Table 22-1. Land Cover Types within the Project Area

Cover Type	Acreage	Percent of Project Area
Paved road/path	0.32	0.0
Red maple-hardwood swamp	492.02	22.0
Shallow emergent marsh	69.10	3.1
Shrub swamp	23.55	1.1
Successional northern hardwoods	464.15	20.7
Successional old field	433.35	19.3
Successional shrubland	188.61	8.4
Total	2,241.15	100

Plant community mapping was compiled from numerous sources, including data collected during on-site field survey work, roadside observation, desktop analysis, and interpretation of aerial imagery. Documented plant communities within the Project Area are common in the State of New York. Descriptions of these plant communities and their dominant plant species are provided below. Note that the cover types on Figure 22-1 include the communities described in *Ecological Communities of New York State* (Edinger et al., 2014) listed below.

Agricultural Land

Active agricultural land in the form of hay fields and cultivated crops is relatively common within the Project Area and covers approximately 526.19 acres (23%) of the Project Area. Approximately ~~413.92~~373 acres of agricultural land will be used for Project Components and then restored following the decommissioning of the Project. In *Ecological Communities of New York*, there are multiple types of terrestrial cultural communities within the agricultural land designation, including cropland/row crops (Heritage Rank: unranked cultural), cropland/field crops (Heritage Rank: unranked cultural), and pastureland (Heritage Rank: unranked cultural) (Edinger et al., 2014). Most agricultural land within the Project Area is a mixture of corn and non-alfalfa hay field. Several recently-cropped fields were observed to now be idle. Dominant plants in hayfields and pastures in the Project Area were reed canary grass (*Phalaris* arundinacea, first observed on-site June 13, 2017), orchard grass (*Dactylis glomerata*, first observed on-site June 13, 2017), red clover (*Trifolium pratense*, first observed on-site June 13, 2017), and timothy-grass (*Phleum pratense*, first observed on-site June 15, 2017). The dominant row crop established within the Project Area

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 ashes, American elm (*Ulmus americana*, first observed June 13, 2017), and yellow birch. Other trees present could include American hornbeam and eastern white pine. The shrub layer is usually well-developed and may be quite dense with characteristic shrubs including gray alder (*Alnus incana*, first observed June 13, 2017), nannyberry, silky dogwood (*Cornus amomum*, first observed June 13, 2017), and redosier dogwood. The herbaceous layer may be quite diverse and is often dominated by ferns, including sensitive fern (*Onoclea sensibilis*, first observed June 13, 2017) and cinnamon fern (*Osmundastrum cinnamomeum)*.

Successional northern hardwoods (Heritage Rank: G5 S5 [Demonstrably secure globally and in New York State]) – Successional northern hardwoods are common throughout the Project Area. Most of the Project Area was historically forested prior to being cleared for logging and/or agricultural use. Successional forests can develop after man-made clearing events or in the wake of destructive natural events (floods, blow-downs, forest fires, etc.). With the reversion 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 Project Area include quaking aspen (*Populus tremuloides*, first observed June 13, 2017), black cherry (*Prunus serotina*, first observed June 14, 2017), red maple (*Acer rubrum,* first observed June 13, 2017), and eastern white pine. White ash, green ash (*Fraxinus pennsylvanica*, first observed June 13, 2017), and American elm, can also be found in this community, but at lesser densities.

Disturbed/Developed Land

Disturbed/developed land covers approximately ~~10.07~~10.39 acres (~~0.4%~~0.5%) of the Project Area. Developed lands represent areas with extreme anthropogenic influence and are characterized by the presence of buildings, roadways, quarries, residential areas, commercial properties, industrial sites, and maintained greenspaces (e.g., mowed lawns, gardens, and parks). Developed land communities in the Project Area include mowed lawn with trees (Heritage Rank: unranked cultural), mowed lawn (Heritage Rank: unranked cultural), mowed roadside/pathway (Heritage Rank: unranked cultural), unpaved road/path (Heritage Rank: unranked cultural), paved road/path (Heritage Rank: unranked cultural), rural structure exterior (Heritage Rank: unranked cultural), interior of a barn/agricultural building (Heritage Rank: unranked cultural), and interior of a non-agricultural building (Heritage Rank: unranked cultural). Vegetation within these areas tend to be sparse when not artificially planted or influenced.

areas underneath and in the immediate vicinity of the solar panels will be maintained as grasses and forbs that require periodic mowing. Agricultural areas with row crops will be converted for the useful life of the Project due to the installation of the solar arrays, since the plant community that will be maintained beneath the arrays will differ from the pre-existing row crops. Agricultural land that is used for Project Components will be substantially restored and agricultural activities can be resumed following decommissioning of the Project. A total of approximately ~~526.19~~373 acres of agricultural land will be employed for Project Components for the useful life of the Project.

The clearing of forested cover types within the Project Area was minimized to the maximum extent practicable. Permanent impacts occur where forestland will be directly replaced with Project Components. There will be approximately 4.96 acres of permanent impact to forests within the Project Area. Though even these lands may be expected to revert to forestland following decommissioning.

There will approximately 15.27 acres of temporary impacts to forests within the Project Area. Forest conversion impacts will occur within the Project Area where forests are initially cleared for Project construction and then maintained as successional old-field or shrubland communities for the life of the Project, due to clearance constraints. Forest conversion is anticipated to occur in approximately 195.90 acres of forestland in the Project Area. The Applicant plans to remove stumps of forest species only where the placement of components is intended to occur or where required by landowner agreements.

In general, forest fragmentation is the process by which forest areas are divided into smaller, isolated patches of forest. Fragmentation can result from the creation of openings, farmland expansion, creation or widening of road corridors, or the establishment of developed areas. The proposed Project layout will result in 515.90 acres of forest edge communities, defined as forest within 300 feet of the forest edge, which is a decrease of 147.35 acres. Physical barriers resulting from this action are minor and unlikely to alter existing avian communities or significantly change their behaviors. For more information on habitat fragmentation and edge effects caused by the Project, please refer to the subheading *Impacts to Wildlife and Wildlife Habitat,* within Section 22(f) of this Exhibit.

The construction of the Project will also result in the temporary disturbance of approximately 7.25 acres of successional shrubland communities, 26.18 acres of successional old-field communities, and 0.01 acres of developed land communities. Temporary impacts will occur from the initial