Homer Solar Energy Center
Matter No. 21-00976
§900-2.12 Exhibit 11: Terrestrial Ecology

Revision 1

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11.0 EXHIBIT 11 - TERRESTRIAL ECOLOGY

SUMMARY OF EXHIBIT

Homer Solar Energy Center, LLC (HSEC) assessed potential impacts to terrestrial vegetation and wildlife resources associated with the construction and operation of the Facility. The Study Area for this exhibit consists of the Facility Site and the surrounding adjacent properties within a 100-foot buffer, as required by 19 New York Codes, Rules, and Regulations (NYCRR) § 900-2.12(a). This exhibit was prepared using existing information obtained from agency correspondence and publicly available sources, the latter includes reports, published literature, online databases, geographic information system data, and site-specific field surveys conducted in support of Exhibit 12 NYS Threatened and Endangered Species and Exhibit 14 Wetlands.

Construction and operation will result in temporary disturbance due to vegetation clearing for construction, as well as permanent impact on vegetated habitats due to access road conversion, pad-mounted inverters, the collector substation and a Point of Interconnection substation (substation). Most of the Facility Site will be revegetated following construction. At the end of the Facility's lifespan, Facility components will be decommissioned, and the land will be restored as described in Exhibit 23 Site Restoration and Decommissioning. Following completion of decommissioning and restoration, lands within the Facility Site will return to their previous condition and use, including agriculture, depending on the intentions of the landowners.

All major ecological communities within parcels that will host Facility components are common to New York State. Therefore, no impacts to unique or rare natural communities will result from construction. Following construction activities, temporarily disturbed areas will be seeded (and stabilized with mulch and/or straw, if necessary) to reestablish vegetative cover. Other than in active agricultural fields, native species will be utilized to revegetate temporarily disturbed areas.

11.1 VEGETATION AND PLANT COMMUNITIES (19 NYCRR § 900-2.12(A))

11.1.1 Identification and Description of Plant Communities

Desktop analyses and field surveys identified habitat and invasive plant species presence within the Facility Site as part of the Wildlife Site Characterization report (see Exhibit 12 NYS Threatened and Endangered Species, Appendix 12-A) and as part of wetland and waterbody delineations (see Exhibit 14 Wetlands Appendix 14-C for the Wetlands and Waterbodies Delineation Report).

The Study Area for this exhibit consists of the Facility Site and adjacent properties within a 100-foot buffer surrounding the limit of disturbance, encompassing approximately 2,219 acres, and dominated by deciduous forest (1,233 acres) and hay/pasture (695 acres) according to the

National Land Cover Dataset (USGS 2019). Plant communities within the Study Area were further classified into specific community descriptions provided in *Ecological Communities of New York State* (Edinger et al. 2014) and mapped based on additional data collected during the 2020 and 2021 field surveys. Figure 11-1 in Appendix 11-A depicts the following ecological communities within the field survey area:

- **Brushy cleared land:** A former forest, woodland, or shrubland that has been clear-cut or cleared by brush-hog. Habitat may contain tree or shrub stumps; woody debris, such as branches and slashings from logged trees; or patchy vegetation with scattered herbs, shrubs, and tree saplings. The amount of vegetative cover depends on soil fertility and the length of time since the land was cleared.
- **Cropland/field crops:** A type of agricultural land with field crops including alfalfa, wheat, Timothy, and oats, as well as hayfields that are rotated to pastureland.
- **Cropland/row crops:** A type of agricultural land with fields planted in row crops including corn, potatoes, and soybeans, and also includes vegetable gardens in residential areas.
- **Deep emergent marsh:** A marsh community on mineral soils or fine-grained organic soils (muck or well-decomposed peat); the substrate is flooded by waters that are not subject to violent wave action. Water depths can range from 15 centimeters (cm) to 2 meters (6 inches to 6.6 feet); water levels may fluctuate seasonally, but the substrate is rarely dry, and there is usually standing water in the fall. This is a somewhat broadly defined type that includes several variants based on the dominant plants. Deep emergent marshes are quite variable. They may be co-dominated by a mixture of species or have a single dominant species.
- **Intermittent stream:** These are the uppermost segments of stream systems where water only flows during the spring from snowmelt or after heavy rain events. They typically have moderate to steep gradients and hydric soils. Flora within the streambed may include emergent and submergent bryophytes, and hydrophytic vascular plants. Fauna associated with intermittent streams are diverse and include species that do not require a permanent supply of flowing water.
- **Junkyard:** A site that has been cleared for disposal or storage of refuse such as discarded automobiles, large appliances, and mechanical parts. Small pockets of water that collect within the junk piles and in discarded tires provide abundant breeding sites for mosquitoes.

- **Mowed lawn:** A residential, recreational, commercial land, or unpaved airport runway in which the groundcover is dominated by clipped grasses and there is less than 30% tree cover. Ornamental and/or native shrubs may be present, usually with less than 50% cover. The groundcover is maintained by mowing and broadleaf herbicide application.
- **Orchard:** A stand of cultivated fruit trees (e.g., apples, cherries, peaches, and pears), often with grasses as a groundcover that may be currently under cultivation or recently abandoned.
- **Pastureland:** A type of agricultural land permanently maintained as a pasture area for livestock.
- **Paved road/path:** A road or pathway that is paved with asphalt, concrete, brick, or stone. There may be sparse vegetation rooted in cracks in the paved surface.
- **Red maple-hardwood swamp:** A hardwood swamp that occurs in poorly drained depressions, usually on inorganic soils. This is a broadly defined community with many regional and edaphic variants. In any one stand, red maple (*Acer rubrum*) is either the only canopy dominant, or it is codominant with one or more hardwoods including ashes (*Fraxinus pennsylvanica*, *F. nigra*, and *F. americana*), elms (*Ulmus americana* and *U. rubra*), yellow birch (*Betula alleghaniensis*), and swamp white oak (*Quercus bicolor*). The shrub layer is usually well developed and may be quite dense.
- **Rural structure exterior:** The exterior surfaces of structures (may be made with metal, wood, concrete, glass, or plastics) such as commercial buildings, barns, houses, or bridges in a rural or sparsely populated suburban area. Exteriors may be sparsely vegetated with lichens, mosses, and terrestrial algae; occasionally vascular plants may grow in cracks. Nooks and crannies may provide nesting habitat for birds and insects, and roosting sites for bats.
- **Shallow emergent marsh:** A marsh meadow community that occurs on mineral soil or deep muck soils (rather than true peat) that are permanently saturated and seasonally flooded. This marsh is better drained than a deep emergent marsh; water depths may range from 15 cm to 1 meter (6 inches to 3.3 feet) during flood stages, but the water level usually drops by mid to late summer and the substrate is exposed during an average year. This is a very broadly defined type that includes several distinct variants and many intermediates. Shallow emergent marshes are very common and quite variable. They may be co-dominated by a mixture of species or have a single dominant species.

- **Shrub swamp:** A mostly inland wetland dominated by tall shrubs that occurs along the shore of a lake or river, in a wet depression or valley not associated with lakes, or as a transition zone between a marsh, fen, or bog and a swamp or upland community. The substrate is usually mineral soil or muck. A few examples may have a shallow layer of sphagnous peat. This is a very broadly defined type that includes several distinct communities and many intermediates. Shrub swamps are very common and quite variable. They may be co-dominated by a mixture of species or have a single dominant shrub species.
- **Spring:** These are small stream sources with perennial flow, characterized by a constant cold temperature with high levels of dissolved oxygen. This type of stream is typically a first-order stream associated with headwaters, very shallow, short in length, and with a constant low discharge. Springs may have high levels of species diversity comprised of amphibians and macroinvertebrates commonly associated with riffles.
- **Spruce/fir plantation:** A stand of softwoods planted for the cultivation/harvest of timber products, wildlife habitat, soil erosion control, windbreaks, or landscaping. These plantations may be monocultures (90% of canopy cover is one species) or mixed stands (two or more co-dominant species in which case more than 50% of the cover consists of one or more species of spruce or fir). Ground layer vegetation is usually sparse due to dense accumulation of leaf litter.
- **Successional northern hardwoods:** Successional northern hardwood forests are comprised of hardwood or mixed forests that occur on sites that have been cleared or otherwise previously disturbed.
- **Successional shrubland:** A shrubland that occurs on sites that have been cleared or disturbed. This community has at least 50% cover of shrubs.
- **Unpaved road/path:** A sparsely vegetated road/pathway made of bare soil, bedrock outcrop, local organic material (e.g., woodchips and logs), sand, or gravel. These roads or pathways are maintained by regular trampling or scraping of the land surface. Abandoned railroad beds where tracks have been removed are included here.
- **Urban structure exterior:** The exterior surfaces of structures (may be made with metal, wood, concrete, glass, or plastics) such as commercial buildings, barns, houses, or bridges in an urban or densely populated suburban area. Exteriors may be sparsely vegetated with lichens, mosses, and terrestrial algae; occasionally vascular plants may grow in cracks. Nooks and crannies may provide nesting habitat for birds and insects, and roosting sites for bats.

- **Urban vacant lot:** An open site in a developed, urban area that has been cleared either for construction or following the demolition of a building. Vegetation may be sparse, with large areas of exposed soil, and often with rubble or other debris.

11.1.2 Invasive Plant Species

Field surveys identified invasive species concentrated in brushy, cleared land and disturbed areas. Invasive species observed within the Study Area included, but were not limited to, multiflora rose (*Rosa multiflora*), Morrow's honeysuckle (*Lonicera morrowii*), garlic mustard (*Alleria petiolate*), Japanese barberry (*Berberis thunbergii*), giant hogweed (*Heracleum mantegazianum*), common buckthorn (*Rhamnus cathartica*), Canada thistle (*Cirsium arvense*), and bull thistle (*Cirsium vulgare*). Invasive species polygons are based on ground estimates and are not a complete cataloging of invasive species within the Facility Site. Additionally, invasive species polygons represent an estimated gradient of invasive species present from 1% to 100% cover. Invasive species polygons are represented by yellow hatching on Figure 11-1 in Appendix 11-A.

11.1.3 Impact to Plant Communities

Construction and operation will result in temporary impacts, permanent conversion, and permanent impact on plant communities, as described below. Table 11.1-1 provides estimated acreages of temporary impacts, permanent conversion, and permanent impact by plant community type within the field survey area.

Temporary impacts will primarily occur during construction, with some temporary vegetation disturbance during operations and maintenance. These temporarily impacted areas will be restored following construction and will not be disturbed during Facility operation. This type of disturbance is associated with collector line corridors located outside of photovoltaic (PV) panel array areas and within agricultural or successional old fields, laydown yards, and other temporary workspaces used for construction only. During operations, some temporary vegetation disturbance occurs from vehicular traffic in areas where PV panel arrays are installed. In areas of temporary impacts, HSEC will not use herbicides to prevent sprouting and will not remove trees as part of routine vegetation management during operations.

Table 11.1-1 Estimated Temporary and Permanent Impacts to Plant Communities (acres)

Ecological Community Type[1]	Field Survey Area	Temporary Impacts[2]	Permanent Conversion[3]	Permanent Impact	Total Impacts
Brushy cleared land	20.22	2.56	3.45	0.02	6.03
Cropland/field crops	403.52	36.20	255.37	6.11	297.68
Cropland/row crops	5.59	0.99	0	0.24	1.23
Deep emergent marsh	1.51	0	0.20	0	0.2
Intermittent stream	1.48	0.05	0	0.01	0.06
Junkyard	0.34	0	0	0	0
Mowed lawn	4.17	0.6	0	0	0.6
Orchard	0.21	0	0	0	0
Pastureland	136.54	14.61	59.95	3.0	77.56
Paved road/path	1.85	0.07	0	0.03	0.1
Red maple-hardwood swamp	36.46	0.51	1.77	0	2.28
Rural structure exterior	0.79	0	0.18	0	0.18
Shallow emergent marsh	37.39	1.75	8.85	0.39	10.99
Shrub swamp	17.77	0.88	1.8	<0.01	2.68
Spring	3.63	0.07	0.08	<0.01	0.15
Spruce/fir plantation	1.46	0.41	0	0	0.41
Successional northern hardwoods	624.47	19.47	107.74	3.83	131.04

Table 11.1-1 Estimated Temporary and Permanent Impacts to Plant Communities (acres)

Ecological Community Type[1]	Field Survey Area	Temporary Impacts[2]	Permanent Conversion[3]	Permanent Impact	Total Impacts
Successional shrubland	20.08	2.56	7.15	0.09	9.8
Unpaved road/path	1.89	0	0.05	0.12	0.17
Urban structure exterior	0.72	0	0	0	0
Urban vacant lot	2.56	0	0	0	0
TOTAL[4]	**1,323**	**81**	**447**	**14**	**542**

Notes:

[1] Based on *Ecological Communities of New York* (Edinger et al. 2014) as described in Section 11.2.1.

[2] Temporarily impacted areas will be restored following construction and will be allowed to naturally revegetate.

[3] Areas that will be cleared during construction and maintained as early successional communities during operations. The conversion of active row croplands to perennial early successional communities is expected to result in a net benefit to wildlife and soil resources.

[4] Rounded values.

Permanent conversion will include the conversion of one plant community to another. These permanently converted areas will be cleared or otherwise disturbed during construction and maintained as early successional communities for the life of the Facility. This type of disturbance is associated with areas under PV panel arrays; collector lines within PV panel arrays or located within shrubland or forestland communities; and shrubland, or forestland. PV panels will be mounted on a racking support system secured by metal piers driven into the ground. While a majority of these areas will not be graded or stripped of topsoil, some of the PV panel areas will require either cutting or filling to reach the necessary uniform grades for racking installation. Existing vegetation underneath the PV panel arrays will be cleared or mowed to an appropriate height prior to array installation. Any graded areas will be revegetated with a seed mix designed for solar sites comprised of fescues (*Festuca* spp.), Kentucky bluegrass (*Poa pratensis*), and white clover (*Trifolium repens*). A Vegetation Management Plan will be developed for HSEC in accordance with 19 NYCRR § 900-10.2 Pre-Construction Compliance Filings that includes management strategies for restoration following and construction and for operation of the Facility. Permanent vegetation impacts will occur in areas where existing plant communities will be converted to built facilities. This type of disturbance is associated with the following Facility components: access roads, inverter sites, and substation.

The majority of the impacts to plant communities will occur in field crops. Exhibit 15 Agricultural Resources provides a detailed description of impacts to field crops and other agricultural lands. Temporary and permanent impacts to plant communities will not result in the extirpation or significant reduction of any natural ecological community type, or in the significant reduction of any plant community type within the Study Area.

11.1.4 Measures to Avoid or Minimize Plant Community Impacts

HSEC avoided and minimized impacts to vegetation through careful siting of Facility components. The majority of components have been sited in agricultural land, thus avoiding significant impacts to wetlands, shrubland, and forested areas. Approximately 9.4 acres of agricultural land and 3.8 acres of forest will be permanently impacted and the 315 acres of agricultural land and 110 acres of forest will be permanently converted as part of construction. However, the majority of these communities within the landscape or regional level will be largely protected from disturbance. Access roads were sited on existing roads and farm lanes, wherever possible, and areas of disturbance were confined to the smallest practicable area. Specific examples of avoidance and minimization of impacts to plant communities are outlined below.

As shown on Figure 11-1 in Appendix 11-A, two proposed staging areas (totaling approximately 2.5 acres) and the operations and maintenance building have been sited within croplands to minimize tree clearing in surrounded wooded areas. Additionally, the substation was moved southeast to avoid clearing trees on 1.2 acres. A majority of solar panels in Arrays A1, A2, A3, A4,

A5, B1, B3, B4, C1, D1a, D1b, E1, E2, F1, H1, H2, H3, G1a, G1b, G2, G3, and G5 have been sited within croplands to minimize tree clearing in surrounded wooded areas.

The collector line between Arrays A4 and B1 has been sited to go between a gap in a forested wetland (W-T02-033C-1), which will minimize tree clearing within this red maple-hardwood swamp. However, in order to avoid impacts to this community type, the collector line is sited across a small corner of interior forest, which will require a small amount of tree clearing (approximately 7.5 acres of interior forest). Interior forest areas are not influenced by edge effects and are calculated using a 300-foot buffer from the edge of forest habitats (Gehlhausen et al. 2000). Routing the collector line through this forested area will lead to some fragmentation of forested habitat; however, a majority of this contiguous forested area (approximately 415 acres) is located north of the collector line and will remain unfragmented. Figure 11-1 in Appendix 11-A shows the portion of this forested area south of the collector line that is already fragmented. Impacts on wetlands are further discussed in Exhibit 14 Wetlands.

Minimal solar panels in Array B4a were sited on the portion of this property south of Parks Road to avoid a wetland complex (W-T01-028) consisting of shallow emergent marsh, shrub swamp, and red maple-hardwood swamp. Impacts to wetlands are further discussed in Exhibit 14 Wetlands. In order to avoid siting solar panel arrays in this wetland complex, a small portion of interior forest (7.5 acres) will be cleared. The collector line has also been routed to minimize impacts to this wetland complex and follows the Parks Road right-of-way east to west before turning south along the western property line (see Figure 11-1 in Appendix 11-A).

The collector lines between Arrays B4a and C1, and between Arrays C1 and D1a have been sited to avoid tree clearing and interior forests, and have been mainly routed through brushy/cleared land and cropland (see Figure 11-1 in Appendix 11-A).

Some tree clearing will be required for construction and operation of Facility components to account for efficiencies with construction and design. Whenever possible, HSEC sited these components to prioritize avoiding interior forests and wetlands, while siting a majority of components within agricultural areas. To protect adjacent undisturbed vegetation and other ecological resources, a comprehensive sediment and erosion control plan is provided in Exhibit 13 Water Resources and Aquatic Ecology, Appendix 13-B Stormwater Pollution Prevention Plan. Other mitigation measures to avoid or minimize impacts to vegetation include marking sensitive areas (such as wetlands) where no disturbance or vehicular activities will be allowed, educating the construction workforce on respecting and adhering to the physical boundaries of off-limit areas, employing best management practices during construction, and maintaining a clean work area within the designated construction sites. An independent environmental monitor will conduct inspections of areas requiring environmental compliance during construction activities, with an emphasis on those activities in sensitive areas.

All plant communities identified within the Study Area are common to New York State, therefore, no impacts to unique or rare natural communities will result from construction. Following construction activities, temporarily disturbed areas will be seeded (and stabilized with mulch and/or straw, if necessary) to reestablish vegetative cover in these areas. With the exception of active agricultural fields, native species will be allowed to revegetate temporarily disturbed areas. At the end of the Facility's life, HSEC will remove Facility components and restore the land, as described in Exhibit 23 Site Restoration and Decommissioning. Following completion of decommissioning and restoration, lands within the Study Area are expected to return to pre-construction conditions.

An Invasive Species Control and Management Plan will be developed for HSEC in accordance with 19 NYCRR § 900-10.2 Pre-Construction Compliance Filings that includes prescribed measures to control invasive species throughout the area of disturbance.

11.2 WILDLIFE, WILDLIFE HABITATS, AND WILDLIFE TRAVEL CORRIDORS

11.2.1 Identification and Description of Wildlife and Wildlife Habitat

Wildlife and habitat potentially present within the Study Area were identified through a review of existing information obtained from publicly available sources, and the site-specific Wildlife Site Characterization Study (Exhibit 12 New York State Threatened and Endangered Species, Appendix 12-A), Wintering Grassland Raptor Surveys (Appendix 12-B), and Breeding Bird Surveys (Appendix 12-C). The following public data sources were reviewed:

- New York's Environmental Assessment Form Mapper, maintained by the New York State Department of Environmental Conservation (NYSDEC);
- New York Natural Heritage Program;
- U.S. Fish and Wildlife Service Information for Planning and Conservation and Environmental Conservation Online System Databases;
- New York's Environmental Resource Mapper, maintained by NYSDEC;
- NYSDEC Nature Explorer tool;
- Biodiversity and Wind Siting Mapping Tool, developed by The Nature Conservancy, New York Natural Heritage Program, and the New York State Energy and Research Development Authority;
- eBird;
- Audubon Christmas Bird Counts;
- The U.S. Geological Service Breeding Bird Survey;

- The New York State Breeding Bird Atlas III;
- Data from the New York State Ornithological Association, Inc.; and
- The National Conservation and Easement database.

Appendix 11-B lists identified mammals, birds, amphibians, terrestrial invertebrates, and reptiles that may occur within the Study Area, based on the data sources listed above, as well as site surveys and on-site observations, as required by 19 NYCRR § 900-2.12(d). Specifically, presence for mammals, including small mammals, was determined using the *Checklist of the Amphibians, Reptiles, Birds and Mammals of New York, Including Their Protective Status* (NYSDEC 2019) and IUCN range maps. Presence for terrestrial invertebrates was determined using research-grade observations reported to iNaturalist for Cortland County, New York.

No special status lands occur within the Study Area. The National Conservation Easement database did not identify any easement blocks over 150 acres of contiguous forest within the Study Area (TFPL and DU 2020).

11.2.2 Impacts to Wildlife, Wildlife Habitats, and Wildlife Travel Corridors (19 NYCRR § 900-2.12(e))

Areas of permanent conversion under PV panel arrays will be maintained as early successional areas. These areas under PV panel arrays are expected to provide considerable habitat value for many wildlife species including pollinators and other invertebrates, small mammals, reptiles, amphibians, and many avian species that utilize old field/grassland habitat. Approximately 14 acres of vegetation will be permanently lost for the lifetime of the Facility components (e.g., access roads and the substation).

Construction-related impacts to wildlife are anticipated to be limited to incidental injury and mortality due to construction activity and vehicular movement, habitat disturbance and impact associated with clearing and earth-moving activities, and temporary displacement of wildlife due to behavioral disturbance. Operation-related impacts to wildlife include direct habitat impact, some habitat degradation through fragmentation, and disturbance/displacement due to presence of PV panel arrays.

Specific discussion of impacts to threatened and endangered species and their habitats are addressed in Exhibit 12 NYS Threatened or Endangered Species.

Incidental Injury or Mortality

Direct impacts from construction may include incidental injury or mortality due to construction equipment. Potential mortality is expected to be low because equipment used in solar energy facility construction generally moves at slow rates or is stationary for long periods (e.g., earth-

moving equipment and pile-driving equipment). In addition, much of the land directly impacted within the Facility Site is currently used to produce field crops. Such areas typically provide limited food and cover for most wildlife species, and are routinely subject to disturbance-related farming activities (e.g., plowing, mowing, and pesticide application).

Incidental injury and mortality during Facility construction should be limited to juvenile and sedentary/slow-moving species that are unable to move out of the area disturbed by construction, such as small mammals, ground-nesting bird eggs and hatchlings, reptiles, amphibians, and invertebrates. More mobile species and mature individuals should be able to vacate areas disturbed by construction. Vehicle-related mortality may increase temporarily due to increased traffic during construction; however, as traffic decreases upon the completion of construction, so will the potential for wildlife-vehicle collisions.

Habitat Disturbance and Loss, Habitat Fragmentation

Changes in vegetation could influence the behavior of wildlife species by changing the quality and quantity of habitat for foraging, nesting, roosting, or movement between habitats. However, significant adverse impacts on wildlife are not expected during construction. Facility components have been sited to minimize impacts to wildlife habitat by siting PV panel arrays in agricultural fields used to produce field and row crops to the maximum extent practicable. This minimizes the impacts to higher quality wildlife habitat including forests, shrublands, grasslands, and wetlands. Table 11.1-1 summarizes impacts to plant community types. It is anticipated that the majority of wildlife present in the Study Area will return to temporarily disturbed areas following construction.

Habitat fragmentation resulting from the Facility's operation may affect the movement, breeding, and/or roosting behavior of various species across the landscape. Facility fencing will limit access to habitats within the Facility Site to species incapable of passing through the chain-link fence. Examples include deer grazing or bedding in former hay fields, foxes hunting small mammals, or isolation from burrows for some mammals present before construction. Additionally, large, fenced areas may force wildlife to travel greater distances between habitat patches. Wherever possible, hedgerows were preserved to maintain travel corridors between habitat patches, although some will be eliminated resulting in greater travel distances between certain habitat patches.

As described above, actively cultivated croplands typically provide only marginal habitat for most wildlife species. Wherever feasible, HSEC has Facility components and temporary impacts from construction in areas currently used for field and row crops in an effort to minimize impacts from habitat fragmentation. Exclusion from habitats will be limited to fencing areas off from wildlife access. Fragmentation will primarily be limited to collection line and access road corridors through previously contiguous forest patches. Lastly, while the majority of tree clearing is on the edges of existing fields, the interconnection of distant panel arrays will require collection lines to clear some interior forest and increase forest edges and edge effects. Interior forests are areas that are not

influenced by edge effects and are calculated using a 300-foot buffer from the edge of forest habitats. As forestland is cleared for construction and operation of the Facility, this moves this 300-foot buffer inward, converting previously interior forest to exterior forest.

With regards to forestland birds, sensitivity to habitat fragmentation varies by species; forest interior species show the highest degree of sensitivity (Bannerman 1998). Of the total forestland within the Study Area, only 529 acres have been classified as interior forest. Construction will result in approximately 34 acres of interior forest clearing, as well as result in the increase of approximately 130 acres of forest edge (edge effect). While some fragmentation impacts to forest interior species are expected locally within the Study Area, a majority of the forested areas within the Study Area will remain intact.

With respect to grassland bird species, construction will result in the permanent impact of 9.4 acres of cropland and pastureland, and 315 acres of cropland and pastureland will be converted to early successional habitat within the solar arrays for the life of the Facility. However, of the total impacts to agricultural land, approximately 300 acres will occur in areas currently cultivated as field and crops, which typically provide limited/marginal habitat for grassland birds. In contrast, the maintained early successional areas under PV panel arrays are expected to provide considerable habitat value for many wildlife species, including some grassland bird species. This landscape contains an extensive network of agricultural land, including cropland and pastureland. Given the extent of available agricultural habitat adjacent to the Facility Site and beyond the Study Area, impacts to these habitats do not represent significant fragmentation impacts at the landscape or regional level.

Forested fragmentation effects on bats are not well understood, and the effects may vary between species based on preferred prey, foraging areas, roosting needs, and flight morphology. Although measures to avoid direct take of bats will be implemented for tree clearing, suitable roosting areas for some species may be lost due to tree clearing associated with construction. However, suitable roosting habitat is prevalent throughout the region and near the Facility Site, and the construction will only permanently affect 9% of forested lands within the Study Area. Additionally, the creation of open areas and forest edge may benefit some species, such as little brown bat (*Myotis lucifugus*) and big brown bat (*Eptesicus fuscus*), by increasing foraging opportunities. Given the small percentage of forested habitat impacted, it is unlikely that habitat fragmentation will have a significant impact on any bat species.

Behavioral Disturbance and Displacement

Some wildlife displacement may occur due to increased noise and human activity associated with construction. The significance of this impact will vary by species and the seasonal timing of construction activities. Impacts are expected to be minimal given the limited habitat value of the impacted areas. As discussed above, the majority of land within the Facility Site is subject to

frequent mechanical disturbance associated with farming activities; therefore, it is anticipated that most wildlife encountered are accustomed to mechanical disturbances associated with large equipment. 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.

Habitat alteration and disturbance resulting from operations may render some areas within the Facility Site unsuitable or less suitable for nesting, foraging, roosting, or other wildlife use. As described above, fencing off areas will result in permanent displacement of animals unable to pass through the 4-inch by 4-inch chain-link fence. However, HSEC sited facility components mainly on agricultural land subject to frequent disturbances associated with farming activities such as tilling, plowing, pesticide application, mowing/harvesting, and livestock grazing. PV panel arrays have been preferentially sited in these areas to avoid the need to clear significant areas of forest or impact other valuable wildlife habitat such as grasslands or wetlands. Given that the area underneath the PV panel arrays will be maintained as early successional habitat during operation, it is expected that more generalist grassland avian species, small mammals, terrestrial invertebrates, reptiles, and amphibians will successfully utilize these areas. However, the presence of PV panel arrays may render these habitats unsuitable for certain species that will otherwise utilize these areas for foraging, roosting, and breeding habitat, particularly bird species that generally require large, open grassland areas to hunt for insects or small mammals and establish breeding territories. This displacement of avian and larger mammalian predators may result in an increased number of prey species within the fence line and under the PV panels.

11.2.3 Measures to Avoid or Minimize Impacts to Wildlife and Wildlife Habitats

HSEC avoided and minimized impacts to wildlife and wildlife habitat through careful siting of Facility components. Whenever possible, Facility Site components have been sited on agricultural land, thus avoiding significant impacts to high value and sensitive habitats. Approximately 9 acres of interior forest within the Facility Site will be cleared to host PV panel arrays, and approximately 130 acres of interior forest will be converted to forest edge habitat. However, a majority of the interior forest within the Facility Site will not be impacted and ecologically valuable communities within the Study Area will be largely protected from disturbance. Facility access roads will be sited on existing roads, and farm lanes wherever possible, and areas of disturbance will be confined to the smallest practicable area.

Specific examples of careful siting of Facility Site components to avoid forest impacts include the following:

- **Parcel 58.00-02-11.110:** The access road to the substation of Shippey Road uses an existing entrance as well as a three-sided rigid concrete structure on foundations crossing over a stream (T-T02-011).

- **Parcel 79.00-01-02.100, 78.00-01-40.000:** Another example careful siting is the access road from Heath Road, which follows an existing entrance and a field edge for much of the route. The road then cuts through a forest patch at the narrowest point.

Impacts to threatened, and endangered wildlife species have been avoided during Facility Site planning and design and are further discussed in Exhibit 12 NYS Threatened and Endangered Species.

11.3 UNIFORM STANDARDS AND CONDITIONS

Table 11.3-1 identifies the applicable Uniform Standards and Conditions for this exhibit.

Table 11.3-1 Applicable Uniform Standards and Conditions for Terrestrial Ecology

Citation	Uniform Standards and Conditions
§900-6.4 (b)	Environmental and Agricultural Monitoring. (1) The permittee shall hire an independent, third-party environmental monitor to oversee compliance with environmental commitments and siting permit requirements. The environmental monitor shall perform regular site inspections of construction work sites and, in consultation with the NYSDPS, issue regular reporting and compliance audits. (2) The environmental monitor shall have stop work authority over all aspects of the facility. Any stop work orders shall be limited to affected areas of the facility. Copies of the reporting and compliance audits shall be provided to the host town(s) upon request. (3) The permittee shall identify and provide qualifications and contact information for the independent, third-party environmental monitor to the NYSDPS, with a copy to the Office. (4) If the environmental monitor is not qualified, the permittee shall also retain an independent, third-party agriculture-specific environmental monitor as required in section 900-6.4(s) of this Part. (5) The permittee shall ensure that its environmental monitor and agricultural monitor are equipped with sufficient access to documentation, transportation, and communication equipment to effectively monitor the permittee's contractor's compliance with the provisions of the siting permit with respect to such permittee's facility components and to applicable sections of the Public Service Law,

Table 11.3-1 Applicable Uniform Standards and Conditions for Terrestrial Ecology

Citation	Uniform Standards and Conditions
	Executive Law, Environmental Conservation Law (ECL), and Clean Water Act Section 401 Water Quality Certification.
§900-6.4 (e)	Flagging. At least two (2) weeks before tree clearing or ground disturbing activities, the permittee shall stake or flag the planned limits of disturbance (LOD), the boundaries of any delineated NYS-regulated wetlands, waterbodies or streams in the LOD (as identified in the delineations prepared pursuant to sections 900-1.3(e) and (f) of this Part), and any known archeological sites identified in the approved Cultural Resources Avoidance, Minimization and Mitigation Plan required in section 900-10.2(g) of this Part, all on or off ROW access roads, limits of clearing and other areas needed for construction, including, but not limited to, turbine or solar array work areas, proposed infiltration areas for post-construction stormwater management, and laydown and storage areas. In addition, archeological sites shall be surrounded with construction fencing and a sign stating restricted access.
§900-6.4 (m)	General Environmental Requirements. (1) Limits of Disturbance (LOD). Construction shall not directly disturb areas outside the construction limits shown on the design drawings. (4) E&S Materials. Permanent erosion control fabric or netting used to stabilize soils prior to establishment of vegetative cover or other permanent measures shall be one hundred (100) percent biodegradable natural product, excluding silt fence. Use of hay for erosion control or other construction-related purposes is prohibited to minimize the risk of introduction of invasive plant species. (5) Spill Kits. All construction vehicles and equipment shall be equipped with a spill kit. All equipment shall be inspected daily for leaks of petroleum, other fluids, or contaminants; equipment may only enter a stream channel if found to be free of any leakage. Any leaks shall be stopped and cleaned up immediately. Spillage of fuels, waste oils, other petroleum products or hazardous materials shall be reported to the NYSDEC's Spill Hotline within two (2) hours, in accordance with the NYSDEC Spill Reporting and Initial Notification Requirements Technical

Table 11.3-1 Applicable Uniform Standards and Conditions for Terrestrial Ecology

Citation	Uniform Standards and Conditions
	Field Guidance (see section 900-15.1(i)(1)(iii) of this Part). The Office and the NYSDPS shall also be notified of all reported spills in a timely manner. (6) Construction Debris. Any debris or excess construction materials shall be removed to a facility duly authorized to receive such material. No burying of construction debris or excess construction materials is allowed. (7) Clearing Areas. Tree and vegetation clearing shall be limited to the minimum necessary for facility construction and operation, and as detailed on final construction plans. (8) Clearing Methods. When conducting clearing, the permittee shall: (i) Comply with the provisions of 6 NYCRR Part 192, Forest Insect and Disease Control, and ECL Section 9-1303 and any quarantine orders issued thereunder; (ii) Not create a maximum wood chip depth greater than three (3) inches, except for chip roads (if applicable), nor store or dispose wood chips in wetlands, within stream banks, delineated floodways, or active agricultural fields; (iii) Not dispose of vegetation or slash by burning anywhere or burying within a wetland or adjacent area; and (iv) Coordinate with landowners to salvage merchantable logs and fuel wood. Where merchantable logs and fuel wood will not be removed from the Facility Site during clearing activities, final construction plans shall indicate locations of stockpiles to be established for removal from site or future landowner resource recovery. (9) Invasive Insects. To control the spread of invasive insects, the permittee shall provide training for clearing and construction crews to identify the Asian Longhorn Beetle and the Emerald Ash Borer and other invasive insects of concern as a potential problem at the Facility Site. If these insects are found, they shall be reported to the NYSDEC as soon as practicable.

11.4 REFERENCES

Bannerman, S. 1998. Biodiversity and Interior Habitats: The Need to Minimize Edge Effects; Part 6 of 7. British Columbia Ministry of Forests, Forest Science Program, Extension Note 21. Accessed online at: https://www.for.gov.bc.ca/hfd/ pubs/docs/en/en21.pdf. Accessed in February 2020.

Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2014. *Ecological Communities of New York State.* Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, New York.

Gehlhausen, S.M., M.W. Schwartz, and C.K. Augspurger. 2000. Vegetation and microclimatic edge effects in two mixed-mesophytic forest fragments. *Plant Ecology* 147: 21-35.U.S. Geological Survey. 2016. National Land Cover Dataset.

The Trust for Public Land and Ducks Unlimited (TFPL and DU). 2020. National Conservation Easement Database (NCED) Mapping Application. Accessed online at: https://www.conservationeasement.us/interactivemap/. Accessed on November 20, 2020.

U.S. Geological Survey (USGS). 2019. Dataset - NLCD 2016 Land Cover Conterminous United States. Accessed online at: https://www.mrlc.gov/downloads/sciweb1/shared/mrlc/metadata/NLCD_2016_Land_Cover_L48.xml. Accessed on November 18, 2020.

Appendix 11-A
Figures

Previously Submitted; No Changes

Appendix 11-B Revised
Wildlife Species Potentially Present within the Study Area

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Birds			
Ducks, Geese and Waterfowl	*Anatidae*		
Snow Goose	*Chen caerulescens*	NL	WGR
Canada Goose	*Branta canadensis*	NL	Nature Explorer, WCS Climate Change Tables, BBS, WGR
Trumpeter Swan	*Cygnus buccinator*	NL	WCS Climate Change Tables
Wood Duck	*Aix sponsa*	NL	Nature Explorer, BBS
Green-winged Teal	*Anas carolinensis*	NL	WCS Climate Change Tables
Gadwall	*Mareca strepera*	NL	WCS Climate Change Tables
Mallard	*Anas platyrhynchos*	NL	Nature Explorer, WGR, BBS
American Black Duck	*Anas rubripes*	SGCN - HP	Nature Explorer, WCS Climate Change Tables
Ring-necked Duck	*Aythya collaris*	NL	WCS Climate Change Tables
Common Goldeneye	*Bucephala clangula*	NL	WCS Climate Change Tables
Hooded Merganser	*Lophodytes cucullatus*	NL	Nature Explorer
Common Merganser	*Mergus merganser*	NL	Nature Explorer, WCS Climate Change Tables
Red-breasted Merganser	*Mergus serrator*	NL	WCS Climate Change Tables
Pheasants, Grouse, Allies	*Phasianidae*		
Ring-necked Pheasant	*Phasianus colchicus*	NL	Nature Explorer
Ruffed Grouse	*Bonasa umbellus*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Wild Turkey	*Meleagris gallopavo*	NL	Nature Explorer, WGR, BBS
Grebes	*Podicipedidae*		
Pied-billed Grebe	*Podilymbus podiceps*	ST	Nature Explorer, WCS
Pigeons, Doves	*Columbidae*		
Rock Pigeon	*Columba livia*	NL	Nature Explorer, WGR, BBS
Mourning Dove	*Zenaida macroura*	NL	Nature Explorer, WGR, BBS

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Cuckoos	*Cuculidae*		
Yellow-billed Cuckoo	*Coccyzus americanus*	NL	Nature Explorer, BBS
Black-billed Cuckoo	*Coccyzus erythropthalmus*	NL	Nature Explorer, IPaC, WCS, BBS
Nightbirds	*Caprimulgidae*		
Common Nighthawk	*Chordeiles minor*	SSC	Nature Explorer
Eastern Whip-poor-will	*Antrostomus vociferus*	SSC	WCS Climate Change Tables
Swifts	*Apodidae*		
Chimney Swift	*Chaetura pelagica*	NL	Nature Explorer
Hummingbirds	*Trochilidae*		
Ruby-throated Hummingbird	*Archilochus colubris*	NL	Nature Explorer, BBS
Rails, Gallinules, and Coots	*Rallidae*		
Virginia Rail	*Rallus limicola*	NL	Nature Explorer, WCS Climate Change Tables
Sora	*Porzana carolina*	NL	Nature Explorer, WCS Climate Change Tables
American Coot	*Fulica americana*	NL	Nature Explorer
Cranes	*Gruidae*		
Sandhill Crane	*Grus canadensis*	NL	WCS Climate Change Tables
Plovers	*Charadriidae*		
Killdeer	*Charadrius vociferus*	NL	Nature Explorer, BBS
Sandpipers	*Scolopacidae*		
Upland Sandpiper	*Bartramia longicauda*	ST	Nature Explorer
American Woodcock	*Scolopax minor*	NL	Nature Explorer, WCS Climate Change Tables
Wilson's Snipe	*Gallinago delicata*	NL	Nature Explorer
Spotted Sandpiper	*Actitis macularius*	NL	Nature Explorer, WCS Climate Change Tables
Gulls, Terns	*Laridae*		
Ring-billed Gull	*Larus delawarensis*	NL	WGR, BBS
Herring Gull	*Larus argentatus*	NL	WGR, BBS

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Great Black-backed Gull	*Larus marinus*	NL	WGR, WCS Climate Change Tables
Loons	*Gaviidae*		
Common Loon	*Gavia immer*	SSC	Nature Explorer, WCS, WCS Climate Change Tables
Herons, Bitterns	*Ardeidae*		
American Bittern	*Botaurus lentiginosus*	SSC	Nature Explorer
Least Bittern	*Ixobrychus exilis*	ST	Nature Explorer
Great Blue Heron	*Ardea herodias*	NL	Nature Explorer, WGR
Green Heron	*Butorides virescens*	NL	Nature Explorer
American Vultures	*Cathartidae*		
Turkey Vulture	*Cathartes aura*	NL	Nature Explorer, WGR, BBS
Hawks	*Accipitridae*		
Osprey	*Pandion haliaetus*	SSC	Nature Explorer, WCS
Bald Eagle	*Haliaeetus leucocephalus*	ST	Nature Explorer, IPaC, WCS, WGR, BBS
Northern Harrier	*Circus hudsonius*	ST	Nature Explorer, WCS
Sharp-shinned Hawk	*Accipiter striatus*	SSC	Nature Explorer, WCS, WCS Climate Change Tables
Cooper's Hawk	*Accipiter cooperii*	SSC	Nature Explorer, WCS, WGR
Northern Goshawk	*Accipiter gentilis*	SSC	Nature Explorer, WCS, WGR, WCS Climate Change Tables
Red-shouldered Hawk	*Buteo lineatus*	SSC	Nature Explorer, WCS
Broad-winged Hawk	*Buteo platypterus*	NL	Nature Explorer, BBS
Red-tailed Hawk	*Buteo jamaicensis*	NL	Nature Explorer, WGR, BBS
Rough-legged Hawk	*Buteo lagopus*	NL	WCS Climate Change Tables, WGR
Golden Eagle	*Aquila chrysaetos*	SE	Nature Explorer, IPaC, WCS
Owls	*Strigidae*		
Barn Owl	*Tyto alba*	SGCN - HP	Nature Explorer
Eastern Screech-Owl	*Megascops asio*	NL	Nature Explorer
Great Horned Owl	*Bubo virginianus*	NL	Nature Explorer, WGR
Barred Owl	*Strix varia*	NL	Nature Explorer, WGR

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Long-eared Owl	*Asio otus*	NL	Nature Explorer
Kingfishers	*Alcedinidae*		
Belted Kingfisher	*Megaceryle alcyon*	NL	Nature Explorer
Woodpeckers	*Picidae*		
Red-headed Woodpecker	*Melanerpes erythrocephalus*	SSC	Nature Explorer
Red-bellied Woodpecker	*Melanerpes carolinus*	NL	Nature Explorer, WGR, BBS
Yellow-bellied Sapsucker	*Sphyrapicus varius*	NL	Nature Explorer, IPaC, WCS, WCS Climate Change Tables, BBS
Downy Woodpecker	*Picoides pubescens*	NL	Nature Explorer, BBS
Hairy Woodpecker	*Picoides villosus*	NL	Nature Explorer, WGR
Northern Flicker	*Colaptes auratus*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Pileated Woodpecker	*Dryocopus pileatus*	NL	Nature Explorer, WGR
Falcons	*Falconidae*		
American Kestrel	*Falco sparverius*	NL	Nature Explorer, WGR, BBS
Merlin	*Falco columbarius*	NL	Nature Explorer, WCS Climate Change Tables
Peregrine Falcon	*Falco peregrinus*	SE	WCS
Tyrant Flycatchers	*Tyrannidae*		
Eastern Wood-Pewee	*Contopus virens*	NL	Nature Explorer, BBS
Acadian Flycatcher	*Empidonax virescens*	NL	WCS Climate Change Tables
Alder Flycatcher	*Empidonax alnorum*	NL	Nature Explorer, WCS Climate Change Tables
Least Flycatcher	*Empidonax minimus*	NL	Nature Explorer, WCS Climate Change Tables
Willow Flycatcher	*Empidonax traillii*	NL	Nature Explorer, WCS Climate Change Tables
Eastern Phoebe	*Sayornis phoebe*	NL	Nature Explorer, BBS
Great Crested Flycatcher	*Myiarchus crinitus*	NL	Nature Explorer, WCS Climate Change Tables, BBS

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Eastern Kingbird	*Tyrannus tyrannus*	NL	Nature Explorer, BBS, WCS Climate Change Tables
Vireos	*Vireonidae*		
Yellow-throated Vireo	*Vireo flavifrons*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Blue-headed Vireo	*Vireo solitarius*	NL	Nature Explorer, WCS Climate Change Tables
Warbling Vireo	*Vireo gilvus*	NL	Nature Explorer
Red-eyed Vireo	*Vireo olivaceus*	NL	Nature Explorer, BBS
Shrikes	*Laniidae*		
Northern Shrike	*Lanius excubitor*	NL	WGR, WCS Climate Change Tables
Jays, Crows	*Corvidae*		
Blue Jay	*Cyanocitta cristata*	NL	Nature Explorer, WGR, BBS
American Crow	*Corvus brachyrhynchos*	NL	Nature Explorer, WGR, BBS
Common Raven	*Corvus corax*	NL	Nature Explorer, WGR, BBS
Titmice	*Paridae*		
Black-capped Chickadee	*Poecile atricapillus*	NL	Nature Explorer, IPaC, WCS, WGR, BBS
Tufted Titmouse	*Baeolophus bicolor*	NL	Nature Explorer, BBS
Larks	*Alaudidae*		
Horned Lark	*Eremophila alpestris*	SSC	Nature Explorer, WCS
Swallows	*Hirundinidae*		
Purple Martin	*Progne subis*	NL	Nature Explorer
Tree Swallow	*Tachycineta bicolor*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	NL	Nature Explorer
Bank Swallow	*Riparia riparia*	NL	Nature Explorer
Cliff Swallow	*Petrochelidon pyrrhonota*	NL	Nature Explorer
Barn Swallow	*Hirundo rustica*	NL	Nature Explorer, BBS
Kinglets	*Regulidae*		
Golden-crowned Kinglet	*Regulus satrapa*	NL	Nature Explorer, WCS Climate Change Tables

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Nuthatches	*Sittidae*		
Red-breasted Nuthatch	*Sitta canadensis*	NL	Nature Explorer, WCS Climate Change Tables
White-breasted Nuthatch	*Sitta carolinensis*	NL	Nature Explorer, BBS
Treecreepers	*Certhiidae*		
Brown Creeper	*Certhia americana*	NL	Nature Explorer, WCS Climate Change Tables
Gnatcatchers	*Polioptilidae*		
Blue-gray Gnatcatcher	*Polioptila caerulea*	NL	Nature Explorer
Wrens	*Troglodytidae*		
House Wren	*Troglodytes aedon*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Winter Wren	*Troglodytes hiemalis*	NL	Nature Explorer, WCS Climate Change Tables
Sedge Wren	*Cistothorus stellaris*	ST	WCS Climate Change Tables
Marsh Wren	*Cistothorus palustris*	NL	Nature Explorer
Carolina Wren	*Thryothorus ludovicianus*	NL	Nature Explorer
Starlings	*Sturnidae*		
European Starling	*Sturnus vulgaris*	NL	Nature Explorer, WGR, BBS
Mimic Thrushes	*Mimidae*		
Gray Catbird	*Dumetella carolinensis*	NL	Nature Explorer, BBS
Brown Thrasher	*Toxostoma rufum*	SGCN - HP	Nature Explorer, WCS Climate Change Tables, BBS
Northern Mockingbird	*Mimus polyglottos*	NL	Nature Explorer, BBS
Thrushes and Allies	*Turdidae*		
Eastern Bluebird	*Sialia sialis*	NL	Nature Explorer, BBS
Veery	*Catharus fuscescens*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Hermit Thrush	*Catharus guttatus*	NL	Nature Explorer, WCS Climate Change Tables
Wood Thrush	*Hylocichla mustelina*	NL	Nature Explorer, IPaC, WCS, WCS Climate Change Tables, BBS

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
American Robin	*Turdus migratorius*	NL	Nature Explorer, WCS Climate Change Tables, WGR, BBS
Waxwings	*Bombycillidae*		
Bohemian Waxwing	*Bombycilla garrulus*	NL	WCS Climate Change Tables
Cedar Waxwing	*Bombycilla cedrorum*	NL	Nature Explorer, BBS
Old World Sparrows	*Passeridae*		
House Sparrow	*Passer domesticus*	NL	Nature Explorer
Finches and Allies	*Fringillidae*		
House Finch	*Haemorhous mexicanus*	NL	Nature Explorer, BBS
Purple Finch	*Haemorhous purpureus*	NL	Nature Explorer, WCS Climate Change Tables
Evening Grosbeak	*Coccothraustes vespertinus*	NL	Nature Explorer, WCS Climate Change Tables
Hoary Redpoll	*Acanthis hornemanni*	NL	WCS Climate Change Tables
Red Crossbill	*Loxia curvirostra*	NL	Nature Explorer, WCS Climate Change Tables
White-winged Crossbill	*Loxia leucoptera*	NL	WCS Climate Change Tables
Pine Siskin	*Spinus pinus*	NL	Nature Explorer
American Goldfinch	*Spinus tristis*	NL	Nature Explorer, WCS Climate Change Tables, BBS
New World Sparrows	*Passerellidae*		
Eastern Towhee	*Pipilo erythrophthalmus*	NL	Nature Explorer, WCS Climate Change Tables, BBS
American Tree Sparrow	*Spizella arborea*	NL	WGR
Chipping Sparrow	*Spizella passerina*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Field Sparrow	*Spizella pusilla*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Vesper Sparrow	*Pooecetes gramineus*	SSC	Nature Explorer, WCS Climate Change Tables
Savannah Sparrow	*Passerculus sandwichensis*	NL	Nature Explorer, WCS Climate Change Tables, BBS

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Grasshopper Sparrow	*Ammodramus savannarum*	SSC	Nature Explorer
Henslow's Sparrow	*Ammodramus henslowii*	ST	Nature Explorer
Song Sparrow	*Melospiza melodia*	NL	Nature Explorer, WCS Climate Change Tables, WGR, BBS
Swamp Sparrow	*Melospiza georgiana*	NL	Nature Explorer, WCS Climate Change Tables
White-throated Sparrow	*Zonotrichia albicollis*	NL	Nature Explorer, WGR
Dark-eyed Junco	*Junco hyemalis*	NL	Nature Explorer, WCS Climate Change Tables, WGR
Blackbirds	*Icteridae*		
Bobolink	*Dolichonyx oryzivorus*	SGCN - HP	Nature Explorer, IPaC, WCS, WCS Climate Change Tables, BBS
Eastern Meadowlark	*Sturnella magna*	SGCN - HP	Nature Explorer, WCS Climate Change Tables, WGR, BBS
Orchard Oriole	*Icterus spurius*	NL	Nature Explorer
Baltimore Oriole	*Icterus galbula*	NL	Nature Explorer, BBS
Red-winged Blackbird	*Agelaius phoeniceus*	NL	Nature Explorer, WGR, BBS
Brown-headed Cowbird	*Molothrus ater*	NL	Nature Explorer, BBS
Rusty Blackbird	*Euphagus carolinus*	SGCN - HP	IPaC, WCS
Common Grackle	*Quiscalus quiscula*	NL	Nature Explorer, WGR, BBS
New World Warblers	*Parulidae*		
Ovenbird	*Seiurus aurocapilla*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Worm-eating Warbler	*Helmitheros vermivorum*	NL	Nature Explorer
Louisiana Waterthrush	*Parkesia motacilla*	NL	Nature Explorer
Northern Waterthrush	*Parkesia noveboracensis*	NL	Nature Explorer, WCS Climate Change Tables

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Golden-winged Warbler	*Vermivora chrysoptera*	SSC	WCS Climate Change Tables
Blue-winged Warbler	*Vermivora cyanoptera*	NL	Nature Explorer, WCS Climate Change Tables
Black-and-white Warbler	*Mniotilta varia*	NL	Nature Explorer, WCS Climate Change Tables
Nashville Warbler	*Oreothlypis ruficapilla*	NL	Nature Explorer
Mourning Warbler	*Geothlypis philadelphia*	NL	Nature Explorer, WCS Climate Change Tables
Kentucky Warbler	*Geothlypis formosa*	SGCN - HP	Nature Explorer
Common Yellowthroat	*Geothlypis trichas*	NL	Nature Explorer, BBS
Hooded Warbler	*Setophaga citrina*	NL	Nature Explorer, WCS Climate Change Tables
American Redstart	*Setophaga ruticilla*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Cerulean Warbler	*Setophaga cerulea*	SSC	Nature Explorer, WCS Climate Change Tables
Northern Parula	*Setophaga americana*	NL	Nature Explorer
Magnolia Warbler	*Setophaga magnolia*	NL	Nature Explorer, WCS Climate Change Tables
Blackburnian Warbler	*Setophaga fusca*	NL	Nature Explorer, WCS Climate Change Tables
Yellow Warbler	*Setophaga petechia*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Chestnut-sided Warbler	*Setophaga pensylvanica*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Black-throated Blue Warbler	*Setophaga caerulescens*	NL	Nature Explorer, WCS Climate Change Tables
Pine Warbler	*Setophaga pinus*	NL	Nature Explorer, WCS Climate Change Tables
Yellow-rumped Warbler	*Setophaga coronata*	NL	Nature Explorer, WCS Climate Change Tables
Prairie Warbler	*Setophaga discolor*	NL	Nature Explorer, IPaC, WCS, WCS Climate Change Tables

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Black-throated Green Warbler	*Setophaga virens*	NL	Nature Explorer, WCS Climate Change Tables
Canada Warbler	*Cardellina canadensis*	SGCN - HP	Nature Explorer, IPaC, WCS, WCS Climate Change Tables
Brewster's Warbler	*Vermivora cyanoptera x chrysoptera*	NL	Nature Explorer
Cardinals and Allies	*Cardinalidae*		
Scarlet Tanager	*Piranga olivacea*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Northern Cardinal	*Cardinalis cardinalis*	NL	Nature Explorer, WGR, BBS
Indigo Bunting	*Passerina cyanea*	NL	Nature Explorer, WCS Climate Change Tables, BBS
Mammals			
Bats			
Northern Long-eared Bat	*Myotis septentrionalis*	ST	Nature Explorer, WCS
Little brown bat	*Myotis lucifugus*	SGCN-HP	
Indiana Bat	*Myotis sodalis*	SE	WCS
Tri-colored Bat	*Perimyotis subflavus*	SGCN-HP	Nature Explorer
Big brown bat	*Eptesicus fuscus*	NL	
Small-footed bat	*Myotis leibii*	SSC	
Red bat	*Lasiurus borealis*	NL	
Hoary bat	*Lasiurus cinereus*	NL	
Silver-haired Bat	*Lasionycteris noctivagans*	NL	Nature Explorer
Marsupials			
Virginia Opossum	*Didelphis virginiana*	NL	NYSDEC Wildlife Diversity Group, IUCN
Shrews and Moles			
Cinereus Shrew	*Sorex cinereus*	NL	NYSDEC Wildlife Diversity Group, IUCN
American Water Shrew	*Sorex palustris*	NL	NYSDEC Wildlife Diversity Group, IUCN
Smoky Shrew	*Sorex fumeus*	NL	NYSDEC Wildlife Diversity Group, IUCN

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
American Pygmy Shrew	*Sorex hoyi*	NL	NYSDEC Wildlife Diversity Group, IUCN
Northern Short-tailed Shrew	*Blarina brevicauda*	NL	NYSDEC Wildlife Diversity Group, IUCN
North American Least Shrew	*Cryptotis parva*	NL	NYSDEC Wildlife Diversity Group, IUCN
Hairy-tailed Mole	*Parascalops breweri*	NL	NYSDEC Wildlife Diversity Group, IUCN
Star-nosed Mole	*Condylura cristata*	NL	NYSDEC Wildlife Diversity Group, IUCN
Canids			
Coyote	*Canis latrans*	NL	NYSDEC Wildlife Diversity Group, IUCN
Red Fox	*Vulpes vulpes*	NL	NYSDEC Wildlife Diversity Group, IUCN
Gray Fox	*Urocyon cinereoargenteus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Bear			
American Black Bear	*Ursus americanus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Skunk			
Striped Skunk	*Mephitis*	NL	NYSDEC Wildlife Diversity Group, IUCN
Raccoon			
Raccoon	*Procyon lotor*	NL	NYSDEC Wildlife Diversity Group, IUCN
Mustelids			
Fisher	*Pekania pennanti*	NL	NYSDEC Wildlife Diversity Group, IUCN
Ermine	*Mustela erminea*	NL	NYSDEC Wildlife Diversity Group, IUCN
Long-tailed Weasel	*Mustela frenata*	NL	NYSDEC Wildlife Diversity Group, IUCN
American Mink	*Neovison vison*	NL	NYSDEC Wildlife Diversity Group, IUCN

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
North American River Otter	*Lontra canadensis*	NL	NYSDEC Wildlife Diversity Group, IUCN
Felids			
Bobcat	*Lynx rufus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Ungulates			
White-tailed Deer	*Odocoileus virginianus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Rodents			
Eastern Chipmunk	*Tamias striatus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Woodchuck	*Marmota monax*	NL	NYSDEC Wildlife Diversity Group, IUCN
Eastern Grey Squirrel	*Sciurus carolinensis*	NL	NYSDEC Wildlife Diversity Group, IUCN
Eastern Fox Squirrel	*Sciurus niger*	NL	NYSDEC Wildlife Diversity Group, IUCN
Red Squirrel	*Tamiasciurus hudsonicus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Southern Flying Squirrel	*Glacomys volans*	NL	NYSDEC Wildlife Diversity Group, IUCN
Northern Flying Squirrel	*Glaucomys sabrinus*	NL	NYSDEC Wildlife Diversity Group, IUCN
American Beaver	*Castor canadensis*	NL	NYSDEC Wildlife Diversity Group, IUCN
North American Deermouse	*Peromyscus maniculatus*	NL	NYSDEC Wildlife Diversity Group, IUCN
White-footed Deermouse	*Peromyscus leucopus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Southern Red-backed Vole	*Myodes gapperi*	NL	NYSDEC Wildlife Diversity Group, IUCN
Meadow Vole	*Microtus pennsylvanicus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Woodland Vole	*Microtus pinetorum*	NL	NYSDEC Wildlife Diversity Group, IUCN

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Common Muskrat	*Ondatra zibethicus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Southern Bog Lemming	*Synaptomys cooperi*	NL	NYSDEC Wildlife Diversity Group, IUCN
House Mouse	*Mus musculus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Meadow Jumping Mouse	*Zapus hudsonius*	NL	NYSDEC Wildlife Diversity Group, IUCN
Woodland Jumping Mouse	*Napaeozapus insignis*	NL	NYSDEC Wildlife Diversity Group, IUCN
North American Porcupine	*Erethizon dorsata*	NL	NYSDEC Wildlife Diversity Group, IUCN
Rabbits and Hares			
Eastern Cottontail	*Sylvilagus floridanus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Snowshoe Hare	*Lepus americanus*	NL	NYSDEC Wildlife Diversity Group, IUCN
Reptiles and Amphibians			
Snakes			
Ring-necked Snake	*Diadophis punctatus*	NL	Nature Explorer
Milksnake	*Lampropeltis triangulum*	NL	Nature Explorer
Northern Watersnake	*Nerodia sipedon*	NL	Nature Explorer
Smooth Green Snake	*Opheodrys vernalis*	NL	Nature Explorer
Dekay's Brownsnake	*Storeria dekayi*	NL	Nature Explorer
Red-bellied Snake	*Storeria occipitomaculata*	NL	Nature Explorer
Common Gartersnake	*Thamnophis sirtalis*	NL	Nature Explorer

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Turtles			
Snapping Turtle	*Chelydra serpentina*	NL	Nature Explorer
Painted Turtle	*Chrysemys picta*	NL	Nature Explorer
Wood Turtle	*Glyptemys insculpta*	SSC	Nature Explorer
Frogs and Toads			
American Toad	*Anaxyrus americanus*	NL	Nature Explorer
Gray Treefrog	*Hyla versicolor*	NL	Nature Explorer
Bullfrog	*Lithobates catesbeianus*	NL	Nature Explorer
Green Frog	*Lithobates clamitans*	NL	Nature Explorer
Pickerel Frog	*Lithobates palustris*	NL	Nature Explorer
Northern Leopard Frog	*Lithobates pipiens*	NL	Nature Explorer
Wood Frog	*Lithobates sylvaticus*	NL	Nature Explorer
Spring Peeper	*Pseudacris crucifer*	NL	Nature Explorer
Salamanders			
Jefferson Salamander	*Ambystoma jeffersonianum*	SSC	Nature Explorer
Jefferson Salamander Complex	*Ambystoma jeffersonianum x laterale*	SSC	Nature Explorer
Spotted Salamander	*Ambystoma maculatum*	NL	Nature Explorer
Dusky Salamander	*Desmognathus fuscus*	NL	Nature Explorer
Allegheny Mountain Dusky Salamander	*Desmognathus ochrophaeus*	NL	Nature Explorer
Northern Two-lined Salamander	*Eurycea bislineata*	NL	Nature Explorer
Spring Salamander	*Gyrinophilus porphyriticus*	NL	Nature Explorer
Eastern Newt	*Notophthalmus viridescens*	NL	Nature Explorer
Redback Salamander	*Plethodon cinereus*	NL	Nature Explorer
Northern Slimy Salamander	*Plethodon glutinosus*	NL	Nature Explorer

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Invertebrates			
Alderflies, Dobsonflies, and Fishflies			
Summer Fishfly	*Chauliodes pectinicornis*	NL	iNaturalist
Spring Fishfly	*Chauliodes rastricornis*	NL	iNaturalist
Serrate Dark Fishfly	*Nigronia serricornis*	NL	iNaturalist
Beetles			
Emerald Ash Borer	*Agrilus planipennis*	NL	iNaturalist
Eastern Eyed Click Beetle	*Alaus oculatus*	NL	iNaturalist
Fifteen-spotted Lady Beetle	*Anatis labiculata*	NL	iNaturalist
Eye-spotted Lady Beetle	*Anatis mali*	NL	iNaturalist
Apple Curculio	*Anthonomus quadrigibbus*	NL	iNaturalist
Mottled Longhorned Beetle	*Anthophylax attenuatus*	NL	iNaturalist
Reticulated Net-winged Beetle	*Calopteron reticulatum*	NL	iNaturalist
Bronze Ground Beetle	*Carabus nemoralis*	NL	iNaturalist
Goldenrod Soldier Beetle	*Chauliognathus pensylvanicus*	NL	iNaturalist
Twice-stabbed Lady Beetle	*Chilocorus stigma*	NL	iNaturalist
Sidewalk Tiger Beetle	*Cicindela punctulata punctulata*	NL	iNaturalist
Spotted Pink Ladybeetle	*Coleomegilla maculata*	NL	iNaturalist
Poplar-and-Willow Borer	*Cryptorhynchus lapathi*	NL	iNaturalist
Mottled Tortoise Beetle	*Deloyala guttata*	NL	iNaturalist
Winter Firefly	*Ellychnia corrusca*	NL	iNaturalist
Oak Bark Scaler	*Encyclops caeruleus*	NL	iNaturalist
Baly's Earth-boring Beetle	*Geotrupes balyi*	NL	iNaturalist
Asian Lady Beetle	*Harmonia axyridis*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Clavate Tortoise Beetle	*Helocassis clavata*	NL	iNaturalist
Variegated Lady Beetle	*Hippodamia variegata*	NL	iNaturalist
Swamp Milkweed Leaf Beetle	*Labidomera clivicollis*	NL	iNaturalist
Blunt Knapweed Flower Weevil	*Larinus obtusus*	NL	iNaturalist
Locust Borer	*Megacyllene robiniae*	NL	iNaturalist
White-spotted Sawyer Beetle	*Monochamus scutellatus*	NL	iNaturalist
Red-headed Ash Borer	*Neoclytus acuminatus*	NL	iNaturalist
Tomentose Burying Beetle	*Nicrophorus tomentosus*	NL	iNaturalist
Brown Prionid Beetle	*Orthosoma brunneum*	NL	iNaturalist
Rough Hermit Beetle	*Osmoderma scabra*	NL	iNaturalist
Fireflies	*Photuris spp.*	NL	iNaturalist
Oak Stag Beetle	*Platycerus quercus*	NL	iNaturalist
Green Immigrant Leaf Weevil	*Polydrusus formosus*	NL	iNaturalist
Japanese Beetle	*Popillia japonica*	NL	iNaturalist
Cocklebur Weevil	*Rhodobaenus quinquepunctatus*	NL	iNaturalist
N/A	*Sphenophorus costipennis*	NL	iNaturalist
Red Milkweed Beetle	*Tetraopes tetrophthalmus*	NL	iNaturalist
Butterflies and Moths			
Lesser Maple Leafroller	*Acleris chalybeana*	NL	iNaturalist
Aster Tentiform Blotchminer	*Acrocercops astericola*	NL	iNaturalist
Dark Acrolophus	*Acrolophus mora*	NL	iNaturalist
American Dagger	*Acronicta americana*	NL	iNaturalist
North American Luna Moth	*Actias luna*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Ridings' Fairy Moth	*Adela ridingsella*	NL	iNaturalist
Reddish Aethes	*Aethes biscana*	NL	iNaturalist
Stored Grain Moth	*Aglossa caprealis*	NL	iNaturalist
Beggartick Leaffolder Moth	*Agonopterix atrodorsella*	NL	iNaturalist
Virginia Creeper Clearwing	*Albuna fraxini*	NL	iNaturalist
Eight-spotted Forester Moth	*Alypia octomaculata*	NL	iNaturalist
Pepper and Salt Skipper	*Amblyscirtes hegon*	NL	iNaturalist
American Copper Underwing	*Amphipyra pyramidoides*	NL	iNaturalist
White-spotted Sable	*Anania funebris*	NL	iNaturalist
Little Cloud Ancylis Moth	*Ancylis nubeculana*	NL	iNaturalist
Least Skipper	*Ancyloxypha numitor*	NL	iNaturalist
Polyphemus Moth	*Antheraea polyphemus*	NL	iNaturalist
Virgin Tiger Moth	*Apantesis virgo*	NL	iNaturalist
Hodges #5392	*Arequipa turbatella*	NL	iNaturalist
Io Moth	Automeris io	NL	iNaturalist
Meadow Fritillary	Boloria bellona	NL	iNaturalist
Common Checkered-Skipper	Burnsius communis	NL	iNaturalist
Promethea Silkmoth	Callosamia promethea	NL	iNaturalist
Canadian Owlet	*Calyptra canadensis*	NL	iNaturalist
Pale Beauty	*Campaea perlata*	NL	iNaturalist
Hodges #2600	*Carmenta ithacae*	NL	iNaturalist
Darling Underwing	*Catocala cara*	NL	iNaturalist
Betrothed Underwing	*Catocala innubens*	NL	iNaturalist
Summer Azure	*Celastrina neglecta*	NL	iNaturalist
Elm Sphinx	*Ceratomia amyntor*	NL	iNaturalist
Waved Sphinx	*Ceratomia undulosa*	NL	iNaturalist
Common Wood-Nymph	*Cercyonis pegala*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Blackberry Looper Moth	*Chlorochlamys chloroleucaria*	NL	iNaturalist
Harris's Checkerspot	*Chlosyne harrisii*	NL	iNaturalist
Topiary Grass-veneer	*Chrysoteuchia topiarius*	NL	iNaturalist
Morbid Owlet	*Chytolita morbidalis*	NL	iNaturalist
Yellow-collared Scape Moth	*Cisseps fulvicollis*	NL	iNaturalist
White Triangle Tortrix	*Clepsis persicana*	NL	iNaturalist
Greenish Apple Moth	*Clepsis virescana*	NL	iNaturalist
Sigmoid Prominent	*Clostera albosigma*	NL	iNaturalist
Rose Plume Moth	*Cnaemidophorus rhododactyla*	NL	iNaturalist
Batman Moth	*Coelostathma discopunctana*	NL	iNaturalist
Common Ringlet	*Coenonympha california*	NL	iNaturalist
Orange Sulphur	*Colias eurytheme*	NL	iNaturalist
Clouded Sulphur	*Colias philodice*	NL	iNaturalist
Bent-lined Carpet	*Costaconvexa centrostrigaria*	NL	iNaturalist
Small White Grass-veneer	*Crambus albellus*	NL	iNaturalist
Common Grass-veneer	*Crambus praefectellus*	NL	iNaturalist
Virginia Ctenucha Moth	*Ctenucha virginica*	NL	iNaturalist
Brown-hooded Owlet	*Cucullia convexipennis*	NL	iNaturalist
Eastern Tailed-Blue	*Cupido comyntas*	NL	iNaturalist
Monarch	*Danaus plexippus*	NL	iNaturalist
Bog Glyph	*Deltote bellicula*	NL	iNaturalist
Indented Dichomeris Moth	*Dichomeris inserrata*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Julia's Dicymolomia Moth	*Dicymolomia julianalis*	NL	iNaturalist
Rosy Maple Moth	*Dryocampa rubicunda*	NL	iNaturalist
Bad-wing Moth	*Dyspteris abortivaria*	NL	iNaturalist
Small Engrailed	*Ectropis crepuscularia*	NL	iNaturalist
Variegated Midget	*Elaphria versicolor*	NL	iNaturalist
Pondside Crambid Moth	*Elophila icciusalis*	NL	iNaturalist
Silver-spotted Skipper	*Epargyreus clarus*	NL	iNaturalist
European Spruce Needleminer Moth	*Epinotia nanana*	NL	iNaturalist
Common Carpet Moth	*Epirrhoe alternata*	NL	iNaturalist
Wild Indigo Duskywing	*Erynnis baptisiae*	NL	iNaturalist
Milkweed Tussock Moth	*Euchaetes egle*	NL	iNaturalist
Spiny Oak-slug Moth	*Euclea delphinii*	NL	iNaturalist
White Pine Coneborer Moth	*Eucopina tocullionana*	NL	iNaturalist
Northern Eudeilinia Moth	*Eudeilinia herminiata*	NL	iNaturalist
Beautiful Wood-nymph	*Eudryas grata*	NL	iNaturalist
Pearly Wood-nymph	*Eudryas unio*	NL	iNaturalist
Snowy Geometer Moth	*Eugonobapta nivosaria*	NL	iNaturalist
Baltimore Checkerspot	*Euphydryas phaeton*	NL	iNaturalist
Dun Skipper	*Euphyes vestris*	NL	iNaturalist
Lost Sallow	*Eupsilia devia*	NL	iNaturalist
Curved-toothed Geometer Moth	*Eutrapela clemataria*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Purple-backed Cabbageworm Moth	*Evergestis pallidata*	NL	iNaturalist
Grape Plume Moth	*Geina periscelidactylu*	NL	iNaturalist
Common Gluphisia Moth	*Gluphisia septentrionis*	NL	iNaturalist
Banded Tussock Moth	*Halysidota tessellaris*	NL	iNaturalist
Snowberry Clearwing	*Hemaris diffinis*	NL	iNaturalist
Hummingbird Clearwing	*Hemaris thysbe*	NL	iNaturalist
Three-spotted Fillip	*Heterophleps triguttaria*	NL	iNaturalist
Brown Bark Carpet Moth	*Horisme intestinata*	NL	iNaturalist
Cecropia Moth	*Hyalophora cecropia*	NL	iNaturalist
Fragile White Carpet	*Hydrelia albifera*	NL	iNaturalist
Bedstraw Hawkmoth	*Hyles gallii*	NL	iNaturalist
Green Cloverworm Moth	*Hypena scabra*	NL	iNaturalist
Giant Leopard Moth	*Hypercompe scribonia*	NL	iNaturalist
Crowned Slug Moth	*Isa textula*	NL	iNaturalist
Ambiguous Moth	*Lascoria ambigualis*	NL	iNaturalist
Northern Pearly-eye	*Lethe anthedon*	NL	iNaturalist
Appalachian Brown	*Lethe appalachia*	NL	iNaturalist
Green Leuconycta Moth	*Leuconycta diphteroides*	NL	iNaturalist
Viceroy	*Limenitis archippus*	NL	iNaturalist
American White Admiral	*Limenitis arthemis arthemis*	NL	iNaturalist
White Spring Moth	*Lomographa vestaliata*	NL	iNaturalist
Hobomok Skipper	*Lon hobomok*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Hickory Tussock Moth	*Lophocampa caryae*	NL	iNaturalist
Small Copper	*Lycaena phlaeas*	NL	iNaturalist
LD Moth (Gypsy Moth)	*Lymantria dispar*	NL	iNaturalist
Common Lytrosis Moth	*Lytrosis unitaria*	NL	iNaturalist
Lesser Maple Spanworm Moth	*Macaria pustularia*	NL	iNaturalist
Forest Tent Caterpillar Moth	*Malacosoma disstria*	NL	iNaturalist
Little Wood Satyr	*Megisto cymela*	NL	iNaturalist
White-ribboned Carpet Moth	*Mesoleuca ruficillata*	NL	iNaturalist
Hodges #1455	*Mompha stellella*	NL	iNaturalist
White-speck Moth	*Mythimna unipuncta*	NL	iNaturalist
White-fringed Emerald	*Nemoria mimosaria*	NL	iNaturalist
Large Yellow Underwing	*Noctua pronuba*	NL	iNaturalist
Mourning Cloak	*Nymphalis antiopa*	NL	iNaturalist
Compton Tortoiseshell	*Nymphalis l-album*	NL	iNaturalist
Divided Olethreutes Moth	*Olethreutes bipartitana*	NL	iNaturalist
Bunchberry Leaffolder Moth	*Olethreutes connectum*	NL	iNaturalist
Inornate Olethreutes Moth	*Olethreutes inornatana*	NL	iNaturalist
Hodges #2794	*Olethreutes quadrifidum*	NL	iNaturalist
Rusty Tussock Moth	*Orgyia antiqua*	NL	iNaturalist
Definite Tussock Moth	*Orgyia definita*	NL	iNaturalist
White-marked Tussock Moth	*Orgyia leucostigma*	NL	iNaturalist
Gem Moth	*Orthonama obstipata*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Modest Sphinx	*Pachysphinx modesta*	NL	iNaturalist
Splendid Palpita Moth	*Palpita magniferalis*	NL	iNaturalist
Dark-spotted Palthis Moth	*Palthis angulalis*	NL	iNaturalist
Faint-spotted Palthis Moth	*Palthis asopialis*	NL	iNaturalist
Blinded Sphinx	*Paonias excaecata*	NL	iNaturalist
Small-eyed Sphinx	*Paonias myops*	NL	iNaturalist
Umbellifer Borer Moth	*Papaipema insulidens*	NL	iNaturalist
Eastern Giant Swallowtail	*Papilio cresphontes*	NL	iNaturalist
Eastern Tiger Swallowtail	*Papilio glaucus*	NL	iNaturalist
Black Swallowtail	*Papilio polyxenes*	NL	iNaturalist
Maple Looper Moth	*Parallelia bistriaris*	NL	iNaturalist
Goldenrod Pelochrista Moth	*Pelochrista cataclystiana*	NL	iNaturalist
Raspberry Crown Borer	*Pennisetia marginatum*	NL	iNaturalist
Titian Peale's Moth	*Perispasta caeculalis*	NL	iNaturalist
Dark-banded Owlet	*Phalaenophana pyramusalis*	NL	iNaturalist
Ruby Tiger Moth	*Phragmatobia fuliginosa*	NL	iNaturalist
Pearl Crescent	*Phyciodes tharos*	NL	iNaturalist
Cabbage White	*Pieris rapae*	NL	iNaturalist
West Virginia White	*Pieris virginiensis*	NL	iNaturalist
Diamondback Moth	*Plutella xylostella*	NL	iNaturalist
Long Dash	*Polites mystic*	NL	iNaturalist
Peck's Skipper	*Polites peckius*	NL	iNaturalist
Eastern Comma	*Polygonia comma*	NL	iNaturalist
Question Mark	*Polygonia interrogationis*	NL	iNaturalist
Skullcap Skeletonizer Moth	*Prochoreutis inflatella*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Skiff Moth	*Prolimacodes badia*	NL	iNaturalist
Tufted Thyatirine Moth	*Pseudothyatira cymatophoroides*	NL	iNaturalist
Common Bagworm Moth	*Psyche casta*	NL	iNaturalist
Grapevine Epimenis Moth	*Psychomorpha epimenis*	NL	iNaturalist
Meal moth	*Pyralis farinalis*	NL	iNaturalist
Isabella Tiger Moth	*Pyrrharctia isabella*	NL	iNaturalist
Primrose Moth	*Schinia florida*	NL	iNaturalist
Black-blotched Schizura Moth	*Schizura leptinoides*	NL	iNaturalist
Carrot Seed Moth	*Sitochroa palealis*	NL	iNaturalist
Sparganothis Fruitworm Moth	*Sparganothis sulfureana*	NL	iNaturalist
Atlantis Fritillary	*Speyeria atlantis*	NL	iNaturalist
Great Spangled Fritillary	*Speyeria cybele*	NL	iNaturalist
Laurel Sphinx	*Sphinx kalmiae*	NL	iNaturalist
Virginian Tiger Moth	*Spilosoma virginica*	NL	iNaturalist
Yellow Slant-line	*Tetracis crocallata*	NL	iNaturalist
Bog Copper	*Tharsalea epixanthe*	NL	iNaturalist
Essex Skipper	*Thymelicus lineola*	NL	iNaturalist
Spotted Thyris Moth	*Thyris maculata*	NL	iNaturalist
White-striped Black	*Trichodezia albovittata*	NL	iNaturalist
Red Admiral	*Vanessa atalanta*	NL	iNaturalist
American Lady	*Vanessa virginiensis*	NL	iNaturalist
Crocus Geometer Moths	*Xanthotype*	NL	iNaturalist
Early Fan-foot	*Zanclognatha cruralis*	NL	iNaturalist
Dragonflies and Damselflies			
Canada Darner	*Aeshna canadensis*	NL	iNaturalist
Lance-tipped Darner	*Aeshna constricta*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Black-tipped Darner	*Aeshna tuberculifera*	NL	iNaturalist
Shadow Darner	*Aeshna umbrosa*	NL	iNaturalist
Green-striped Darner	*Aeshna verticalis*	NL	iNaturalist
Eastern Red Damsel	*Amphiagrion saucium*	NL	iNaturalist
Common Green Darner	*Anax junius*	NL	iNaturalist
Variable Dancer	*Argia fumipennis*	NL	iNaturalist
Powdered Dancer	*Argia moesta*	NL	iNaturalist
Lilypad Clubtail	*Arigomphus furcifer*	NL	iNaturalist
Springtime Darner	*Basiaeschna janata*	NL	iNaturalist
Fawn Darner	*Boyeria vinosa*	NL	iNaturalist
River Jewelwing	*Calopteryx aequabilis*	NL	iNaturalist
Ebony Jewelwing	*Calopteryx maculata*	NL	iNaturalist
Halloween Pennant	*Celithemis eponina*	NL	iNaturalist
Aurora Damsel	*Chromagrion conditum*	NL	iNaturalist
Delta-spotted Spiketail	*Cordulegaster diastatops*	NL	iNaturalist
Twin-spotted Spiketail	*Cordulegaster maculata*	NL	iNaturalist
American Emerald	*Cordulia shurtleffii*	NL	iNaturalist
Racket-tailed Emerald	*Dorocordulia libera*	NL	iNaturalist
Black-shouldered Spinyleg	*Dromogomphus spinosus*	NL	iNaturalist
Familiar Bluet	*Enallagma civile*	NL	iNaturalist
Marsh Bluet	*Enallagma ebrium*	NL	iNaturalist
Stream Bluet	*Enallagma exsulans*	NL	iNaturalist
Skimming Bluet	*Enallagma geminatum*	NL	iNaturalist
Prince Baskettail	*Epitheca princeps*	NL	iNaturalist
Eastern Pondhawk	*Erythemis simplicicollis*	NL	iNaturalist
Harlequin Darner	*Gomphaeschna furcillata*	NL	iNaturalist
Fragile Forktail	Ischnura posita	NL	iNaturalist
Eastern Forktail	*Ischnura verticalis*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Northern Pygmy Clubtail	*Lanthus parvulus*	NL	iNaturalist
Spotted Spreadwing	*Lestes congener*	NL	iNaturalist
Emerald Spreadwing	*Lestes dryas*	NL	iNaturalist
Amber-winged Spreadwing	*Lestes eurinus*	NL	iNaturalist
Sweetflag Spreadwing	*Lestes forcipatus*	NL	iNaturalist
Slender Spreadwing	*Lestes rectangularis*	NL	iNaturalist
Lyre-tipped Spreadwing	*Lestes unguiculatus*	NL	Nature Explorer
Swamp Spreadwing	*Lestes vigilax*	NL	iNaturalist
Frosted Whiteface	*Leucorrhinia frigida*	NL	iNaturalist
Dot-tailed Whiteface	*Leucorrhinia intacta*	NL	iNaturalist
Slaty Skimmer	*Libellula incesta*	NL	iNaturalist
Widow Skimmer	*Libellula luctuosa*	NL	iNaturalist
Twelve-spotted Skimmer	*Libellula pulchella*	NL	iNaturalist
Sphagnum Sprite	*Nehalennia gracilis*	NL	iNaturalist
Sedge Sprite	*Nehalennia irene*	NL	iNaturalist
Blue Dasher	*Pachydiplax longipennis*	NL	iNaturalist
Eastern Amberwing	*Perithemis tenera*	NL	iNaturalist
Lancet Clubtail	*Phanogomphus exilis*	NL	iNaturalist
Common Whitetail	*Plathemis lydia*	NL	iNaturalist
Clamp-tipped Emerald	*Somatochlora tenebrosa*	NL	iNaturalist
Williamson's Emerald	*Somatochlora williamsoni*	NL	iNaturalist
Meadowhawks	*Sympetrum spp.*	NL	iNaturalist
Cherry-faced Meadowhawk	*Sympetrum internum*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Band-winged Meadowhawk	*Sympetrum semicinctum*	NL	iNaturalist
Autumn Meadowhawk	*Sympetrum vicinum*	NL	iNaturalist
False Scorpions			
N/A	*Microbisium brunneum*	NL	iNaturalist
Flies			
Carbonifera goldenrod gall midge	*Asteromyia carbonifera*	NL	iNaturalist
March Fly	*Bibio femoratus*	NL	iNaturalist
Eastern Phantom Crane Fly	*Bittacomorpha clavipes*	NL	iNaturalist
N/A (Leaf Miner Fly)	*Calycomyza flavinotum*	NL	iNaturalist
Golden-backed Snipe Fly	*Chrysopilus thoracicus*	NL	iNaturalist
Bare-cheeked Bumble Fly	*Criorhina nigriventris*	NL	iNaturalist
N/A (Robber Fly)	*Dioctria hyalipennis*	NL	iNaturalist
Early Tachinid Fly	*Epalpus signifer*	NL	iNaturalist
Black-shouldered Drone Fly	*Eristalis dimidiata*	NL	iNaturalist
Common Drone Fly	*Eristalis tenax*	NL	iNaturalist
Transverse-banded Flower Fly	*Eristalis transversa*	NL	iNaturalist
N/A	*Gymnosoma spp.*	NL	iNaturalist
Narrow-headed Marsh Fly	*Helophilus fasciatus*	NL	iNaturalist
N/A (Robber Fly)	*Holcocephala calva*	NL	iNaturalist
Tomato Bristle Fly	*Hystricia abrupta*	NL	iNaturalist
Bumble Bee Mimic Robber Fly	*Laphria thoracica*	NL	iNaturalist
Variable Duskyface Fly	*Melanostoma mellinum*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Broad-footed Ant Fly	*Microdon abditus*	NL	iNaturalist
Globular Ant Fly	*Microdon globosus*	NL	iNaturalist
Unadorned Bog Fly	*Parhelophilus obsoletus*	NL	iNaturalist
N/A (Thick-headed Fly)	*Physocephala furcillata*	NL	iNaturalist
N/A (Leaf Miner Fly)	*Phytomyza lactuca*	NL	iNaturalist
N/A (Leaf Miner Fly)	*Phytomyza minuscula spp.*	NL	iNaturalist
Cluster Flies	*Pollenia spp.*	NL	iNaturalist
N/A (Light Flies)	*Pyrgotella chagnoni*	NL	iNaturalist
Common Snipe Fly	*Rhagio mystaceus*	NL	iNaturalist
Marsh Snipe Fly	*Rhagio tringarius*	NL	iNaturalist
Goldenrod Bunch Gall Midge	*Rhopalomyia solidaginis*	NL	iNaturalist
Yellow Dung Fly	*Scathophaga stercoraria*	NL	iNaturalist
Eastern Flower Fly	*Syrphus knabi*	NL	iNaturalist
N/A (Marsh Flies)	*Tetanocera clara*	NL	iNaturalist
Giant Crane Fly	*Tipula abdominalis*	NL	iNaturalist
N/A (Crane Flies)	*Tipula metacomet*	NL	iNaturalist
Eastern Calligrapher	*Toxomerus geminatus*	NL	iNaturalist
Margined Calligrapher	*Toxomerus marginatus*	NL	iNaturalist
Maize Calligrapher	*Toxomerus politus*	NL	iNaturalist
Tiger Bee Fly	*Xenox tigrinus*	NL	iNaturalist
Grasshoppers, Locusts, and Crickets			
Northern Green-striped Grasshopper	*Chortophaga viridifasciata viridifasciata*	NL	iNaturalist
Short-winged Meadow Katydid	*Conocephalus brevipennis*	NL	iNaturalist
Slender Meadow Katydid	*Conocephalus fasciatus*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Carolina Grasshopper	*Dissosteira carolina*	NL	iNaturalist
Fall Field Cricket	*Gryllus pennsylvanicus*	NL	iNaturalist
Oak Bush-cricket	*Meconema thalassinum*	NL	iNaturalist
Two-striped Grasshopper	*Melanoplus bivittatus*	NL	iNaturalist
Red-legged Grasshopper	*Melanoplus femurrubrum*	NL	iNaturalist
Pine-tree Spur-throat Grasshopper	*Melanoplus punctulatus*	NL	iNaturalist
Sphagnum Ground Cricket	*Neonemobius palustris*	NL	iNaturalist
Two-spotted Tree Cricket	*Neoxabea bipunctata*	NL	iNaturalist
Black-horned Tree Cricket	*Oecanthus nigricornis*	NL	iNaturalist
Narrow-winged Tree Cricket	*Oecanthus niveus*	NL	iNaturalist
Pine Tree Cricket	*Oecanthus pini*	NL	iNaturalist
Marsh meadow grasshopper	*Pseudochorthippus curtipennis*	NL	iNaturalist
Fork-tailed Bush Katydid	*Scudderia furcata*	NL	iNaturalist
Broad-winged Bush Katydid	*Scudderia pistillata*	NL	iNaturalist
Greenhouse Camel Cricket	*Tachycines asynamorus*	NL	iNaturalist
Mantises			
European Mantis	*Mantis religiosa*	NL	iNaturalist
Mayflies			
Gray Drake	*Siphlonurus quebecensis*	NL	iNaturalist
Mites			
Maple Spindle Gall Mite	*Vasates aceriscrumena*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Sawflies, Wasps, Bees, and Ants			
Bicolored Striped Sweat Bee	*Agapostemon virescens*	NL	iNaturalist
Larger Empty Oak Apple Wasp	*Amphibolips quercusinanis*	NL	iNaturalist
Oblong Woolcarder Bee	*Anthidium oblongatum*	NL	iNaturalist
Western Honey Bee	*Apis mellifera*	NL	iNaturalist
Northern Amber Bumble Bee	*Bombus borealis*	NL	iNaturalist
Common Eastern Bumble Bee	*Bombus impatiens*	NL	iNaturalist
Perplexing Bumble Bee	*Bombus perplexus*	NL	iNaturalist
Tricolored Bumble Bee	*Bombus ternarius*	NL	iNaturalist
Yellow-banded Bumble Bee	*Bombus terricola*	NL	iNaturalist
Half-black Bumble Bee	*Bombus vagans*	NL	iNaturalist
Eastern Black Carpenter Ant	*Camponotus pennsylvanicus*	NL	iNaturalist
Nearctic Blue Mud-dauber Wasp	*Chalybion californicum*	NL	iNaturalist
Unequal Cellophane Bee	*Colletes inaequalis*	NL	iNaturalist
Mottled Dolichoderus	*Dolichoderus plagiatus*	NL	iNaturalist
Taschenberg's Dolichoderus	*Dolichoderus taschenbergi*	NL	iNaturalist
Parasitic Aerial Yellowjacket	*Dolichovespula arctica*	NL	iNaturalist
Common Aerial Yellowjacket	*Dolichovespula arenaria*	NL	iNaturalist
Bald-faced Hornet	*Dolichovespula maculata*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
N/A (Square-headed Wasp)	*Ectemnius stirpicola*	NL	iNaturalist
N/A (Potter/Mason Wasp)	*Euodynerus foraminatus*	NL	iNaturalist
Confusing Furrow Bee	*Halictus confusus*	NL	iNaturalist
Broad-handed Leafcutter	*Megachile latimanus*	NL	iNaturalist
Two-spotted Longhorn Bee	*Melissodes bimaculatus*	NL	iNaturalist
Eastern Thistle Longhorn	*Melissodes desponsus*	NL	iNaturalist
Four-toothed Mason Wasp	*Monobia quadridens*	NL	iNaturalist
European Paper Wasp	*Polistes dominula*	NL	iNaturalist
Dark Paper Wasp	*Polistes fuscatus*	NL	iNaturalist
Small Honey Ant	*Prenolepis imparis*	NL	iNaturalist
Yellow-legged Mud-dauber Wasp	*Sceliphron caementarium*	NL	iNaturalist
Great Golden Digger Wasp	*Sphex ichneumoneus*	NL	iNaturalist
N/A	*Taeniogonalos gundlachii*	NL	iNaturalist
Pigeon Horntail	*Tremex columba*	NL	iNaturalist
European Hornet	*Vespa crabro*	NL	iNaturalist
German Yellowjacket	*Vespula germanica*	NL	iNaturalist
Eastern Yellowjacket	*Vespula maculifrons*	NL	iNaturalist
N/A (Ichneumon Wasp)	*Vulgichneumon brevicinctor*	NL	iNaturalist
Eastern Carpenter Bee	*Xylocopa virginica*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Snails and Slugs			
Western Dusky Slug	*Arion subfuscus*	NL	iNaturalist
Brown-lipped Snail	*Cepaea nemoralis*	NL	iNaturalist
Milky Slug	*Deroceras reticulatum*	NL	iNaturalist
Leopard Slug	*Limax maximus*	NL	iNaturalist
Winding Mantleslug	*Philomycus flexuolaris*	NL	iNaturalist
Common European Ambersnail	*Succinea putris*	NL	iNaturalist
Spiders			
Cross Orbweaver	*Araneus diadematus*	NL	iNaturalist
Marbled Orbweaver	*Araneus marmoreus*	NL	iNaturalist
Nordmann's Orbweaver	*Araneus nordmanni*	NL	iNaturalist
Yellow Garden Spider	*Argiope aurantia*	NL	iNaturalist
Banded Garden Spider	*Argiope trifasciata*	NL	iNaturalist
N/A (Nursery Web Spider)	*Dolomedes striatus*	NL	iNaturalist
Dark Fishing Spider	*Dolomedes tenebrosus*	NL	iNaturalist
Six-spotted Fishing Spider	*Dolomedes triton*	NL	iNaturalist
Bronze Jumping Spider	*Eris militaris*	NL	iNaturalist
Hoy's Jumping Spider	*Evarcha hoyi*	NL	iNaturalist
Eastern Parson Spider	*Herpyllus ecclesiasticus*	NL	iNaturalist
Arrow-shaped Orbweaver	*Micrathena sagittata*	NL	iNaturalist
Goldenrod Crab Spider	*Misumena vatia*	NL	iNaturalist
Nell's Tiny Jumping Spider	*Neon nelli*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Zebra Jumping Spider	*Salticus scenicus*	NL	iNaturalist
Hammer-jawed Jumping Spider	*Zygoballus rufipes*	NL	iNaturalist
Stoneflies			
Angulate Snowfly	*Paracapnia angulata*	NL	iNaturalist
Ticks			
Eastern Black-legged Tick	*Ixodes scapularis*	NL	iNaturalist
True Bugs			
N/A (Leaf-footed Bug)	*Acanthocephala terminalis*	NL	iNaturalist
Pineapple-gall Adelgid	*Adelges abietis*	NL	iNaturalist
Common Water Strider	*Aquarius remigis*	NL	iNaturalist
Eastern Boxelder Bug	*Boisea trivittata*	NL	iNaturalist
Green Stink Bug	*Chinavia hilaris*	NL	iNaturalist
Beech Scale	*Cryptococcus fagisuga*	NL	iNaturalist
N/A (Leafhoppers)	*Dikrella cruentata*	NL	iNaturalist
Dusty Stinkbug	*Euschistus tristigmus luridus*	NL	iNaturalist
N/A (Leafhoppers)	*Graphocephala gothica*	NL	iNaturalist
Beech Blight Aphid	*Grylloprociphilus imbricator*	NL	iNaturalist
N/A	*Gypona melanota*	NL	iNaturalist
Brown Marmorated Stink Bug	*Halyomorpha halys*	NL	iNaturalist
Witch-hazel Cone Gall Aphid	*Hormaphis hamamelidis*	NL	iNaturalist
Coppery Leafhopper	*Jikradia olitoria*	NL	iNaturalist
N/A (Shore Bugs)	*Lampracanthia crassicornis*	NL	iNaturalist

Table 11.B-1 Wildlife Species Potentially Present within the Study Area

Common Name	Scientific Name	Conservation Status	Source
Western Conifer Seed Bug	*Leptoglossus occidentalis*	NL	iNaturalist
Diamondback Spittlebug	*Lepyronia quadrangularis*	NL	iNaturalist
Small Milkweed Bug	*Lygaeus kalmii*	NL	iNaturalist
N/A (Stink Bugs)	*Mormidea lugens*	NL	iNaturalist
Milky Backswimmers	*Notonecta spp.*	NL	iNaturalist
Meadow spittlebug	*Philaenus spumarius*	NL	iNaturalist
Aster Treehopper	*Publilia concava*	NL	iNaturalist
Water Scorpions	*Ranatra spp.*	NL	iNaturalist
Two-spotted Grass Bug	*Stenotus binotatus*	NL	iNaturalist
Pale Green Assassin Bug	*Zelus luridus*	NL	iNaturalist
Summer Fishfly	*Chauliodes pectinicornis*	NL	iNaturalist
Spring Fishfly	*Chauliodes rastricornis*	NL	iNaturalist

Sources: iNaturalist 2021; IUCN 2021; NYSDEC 2019, 2020a, 2020b, 2020c; USFWS 2020

Notes:

[1] Potential presence for mammals identified in *The Checklist of the Amphibians, Reptiles, Birds and Mammals of New York, Including Their Protective Status* (NYSDEC 2019) was determined through species range maps provided by IUCN.

Key:
BBS = Breeding Bird Survey
IPaC = Information for Planning and Conservation and Environmental Conservation
NYNHP = New York Natural Heritage Program

Conservation Status Codes:
FT = Federally Threatened Species
NL = Not Listed
SE = NYS Endangered Species
SGCN = NYS Species of Greatest Conservation Need
SGCN-HP = NYS Species of Greatest Conservation Need – High Priority
SSC = NYS Species of Special Concern
ST = NYS Threatened Species