Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
American Bittern (*Botaurus lentiginosus*)	-	SSC	SGCN	This species breeds in freshwater wetlands with tall emergent vegetation, such as freshwater marshes and scrub-shrub wetlands. Nesting can occur in grasslands and successional old fields adjacent to wetland habitat. Suitable nesting habitat for this species occurs within the Project Area.	D	No	Potential direct impacts could include habitat disturbance, degradation and loss, particularly for nesting habitat adjacent to wetlands (less than 0.01 acre). Temporary impacts to nesting habitat in grassland and successional old fields could occur. Indirect impacts could include noise from construction activities.	Impacts to wetland habitat have been avoided and minimized to the maximum extent practicable by siting Project components in agricultural fields and using HDD when necessary.
American Black Duck (*Anas rubripes*)	-	-	SGCN-HP	This species prefers marshes, ponds, rivers, and lakes. This species breeds in freshwater wetlands such as freshwater marshes and forested wetlands. Habitat for this species occurs within the Project Area.	C, D, E, F	Yes	No potential direct impacts, because there are no proposed impacts to ponds, lakes, rivers, or forested wetlands (see Appendix 22-4 for a description of wetland habitat in Project Area). Potential indirect impacts are from habitat disturbance due to noise from construction activities near wetland habitat.	Impacts to wetland habitat have been minimized to the maximum extent practicable by siting Project components in agricultural fields wherever possible and using HDD when necessary.
American Kestrel (*Falco sparverius*)	-	-	SGCN	This species prefers open areas, such as successional old fields, forest edges, scrublands, pastures and hay fields. Habitat for this species occurs within the Project Area.	C, D, E, F	Yes	Potential direct impacts include habitat degradation and fragmentation from the conversion of 354.75 acres of agricultural land, successional old fields, successional shrublands, and forest edges to early successional grasslands. Potential direct impacts include habitat displacement and degradation from the temporary conversion of 8.20 acres of potential habitat. There will be habitat loss of 11.33 acres of potential habitat to Project components. Potential indirect impacts could include habitat disturbance due to construction activities.	Impacts to agricultural land are unavoidable, however, conversion of agricultural land to planted early successional grasslands at solar facilities has been shown to benefit grassland species with habitat requirements similar to American kestrel (see section 22(f)(6)).

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
American Woodcock (*Scolopax minor*)	-	-	SGCN	This species prefers moist successional shrublands near successional forests and scrub-shrub wetlands. Habitat for this species occurs within the Project Area.	C, D	No	Potential direct impacts are minimal due to the limited amount of successional shrublands (19.4 acres or 1.5 percent of the Project Area) and scrub-shrub wetlands (see Appendix 22-4) present. Potential direct impacts include habitat degradation and fragmentation from the conversion of 2.12 acres of successional shrublands to early successional fields. Potential direct impacts include habitat displacement from the temporary conversion of 0.20 acre of successional shrubland. Potential direct impacts include habitat loss from the permanent conversion of 0.14 acre of successional shrubland. Potential indirect impacts could include habitat disturbance due to noise from construction activity.	Potential impacts to successional shrublands and scrub-shrub wetlands have been minimized to the maximum extent practicable by siting Project components in agricultural land wherever possible.
Bald Eagle (*Haliaeetus leucocephalus*)	-	THR	SGCN	This species prefers undisturbed areas near large lakes, reservoirs, marshes, swamps, or stretches along rivers where they can breed and forage for fish. Habitat doesn't exist at the Project Area, as waterbodies are not large enough to support prey fish populations.	C, E, F	Yes	None, as habitat for Bald Eagles is not present at the Project Area.	None proposed.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Black-billed Cuckoo (*Coccyzus erythropthalmus*)	-	-	SGCN	This species prefers thickets, successional old-field, orchards, and along forest edges. Nests in shrublands and forest edges. Habitat for this species occurs within the Project Area.	C, D, F	No	Potential direct impacts include habitat degradation and fragmentation from conversion of 50.74 acres of successional shrublands, successional old fields, and forest edges to early successional grasslands. Potential direct impacts include habitat displacement due to the temporary conversion of 0.30 acre of successional shrubland and successional old fields. Potential direct impacts include habitat loss of 1.88 acres of successional shrubland, successional old fields, and forest edges. Potential indirect impacts could include habitat disturbance due to noise from construction activity.	Potential impacts to successional shrublands have been minimized to the maximum extent practicable by siting Project components in agricultural land wherever possible. The project layout will create forest edges that may be used by Black-billed Cuckoo.
Black-throated Blue Warbler (*Dendroica caerulescens*)	-	-	SGCN	This species prefers large, undisturbed tracts of hardwood and mixed deciduous-coniferous forests with a dense understory. This species typically occurs in forests greater than 250 acres. Habitat for this species does not occur within the Project Area, because the forested areas are too small.	D	No	No potential impacts because habitat in the form of extensive, undisturbed forests are not present at the Project Area (see Section 22(f)(8)).	None proposed.
Blue-winged Teal (*Anas discors*)	-	-	SGCN	This species prefers freshwater habitats such as ponds and marshes surrounded by grassland or successional old fields. Habitat for this species occurs within the Project Area.	C	No	There are unlikely to be any direct impacts due to the limited open water habitat at the Project Area (i.e., approximately 4.6 acres or 0.3 percent of the Project Area). Potential indirect impacts could include habitat disturbance due to construction activities near wetland habitat.	Impacts to wetland habitat have been minimized to the maximum extent practicable by siting Project components in agricultural fields wherever possible. HDD will be used when necessary to avoid impacting wetlands.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Blue-winged Warbler (*Vermivora pinus*)	-	-	SGCN	This species prefers brushy hillsides, overgrown pastures, and stream and woodland edges. Breeds in dry uplands in low shrublands. Habitat for this species occurs within the Project Area.	C, D, F	No	Direct impacts are unlikely due to the limited area of successional shrubland habitat (19.4 acres or 1.5 percent of the Project Area). Potential direct impacts include habitat degradation and fragmentation from the conversion of 2.12 acres of successional shrublands to early successional grasslands. Potential direct impacts include habitat displacement due to the temporary conversion of 0.20 acre of successional shrublands. Potential direct impacts include a habitat loss of 0.14 acre of successional shrubland. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to successional shrublands have been minimized to the maximum extent practicable by siting Project components in agricultural land wherever possible. Some successional shrubland clearing is necessary to avoid woody encroachment into the solar arrays, which would be a fire hazard.
Bobolink (*Dolichonyx oryzivorus*)	-	-	SGCN-HP	This species prefers grasslands, including pastures, successional old fields, and meadows. Habitat for this species occurs within the Project Area.	C, D, F	Yes	Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.17 acres of agricultural land and successional old fields to early successional fields. Potential direct impacts include habitat displacement and degradation from the temporary conversion of 8.00 acres of agricultural land and successional old fields. There will be a habitat loss of 8.49 acres of agricultural land and successional old fields to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to agricultural land is unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Active agricultural land provides limited wildlife habitat for Bobolink. Conversion of agricultural land to planted early successional grasslands has been shown to benefit grassland bird species (see Section 22(f)(6)) and may improve habitat quality for this species at the Project.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Brown Thrasher (*Toxostoma rufum*)	-	-	SGCN-HP	This species prefers successional shrublands, dense regenerating woods, and forest edges. Habitat for this species occurs within the Project Area.	C, D, F	No	Potential direct impacts include habitat degradation and fragmentation from conversion of 50.67 acres of successional shrublands and forest edges to early successional grasslands. Potential direct impacts include habitat displacement due to the temporary conversion of 0.20 acre of successional shrubland. Potential direct impacts include habitat loss of 1.83 acres of successional shrubland and forest edges. The project layout will create forest edges that may be used by Brown Thrashers. Potential indirect impact from habitat disturbance due to noise and construction activity.	Impacts to successional shrublands and forests have been minimized to the maximum extent practicable by siting Project components in agricultural land wherever possible. Tree and shrub clearing is necessary to prevent trees and shrubs overhanging solar arrays, which would be a fire hazard.
Canada Warbler (*Wilsonia canadensis*)	-	-	SGCN-HP	This species prefers forest undergrowth and shady thickets. Breeding occurs in mixed hardwoods of extensive forests and streamside thickets and nesting occurs near moist habitat. Habitat for this species occurs limitedly within the Project Area.	C, D	No	Potential direct and indirect impacts are unlikely due to limited habitat in the form of extensive forests and streams (see Section 22(f)(8)). Potential direct impacts include habitat degradation and fragmentation, from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts include habitat disturbance due to noise and construction activity.	Impacts to forests have been minimized to the maximum extent practicable by siting Project components in agricultural land wherever possible. Tree clearing is necessary to avoid trees overhanging solar arrays, which would be a fire hazard.
Common Goldeneye (*Bucephala clangula*)	-	-	SGCN	This species prefers freshwater habitats such as ponds, lakes, rivers, and forested wetlands. Nests in tree cavities in mature boreal forests. Habitat for this species may occur limitedly within the Project Area, although there are no boreal forests.	E	No	There will be no direct impacts, because there are no proposed impacts to ponds, lakes, rivers, or forested wetlands. Potential indirect impacts could include habitat disturbances due to noise from construction activity near wetland habitats.	Impacts to ponds, lakes, rivers, and forested wetlands have been completely avoided by siting Project components in agricultural land wherever possible. HDD will be used when necessary to avoid impacts to rivers and wetlands.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Common Nighthawk (*Chordeiles minor*)	-	SSC	SGCN-HP	This species prefers open or semi-open areas such as forest clearings, grasslands, and suburbs. Habitat for this species occurs within the Project Area.	C	No	Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.17 acres of agricultural land and successional old fields to early successional fields. Potential direct impacts include habitat displacement and degradation from the temporary conversion of 8.00 acres of agricultural land and successional old fields. There will be habitat loss of 8.49 acres of agricultural land and successional old fields to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activities.	Impacts to successional old fields have been minimized to maximum extent practicable. Impacts to open agricultural areas are unavoidable. Most of the Project components have been sited within agricultural areas to avoid wetlands and minimize tree clearing.
Cooper's Hawk (*Accipiter cooperii*)	-	SSC	-	This species prefers to reside in deciduous, mixed, and coniferous forests. Habitat for this species occurs within the Project Area.	C, D, E, F	No	Potential direct impacts include habitat degradation and fragmentation from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts include habitat disturbance due to noise and construction activities	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees from overhanging solar arrays, which would be a fire hazard.
Eastern Meadowlark (*Sturnella magna*)	-	-	SGCN-HP	This species prefers large expanses of farm fields, pastures, grasslands, and wet fields. Habitat for this species occurs within the Project Area.	C, D, F	No	Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.01 acres of agricultural land and to early successional fields. Potential direct impacts include habitat displacement and degradation from the temporary conversion of 7.90 acres of agricultural land and successional old fields. There will be habitat loss of 8.44 acres of agricultural land to Project components. activities. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to agricultural land are unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Conversion of land to planted early successional grasslands at solar facilities has been shown to benefit grassland birds (see Section 22(f)(6)) and may improve habitat quality for this species at the Project.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Eastern Red Bat (*Lasiurus borealis*)	-	-	SGCN	This is a migratory bat species that often resides in forested areas and does not overwinter in caves. Habitat occurs within the forested portions of the Project Area.	I	No	Potential direct impacts are unlikely due to the limited extent of habitat in the form of extensive forests (see Section 22(f)(8)). Potential direct impacts include habitat degradation and fragmentation, from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to the maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees from overhanging solar arrays, which would be a fire hazard.
Golden-winged Warbler (*Vermivora chrysoptera*)	-	SSC	SGCN-HP	This species prefers open woodlands, wet thickets, and successional shrublands. A mosaic of shrubby, open areas and mature forests are important for this species. Habitat for this species occurs within the Project Area.	C, D	No	Potential direct impacts include habitat degradation and fragmentation from conversion of 50.67 acres of successional shrublands and forests to early successional grasslands. Potential direct impacts include habitat displacement due to the temporary conversion of 0.20 acre of successional shrubland. Potential direct impacts include habitat loss of 1.83 acres of successional shrubland and forest. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to successional shrublands and forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree and shrub clearing are necessary to prevent trees from overhanging solar arrays, which would be a fire hazard.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Grasshopper Sparrow (*Ammodramus savannarum*)	-	SSC	SGCN-HP	This species prefers open fields and prairie including active hay fields, successional old field, and minimally in successional shrublands. Habitat for this species occurs within the Project Area.	C, F	Yes	There are unlikely to be direct or indirect impacts due to the limited grassland habitat suitable for Grasshopper Sparrow. Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.17 acres of agricultural land and successional old fields to early successional fields. Potential direct impacts include habitat displacement from the temporary conversion of 8.00 acres of agricultural land and successional old fields. There will be a habitat loss of 8.49 acres of agricultural land and successional old fields to Project components. Potential indirect impacts could include disturbance due to noise and construction activity.	Impacts to agricultural land is unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Active agricultural land provides limited wildlife habitat for Grasshopper Sparrow. Conversion of agricultural land to planted early successional grasslands for solar facilities has been shown to benefit grasshopper sparrow (see Section 22(f)(6)) and may improve habitat quality for this species at the Project.
Henslow's Sparrow (*Ammodramus henslowii*)	-	THR	SGCN-HP	This species prefers moist fallow fields and meadows. Breeding occurs in a variety of habitats with tall, dense grass and herbaceous vegetation. Habitat for this species occurs within the Project Area.	D, F	No	There are unlikely to be direct or indirect impacts due to the limited grassland habitat suitable for Henslow's Sparrow. Potential direct impacts are habitat degradation and fragmentation from the conversion of 304.17 acres of agricultural land and successional old fields to early successional fields. Potential direct impacts include habitat displacement from the temporary conversion of 8.00 acres of agricultural land and successional old fields. There will be habitat loss of 8.49 acres of agricultural land and successional old fields to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to agricultural land are unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Active agricultural land provides limited wildlife habitat for Henslow's Sparrow. Conversion of agricultural land to planted early successional grasslands for solar facilities has been shown to benefit grassland bird species (see Section 22(f)(6)) and may improve habitat quality for this species at the Project.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Hoary Bat *Lasiurus cinereus*	-	-	SGCN	This species prefers to roost in dense woodland areas, mainly coniferous forests and forages over open areas or large open bodies of water. Habitat for this species occurs within the Project Area.	I	No	Potential direct impacts are unlikely due to the limited suitable habitat in the form of extensive forests (see Section 22(f)(8)). Potential direct impacts include habitat degradation and fragmentation, from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees from overhanging solar arrays, which would be a fire hazard.
Horned Lark (*Eremophila alpestris*)	-	SSC	SGCN-HP	This species prefers open fields, agricultural areas, and open habitats with sparse vegetation such as prairies and heavily grazed pastures. Habitat for this species occurs within the Project Area.	C, D, E	No	Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.17 acres of agricultural land and successional old fields to early successional fields. Potential direct impacts include habitat displacement from the temporary conversion of 8.00 acres of agricultural land and successional old fields. There will be habitat loss of 8.49 acres of agricultural land and successional old fields to Project components. Potential indirect impacts could include disturbance due to noise and construction activity.	Impacts to agricultural land is unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Active agricultural land provides limited wildlife habitat for Horned Lark. Conversion of agricultural land to planted and managed early successional grasslands for solar facilities has been shown to benefit grassland bird species with habitat requirements similar to Horned Lark (see Section 22(f)(6)) and may improve habitat quality for this species at the Project.
Little Brown Bat *Myotis lucifugus*	-	-	SGCN-HP	This species prefers summer roosts in buildings or trees, under rocks or wood piles. This species hibernates through the late fall and early spring in caves or abandoned mines. There is Suitable summer roost habitat within the forested portions of the Project Area.	I	No	Potential direct impacts include habitat degradation and fragmentation, from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees from overhanging solar arrays, which would be a fire hazard.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Louisiana Waterthrush (*Seiurus motacilla*)	-	-	SGCN	This species uses forested riparian areas, often along ravines, containing gravel-bottomed streams. Habitat for this species may occur within the Project Area, although there are no steep ravines within the Project Area.	C, D	No	There are unlikely to be direct or indirect impacts due to the limited area of habitat for this species. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees from overhanging solar arrays, which would be a fire hazard. HDD will be used to cross streams.
Northern Goshawk (*Accipiter gentilis*)	-	SSC	SGCN	This species prefers larger tracts of wild forest. Across much of their range they live mainly in coniferous forests; however, they may occur in deciduous hardwood forest as well. Habitat for this species occurs within the Project Area.	C, E	No	Potential direct impacts are unlikely due to the limited habitat in the form of extensive forests (see Section 22(f)(8)). Potential direct impacts include habitat degradation and fragmentation, from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees from overhanging solar arrays, which would be a fire hazard.
Northern Harrier (*Circus cyaneus*)	-	THR	SGCN	This species prefers freshwater marshes, wet grasslands, lightly grazed pastures, successional old field, and croplands. Habitat for this species occurs within the Project Area.	A, C, D, E, F	Yes	There are unlikely to be direct or indirect impacts due to the limited area of optimal habitat. Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.17 acres of agricultural land and successional old fields to early successional fields. Potential direct impacts include habitat displacement and degradation from the temporary conversion of 8.00 acres of agricultural land and successional old fields. There will be habitat loss of 8.49 acres of agricultural land and successional old fields to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to agricultural land are unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Conversion of agricultural land to planted early successional grasslands may benefit Northern Harrier as availability of prey resources may increase in this cover type relative to actively farmed lands.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Northern Long-Eared Bat (*Myotis septentrionalis*)	THR	THR	SGCN-HP	This species uses tree cavities or loose bark of trees for roosting, foraging and raising young. This species hibernates through the late fall and early spring in caves or abandoned mines. Summer roosting habitat is within the forested portions of the Project Area.	B, I	No	Potential direct and indirect impacts are unlikely due to the limited habitat in the form of extensive interior forests (see Section 22(f)(8)). Potential direct impacts include habitat degradation and fragmentation, from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees from overhanging solar arrays, which would be a fire hazard.
Northern Pintail (*Anas acuta*)	-	-	SGCN	This species prefers freshwater marshes and nests in pastures, hay fields, croplands, and successional old field.	C	No	Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.17 acres of agricultural land and successional old fields to early successional fields containing project components. Potential direct impacts include habitat displacement from the temporary conversion of 8.00 acres of agricultural land and successional old fields. There will be habitat loss of 8.49 acres of agricultural land and successional old fields to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to agricultural land are unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Converted agricultural areas may provide reduced nesting habitat quality, however successional grassland habitat under and between solar panels has proven beneficial to some grassland species (see Section 22(f)(6)) and may still provide limited nesting habitat for this species.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Prairie Warbler (*Setophaga discolor*)	-	-	SGCN	This species prefers successional shrubland, successional old-field, brush piles, and pastures. Breeds in dry old field and clearing, edges of forest, and sandy pine barrens. Habitat for this species occurs within the Project Area.	C	No	Potential direct impacts include habitat degradation and fragmentation from converting 306.2 acres of agricultural land, successional shrubland, and successional old fields to early successional grassland. Potential direct impacts include habitat displacement from temporarily converting 8.20 acres of successional shrubland, agricultural land, and successional old field to early successional grassland. Potential direct impacts include a habitat loss of 8.63 acres converted to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to successional shrublands and successional old fields have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Impacts to agricultural land are unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. However, grassland habitat created under and between solar panels may provide improved habitat quality over active agriculture within the Project (see Section 22(f)(6)).
Red-headed Woodpecker (*Melanerpes erythrocephalus*)	-	SSC	SGCN	This species prefers open deciduous forests, forest edges, groves, and orchards. Habitat for this species occurs within the Project Area.	C	No	Potential direct impacts include habitat degradation and fragmentation, from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees from overhanging solar arrays, which would be a fire hazard.
Ruffed Grouse (*Bonasa umbellus*)	-	-	SGCN	This species prefers a mix of mature forests, successional forests, and successional shrublands. Habitat for this species occurs within the Project Area.	C, D, F	No	Potential direct impacts include habitat degradation and fragmentation from conversion of 50.67 acres of successional shrublands and forests to early successional grasslands. Potential direct impacts include habitat displacement due to the temporary conversion of 0.20 acre of successional shrubland. Potential direct impacts include habitat loss of 1.83 acres of successional shrubland and forests. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas and successional shrublands have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree and shrub clearing is necessary to prevent trees and shrubs from overhanging solar arrays, which would be a fire hazard.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Scarlet Tanager (*Piranga olivacea*)	-	-	SGCN	This species prefers expansive deciduous and mixed forest canopies. Habitat for this species occurs within the Project Area.	E, F, H	Yes	Potential direct impacts include habitat degradation and fragmentation, from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees and shrubs from overhanging solar arrays, which would be a fire hazard.
Sedge Wren (*Cistothorus platensis*)	-	THR	SGCN	This species prefers shallow marshes, wet meadows, grasslands, and hayfields. Suitable habitat for this species occurs within the Project Area.	A, C, D, F	No	There are unlikely to be direct or indirect impacts due to the limited area of optimal grassland and wet meadow habitat. Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.01 acres of agricultural land to early successional fields. Potential direct impacts include habitat displacement and degradation from the temporary conversion of 7.90 acres of agricultural land. There will be habitat loss of 8.44 acres of agricultural land to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to agricultural land is unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Impacts to wetlands have been minimized and avoided by using HDD when necessary. Active agricultural land provides limited wildlife habitat for Sedge Wren. Conversion of agricultural land to planted early successional grasslands has been shown to benefit grassland bird species (see Section 22(f)(6)) and may improve habitat quality for this species at the Project.
Sharp-shinned Hawk (*Accipiter striatus*)	-	SSC	-	This forest-dwelling raptor prefers to reside in deciduous forests, thickets, forest edges, and mixed woodlands. Suitable habitat for this species occurs within the Project Area.	C, D, F	Yes	Potential direct impacts include habitat degradation and fragmentation from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees and shrubs from overhanging solar arrays, which would be a fire hazard.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Short-eared Owl (*Asio flammeus*)	-	END	SGCN-HP	This species prefers open areas grasslands, prairies, marshes, and meadows. Habitat for this species occurs within the Project Area.	E	No	Potential direct and indirect impacts are unlikely due to the limited area of optimal grassland habitat and lack of prairie habitat. Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.01 acres of agricultural land to early successional grasslands. Potential direct impacts include habitat displacement and degradation from the temporary conversion of 7.90 acres of agricultural land. There will be habitat loss of 8.44 acres of agricultural land to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Impacts to agricultural land is unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Impacts to wetlands have been minimized and avoided by using HDD when necessary. Active agricultural land provides limited wildlife habitat for short-eared owl. Conversion of agricultural land to planted early successional grasslands has been shown to benefit grassland bird species (see Section 22(f)(6)) and may improve habitat quality for this species at the Project.
Snapping Turtle (*Cheylydra serpentina*)	-	-	SGCN	This species prefers open water habitats such as deep freshwater marshes, ponds, lakes and river. Habitat for this species occurs within the Project Area.	G	No	There will be no direct impacts because deep open water habitats and rivers will not be directly impacted. Indirect impacts include habitat disturbance due to noise and construction activity.	Project components have been sited in agricultural areas to avoid wetlands and minimize tree. Impacts to wetlands have been minimized and avoided by using HDD when necessary

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Upland Sandpiper (*Bartramia longicauda*)	-	THR	SGCN-HP	This species prefers prairies, grasslands, and successional old field. Habitat for this species occurs within the Project Area.	C	No	There are unlikely to be direct or indirect impacts due to the limited area of optimal grassland and lack of prairie habitat. Potential direct impacts include habitat degradation and fragmentation from the conversion of 304.17 acres of agricultural land and successional old fields to early successional fields. Potential direct impacts include habitat displacement and degradation from the temporary conversion of 8.00 acres of agricultural land and successional old fields. There will be habitat loss of 8.49 acres of agricultural land and successional old fields to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activity	been proposed. Impacts to agricultural land is unavoidable, as most of the Project components have been sited in agricultural areas to avoid wetlands and minimize tree clearing. Active agricultural land provides limited wildlife habitat for Upland Sandpiper. Conversion of agricultural land to planted early successional grasslands has been shown to benefit grassland bird species (see Section 22(f)(6)) and may improve habitat quality for this species at the Project.
Vesper Sparrow (*Pooecetes gramineus*)	-	SSC	SGCN	This species responds quickly to changes in habitat and often occupies abandoned old farm fields and successional shrub lands as they return to forest. Habitat for this species occurs within the Project Area.	C, D, F	No	Potential direct impacts include habitat degradation and fragmentation from the conversion of 2.19 acres of successional old fields and successional shrublands to early successional fields. Potential direct impacts include habitat displacement and degradation from the temporary conversion of 0.30 acre of successional shrublands and successional old fields. There will be habitat loss of 0.19 acre of successional shrubland and successional old fields to Project components. Potential indirect impacts could include habitat disturbance due to noise and construction activity.	Project components have been sited in agricultural areas to the maximum extent possible to avoid successional shrublands and successional old fields. Further, conversion of agricultural land to planted early successional grasslands has been shown to benefit grassland bird species (see Section 22(f)(6)) and may improve habitat quality for this species at the Project.

Table 22-10. State- and Federally Listed Species Occurring or Likely to Occur within the Project Area

Species Name	Federal Status[1]	NYS Status[2]	SGCN Listing[3]	Habitat Preference[4]	Source of Potential Presence[5]	Observed On site	Potential Impacts	Impact Avoidance Measures
Wood Thrush (*Hylocichla mustelina*)	-	-	SGCN	This species prefers deciduous and mixed forests with large trees, moderate understory, shade, and abundant leaf litter. Habitat for this species occurs within the Project Area.	C, D, F	Yes	Potential direct impacts include habitat degradation and fragmentation, from the conversion of 48.55 acres of forests to early successional grasslands. Potential direct impacts include a habitat loss of 1.69 acres of forests. Indirect impacts include habitat disturbance due to noise and construction activity.	Impacts to forested areas have been minimized to maximum extent practicable by siting most of the Project components in agricultural areas. Tree clearing is necessary to prevent trees and shrubs from overhanging solar arrays, which would be a fire hazard.

1- 'Federal Status' refers to the species listing as federally endangered (END) OR threatened (THR).

2 - 'NYS Status' refers to the species listing as a state-listed endangered (END), threatened (THR), or species of special concern (SSC).

3- 'SGCN Listing' refers to is the species state listed as a Species of Greatest Conservation Need – High Priority (SGCN-HP), Species of Greatest Conservation Need (SGCN), or a Species of Potential Conservation Need (SPCN).

4- References for habitat preference were Audubon.org, Allaboutbirds.org, and NYSDEC SWAP

5- "Source of Potential Presence" refers to the source of information indication the potential presence of the species at the Project Area:

A: Species identified by NYNHP as occurring within 10 miles of the Project Area

B: Species identified by USFWS online database (IPaC)

C: Species identified in the USGS Breeding Bird Survey

D: Species identified in the NYS BBA

E: Species identified in the Audubon CBC

F: Species identified in eBird

G Species identified in the NYS Amphibian & Reptile Atlas Project

H: Species identified in the NYSDEC Statewide Fisheries Database

I: Species distribution range in the NYSDEC SWAP