratum; American beech (*Fagus*

grandifolia), white willow (*Salix alba*), and white dogwood (*Cornus alba*) in the shrub stratum; and reed canary grass (*Phalaris arundinacea*), sensitive fern (*Onoclea sensibilis*), narrowleaf cattail (*Typha angustifolia*), and corn (*Zea mays*) in the herb stratum. Forested areas are common throughout the Facility Site, though not extensive. The largest forested areas are in the northeastern and central portions of the Facility Site.

As discussed in the Wetland and Stream Delineation Report (Appendix 14-1), the wetland Survey Area includes trees with similar characteristics and qualities of several significant natural forest communities, including beech-maple mesic forest, hemlock-northern hardwood forest, and successional southern hardwoods, as described by Edinger et al. (2014) and below. Also included are PFO wetlands identified during field surveys, characterized as red maple-hardwood swamp. These forest communities were identified in the field, as the natural characteristics of the forests and the tree species present were consistent with the ecological community descriptions provided by Edinger et al. (2014). However, after further review of the NYSDEC Natural Heritage Communities web viewer, none of these significant natural communities are located within the Facility Site. The forest community types within the Facility Site and those discussed in the Wetland and Stream delineation report as described by Edinger et al. (2014) are detailed herein:

Successional Southern Hardwoods (Heritage Rank: G5 S5 [Demonstrably secure in NYS]) - Successional southern hardwoods are common throughout the Facility Site (as described in the Wetland and Stream Delineation Report [Appendix 14-1]) and the surrounding area. Most of the Facility Site was likely forested in the past and had been cleared for agriculture. Successional forests can develop either after man-made clearing events or in the wake of destructive natural events. After clearing has occurred and the impacted land begins to revert to forests, plant species that are well-adapted to establishment after disturbances begin to populate the area. Characteristic trees dominating successional northern hardwoods within the wetland Survey Area include black cherry, red maple, white ash, and green ash (*Fraxinus pennsylvanica*).

Beech-maple mesic forest (Heritage Rank G4 S3 [Apparently secure globally and most likely vulnerable in NYS]) - Beech-maple mesic forest occurs on moist, well-drained acidic soils. The characteristic dominant tree species are cooperatively sugar maple (*Acer saccharum*) and American beech with a less common abundance of yellow birch (*Betula alleghaniensis*), white ash (*Fraxinus americana*), hop hornbeam (*Ostrya virginiana*), and

red maple (*Acer rubrum*). The shrub layer is made up of a number of shrubs and small trees including, hobblebush (*Viburnum lantanoides*), American hophornbeam (*Carpinus caroliniana*), striped maple (*Acer pensylvanica*), witch hazel (*Hamamelis virginiana*), and alternate-leaved dogwood (*Cornus alternifolia*). There also tends to be an abundance of American beech and sugar maple seedlings and saplings in the shrub layer. The herbaceous layer can be quite diverse, including a variety of shade-tolerant species.

Hemlock-Northern Hardwood Forest (Heritage Rank G4G5 S3 [Demonstrably secure globally and vulnerable in NYS]) - Hemlock northern hardwood forests tend to occur on mid to low elevation slopes and on moist, well-drained sites near the fringes of swamps. The canopy layer is often dominated by eastern hemlock (*Tsuga canadensis*) along with some combination of one to three of the following species: sugar maple, red maple, yellow birch, black birch (*Betula alleghaniensis*), red oak, American beech, white ash, chestnut oak (*Quercus montana*), white oak (*Q. alba*), and white pine (*Pinus strobus*). Other trees may include American hop hornbeam, black cherry (*Prunus serotina*), and basswood (*Tilia americana*). Typically, the shrub layer is quite sparse due to a thick canopy and often includes a number of saplings of canopy trees. Shrubs that are typical include witch hazel, hobblebush, maple-leaf viburnum (*Viburnum acerifolium*), lowbush blueberry (*Vaccinium pallidum*), and raspberries (*Rubus spp.*). The herbaceous layer can also be quite sparse due to a thick canopy layer.

Red maple-hardwood swamp (Heritage Rank: G5 S4S5 [Demonstrably secure globally, apparently, or demonstrably secure in NYS]) - Red maple-hardwood swamps occur in poorly drained depressions, usually on inorganic soil, but occasionally on muck or shallow peat. It is a broadly defined community with several regional variants. Generally, red maple is either the only canopy dominant or codominant with one or more hardwoods, including green ash and slippery elm (*Ulmus rubra*). The shrub layer is usually well-developed and may be quite dense. The herbaceous layer may be quite diverse and is often dominated by ferns, including sensitive fern. Jewelweed (*Impatiens capensis*), another characteristic species, was also identified within the wetland Study Area.

Successional Old Field (Heritage Rank: G5 S5 [Demonstrably secure globally and in NYS]) - This community is defined as a meadow dominated by forbs and grasses that occur on sites that have been cleared or plowed due to agriculture or development, and subsequently abandoned. Most old field communities are irregular and infrequently

mowed. As such, conditions favor the establishment and spread of representative old field species. Characteristic herbaceous species include many goldenrods (*Solidago spp.*), timothy grass, Queen Anne’s lace (*Daucus carota*), bedstraw (*Galium spp.*), and common milkweed (*Asclepias syriaca*). Shrubs can be present within old field communities but represent less than 50 percent of the community (Edinger et al., 2014). Common shrubs found in this community are honeysuckles (*Lonicera spp.*) and dogwoods (*Cornus spp.*). If not maintained by infrequent mowing, this relatively short-lived community succeeds to a successional shrubland, woodland, or forest community.

Successional Shrubland (Heritage Rank: G5 S5 [Demonstrably secure globally and in NYS]) - Successional shrubland consists of shrublands that have established after a site has been cleared (e.g., for agriculture, logging, or development) or was disturbed by natural events. This community is defined by at least a 50 percent cover of shrub species (Edinger et al., 2014). Successional shrublands are transitory communities between old field and successional forest communities.

Mowed Lawn (Heritage Rank: Unranked cultural) - Mowed lawn consists of groundcover that is routinely maintained and dominated by clipped grasses associated with residential, recreational, commercial land, or unpaved airport runways. There is typically less than 30% of tree cover and ornamental and/or native shrubs may be present, usually with less than 50% cover (Edinger et. al., 2014).

Rural Structure Exterior (Heritage Rank: Unranked cultural) - Rural structure exterior includes exterior surfaces of wood, metal, or concrete structures such as barns or houses, or any structural surface composed of inorganic materials (plastics, glass, etc.) in a rural or sparsely populated suburban area. This covertype is typically sparsely vegetated with lichens, mosses, and terrestrial algae; occasionally vascular plants may grow in the cracks (Edinger et. al., 2014).

Riverine Communities

“The riverine system consists of linear aquatic communities of flowing, non-tidal waters with a discrete channel, with persistent emergent vegetation sparse or lacking, but may include areas with abundant submerged or floating-leaved aquatic vegetation. The riverine communities in this classification are distinguished primarily by position of the stream in the watershed and water flow characteristics.” (Edinger et al., 2014)

Riverine communities delineated within the Facility Site include 64 intermittent, 16 perennial, and 55 ephemeral streams. A total of 116,966 linear feet of streams were delineated at the Facility Site during field evaluations. Delineated streams contained typical substrate of boulders, cobble/gravel, silt/clay, bedrock, and organic matter, with a depth primarily between 0-6 inches. Some aquatic vegetation was observed in streams onsite; however, along the periphery of the delineated streams, typical emergent wetland species observed included reed canary grass (*Phalaris arundinacea*), narrow-leaf cattail (*Typha angustifolia*), New England-American aster (*Symphotrichum novaeangiliae*), purple loosestrife (*Lythrum salicaria*), sensitive fern (*Onoclea sensibilis*), Devil's pitchfork (*Bidens frondosa*), common boneset (*Eupatorium perfoliatum*), cat-tail sedge (*Carex typhina*), rice cut grass (*Leersia oryzoides*), and creeping jenny (*Lysimachia nummularia*). Additional information regarding delineated streams, including the best management practices (BMPs) to be implemented by the Applicant to avoid impacts both on-site and off-site, are discussed further in Exhibit 13.

Palustrine Communities

Palustrine communities consist of non-tidal, perennial wetlands which are characterized by the presence of emergent vegetation (Edinger et al., 2014).

Palustrine wetland communities delineated within the Facility Site include shallow emergent marshes (Heritage Rank: G5 S5), purple loosestrife marsh (Heritage Rank: unranked cultural), shrub swamps (Heritage Rank: G5 S3S4), red maple-hardwood swamps (Heritage Rank: G5 S3), and farm pond/artificial pond (Heritage Rank: unranked cultural). A total of 357.4 acres of palustrine wetlands were delineated within the Facility Site. Wetland habitat types are further described in Exhibit 14.

11(b) Temporary and Permanent Impacts to Plant Communities

This section includes an analysis of the temporary disturbance, permanent loss, and permanent conversion due the construction and operation of the Project on vegetation in the Facility Site, with most impacts occurring in agricultural areas.

Temporary disturbance to plant communities from construction activity will involve Facility component installation (such as collection trench installation and horizontal directional drilling (HDD) bore pits) and grading. Vegetation communities that will experience temporary disturbance include cropland/field crops and emergent herbaceous wetland communities. After construction,

disturbed areas will be maintained as low-growing upland or wetland grasses and forbs, comparable cover types to the cropland/field crops and herbaceous wetland communities. Areas within the fenced area will be mowed periodically to ensure vegetation does not interfere with equipment. Temporary disturbance associated with Facility construction includes the following: temporary laydown yards consisting of 17.45 acres; electrical collection lines installed via trenching in single or multiple parallel trenches totaling 76,851.70 linear feet (14.56 miles), and electrical collection lines installed via HDD totaling 5,752.32 linear feet (1.09 miles), for a total of 82,604.02 linear feet (15.64 miles) of electrical collection lines; and 36.94 acres of grading within the Facility Site. In accordance with the Vegetation Management Plan for the Facility, which will be filed a pre-construction compliance filing per 19 New York Codes, Rules and Regulations (NYCRR) Section 900-10.2(e)(4), the temporary disturbances to plant communities will be restored post-construction.

Permanent loss to vegetation communities will occur from installation of access roads, the fence (indicated as a one-foot-wide fence line for impact purposes), substation (inclusive of the operations and maintenance (O&M) building), Point of Interconnection (POI) switchyard, inverter skids, riprap, and utility poles. These areas will remain impacted until site restoration takes place following decommissioning. The Applicant elected to employ inverters on metal skids over concrete foundation pads to reduce excavation measures during the decommissioning of the Facility. Via access from public roadways, the Project will require the construction of 20 feet wide gravel access roads covering 33.60 acres. Inverter skids will occupy an area of 0.21 acres. The substation will consist of approximately 3.08 acres and the POI switchyard will occupy an approximately 1.82-acre area. The Project includes one overhead generation tie line from the substation to the POI switchyard that will be approximately 1,300 feet in length, strung across two utility poles, and two overhead transmission lines that will be 305 feet in length and connect the Facility POI switchyard to the existing National Grid Marcy – New Scotland transmission line. The permanent impact to plant communities is from the utility poles, not the proposed generation tie line or the transmission lines.

Other impacts to vegetation communities will involve permanently converting land to a cover type that is different from the pre-construction cover type. Vegetation cover will remain but will be of a different community type. The conversion of cropland/row crops to the herbaceous cover that will be present throughout the Facility is considered a permanent conversion of a vegetation community, but this alteration from an agricultural monoculture that involves periodic land disturbance to a new, diverse community of grasses that will be maintained in place through the

life of the Facility will result in an improvement in the quality of the vegetative community. Permanent conversion will occur from the installation of solar panels, clearing, grubbing, landscaping, and demolition of existing buildings onsite. A total of approximately 457.49 acres of land will be impacted during construction and then maintained as early successional native vegetation around and under built Facility components during operation or as landscaping around the perimeter of the Facility.

A total of 100.31 acres of trees will be cleared for construction of the Facility. Forestland within the Facility will incur the following types of impacts: temporary disturbance, permanent conversion, and permanent loss. Temporary disturbance includes clearing for grading and collection line installation during construction that will be restored post-construction, allowing the forestland to naturally re-vegetate during Facility operation. Permanent conversion of forestland includes demoed structures and tree clearing for component installation such as solar panels, as it will convert existing forestland to a new vegetation cover type, such as successional vegetative communities. Permanent loss of forestland includes clearing forests that will be replaced with Facility components such as access roads and substation equipment.

Construction will result in a total disturbance of approximately 1,270.41 acres of the total Facility Site acreage of 2,665.59 acres (47.66 percent of the total Facility Site). Of the disturbed area, 769.98 acres will be temporarily impacted (28.89 percent of the total Facility Site), 42.93 acres will be permanently converted to built facilities or not restored to pre-construction conditions (1.61 percent of the total Facility Site), and 457.49 acres (17.16 percent of the total Facility Site) will result in permanent conversion (from agricultural, forested, developed, successional shrubland, old field, and wetlands to early successional native vegetation or installed landscaping around the Facility perimeter). Projected impacts to vegetative communities are presented in Tables 11-2 and 11-3 below, as well as in Figure 11-2.

The impacts in Tables 11-2 and 11-3 were calculated using geographic information system (GIS) software to overlay the approximate limits of vegetation clearing and approximate limits of soil disturbance for each Facility component as identified in Revised Exhibit 5, Appendix 5-1. The calculations assume proposed access roads will have an approximate width of 20 feet and trenches for the buried cable collection system will have an approximate width of 10 - 170 feet.

Impact calculations reflect a maximum-impact scenario. In addition to vegetative disturbance associated directly with Facility components, limited additional vegetation clearing may be needed

to facilitate access by construction equipment. To incorporate this additional potential impact for constructability, the Applicant conservatively assessed the clearing requirements within the entire LOD as presented in Table 11-2 below.

Table 11-2. Impacts to NYNHP Ecological Communities

NYNHP Ecological Communities	Temporary Disturbance (acres)¹	Permanent Conversion (acres)²	Permanent Loss (acres)³	Total Impact (acres)
Cropland/Field Crops	128.31	50.35	6.78	185.44
Cropland/Row Crops	589.73	305.87	26.90	922.50
Successional Southern Hardwoods	14.60	83.14	7.12	104.86
Successional Old Field	8.82	4.84	0.38	14.05
Successional Shrubland	7.87	7.14	1.00	16.02
Delineated PEM Wetland	2.78	0.82	-	3.60
Delineated PSS Wetland	0.46	0.14	-	0.61
Delineated PFO Wetland	0.22	0.03	-	0.24
Delineated PUB Wetland/ Farm Pond/Artificial Pond	2.97	-	-	2.97
Open Water	0.39	-	-	0.39
Developed – Impervious	2.44	0.65	0.20	3.28
Developed – Pervious	10.51	5.40	0.55	16.45
Totals	769.98	457.49	42.93	1,270.41
¹ Temporary disturbance includes fenced area, LOD, grading limits, collection trench installation, and HDD bore pits. ² Permanent conversion includes solar panels, clearing, grubbing, landscaping, and demolition. ³ Permanent loss includes access roads, fence line, substation, POI switchyard, inverters, riprap, poles.				

Table 11-3. Impacts to NYNHP Ecological Communities by Facility Construction

NYNHP Ecological Community	FACILITY COMPONENTS										LOD	Clearing with No Grubbing	Clearing and Grubbing	Grading Limits	Riprap	Demolition	Poles
	Solar Array	Access Road	Collection Line Installation	HDD Bore Pit	Inverter	Fence Line	Substation ¹	POI Switchyard	Fenced Area	Landscaping							
Cropland/Field Crops	43.88	4.27	17.87	0.12	0.03	0.65	-	1.82	91.28	5.80	14.55	0.12	0.27	4.49	0.02	0.27	-
Cropland/Row Crops	283.40	24.10	26.25	0.09	0.17	2.56	-	-	502.35	18.21	33.36	0.45	3.28	27.67	0.08	0.53	-
Successional Southern Hardwoods	18.84	3.38	0.81	-	0.01	0.64	3.08	-	6.73	0.58	6.16	9.69	53.99	0.90	-	0.04	0.01
Successional Old Field	2.80	0.33	0.72	-	-	0.06	-	-	7.20	0.65	0.89	-	0.18	0.93	-	0.28	-
Successional Shrubland	1.64	0.88	0.71	-	-	0.10	-	-	4.40	0.72	1.85	0.96	3.78	0.92	-	0.04	0.01
Delineated PEM Wetland	-	-	0.10	-	-	-	-	-	1.63	0.05	1.00	0.56	0.26	-	-	-	-
Delineated PSS Wetland	-	-	-	-	-	-	-	-	0.13	-	0.33	0.09	0.05	-	-	-	-
Delineated PFO Wetland	-	-	-	-	-	-	-	-	-	-	0.22	-	0.03	-	-	-	-
Delineated PUB Wetland	-	-	-	-	-	-	-	-	0.14	-	-	-	-	2.83-	-	-	-
Open Water	-	-	-	-	-	-	-	-	-	-	0.38	-	-	-	-	-	-
Developed – Impervious	0.14	0.18	0.02	-	-	0.02	-	-	1.74	0.08	0.56	-	-	0.11	-	0.42	-
Developed – Pervious	3.42	0.46	1.25	0.01	-	0.08	-	-	5.82	0.94	1.51	0.12	0.29	1.92	-	0.61	-
TOTALS	354.12	33.60	47.73	0.22	0.21	4.11	3.08	1.82	621.42	27.03	63.64	11.99	62.13	36.94	0.10	2.19	0.02

¹ The footprint of the O&M building is captured within the substation fence line and substation column in this table and throughout the application.

11(c) Avoidance, Minimization, and Restoration Measures for Plant Community ImpactsCommon Plant Communities

As discussed previously, impacts to the vegetative communities present at the Facility Site have been minimized to the maximum extent practicable. In an effort to avoid the fragmentation of vegetative community types, field survey results were considered during preliminary Facility siting efforts and focused on siting Facility components on contiguous parcels, confining Facility component locations to the smallest area possible and minimizing wetland impacts. Solar panels and laydown yards will be located within previously disturbed agricultural areas and open fields to the maximum extent practicable, to minimize impacts to plant communities, including a reduction in the amount of tree clearing required. To avoid impacts to forested wetland plant communities, the Applicant proposes to include HDD for the installation of underground collection lines. Overall, the Applicant designed the Facility in previously disturbed agricultural areas to the maximum extent practicable to avoid and minimizes impacts to grasslands, interior forests, wetlands, shrublands, and early successional forests resulting in only marginal impacts to these areas.

Best Management Practices (BMPs) will be implemented by the Applicant to ensure that impacts related to Facility construction and/or operation are minimized to the extent practicable and limited to the Facility Site. This includes implementation of a comprehensive erosion and sediment control plan as part of the Facility's Stormwater Pollution Prevention Plan (SWPPP). Prior to the commencement of construction activities, temporary erosion and sediment controls will be installed to reduce pollution in stormwater runoff from the site, minimizing erosion of soils and preventing water quality degradation. Anticipated stormwater practices may include vegetated swales and level spreaders. A preliminary SWPPP is included as Revised Appendix 13-3 of this Application. The Applicant will also comply with the Uniform Standards and Conditions (USCs) as presented in Section 900-6 of the 94-c regulations, including proper notification procedures and compliance with other applicable regulations (such as Sections 401 and 404 of the Clean Water Act). As impacts associated with construction of the Facility are typical, the use of alternative technologies during construction is not likely to reduce impacts and/or benefit the Facility significantly.

11(d) Characterization of Wildlife, and Wildlife Habitats

This section includes bird and bat migration routes and a species list of the mammals, birds, amphibians, terrestrial invertebrates, and reptiles that are likely to occur at the Facility Site based on present ecological communities.

(1) Wildlife Studies

The following sections describe the wildlife communities observed within the Facility Site during field surveys (e.g., ecological cover type assessments, habitat assessments, bird surveys, and wetland and waterbody delineations) and includes species identified through consultation with the NYNHP, NYS Department of Environmental Conservation (NYSDEC), and United States Fish and Wildlife Service (USFWS). Existing data from the following sources were used to compile an inventory of wildlife species known to occur, or reasonably likely to occur, at the Facility Site at some point during the year (Revised Appendix 11-2): NYSDEC; USFWS; local bird/wildlife experts; NYS Amphibian & Reptile Atlas Project (Herp Atlas) (NYSDEC 2023b); Breeding Bird Atlas (BBA) (NYSDEC 2007); United States Geological Survey (USGS) Breeding Bird Surveys (BBS) (USGS Patuxent Wildlife Research Center 2023); Christmas Bird Counts (Audubon 2023a,b); Hawk Migration Association of North America (HMANA) (HMANA 2023); eBird (eBird 2023); The Nature Conservancy (TNC) surveys/reports (TNC 2023); Kingbird publication (NYSOA 2023); county-based hunting and trapping records maintained by NYSDEC, and supplemented by reasonably available public information.

Mammals

The terrestrial (grassland, forestland, and shrublands) and wetland habitat types in the Facility Site are suitable habitat for common mammalian species. The occurrence of mammalian species was documented through observations during onsite field surveys for wetland and stream delineations, grassland avian survey, as well as existing data sources (Revised Appendix 11-2). Field observations included visual and audio observations of individual animals as well as observations of signs such as tracks or scat and evaluation of available habitat. As detailed in the Wildlife Inventory Table, some species observed in the Facility Site include white-tailed deer (*Odocoileus virginianus*) and coyote (*Canis latrans*) (Revised Appendix 11-2). Excluding bats, according to the USFWS Information for Planning and Consultation (IPaC) Official Species List, no state-listed endangered or threatened mammalian species were documented within the Facility Site (USFWS 2023a; Appendix

11-1). Chiropteran mammals (i.e., bats) are discussed below in this section. No mammal species of special concern were documented within five miles of the Facility Site (Revised Appendix 11-2).

Public Data Sources

Additional mammals with potential to occur within the Facility Site based on habitat suitability include fisher (*Pekania pennanti*), least weasel (*Mustela nivalis*), long-tailed weasel (*Mustela frenata*), red fox (*Vulpes vulpes*), gray fox (*Urocyon cinereoargenteus*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), various shrews (Blarina spp., Cryptotis spp., Sorex spp.), various moles (Condylura spp., Parascalops spp.), eastern gray squirrel (*Sciurus carolinensis*), eastern cottontail (*Sylvilagus floridanus*), eastern chipmunk (*Tamias striatus*), eastern raccoon (*Procyon lotor lotor*), North American porcupine (*Erethizon dorsatum*), common muskrat (*Ondatra zibethicus*), and American black bear (*Ursus americanus*) (Revised Appendix 11-2). None of these species are protected federally or in NYS and are all typical to most of the northeastern United States.

Based on range and distribution information provided by the USFWS Environmental Conservation Online System (ECOS) (USFWS 2023b), Bat Conservation International (Bat Conservation International 2022), NYSDEC Nature Explorer (NYSDEC 2023a), and the NYSDEC State Wildlife Action Plan (SWAP) (NYSDEC 2015b) the following bat species have the potential to occur within the Facility Site: big brown bat (*Eptesicus fuscus*), silver-haired bat (*Lasionycteris noctivagans*), eastern red bat (*Lasiurus borealis*), hoary bat (*Lasiurus cinereus*), **BEGIN CONFIDENTIAL INFORMATION <** [REDACTED]

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On September 13, 2022, the USFWS proposed to list the tricolored bat as endangered. A final decision on the proposed listing is expected to be announced in the fall of 2023. If the species is listed on a federal level, it will automatically gain that same listing status for NYS. As the tricolored bat is not currently listed, known occupied habitat is not publicly delineated by the NYSDEC, although known tricolored bat hibernacula may already be protected by other listed bat species that occupy the same hibernacula. The Applicant anticipates the minimization and avoidance measures for the tricolored bat to be similar to the **BEGIN CONFIDENTIAL INFORMATION** < [REDACTED]

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Please refer to Section 12(d) of Exhibit 12 for more information on avoidance and minimization measures for **BEGIN CONFIDENTIAL INFORMATION** < [REDACTED] > **END CONFIDENTIAL INFORMATION** and other listed species.

NYSDEC Hunting and Trapping Records

NYSDEC keeps records of all white-tailed deer and black bear harvested during each season. In 2021, 992 adult buck white-tailed deer (over 1.5 years old) and a total of 1,652 white-tailed deer were harvested in Montgomery County (NYSDEC 2021). In 2022, there were ten black bears harvested in Montgomery County (NYSDEC 2022). Records are also kept for fisher, North American river otter (*Lontra canadensis*), bobcat (*Lynx rufus*), and American marten (*Martes americana*) that are trapped for their pelts. During the 2021-2022 season, one bobcat was trapped in Montgomery County (NYSDEC 2022). Thirty-one fishers were taken in Montgomery County (NYSDEC 2022). No North American river otter or American marten were trapped (NYSDEC 2022). Of these species, only white-tailed deer have been observed during field visits within the Facility Site.

Site-Specific Surveys

Bat Surveys

No bat surveys were required per consultation with ORES (Appendix 11-3). USFWS consultation will be completed prior to construction.

Birds

Grasslands, successional forestlands, successional shrublands, and the various wetland habitats present in the Facility Site provide suitable habitat for an array of common bird species as listed in Revised Appendix 11-2. A discussion of survey observations and databases reviewed is provided below.

Site-Specific Surveys

Grassland Breeding Bird Survey (BBS)

TRC conducted surveys for grassland breeding birds during the 2021 breeding season, which involved fixed point count surveys of a 100-meter radius area distributed across 29 survey points throughout the Facility Site (TRC 2021a). The survey methodology followed the *NYSDEC Draft Survey Protocol for State-listed Breeding Grassland Bird Species* (NYSDEC 2021). The objective of the grassland BBS was to determine the presence and site use by grassland bird species that are state-listed threatened, endangered, or species of special concern during the breeding season within the proposed Facility Site. Thirty-one species were identified during the surveys and an additional 24 species were observed incidentally (seen onsite before or after the official start to surveys or between survey points). One listed species, **BEGIN CONFIDENTIAL INFORMATION < [REDACTED] > END CONFIDENTIAL INFORMATION** was observed on four occasions within the Facility Site during the grassland BBS. No essential behaviors or evidence of breeding were observed for this species (TRC 2021a). Complete results of the grassland BBS can be found in Appendix 12-2 and is discussed within Exhibit 12.

Wintering Grassland Raptor Survey

Surveys were conducted to assess the presence of grassland raptor species that may be utilizing the Facility Site for wintering habitat. Surveys were completed in the winters of 2020-2021 for the Facility Site and in 2021-2022 on land adjacent to the Facility Site proposed for the future Mill Point Solar II Project. Surveys were conducted in general

accordance with the *NYSDEC Survey Protocol for State-listed Wintering Grassland Raptor Species* (NYSDEC 2015b) in 2020-2021, and then adopted the *NYSDEC Draft Survey Protocol for State-listed Wintering Grassland Raptor Species* (NYSDEC 2021) in 2021-2022. The objective of the wintering grassland raptor surveys was to determine the presence and site use of state-listed threatened and endangered (T&E) grassland raptors within the surveyed area. During the 2020-2021 study, 118 stationary surveys and 231 driving route survey stops were completed over 11 survey events. Six raptor species were observed during the stationary surveys and four species were recorded during the driving surveys. Two state-listed grassland raptor species, **BEGIN CONFIDENTIAL INFORMATION < [REDACTED] > END CONFIDENTIAL INFORMATION** were documented during this effort (TRC 2021b). Additionally, two state-listed species of concern **BEGIN CONFIDENTIAL INFORMATION < [REDACTED] > END CONFIDENTIAL INFORMATION** were observed. Complete results of the wintering grassland raptor surveys can be found in Appendix 12-3 and are discussed within Exhibit 12.

During the 2021-2022 surveys on land adjacent to the Facility Site, 204 stationary surveys and 207 driving route survey stops were completed over 17 survey events. Twelve raptor species were observed during stationary surveys and six raptor species were observed during driving surveys. Four state-listed species, **BEGIN CONFIDENTIAL INFORMATION < [REDACTED] > END CONFIDENTIAL INFORMATION** were recorded. Additionally, two species of special concern were documented, **BEGIN CONFIDENTIAL INFORMATION < [REDACTED] > END CONFIDENTIAL INFORMATION** Complete results of the wintering grassland raptor surveys can be found in Exhibit 12, Appendix 12-4.

Public Data Sources

New York State Breeding Bird Atlas (BBA), 2000-2005

The most recent New York State BBA (2000-2005) statewide survey resource was used to identify bird species with the potential to breed within the Facility Site. This survey includes point counts that are conducted by volunteers in a 3 square mile survey block across NYS. There are four blocks that overlap the Facility Site, Tribes Hill CW and SW and Randall CE and SE. These blocks, which were queried for bird species occurrence data, include a range

of habitat types wherein both migratory and year-round inhabitant bird species have the potential to occur. A total of 98 species were observed to occur within these blocks. Observations of listed species were reviewed for proximity to the Facility Site and included in this list based on potential presence in the Facility Site. Eight state-listed species have the potential to occur in the Facility Site.

The Cornell Lab of Ornithology eBird

eBird is an online database managed by the Cornell University Lab of Ornithology that compiles bird observations collected by citizen scientists around the world. Vetted by regional experts to ensure accuracy, eBird data is a tool for documenting bird distribution, abundance, and habitat use while also providing practical applications like population mapping, predictions of migration patterns, and historical trends for researchers and conservationists. There are no eBird hotspots located within the Facility Site. Within the 5-mile Study Area, a total of 201 species were documented by eBird users. Observations of listed species within the Study Area were reviewed for proximity to the Facility Site. There are five state-listed T&E species listed by eBird users including three threatened species,

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have been observed in the Facility Site. One species of special concern, **BEGIN CONFIDENTIAL INFORMATION** < [REDACTED] [REDACTED]

[REDACTED] > **END CONFIDENTIAL INFORMATION** has been observed on the Facility Site. Four species of special concern are listed by eBird users within the 5-mile Study Area

including **BEGIN CONFIDENTIAL INFORMATION** < [REDACTED] [REDACTED] >

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Hawk Migration Association of North America (HMANA)

HMANA keeps records of raptor migration in North America and worldwide. There are no HawkWatch sites located within 10 miles of the Facility Site and as such, no sites were evaluated.

Amphibians and Reptiles

The various wetland habitats, successional forestland, and grasslands present in the Facility Site provide suitable habitat for several common species of amphibians and reptiles as listed in Revised Appendix 11-2. Onsite surveys and existing data sources were used to generate a comprehensive list of amphibian and reptile species that are present or potentially present within the Facility Site. A discussion of survey observations and databases reviewed is provided below.

Public Data Sources

The Herp Atlas is a searchable database of amphibian and reptiles (together referred to as herpetofauna or “herps”) species observations across NYS (NYSDEC 1999). Results from a query of the database indicate approximately 27 distinct herp species have been documented within Montgomery County, with many of these species within 5 miles of the Facility Site, including both historical and contemporary records (NYSDEC 1999). Amphibian species known to occur in the region and that are likely to occur within the Facility Site include **BEGIN CONFIDENTIAL INFORMATION <** [REDACTED]

> END CONFIDENTIAL INFORMATION northern dusky salamander (*Desmognathus fuscus*), northern red-back salamander (*Plethodon cinereus*), northern two-lined salamander (*Eurycea bistineata*), red-spotted newt (*Notophthalmus viridescens*), spotted salamander (*Ambystoma maculatum*), eastern American toad (*Bufo americanus*), northern spring peeper (*Pseudacris crucifer*), bullfrog (*Rana catesbeiana*), green frog (*Rana clamitans*), northern leopard frog (*Rana pipiens*), pickerel frog (*Rana palustris*), and wood frog (*Rana sylvatica*).

Reptile species that are likely to occur within the Facility Site include common snapping turtle (*Chelydra serpentina*), **BEGIN CONFIDENTIAL INFORMATION <** [REDACTED]

> END CONFIDENTIAL INFORMATION painted turtle (*Chrysemys picta*), black rat snake (*Elaphe alleganiensis*), common garter snake (*Thamnophis sirtalis*), eastern milk snake (*Lampropeltis t. triangulum*), and **BEGIN CONFIDENTIAL INFORMATION <** [REDACTED]

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11(e) Impacts to Vegetation, Wildlife, and Wildlife Habitat

As discussed above in Section (b) and shown in Revised Figure 11-1, temporary and permanent impacts to plant communities will occur in 1,107.94 acres of agricultural lands, 104.86 acres of forestland, 19.73 acres of developed land, 16.02 acres of successional shrubland, 14.05 acres of grassland/old field, 7.42 acres of wetlands¹, and 0.39 acres of open water. However, only 0.7396 acres of State and/or Federal jurisdictional wetlands will be impacted by Facility construction. See Exhibit 14, Section 14(a) for further information on State-jurisdictional wetland impacts and Section 14(f) for further information on Federal-jurisdictional wetland impacts. Outside of developed and disturbed lands, the plant communities within the Facility Site (which are listed in Table 11-1 above) provide valuable habitat for a number of wildlife species.

Agricultural lands generally provide limited or seasonal habitat for wildlife based on regular modification by human activities, such as tilling, planting, cultivating, or mowing. Depending on the extent and frequency of site disturbance, hay and pasture fields can provide habitat for foraging and breeding activities for a variety of migratory species, grassland birds, and small mammal species.

Forests provide important breeding, migratory stop-over, and wintering habitat for a wide variety of species. Research has demonstrated that larger forest tracts typically support more species than smaller forest stands. The amount of forest cover, size of individual forest patches, forest type, and linkages to other patches in a landscape determine their ability to support wildlife species which depend on them, including area-sensitive and edge intolerant species. This is particularly true for mammals and forest birds that require extensive forests (Environment Canada 2004). There are approximately 66.00 acres of core forest blocks (i.e., patches of forest greater than 100 acres) present within the Facility Site, and 12,368.03 acres within the 5-mile Study Area. Of the 66.00 acres of core forest blocks that are located within the Facility Site, approximately 3.45 acres (or 5.20 percent) will be impacted through tree clearing for the development of the Facility (0.15 acres of clearing with no grubbing and 3.30 acres of clearing and grubbing). The core forest blocks outside of the Facility Site within the 5-mile Study Area will not be impacted by the Facility.

¹ The 7.42 acres of wetland impacts are inclusive of non-jurisdictional wetland features. For a thorough analysis of wetland impacts associated with the development of the Facility, see Exhibit 14 of this Application.

As previously stated, the Applicant compiled a list of wildlife species, including federally and state-listed species, as well as Species of Greatest Conservation Need (SGCN) and Species of Greatest Conservation Need – High Priority (SGCN-HP), that were identified as potentially occurring in the Facility Site based on site-specific correspondence, review of publicly available database queries, and direct observations made onsite. In addition, per Section 900-1.3(g)(1) of the 94-c regulations, a Wildlife Site Characterization Report (WSCR) was developed to provide a detailed summary of bird, bat, and other wildlife species at the Facility Site and surrounding area (TRC 2021c). The WSCR is appended to this Application in Appendix 12-1 and was provided to ORES on April 6, 2021.

The Facility Site will maintain early successional areas under photovoltaic (PV) arrays that are expected to provide considerable valuable habitat for a variety of wildlife species including pollinators and other invertebrates, small mammals, reptiles, amphibians, and many avian species that utilize grassland habitat. The conversion of these areas from active agricultural use may provide a benefit to these species by providing a more consistent, dense, and diverse ground cover than that found in areas used for agricultural production. The construction and operation of the Facility may temporarily result in loss of habitat or species displacement within the Facility Site. However, there is abundant availability of similar habitat within the nearby vicinity of the Facility Site, therefore the Project is not anticipated to result in landscape or population level effects. Construction and operation will not result in the extirpation or significant reduction of plant communities or wildlife habitat. Therefore, impacts to wildlife are expected to be minimal.

Construction-Related Impacts to Wildlife and Wildlife Habitats

Impacts to wildlife due to construction are expected to be limited to incidental injury and mortality due to construction activity and vehicular movement, habitat disturbance and loss associated with clearing and earth-moving activities, and displacement of wildlife due to increased noise and human activities. Each of these potential impacts are described below.

Incidental Injury or Mortality

Direct impacts from construction may include incidental injury or mortality due to construction activities, such as clearing of vegetation, grading, excavation activities, vehicle and equipment operation, as well as foot traffic from construction crews. Vehicle-related mortality may increase temporarily due to the increased traffic during construction. However, equipment used in solar energy facility construction generally moves at slow rates or is stationary for long periods (e.g.,

earth moving equipment, pile driving equipment), so incidental mortality is expected to be low. In addition, much of the land within the Facility Site is currently used for the active production of field crops, pastureland, or recently left fallow. Such areas may provide food and cover for wildlife species; however, they are routinely subject to disturbance-related farming activities (e.g., plowing, mowing, limited pesticide application) that are similar to the operational activities that will occur at the Facility. Incidental injury and mortality will likely be limited to juvenile or sedentary/slow-moving species that are unable to move out of the area being disturbed by construction, such as small mammals, ground-nesting bird eggs and hatchlings, reptiles, amphibians, and invertebrates. Grassland-nesting birds are at an increased risk of nest destruction during initial vegetation clearing/site preparation. Other species of wildlife that are more mobile can vacate areas being disturbed by construction.

Populations are stable for most of the wildlife species potentially present and any adverse impacts would be localized. Direct impacts associated with disturbance and displacement from construction areas would be temporary, and following the completion of construction activities, many of these individuals would be able to return.

Habitat Disturbance and Loss Due to Clearing and Earth-moving Activities

It is anticipated that approximately 1,107.94 acres of agricultural land, 104.86 acres of forestland, and 7.42 acres of wetlands (including non-jurisdictional) will be directly impacted by construction-related disturbance. These habitats are abundant within the Facility Site, as well as in nearby areas, and the broader region. Of the total impacts, 718.04 acres of agricultural land will be temporarily disturbed during construction and will be seeded with native vegetation following completion of construction activities. The Facility Site is surrounded by habitat of similar value to wildlife within the disturbance areas and most of the wildlife species that may be impacted by the Facility have shown to have stable populations within NYS and the region. Potential indirect impacts to local wildlife populations are not anticipated to be significant. These impacts are expected to be short-term in duration and wildlife species would be expected to return to the disturbed areas following the completion of construction.

In areas associated with access road and PV installation, grading will occur. Existing vegetation will be removed or mowed to an appropriate height prior to installation of the arrays. Vegetation will also be cleared and maintained in other areas of the Facility Site including the substation, security fence, underground collection lines, and landscaping modules. These areas within the limits of vegetation management (LOVM) will be maintained as an early successional grassland

community, outside of identified landscaping modules, for the life of the Facility and are expected to provide considerable habitat value for wildlife species including pollinators and other invertebrates, small mammals, reptiles and amphibians, and avian species. A total of approximately 593.63 acres of agricultural land, 6.73 acres of forestland, and 1.9 acres of wetland will be impacted during construction and then maintained as early successional native vegetation around and under built Facility components during operation. No mowing will occur within jurisdictional wetlands located within the fence line; these areas will be demarcated.

Conversions of the vegetation type have the potential to influence wildlife behavior by impacting some species' ability to engage in certain behaviors including foraging, nesting, and roosting. Although, significant adverse impacts on wildlife are not expected. As indicated above, the early successional communities to be managed within the LOVM can provide habitat for a variety wildlife species.

Displacement of Wildlife

Increased noise and human activity related to Facility construction may cause some wildlife displacement to occur. The timing of construction activities will be the primary factor in determining the significance of this impact on individual wildlife species. Nearly half of land proposed to host Facility components is currently subject to frequent mechanical disturbance associated with farming and logging activities as well as the presence of vehicle traffic on county roads abutting the Facility Site. Therefore, it is anticipated that many of the wildlife species within the Facility Site are accustomed to disturbances, such as those that will occur during Facility construction. Any direct impacts associated with sensory disturbance and displacement from construction areas would be temporary impacts, and it is expected that individuals would return to temporarily disturbed areas following completion of construction activities. Outside of localized displacement due to construction disturbance in the immediate vicinity of Facility components, no significant displacement impacts on wildlife species are anticipated during construction.

Operation-Related Impacts to Wildlife and Wildlife Habitats

Impacts to wildlife may continue into the operation of the Facility due to the presence of Facility components, such as PV arrays and security fencing.

Habitat Loss and Fragmentation

A total of 42.93 acres of wildlife habitat (i.e., plant communities) will be converted to impervious surfaces (i.e., access roads, substation pads, poles) for the life of the Facility. This habitat loss represents only approximately 1.61 percent of the 2,665.59-acre Facility Site and will primarily occur on active agricultural lands (field cropland and pastureland). The area within the fence line underneath the PV arrays and surrounding the substation, fence line, and landscaping modules (621.42 acres, or 23.3 percent, of the Facility Site) will be maintained as early successional habitat, for the life of the Facility, the majority of which is currently active agricultural land. This conversion from ag land to early successional habitat is expected to increase habitat value for many wildlife species, including pollinators and other invertebrates, small mammals, reptiles and amphibians, and many avian species.

Agricultural fields within the Facility Site (field cropland and pastureland) may provide functional grassland habitat for a variety of wildlife species. These communities account for a total of 79.41 acres of grassland habitat within the Facility Site. A number of grassland birds, including the bobolink (*Dolichonyx oryzivorus*), Eastern meadowlark (*Sturnella magna*), **BEGIN**

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breeding and foraging activities (TRC 2021a). A large percentage of the grassland habitat will be maintained as early successional fields for the life of the Facility, which represents no major change, or possibly an overall improvement in habitat composition related to usability for grassland species. Still, there is potential that certain wildlife species that require large uninterrupted open fields, such as grassland raptors, may no longer use these areas. However, grassland habitats are prevalent in Montgomery County and the Facility would only represent a small percentage of potential habitat loss in the County.

As a result of the Facility, habitat will be impacted, and overall available habitat acreage will be reduced within the Facility Site. However, given the abundance of existing communities on the adjacent/nearby landscape, habitat loss/conversion resulting from the Facility is not considered significant. Operation of the Facility will not result in additional habitat loss beyond areas disturbed by construction.

Disturbance/Displacement of Wildlife

Habitat alteration and disturbance resulting from Facility operation may render some areas within the Facility Site unsuitable or less suitable for nesting, foraging, roosting, or other wildlife use. The Facility is primarily sited in an agricultural landscape that is often subjected to farming activities such as tilling, plowing, pesticide application, mowing/harvesting, livestock grazing, and logging operations that act as common disturbances to these habitats.

Although there is tree clearing associated with the construction of the Facility, impacts to forest land and related wildlife displacement are minor since a majority of tree clearing is proposed in fragmented forested areas with only 3.45 acres of tree clearing (or 3.44 percent of the total tree clearing proposed) occurring in core forest blocks.

Since the area underneath the PV arrays will be maintained as early successional habitat for the life of the Facility it is expected that the utilization of these areas underneath panels by more generalist grassland avian species will be increased, however, the presence of PV arrays in existing grassland and forestland may render these habitats unsuitable for certain species that would otherwise utilize these areas for foraging, roosting, and breeding habitat. Species that tend to require large, open grassland habitat may find these areas unsuitable. However, significant adverse impacts to grassland species are not anticipated as these habitats are common in the region and the Applicant will implement avoidance, minimization, and mitigation measures as presented in Section (f) below.

Impacts to Wildlife Travel Corridors and Concentration Areas

The Applicant conducted research presented in the WSCR (Exhibit 12, Appendix 12-1) to determine the presence of documented wildlife travel/migration corridors or concentration areas within or adjacent to the proposed Facility. The Facility is located within the Atlantic Flyway, one of four north/south corridors delineated by USFWS for the management of migratory birds. There are no other wildlife concentration areas within the Facility Site; however, other wildlife concentration areas are present within a five-mile radius of the Facility Site but are over two-miles away from the Facility Site boundary. These include the following state lands:

- Charleston State Forest
- Lost Valley State Forest
- Rural Grove State Forest
- Yatesville Falls State Forest

NYS Office of Parks, Recreation, and Historical Preservation (OPRHP) locations include the Johnson Hall State Historic Site (4.9 miles to the north of the Facility Site), National Resource Conservation Service (NRCS) areas (wetlands reserve program lands, the Dillenbeck property), and various smaller properties managed by local towns and villages. The northern portion of the Facility Site is located near the banks of the Mohawk River, which will naturally attract a slightly larger volume of wildlife and act as a travel corridor for a variety of species. Figure 4 of the Wildlife Site Characterization Report (Appendix 12-1) shows the distribution of resources, which contribute to wildlife travel corridors and concentration areas.

Impacts to the Atlantic Flyway and other travel corridors are not anticipated from Facility construction or operation. The Atlantic Flyway extends across the eastern continental U.S. and overlays several developed and industrial areas. The WSCR (Appendix 12-1) presents more information regarding the wildlife travel corridors and concentration areas in the vicinity of the Facility. Exhibit 3 presents a cumulative analysis of potential renewable energy development impacts to land use within 5-miles of the Facility.

The Facility is not located within any regional migration corridors and is therefore not anticipated to impact regional wildlife migration patterns. Smaller scale travel corridors that are not used for migration, but are used for local movement between resource patches, likely exist within the Facility Site. These include deer trails, areas between wetlands and uplands that reptiles and amphibians cross to access breeding grounds, and forests that mammals may travel through while foraging.

As previously noted, construction and operation of the Facility will impact 1,107.94 acres of agricultural land, 104.86 acres of forestland, and 7.42 acres of wetlands (including non-jurisdictional features). This land will primarily be maintained as early successional fields, which may provide valuable habitat and movement corridors for several wildlife species such as small mammals and grassland birds. Furthermore, the Applicant is proposing to use an agricultural-type style fence that will not impact the travel of smaller mammals (i.e., squirrels, chipmunks, raccoon), however, larger mammals (e.g., white-tailed deer and wild turkey) may have reduced utilization of the area as compared to pre-construction conditions. Habitats found within the Facility Site are common throughout Montgomery County and wildlife travel corridors will not be impacted outside of Facility security fencing.

11(f) Avoidance and Minimization of Impacts to Vegetation, Wildlife, and Wildlife Habitat

Avoidance and minimization of impacts related to construction and operation of the Facility were accomplished through careful site design (e.g., utilizing existing roads or previously disturbed corridors, avoiding sensitive habitat such as wetlands and riparian corridors, and minimizing disturbance to the maximum extent practicable), adherence to designated construction limits, and implementation of an approved sediment and erosion control plan and SWPPP (see Exhibit 13, Revised Appendix 13-3). Fence lines were placed near PV arrays clusters to preserve habitat for wildlife to traverse between array clusters. Fences were also limited to areas with PV arrays in order to minimize land utilization for the Facility, reducing the impact of movement of larger mammal species. Areas of cleared forestland at the periphery of some PV panel arrays and access roads, and outside of security fencing, will be allowed to regenerate in areas that are not required for Facility maintenance, which will provide habitat for early successional species and will support forest species in the long term. In areas of natural regeneration, grubbing and grading will be limited to the minimum required to safely install Facility components.

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The Applicant will set speed limits on access roads during construction and operation activities to ensure safe and efficient traffic flow and to minimize risk of injury or mortality to wildlife due to traffic collision. An Environmental Monitor will be hired to conduct regular inspections of construction and operation activities to ensure that sensitive habitats are flagged and avoided and to record observations of any threatened and endangered species.

11(g) References

- Audubon. 2023a. Audubon Christmas Bird Counts. *Historical Results by County*. NYFP, Fort Plains 2017-2022. Available at: <https://netapp.audubon.org/CBCObservation/Historical/ResultsByCount.aspx>. Accessed August 2023.
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