# Rich Road Solar Energy Center Matter No. 22-00031 §900-2.12 Exhibit 11: Terrestrial Ecology





# **Table of Contents**

11.0	EXH	IBIT 11 - TERRESTRIAL ECOLOGY	11-1
	SUM	MARY OF EXHIBIT	.11-1
	11.1	Plant Communities (19 NYCRR § 900-2.12(a))	.11-2
	11.2	Impacts to Plant Communities (19 NYCRR § 900-2.12(b))	.11-4
	11.3	Measures to Avoid or Minimize Plant Community Impacts (19 NYCRR § 900-2.12(c))	.11-7
		11.3.1 Woody Vegetation and Tree Clearing	.11-7
		11.3.2 Co-Utilization of Agricultural Lands	.11-9
		11.3.3 Construction and Operation Practices	.11-9
	11.4	Wildlife and Wildlife Habitat (19 NYCRR § 900-2.12(d))	11-10
	11.5	Impacts to Wildlife, Wildlife Habitats, and Wildlife Travel Corridors (19 NYCRR § 900-2.12(e))	11-12
	11.6	Measures to Avoid or Minimize Impacts to Wildlife and Wildlife Habitats (19 NYCRR § 900-2.12(f))	11-16
	11.7	UNIFORM STANDARDS AND CONDITIONS	11-16
	11.8	REFERENCES	11-19

# **List of Tables**

Table 11.2-1	Estimated Temporary and Permanent Impacts to Plant Communities within the Limits of Disturbance (acres)11-6
Table 11.3-1	Acres of Trees and Woody Plant Communities within the Limit of Disturbance, Facility Site, and Project Area
Table 11.7-1	Applicable Uniform Standards and Conditions for Terrestrial Ecology

# **List of Appendices**

Appendix 11-A	FiguresA-1
	Figure 11-1 Habitat Classifications
Appendix 11-B	Wildlife Species Potentially Present within the Study AreaB-1

#### § 900-2.12 Exhibit 11 Terrestrial Ecology

	Information	Found in Section	
Fxh	nibit 11 shall contain:	Section	
a)	<ul> <li>a) An identification and description of the type of plant communities present on the Facility Site, and adjacent properties within one hundred (100) feet of areas to be disturbed by construction, including the interconnections, based upon field observations and data collection.</li> </ul>		
b)	An analysis of the temporary and permanent impact of the construction and operation of the facility and the interconnections on the vegetation identified, including a mapped depiction of the vegetation areas showing the areas to be removed or disturbed.	11.2	
C)	An identification and evaluation of avoidance measures or, where impacts are unavoidable, minimization measures, including the use of alternative technologies, regarding vegetation impacts identified.	11.3	
d)	A list of the species of mammals, birds, amphibians, terrestrial invertebrates, and reptiles that are likely to occur based on ecological communities present at, and bird and bat migration routes through, the facility, supplemented as necessary by site surveys, site observations and publicly available sources.	11.4 Appendix 11-B	
e)	An analysis of the impact of the construction and operation of the facility and interconnections on wildlife, wildlife habitats, and wildlife travel corridors, other than a NYS threatened or endangered species or species of special concern (which will be addressed pursuant to section 900-2.13 of this Part).	11.5	
f)	An identification and evaluation of avoidance measures or, where impacts are unavoidable, minimization measures, including the use of alternative technologies, regarding impacts to wildlife and wildlife habitat.	11.6	

## **11.0 EXHIBIT 11 - TERRESTRIAL ECOLOGY**

### **SUMMARY OF EXHIBIT**

Rich Road Solar Energy Center, LLC (RRSEC) 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 information obtained from agency correspondence and publicly available sources, including 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. This exhibit discusses impacts to species and habitats not currently listed as threatened or endangered in New York State. Exhibit 12 NYS Threatened or Endangered Species discusses impacts to threatened and endangered species and their habitats, including Blanding's turtle (*Emydoidea blandingii*) and select grassland bird species.

Construction and operation of the Facility will result in temporary disturbance due to vegetation clearing for construction and temporary laydown yard, as well as permanent impacts on vegetated habitats resulting from the Facility's access road conversion, pad-mounted inverters, battery energy storage system (BESS), operations and maintenance (O&M) building, collection substation, and switchyard station. Whenever possible, RRSEC sited these components to prioritize avoiding interior forests and wetlands, with the majority of them sited in agricultural areas. RRSEC avoided and minimized impacts to plant communities through siting and the layout, such that the majority of the impacts to plant communities will occurs in crop lands, including field and row crops. The siting of the Facility avoided the majority of the 1,059 acres of trees and woody plant communities in the Project Area, including limiting the area of disturbance within the Facility Site to completely avoid a total of 848 acres of woody vegetation within the larger Project Area.

All major ecological communities within parcels that will host Facility components are common in New York State. Therefore, no impacts to unique or rare natural communities will result from construction.

Changes in vegetation could influence the behavior of wildlife species by changing the quality and quantity of habitat for foraging, nesting, movement between habitats, or roosting (in the case of grassland bird species). Facility components were sited to minimize impacts to wildlife habitat, to the maximum extent practicable, by prioritizing avoidance of wildlife habitat, including forests, shrublands, and wetlands. 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 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.

## **11.1 PLANT COMMUNITIES (19 NYCRR § 900-2.12(a))**

The Study Area for this exhibit consists of the Facility Site and adjacent properties within a 100foot buffer surrounding the limit of disturbance (LOD). The Study Area is dominated by agricultural lands (croplands and pastureland, and deciduous forest), as outlined in detail below. 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 2022 field surveys. Figure 11-1 in Appendix 11-A depicts the following ecological communities:

- **Beech–maple mesic forest:** A hardwood forest comprising codominant sugar maple (*Acer saccharum*) and American beech (*Fagus grandifolia*) found on moist, well-drained, typically acidic soils.
- **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:** An agricultural field planted in row crops such as corn, potatoes, and soybeans. This community includes vegetable gardens in residential areas.
- **Deep emergent marsh:** A marsh community that occurs 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 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.
- **Pastureland:** A type of agricultural land permanently maintained as a pasture area for livestock.
- **Pine-northern hardwood forest:** A type of mixed forest found on gravelly outwash plains, delta sands, eskers, and dry lake sands in the Adirondacks. Dominant trees are white pine (*Pinus strobus*) and red pine (*P. resinosa*).
- **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 given stand, red

maple (*Acer rubrum*) is either the only canopy dominant, or it is co-dominant 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.

- **Vernal pool:** An ephemerally flooded shallow depression, surrounded by a fringe of red maple–hardwood swamp that quickly transitions to upland forest.
- 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 centimeters 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.
- **Successional northern hardwoods:** Successional northern hardwood forests are composed of hardwood or mixed forests that occur on sites that have been cleared or otherwise previously disturbed.
- **Successional old field:** A meadow dominated by forbs and grasses that occurs on sites that have been cleared and plowed (for farming or development), and then abandoned. Includes fields mowed at an interval (e.g., less than once per year) that favors the reproduction of characteristic successional old field species.
- **Successional shrubland:** A shrubland that occurs on sites that have been cleared or disturbed. This community has at least 50 percent cover of shrubs.

The Invasive Species Control and Management Plan and baseline mapping survey, prepared in compliance with 6 NYCRR Part 575, will be submitted during Pre-construction Compliance Filings in accordance with 19 NYCRR §900-10.2(f).

## 11.2 IMPACTS TO PLANT COMMUNITIES (19 NYCRR § 900-2.12(b))

Table 11.2-1 provides estimated acreages of impacts associated with temporary impacts, permanent conversion, and permanent impacts by plant community type. To estimate impacts to ecological communities, RRSEC developed the following potential impact classifications:

- Temporary Impacts within the Limit of Disturbance (LOD): This limit encompasses the anticipated outer bounds of where construction of the Facility may occur, including any necessary vegetation clearing. This boundary includes defined work corridors along Facility components, security fencing, and proposed planting modules and incorporates areas where construction vehicles and/or personnel may need extra room to construct the Facility, which are not otherwise counted as permanent conversion or permanent impact (defined below). These temporarily impacted areas will be restored following construction and will not be disturbed during Facility operation. These temporary impacts are presented with mapping of plant communities in Figure 11-1. The use of machinery to install Facility components within the LOD may also result in temporary soil impacts, further described in Exhibit 10 Geology, Seismology and Soils and Exhibit 15 Agricultural Resources.
- Permanent Conversion: Represents all areas that will have maintained vegetation for the life of the Facility in accordance with the Vegetation Management Plan, which will be submitted as a pre-construction compliance filing in accordance with 19 NYCRR § 900-10.2. This generally includes all areas within the fence line, areas adjacent to access roads outside the fence line where road edges will be mowed/maintained, areas adjacent to the collection substation and switchyard station, visual screening plantings, and areas maintained for stormwater purposes. These areas of permanent conversion do not include areas that will be allowed to naturally return to a vegetated state after construction is complete, such as collection line corridors.
- **Permanent Impacts:** Represents the Stormwater Pollution Prevention Plan Future Impervious Area, or all areas that will host built components of the Facility. These permanent impacts will include areas where the collection substation and switchyard station, inverters and transformers, BESS, O&M building, and access roads will be located. These areas will be cleared of all vegetation, graded, and grubbed prior to installation, where applicable. They represent

permanent impacts to existing plant communities during construction and operation of the Facility. Areas considered permanent impacts will be altered during construction and operation of the Facility. These areas will be restored following decommissioning of the Facility Site (see Exhibit 23 Site Restoration and Decommissioning for additional information).

As shown in Table 11.2-1, permanent impacts to existing plant communities during construction and operation of the Facility total 35 acres, or 2 percent of the Facility Site. Permanent conversion of existing plant communities to maintained vegetation impacts total approximately 1,133 acres, or 65 percent of the Facility Site and temporary impacts occur to 547 acres or 31 percent of the Facility Site. The majority of these temporary impacts reflect the portions of the Facility Site that will be maintained as perennial pasture for managed sheep grazing, as further described in Section 11.3.2 and in the Agricultural Co-Utilization Plan provided in Exhibit 15 Agricultural Resources, potentially reducing the areas permanently converted to managed vegetation.

Areas where agricultural activities will resume during operations will be seeded with a seed mix specified by the landowner/agricultural producer or as otherwise recommended in the New York State Department of Agriculture and Market's New York State Farmland: Seeding, Fertilizing and Lime Recommendations for Gas Pipeline Right-of-Way Restoration in Farmlands (revised June 5, 2015). In upland areas where agricultural activities will not resume, RRSEC anticipates revegetating graded areas with a seed mix designed for solar sites composed of fescues (*Festuca* spp.), Kentucky bluegrass (Poa pratensis), and white clover (Trifolium repens) or equivalent. For wetland areas that are temporarily impacted during construction, RRSEC anticipates reseeding with Ernst Conservation's OBL Wetland Mix, Southern Tier's Northeast Wetland Grass/Forb Mix, or an equivalent native obligate wetland seed mix appropriate to the site. The construction seeding plan will be submitted in the Vegetative Management Plan during Pre-construction Compliance Filings in accordance with 19 NYCRR §900-10.2. In areas of temporary construction impacts, RRSEC will not use herbicides to prevent sprouting and will not remove trees as part of routine vegetation management during operations, unless for emergency tree removal from storm damage. During operations, some temporary vegetation disturbance will occur from vehicular traffic in areas where photovoltaic (PV) panel arrays are installed.

All plant communities identified within the Study Area are common in New York State; therefore, no impacts to unique or rare natural communities will result from construction. 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.

Distandunce (deres)					
Community Type 1	Facility	Temporary	Permanent	Permanent	Total
Community Type <sup>1</sup>	Site	Impacts <sup>2</sup>	<b>Conversion<sup>3</sup></b>	Impact	Impacts <sup>4</sup>
	Agrio	cultural Areas			
Cropland / Field Crops	480	145	316	15	476
Cropland / Row Crops	679	96	567	13	676
Pastureland	308	229	72	6	306
Subtotal	1,467	471	954	33	1,458
	Foreste	ed Communities			
Beech-Maple Mesic Forest	6	2	5	-	6
Pine-Northern Hardwood Forest	22	3	19	<0.1	22
Red Maple-Hardwood Swamp	14	<0.1	13	<0.1	13
Successional Northern Forest	106	7	97	1	105
Subtotal	148	12	133	2	147
	Non- Fore	sted Communities			
Deep Emergent Marsh	1	1	-	-	1
Shallow Emergent Marsh	70	50	-	0.1	50
Shrub Swamp	18	0.1	10	-	10
Successional Old Field	5	5	<0.1	<0.1	5
Successional Shrubland	46	9	36	0.2	45
Subtotal	140	64	46	0.4	111
Total <sup>4</sup>	1,755	547	1,133	35	1,716

# Table 11.2-1 Estimated Temporary and Permanent Impacts to Plant Communities within the Limits of Disturbance (acres)

Notes:

<sup>1</sup> Based on *Ecological Communities of New York* (Edinger et al. 2014), as described in Section 11.2.1.

<sup>2</sup> Temporarily impacted agricultural areas will return to agricultural uses following construction. Temporarily impacted ecological communities will be restored following construction and will be allowed to naturally revegetate.

<sup>3</sup> Areas that will be cleared during construction and maintained as early successional communities during operations. The conversion of active row cropland to early successional communities is expected to result in a net benefit to wildlife and soil resources.

<sup>4</sup> Rounded values.

-- None

## 11.3 MEASURES TO AVOID OR MINIMIZE PLANT COMMUNITY IMPACTS (19 NYCRR § 900-2.12(c))

As described in Exhibit 2 Overview and Public Involvement, the siting process included desktop analyses and extensive field surveys to identify sensitive resources. The resulting Facility Site consists primarily of available flat, open, and appropriately oriented land for the panels and avoidance of sensitive resources in the Project Area. Within the Facility Site, RRSEC sited the majority of Facility components in previously disturbed agricultural land, thus avoiding significant impacts to sensitive plan communities. RRSEC sited access roads on existing roads and farm lanes wherever possible and confined areas of disturbance to the smallest practicable area, thus minimizing the LOD. As a result, RRSEC avoided and minimized impacts to plant communities through siting and the layout, such that the majority of the impacts to plant communities will occur in crop lands, including field and row crops. As shown in Table 11.2-1 above, crop lands represent approximately 44 percent of temporary impacts, 78 percent of permanent conversion, and 80 percent of permanent impacts to all plant communities. RRSEC's measures to avoid and minimize impacts to plant communities also include minimization of tree clearing, revegetation with plant communities suitable for co-utilization plan for managed sheep grazing, and construction and operation practices, described in detail below.

#### 11.3.1 Woody Vegetation and Tree Clearing

RRSEC will further avoid impacts to sensitive plant communities, including trees and woody vegetation within shallow emergent marshes, deep emergent marshes, shrub swamps, and red maple-hardwood swamps. As shown on Figure 11-1, RRSEC sited the Facility to avoid New York State wetlands north of Array A, south of Jingleville Road and south of Array I. During consultations with the Town of Canton, town representatives expressed concerns about potential for extensive tree clearing for construction and operation. To address these concerns, and to protect sensitive plant communities, RRSEC sited the solar panels, substation, switchyard station, O&M building, and BESS within croplands to avoid tree clearing. Siting of the Facility and individual components also was designed to avoid and minimize impacts to sensitive plant communities mapped during wetland field surveys. As shown in Table 11.3-1, the Project Area contains approximately 1,059 acres of trees and woody plant communities. Siting of the Facility Site avoided a significant percentage of these resources and further limited the area of disturbance within the Facility Site to completely avoid a total of 848 acres of woody vegetation within the larger Project Area.

ance, Facility Site, and Project Area					
Limit of					
<b>Disturbance</b> <sup>1</sup>	Facility Site	Project Area			
6	102	219			
22	26	73			
14	75	159			
	5	5			
18	69	176			
106	267	293			
46	111	134			
211	656	1,059			
848	403				
	Limit of Disturbance <sup>1</sup> 6 22 14  18 106 46 211	Limit of           Disturbance <sup>1</sup> Facility Site           6         102           22         26           14         75            5           18         69           106         267           46         111           211         656			

#### Table 11.3-1 Acres of Trees and Woody Plant Communities within the Limit of Disturbance, Facility Site, and Project Area

Note:

<sup>1</sup> The limit of disturbance is within the Facility Site. The Facility Site is within the Project Area.

<sup>2</sup> Rounded values.

The following are specific examples of siting to avoid areas of contiguous forest as shown in Figure 11-1 (parcel locations are depicted on Exhibit 4 Figure 4-2):

- Facility components avoid impacts on contiguous forest on parcels 87.004-1-21.121, 87.004-2-2, and 88.003-1.
- Array A on parcel 88.003-1-3.1-4 completely avoids impacts to a contiguous forested area.
- Array E on the western side of parcel 88.003-1-28 minimizes tree clearing for shading of the PV panels within a large contiguous forest bounding Church Brook.

As shown in 11.3-1, there are 211 acres of forest within the LOD. Of this 211 acres, the total impacts to forested areas encompasses 147 acres for construction and operation of Facility components to maintain efficiencies with construction and design (see Table 11.2-1). Whenever possible, RRSEC sited these components to prioritize avoiding interior forests and wetlands, with the majority sited within agricultural areas. 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). Interior forests are discussed in detail in Section 11.5.

#### 11.3.2 Co-Utilization of Agricultural Lands

RRSEC prioritized siting of Facility components on cropland and pasture, a majority of which will be considered permanent conversion or temporary impacts. Utilizing these cropland and pasture areas for Facility components and laydown areas during construction will result in minimal temporary impacts and minimal permanent impacts to native ecological communities.

RRSEC evaluated and designed the Facility Site for compatibility with establishment of perennial pasture for managed sheep grazing as a commercially viable co-location strategy. RRSEC developed an Agricultural Co-Utilization Plan, provided in Exhibit 15 Agricultural Resources, for potentially reducing the areas permanently converted to managed vegetation. RRSEC is coordinating with area farmers interested in scaling their livestock operations to meet this opportunity and other possible agrivoltaic options that may arise during the lifetime of the Facility. RRSEC proposes sheep grazing within all solar arrays, with exceptions for state-regulated wetlands occurring under solar panels (as outlined in Exhibit 14 Wetlands). As reflected in Table 11.2-1, up to 229 acres of land currently classified as pastureland may be utilized for sheep grazing during operations and will therefore only be temporarily impacted only during construction.

#### **11.3.3 Construction and Operation Practices**

RRSEC will employ alternative technologies to avoid and minimize clearing and earthmoving activities within wetlands, their adjacent areas, and their associated vegetation, thereby reducing resultant impacts to associated plant communities. For example, RRSEC will use trenchless technology, or horizontal directional drilling, to install collection lines under one state-regulated stream (W401) and use selective tree removal methods that minimize soil disturbance and retain the existing root biomass and seed bank (e.g., tree cutting using manual methods and/or the use of timber matting during mechanical tree removal). Exhibit 14 Wetlands provides further discussion of these practices.

Other 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. 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.

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

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, RRSEC will remove Facility components and restore the land, as described in Exhibit 23 Site Restoration and Decommissioning. As discussed in Exhibit 15 Agricultural Resources, future soil productivity after decommissioning of the Facility is expected to remain and the replacement of row crops with diverse pollinator seed mix, which would include native species, may result in less soil erosion and improved soil conditions over time. Following completion of decommissioning and restoration, lands within the Study Area are expected to return to pre-construction conditions.

## 11.4 WILDLIFE AND WILDLIFE HABITAT (19 NYCRR § 900-2.12(D))

Appendix 11-B lists mammals, birds, amphibians, terrestrial invertebrates, and reptiles that may occur within the Study Area based on site surveys, site observations and publicly available sources, as required by 19 NYCRR § 900-2.12(d).

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 provided in Exhibit 12 NYS Threatened and Endangered Species, Appendix 12-A), Wintering Grassland Raptor Surveys (Appendix 12-B), and Breeding Bird Surveys (Appendix 12-C). Exhibit 12 NYS Threatened or Endangered Species provides discussion of impacts to threatened and endangered species and their habitats. The following public data sources provided information on wildlife and habitats (citations for each are included in Appendix 12-A):

- New York's Environmental Assessment Form Mapper, maintained by the New York State Department of Environmental Conservation (NYSDEC);
- New York Natural Heritage Program (NYNHP);
- U.S. Fish and Wildlife Service Information for Planning and Conservation (IPaC) and Environmental Conservation Online System Databases (USFWS 2020);
- New York's Environmental Resource Mapper, maintained by NYSDEC (NYSDEC 2020a);
- NYSDEC Nature Explorer tool (NYSDEC 2020b);

- Checklist of the Amphibians, Reptiles, Birds and Mammals of New York, Including Their Protective Status, published by the NYSDEC Wildlife Diversity Group (NYSDEC 2019);
- 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 (eBird 2020);
- Audubon Christmas Bird Counts;
- The U.S. Geological Service Breeding Bird Survey;
- The New York Breeding Bird Atlas III (NYSDEC 2020c);
- Data from the New York State Ornithological Association, Inc.;
- National Land Cover data (USGS 2019);
- U.S. Fish and Wildlife Service National Wetlands Inventory;
- NYSDEC Freshwater Wetland data;
- Species range maps for mammals provided by the International Union for Conservation of Nature (IUCN) (IUCN 2021);
- iNaturalist research-grade observations (Ueda 2021);
- The National Conservation and Easement database; and
- Data regarding other areas of interest (e.g., Audubon Important Bird Areas, national wildlife refuges, wildlife management areas, grassland focus areas, core forest blocks, and known bat hibernacula).

The presence of 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 of terrestrial invertebrates was determined using research-grade observations reported to iNaturalist for St. Lawrence County, New York.

The Facility Site is located within NYSDEC Grassland Focus Area 5, which extends along the St. Lawrence Valley and north of the Adirondack Mountains. Focus Area 5 contains breeding grounds for grassland species based on data from the third New York State Breeding Bird Atlas and Audubon New York surveys to identify regions supporting these core population (NYSDEC 2021). The Facility Site also abuts the southern portion of the Lisbon Grasslands Important Bird Area. This region is characterized as a large mosaic of wetlands and grasslands.

The NYNHP indicated that one state-listed threatened species, Blanding's turtle, was documented as occurring within 0.5 miles of the Facility Site. Exhibit 12 NYS Threatened or Endangered Species provides additional detail Blanding's turtle habitat within the Facility Site.

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 Facility Site (TFPL and DU 2020). Additionally, the NYNHP and Nature Conservancy's Matrix Forest Blocks and Linkages dataset did not identify areas of large contiguous forest within the Facility Site (TNC Eastern Conservation Science 2012).

## 11.5 IMPACTS TO WILDLIFE, WILDLIFE HABITATS, AND WILDLIFE TRAVEL CORRIDORS (19 NYCRR § 900-2.12(e))

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

Exhibit 12 NYS Threatened or Endangered Species provides discussion of impacts to threatened and endangered species and their habitats, including Blanding's turtle and select grassland bird species. The following discussion applies only to non-listed species.

#### 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. 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 will minimize the impacts to higher-quality wildlife habitat, including forests, shrublands, and wetlands. As shown in Table 11.2-1, crop lands represent the majority of temporary impacts, permanent conversion, and permanent impacts to vegetation. RRSEC developed an Agricultural Co-Utilization Plan, provided in Exhibit 15 Agricultural Resources, that potentially would reduce the areas permanently converted to managed vegetation. The replacement of row crops with diverse pollinator seed mix that would include natives may provide alternative suitable habitat for many species. 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 within travel corridors, 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. For example, several hedgerows around Array E will be preserved (see Exhibit 8 Visual Impacts Appendix 8-A Attachment 8-D Landscape Mitigation Plan).

Wherever feasible, RRSEC sited Facility components and limited 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. RRSEC sited fencing as close to PV array panels as practicable to minimize acreage of these areas. 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 installation of panels in Arrays D and E will require clearing some interior forest, resulting in an increase of 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 Facility Site, 208 acres have been classified as interior forest. Construction will result in approximately 3.5 acres of interior forest clearing, as well as in the increase of approximately 1.3 acres of forest edge (edge effect). Facility components will not bisect any interior forests; therefore, no fragmentation impacts to forest interior species are expected locally within the Study Area, and a majority of contiguous sections of the forested areas within the Study Area will remain intact.

Within the NYSDEC Grassland Focus Area 5, construction will result in the permanent impact of 33 acres of cropland and pastureland, and 883 acres of cropland will be converted to early successional habitat within the Facility Site. However, of the total impacts to agricultural land, approximately 320 acres will occur in areas currently cultivated as field crops, which typically provide limited/marginal habitat for grassland birds. As such, direct impacts to NYSDEC Grassland Focus Area 5 and the adjacent Lisbon Grasslands Important Bird Area are not anticipated to result from facility construction or operation. 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 and grassland 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 across 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 construction will only permanently affect 16 percent 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, and the fact that the majority of forest impacts are on the edges of forests, it is unlikely that habitat fragmentation will have a significant impact on any bat species.

The U.S. Fish and Wildlife released its final rule to reclassify the northern long-eared bat (*Myotis septentrionalis*) as an endangered species under the Endangered Species Act beginning January 30, 2023. However, this species was not identified in the Wildlife Site Characterization report as being present within the Study Area (see Exhibit 12 NYS Threatened or Endangered Species, Section 12.2) and was also not included in the draft Determination of Occupied Habitat and Incidental Take and Net Conservation Benefit received from the Office of Renewable Energy Siting (see Exhibit 12 NYS Threatened or Endangered Species Section 12.4).

#### **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 value to wildlife 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 will be 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. All perimeter fencing will include a minimum 6-inch gap left at the bottom to allow animal movement (primarily turtles) through the Facility Site. Therefore, fencing off areas may result in permanent displacement of larger animals unable to pass under the 4-by-4-inch wire knot fence. However, RRSEC 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, the substation, O&M building, and the BESS have been preferentially sited in active agricultural areas to avoid the need to clear significant areas of forest or impact other valuable wildlife habitat such as 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.

#### **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.

## 11.6 MEASURES TO AVOID OR MINIMIZE IMPACTS TO WILDLIFE AND WILDLIFE HABITATS (19 NYCRR § 900-2.12(f))

RRSEC will avoid and minimize impacts to wildlife and wildlife habitat through careful siting of Facility components. Whenever possible, Facility components have been sited on agricultural land, thus avoiding significant impacts to high-value and sensitive habitats. Approximately 0.5 acres of interior forest within the Facility Site will be cleared beyond the fence line around panel arrays, and approximately 1.3 acres of interior forest will be converted to forest edge habitat throughout the Facility Site. However, the 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.

The following are specific examples of careful siting of Facility components to avoid and minimize forest impacts (parcel locations are depicted on Exhibit 4 Figure 4-2):

- Parcels 87.004-1-21.121, 88.003-1-3.1, 87.004-2-2, and 88.003-1: Facility components were sited to completely avoid a contiguous forested area adjacent to Array A.
- **Parcel 88.003-1-28:** PV Panels in Array E were sited to minimize tree clearing at the edges of a large contiguous forested area along Church Brook.

Alternative technologies will be employed to avoid and minimize clearing and earthmoving activities within wetlands, their adjacent areas, and their associated vegetation, thereby reducing resultant impacts to associated wildlife and wildlife habitat. These include the use of trenchless technologies to install collection lines under one state-regulated stream (W401) and selective tree removal methods that minimize soil disturbance and retain the existing root biomass and seed bank (e.g., tree cutting using manual methods and/or the use of timber matting during mechanical tree removal). See Exhibit 14 Wetlands for further discussion.

RRSEC will adhere to the Uniform Standards and Conditions outlined in Table 11.3-1 to further avoid and minimize impacts to wildlife and wildlife habitat during construction, including the requirement that all construction activity be limited to the designated LOD and minimizing tree and vegetation clearing for Facility construction and operations.

## **11.7 UNIFORM STANDARDS AND CONDITIONS**

Table 11.7-1 identifies the applicable Uniform Standards and Conditions for this exhibit.

Citation Uniform Standards and Conditions for Terrestrial Ecology				
§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, Executive Law, Environmental Conservation Law (ECL), and Clean Water Act Section 401 Water Quality Certification.			

## Table 11.7-1 Applicable Uniform Standards and Conditions for Terrestrial Ecology

Citation	Uniform Standards and Conditions
§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 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.

## Table 11.7-1 Applicable Uniform Standards and Conditions for Terrestrial Ecology

### ....

Table 11.7-1	Applicable Uniform Standards and Conditions for Terrestrial Ecology
Citatio	n Uniform Standards and Conditions
	(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.

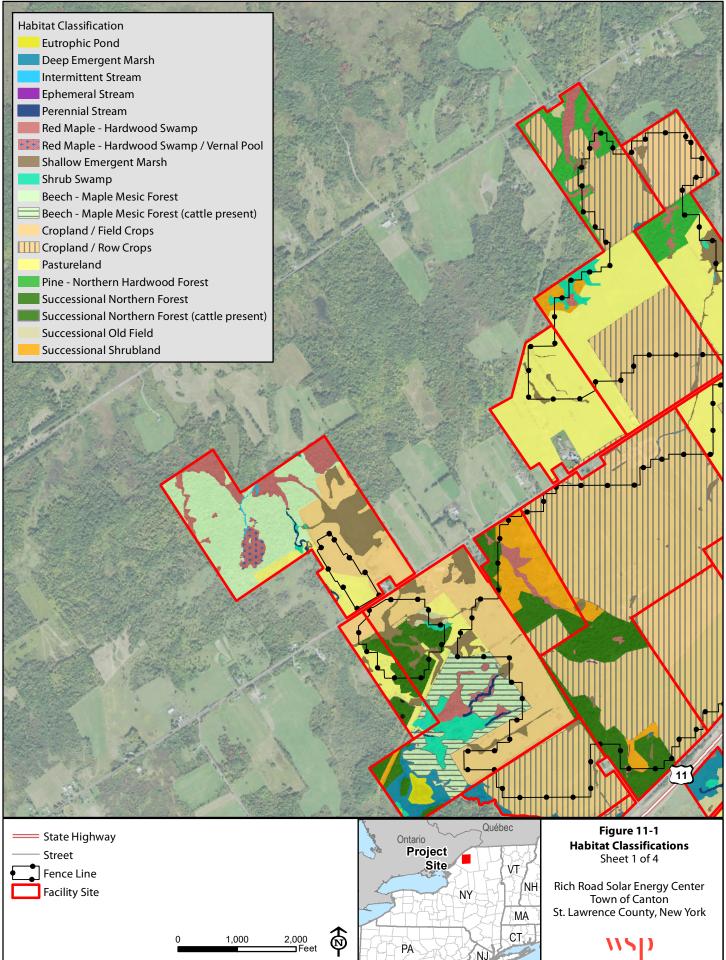
#### **11.8 REFERENCES**

- 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 September 2020.
- eBird. 2020. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Avail-able at: http://www.ebird.org. Accessed on September 30, 2022.

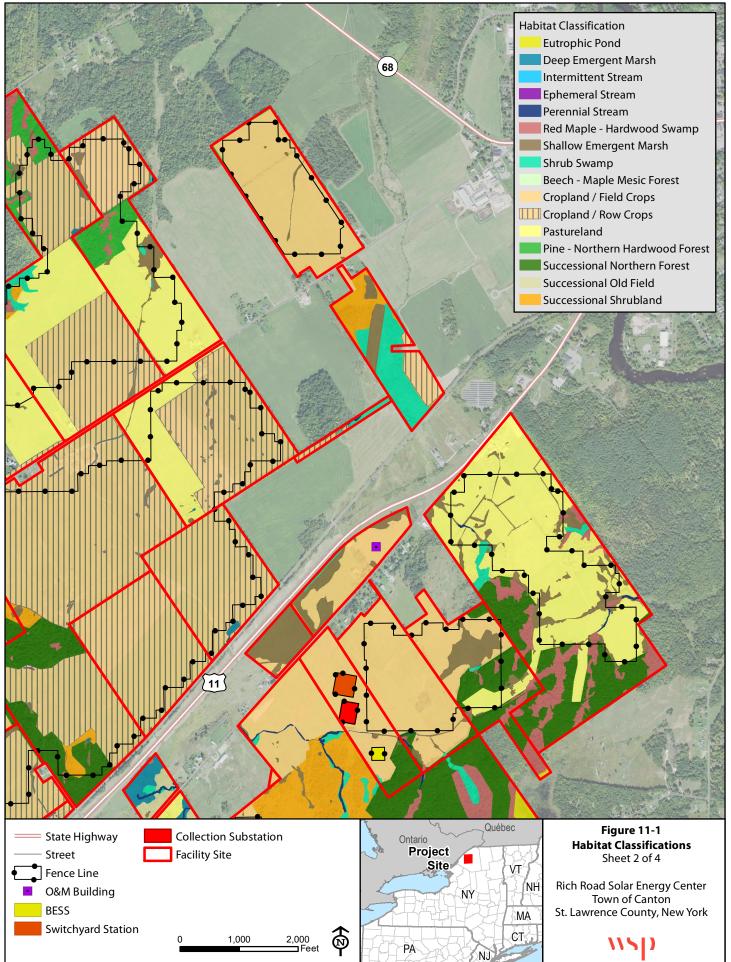
- Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State 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.
- International Union for Conservation of Nature (IUCN). 2021. The IUCN Red List of Threatened Species. Version 2021-1. Accessed online at: https://www.iucnredlist.org. Accessed on August 18, 2022.
- Morgan, M. and M. Burger. A Plan for Conserving Grassland Birds in New York: Final Report to the New York State Department of Environmental Conservation. Prepared by Audubon New York. 10 June 2008. Access online at: <u>https://ny.audubon.org/sites/default/files/con-</u> servation plan for grassland birds in ny.compressed.pdf. Accessed on October 31, 2022.
- The Nature Conversancy (TNC) Eastern Conservation Science. 2012. Matrix Forest Blocks and Linkages. Access online at: <u>https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1261</u>. Accessed on December 5, 2022.
- New York State Department of Environmental Conservation (NYSDEC). 2019. Checklist of the Amphibians, Reptiles, Birds and Mammals of New York, Including Their Protective Status. Tenth Revision. Division of Fish and Wildlife. Wildlife Diversity Group.
- NYSDEC. 2020a. Environmental Resource Mapper (ERM). Accessed online at: https://gis-services.dec.ny.gov/gis/erm/. Accessed on September 30, 2022.
- NYSDEC. 2020b. New York Nature Explorer, User Defined Results Report. Accessed online at: http://www.dec.ny.gov/natureexplorer/. Accessed on September 30, 2022.
- NYSDEC. 2020c. New York Breeding Bird Atlas III. Data hosted through an eBird portal. Accessed online at: https://ebird.org/atlasny/. Accessed on September 30, 2022.
- NYSDEC. 2021d. The Third Atlas of Breeding Birds in New York State [Online]. Atlas III data hosted through an eBird portal. Accessed online at: https://ebird.org/atlasny/. Accessed on February 10, 2021.
- 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 September 30, 2022.
- Ueda, K. 2021. iNaturalist Research-grade Observations. iNaturalist.org. Occurrence dataset https://doi.org/10.15468/ab3s5x accessed via GBIF.org on 2021-08-25.

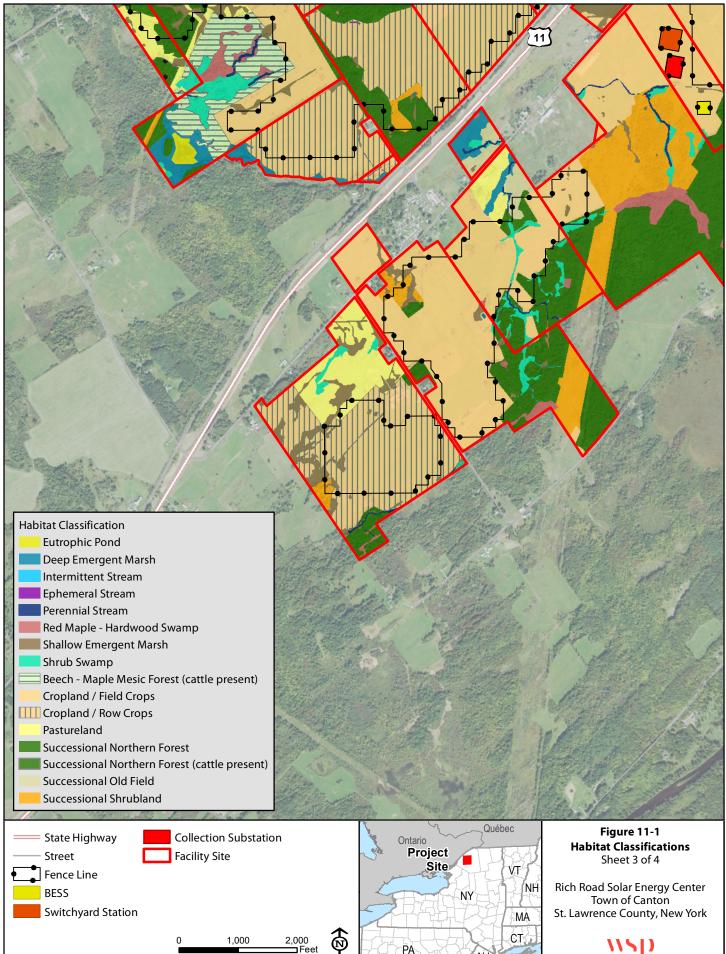
- U.S. Fish and Wildlife Service (USFWS). 2020. Information for Planning and Consultation (IPaC). Accessed online at: https://ecos.fws.gov/ipac/loca-tion/index. Accessed on September 30, 2022.
- U.S. Geological Survey (USGS). 2019. Dataset NLCD 2016 Land Cover Conterminous United States. Accessed online at: https://www.mrlc.gov/downloads/sciweb1/shared/mrlc/metadata/NLCD\_2016\_Land\_Cover\_L48.xml. Accessed on September 30, 2022.

Appendix 11-A Figures Document Path: L:\PROJECTS\EDF\_Renewables\Rich\_Road\MAPS\MXD\94c\_Permit\20230103\Fig\_11\_1\_HabitatClassifications.mxd Date Saved: 1/11/2023 Design Features 1/09/2023.



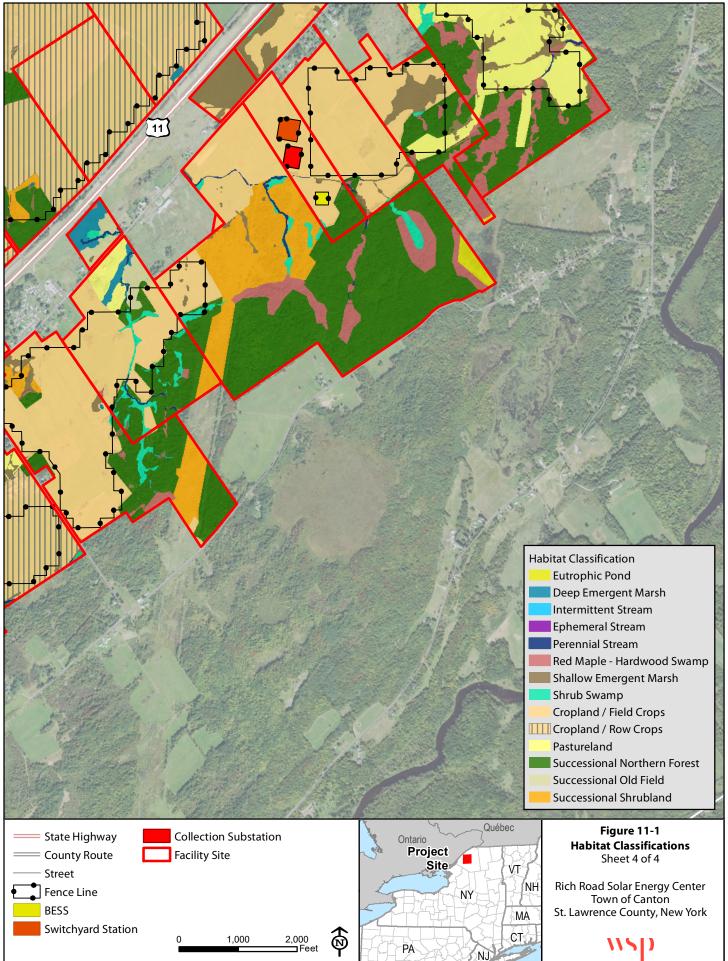
Document Path: L:\PROJECTS\EDF\_Renewables\Rich\_Road\MAPS\MXD\94c\_Permit\20230103\Fig\_11\_1\_HabitatClassifications.mxd Date Saved: 1/17/2023 Design Features 1/09/2023.





NJ

Document Path: L:\PROJECTS\EDF\_Renewables\Rich\_Road\MAPS\MXD\94c\_Permit\20230103\Fig\_11\_1\_HabitatClassifications.mxc Date Saved: 1/11/2023 Design Features 1/09/2023.



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

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Birds		Status	
Ducks, Geese and Waterfowl	<u>Anatidae</u>		
Snow Goose	Chen caerulescens	NL	Appendix 12-B Wintering Grassland Raptor Survey
Canada Goose	Branta canadensis	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Trumpeter Swan	Cygnus buccinator	NL	Appendix 12-A Wildlife Site Characterization Report
Wood Duck	Aix sponsa	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Gadwall	Mareca strepera	NL	Appendix 12-A Wildlife Site Characterization Report
Mallard	Anas platyrhynchos	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
American Black Duck	Anas rubripes	SGCN - HP	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Green-winged Teal	Anas carolinensis	NL	Appendix 12-A Wildlife Site Characterization Report
Ring-necked Duck	Aythya collaris	NL	Appendix 12-A Wildlife Site Characterization Report
Common Goldeneye	Bucephala clangula	NL	Appendix 12-A Wildlife Site Characterization Report
Hooded Merganser	Lophodytes cucullatus	NL	Nature Explorer
Common Merganser	Mergus merganser	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Red-breasted Merganser	Mergus serrator	NL	Appendix 12-A Wildlife Site Characterization Report
Blue-winged Teal	Spatula discors	NL	Nature Explorer

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

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
<u>Pheasants,</u> <u>Grouse, Allies</u>	<u>Phasianidae</u>		
Ring-necked Pheasant	Phasianus colchicus	NL	Nature Explorer
Ruffed Grouse	Bonasa umbellus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Wild Turkey	Meleagris gallopavo	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Grebes	<u>Podicipedidae</u>		
Pied-billed Grebe	Podilymbus podiceps	ST	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
<u>Pigeons, Doves</u>	<u>Columbidae</u>		
Rock Pigeon	Columba livia	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Mourning Dove	Zenaida macroura	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Cuckoos	<u>Cuculidae</u>		
Yellow-billed Cuckoo	Coccyzus americanus	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Black-billed Cuckoo	Coccyzus erythropthalmus	NL	Nature Explorer, IPaC, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
<u>Nightbirds</u>	<u>Caprimulgidae</u>		
Common Nighthawk	Chordeiles minor	SSC	Nature Explorer
Eastern Whip- poor-will	Antrostomus vociferus	SSC	Appendix 12-A Wildlife Site Characterization Report
<u>Swifts</u>	<u>Apodidae</u>		
Chimney Swift	Chaetura pelagica	NL	Nature Explorer
<u>Hummingbirds</u>	<u>Trochilidae</u>		
Ruby-throated Hummingbird	Archilochus colubris	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey

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

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Rails, Gallinules, and Coots	<u>Rallidae</u>		
Virginia Rail	Rallus limicola	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Sora	Porzana carolina	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
American Coot	Fulica americana	NL	Nature Explorer
<u>Cranes</u>	<u>Gruidae</u>		
Sandhill Crane	Grus canadensis	NL	Appendix 12-A Wildlife Site Characterization Report
<u>Plovers</u>	<u>Charadriidae</u>		
Killdeer	Charadrius vociferus	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
American Golden Plover	Pluvialis dominica	NL	Appendix 12-A Wildlife Site Characterization Report
Lesser Yellowlegs	Tringa flavipes	NL	Appendix 12-A Wildlife Site Characterization Report
<u>Sandpipers</u>	<u>Scolopacidae</u>		
Upland Sandpiper	Bartramia longicauda	ST	Nature Explorer
American Woodcock	Scolopax minor	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Wilson's Snipe	Gallinago delicata	NL	Nature Explorer
Spotted Sandpiper	Actitis macularius	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Buff-breasted Sandpiper	Calidris subruficollis	NL	Appendix 12-A Wildlife Site Characterization Report
Semipalmated Sandpiper	Caladris pusilla	NL	Appendix 12-A Wildlife Site Characterization Report
Short-billed Dowitcher	Limnodromus griseus	NL	Appendix 12-A Wildlife Site Characterization Report

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

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
<u>Gulls, Terns</u>	<u>Laridae</u>		
Ring-billed Gull	Larus delawarensis	NL	Appendix 12-B Wintering Grassland Raptor
			Survey, Appendix 12-C Breeding Bird Survey
Herring Gull	Larus argentatus	NL	Appendix 12-B Wintering Grassland Raptor
			Survey, Appendix 12-C Breeding Bird Survey
Great Black- backed Gull	Larus marinus	NL	Appendix 12-A Wildlife Site Characterization
			Report, Appendix 12-B Wintering Grassland
			Raptor Survey
Black Tern	Chlidonias niger	SE	Appendix 12-A Wildlife Site Characterization
			Report
	Sterna hirundo	ST	Appendix 12-A Wildlife Site Characterization
Common Tern			Report
<u>Loons</u>	<u>Gaviidae</u>		
Common Loon	Gavia immer	SSC	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Herons, Bitterns	Ardeidae		
American		SSC	
Bittern	Botaurus lentiginosus		Nature Explorer
Least Bittern	Ixobrychus exilis	ST	Nature Explorer
Great Blue	Ardea herodias	NL	Nature Explorer, Appendix 12-B Wintering
Heron			Grassland Raptor Survey
Green Heron	Butorides virescens	NL	Nature Explorer
<u>American</u>	<u>Cathartidae</u>		
<u>Vultures</u>	<u>eathartaac</u>		
	Cathartes aura		Nature Explorer, Appendix 12-B
Turkey Vulture		NL	Wintering Grassland Raptor Survey,
-			Appendix 12-C Breeding Bird Sur- vey
Hawks	<u>Accipitridae</u>		,
	Pandion haliaetus	SSC	Nature Explorer, Appendix 12-A Wildlife Site
Osprey			Characterization Report
Bald Eagle	Haliaeetus leucocephalus	ST	Nature Explorer, IPaC, Appendix 12-A Wildlife
			Site Characterization Report, Appendix 12-B
			Wintering Grassland Raptor Survey, Appendix
			12-C Breeding Bird Survey

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

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Northern Harrier	Circus hudsonius	ST	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Sharp-shinned Hawk	Accipiter striatus	SSC	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Cooper's Hawk	Accipiter cooperii	SSC	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey
Northern Goshawk	Accipiter gentilis	SSC	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey
Red-shouldered Hawk	Buteo lineatus	SSC	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Broad-winged Hawk	Buteo platypterus	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Red-tailed Hawk	Buteo jamaicensis	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Rough-legged Hawk	Buteo lagopus	NL	Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey
Golden Eagle	Aquila chrysaetos	SE	Nature Explorer, IPaC, Appendix 12-A Wildlife Site Characterization Report
<u>Owls</u>	<u>Strigidae</u>		
Barn Owl	Tyto alba	SGCN - HP	Nature Explorer
Eastern Screech-Owl	Megascops asio	NL	Nature Explorer
Great Horned Owl	Bubo virginianus	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey
Barred Owl	Strix varia	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey
Long-eared Owl	Asio otus	NL	Nature Explorer
Snowy Owl	Bubo scandiacus	SSC	Appendix 12-A Wildlife Site Characterization Report
Short-eared Owl	Asio flammeus	SE	Appendix 12-A Wildlife Site Characterization Report

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

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
<u>Kingfishers</u>	<u>Alcedinidae</u>		
Belted Kingfisher	Megaceryle alcyon	NL	Nature Explorer
<u>Woodpeckers</u>	<u>Picidae</u>		
Red-headed Woodpecker	Melanerpes erythrocephalus	SSC	Nature Explorer
Red-bellied Woodpecker	Melanerpes carolinus	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Yellow-bellied Sapsucker	Sphyrapicus varius	NL	Nature Explorer, IPaC, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Downy Woodpecker	Picoides pubescens	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Hairy Woodpecker	Picoides villosus	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey
Northern Flicker	Colaptes auratus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Pileated Woodpecker	Dryocopus pileatus	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey
<u>Falcons</u>	<u>Falconidae</u>		
American Kestrel	Falco sparverius	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Merlin	Falco columbarius	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Peregrine Falcon	Falco peregrinus	SE	Appendix 12-A Wildlife Site Characterization Report
<u>Tyrant</u> <u>Flycatchers</u>	<u>Tyrannidae</u>		
Eastern Wood- Pewee	Contopus virens	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Acadian Flycatcher	Empidonax virescens	NL	Appendix 12-A Wildlife Site Characterization Report

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Alder Flycatcher	Empidonax alnorum	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Willow Flycatcher	Empidonax traillii	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Least Flycatcher	Empidonax minimus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Eastern Phoebe	Sayornis phoebe	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Great Crested Flycatcher	Myiarchus crinitus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Eastern Kingbird	Tyrannus tyrannus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
<u>Vireos</u>	<u>Vireonidae</u>		
Yellow-throated Vireo	Vireo flavifrons	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Blue-headed Vireo	Vireo solitarius	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Warbling Vireo	Vireo gilvus	NL	Nature Explorer
Red-eyed Vireo	Vireo olivaceus	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Philadelphia Vireo	Vireo philadelphicus	NL	Nature Explorer
<u>Shrikes</u>	<u>Laniidae</u>		
Northern Shrike	Lanius excubitor	NL	Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey
Loggerhead Shrike	Lanius ludovicianus	SE	NYSDEC Wildlife Diversity Group, IUCN
Jays, Crows	<u>Corvidae</u>		
Blue Jay	Cyanocitta cristata	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
American Crow	Corvus brachyrhynchos	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Common Raven	Corvus corax	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
<u>Titmice</u>	<u>Paridae</u>		
Black-capped Chickadee	Poecile atricapillus	NL	Nature Explorer, IPaC, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Tufted Titmouse	Baeolophus bicolor	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
<u>Larks</u>	<u>Alaudidae</u>		
Horned Lark	Eremophila alpestris	SSC	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
<u>Swallows</u>	<u>Hirundinidae</u>		
Purple Martin	Progne subis	NL	Nature Explorer
Tree Swallow	Tachycineta bicolor	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Northern Rough-winged Swallow	Stelgidopteryx serripennis	NL	Nature Explorer
Bank Swallow	Riparia	NL	Nature Explorer
Cliff Swallow	Petrochelidon pyrrhonota	NL	Nature Explorer
Barn Swallow	Hirundo rustica	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
<u>Kinglets</u>	<u>Regulidae</u>		
Golden- crowned Kinglet	Regulus satrapa	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Ruby-crowned Kinglet	Regulus calendula	NL	NYSDEC Wildlife Diversity Group, IUCN

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Nuthatches	<u>Sittidae</u>	Status	
Red-breasted Nuthatch	Sitta canadensis	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
White-breasted Nuthatch	Sitta carolinensis	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
<u>Treecreepers</u>	<u>Certhiidae</u>		
Brown Creeper	Certhia americana	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Gnatcatchers	<u>Polioptilidae</u>		
Blue-gray Gnatcatcher	Polioptila caerulea	NL	Nature Explorer
<u>Wrens</u>	<u>Troglodytidae</u>		
House Wren	Troglodytes aedon	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Winter Wren	Troglodytes hiemalis	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Sedge Wren	Cistothorus stellaris	ST	Appendix 12-A Wildlife Site Characterization Report
Marsh Wren	Cistothorus palustris	NL	Nature Explorer
Carolina Wren	Thryothorus ludovicianus	NL	Nature Explorer
<u>Starlings</u>	<u>Sturnidae</u>		
European Starling	Sturnus vulgaris	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breed- ing Bird Survey
Mimic Thrushes	<u>Mimidae</u>		
Gray Catbird	Dumetella carolinensis	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Brown Thrasher	Toxostoma rufum	SGCN - HP	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Northern Mockingbird	Mimus polyglottos	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
<u>Thrushes and</u> <u>Allies</u>	<u>Turdidae</u>		
Eastern Bluebird	Sialia sialis	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Veery	Catharus fuscescens	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Hermit Thrush	Catharus guttatus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Wood Thrush	Hylocichla mustelina	NL	Nature Explorer, IPaC, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
American Robin	Turdus migratorius	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
<u>Waxwings</u>	<u>Bombycillidae</u>		
Bohemian Waxwing	Bombycilla garrulus	NL	Appendix 12-A Wildlife Site Characterization Report
Cedar Waxwing	Bombycilla cedrorum	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Old World Sparrows	Passeridae		
House Sparrow	Passer domesticus	NL	Nature Explorer
<u>Finches and</u> <u>Allies</u>	<u>Fringillidae</u>		
Evening Grosbeak	Coccothraustes vespertinus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
House Finch	Haemorhous mexicanus	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Purple Finch	Haemorhous purpureus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Hoary Redpoll	Acanthis hornemanni	NL	Appendix 12-A Wildlife Site Characterization Report
Red Crossbill	Loxia curvirostra	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
White-winged Crossbill	Loxia leucoptera	NL	Appendix 12-A Wildlife Site Characterization Report
Pine Siskin	Spinus pinus	NL	Nature Explorer
American Goldfinch	Spinus tristis	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
<u>New World</u> Sparrows	<u>Passerellidae</u>		
Eastern Towhee	Pipilo erythrophthalmus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
American Tree Sparrow	Spizella arborea	NL	Appendix 12-B Wintering Grassland Raptor Survey
Chipping Sparrow	Spizella passerina	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Field Sparrow	Spizella pusilla	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Vesper Sparrow	Pooecetes gramineus	SSC	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Savannah Sparrow	Passerculus sandwichensis	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Grasshopper Sparrow	Ammodramus savannarum	SSC	Nature Explorer
Henslow's Sparrow	Ammodramus henslowii	ST	Nature Explorer
Song Sparrow	Melospiza melodia	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Swamp Sparrow	Melospiza georgiana	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
White-throated Sparrow	Zonotrichia albicollis	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Dark-eyed Junco	Junco hyemalis	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey
<u>Blackbirds</u>	<u>Icteridae</u>		
Bobolink	Dolichonyx oryzivorus	SGCN - HP	Nature Explorer, IPaC, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Eastern Meadowlark	Sturnella magna	SGCN - HP	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Orchard Oriole	lcterus spurius	NL	Nature Explorer
Baltimore Oriole	Icterus galbula	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Red-winged Blackbird	Agelaius phoeniceus	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Brown-headed Cowbird	Molothrus ater	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Rusty Blackbird	Euphagus carolinus	SGCN - HP	IPaC, Appendix 12-A Wildlife Site Characterization Report
Common Grackle	Quiscalus quiscula	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
<u>New World</u> <u>Warblers</u>	<u>Parulidae</u>		
Brewster's Warbler	Vermivora cyanoptera x chrysoptera	NL	Nature Explorer
Blackpoll Warbler	Dendroica striata	NL	Appendix 12-A Wildlife Site Characterization Report
Ovenbird	Seiurus aurocapilla	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Worm-eating Warbler	Helmitheros vermivorum	NL	Nature Explorer

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Louisiana Waterthrush	Parkesia motacilla	NL	Nature Explorer
Northern Waterthrush	Parkesia noveboracensis	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Golden-winged Warbler	Vermivora chrysoptera	SSC	Appendix 12-A Wildlife Site Characterization Report
Blue-winged Warbler	Vermivora cyanoptera	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Black-and-white Warbler	Mniotilta varia	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Nashville Warbler	Oreothlypis ruficapilla	NL	Nature Explorer
Mourning Warbler	Geothlypis philadelphia	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Kentucky Warbler	Geothlypis formosa	SGCN - HP	Nature Explorer
Common Yellowthroat	Geothlypis trichas	NL	Nature Explorer, Appendix 12-C Breeding Bird Survey
Hooded Warbler	Setophaga citrina	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
American Redstart	Setophaga ruticilla	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Cerulean Warbler	Setophaga cerulea	SSC	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Northern Parula	Setophaga americana	NL	Nature Explorer
Magnolia Warbler	Setophaga magnolia	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Blackburnian Warbler	Setophaga fusca	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Yellow Warbler	Setophaga petechia	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Chestnut-sided Warbler	Setophaga pensylvanica	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Black-throated	Setophaga	NL	Nature Explorer, Appendix 12-A Wildlife Site
Blue Warbler	caerulescens	INL	Characterization Report
Pine Warbler	Setophaga pinus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Yellow-rumped Warbler	Setophaga coronata	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Prairie Warbler	Setophaga discolor	NL	Nature Explorer, IPaC, Appendix 12-A Wildlife Site Characterization Report
Canada Warbler	Cardellina canadensis	SGCN - HP	Nature Explorer, IPaC, Appendix 12-A Wildlife Site Characterization Report
<u>Cardinals and</u> <u>Allies</u>	<u>Cardinalidae</u>		
Scarlet Tanager	Piranga olivacea	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Northern Cardinal	Cardinalis	NL	Nature Explorer, Appendix 12-B Wintering Grassland Raptor Survey, Appendix 12-C Breeding Bird Survey
Rose-breasted Grosbeak	Pheucticus Iudovicianus	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Indigo Bunting	Passerina cyanea	NL	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report, Appendix 12-C Breeding Bird Survey
Mammals			
<u>Bats</u>			
Silver-haired Bat	Lasionycteris noctivagans	NL	Nature Explorer
Northern Long- eared Bat	Myotis septentrionalis	ST	Nature Explorer, Appendix 12-A Wildlife Site Characterization Report
Indiana Bat	Myotis sodalis	SE	Appendix 12-A Wildlife Site Characterization Report
Tri-colored Bat	Perimyotis subflavus	NL	Nature Explorer
Little Brown Bat	Myotis lucifugus	NL	NYSDEC Wildlife Diversity Group, IUCN

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Eastern small- footed Myotis	Myotis leibii	SSC	NYSDEC Wildlife Diversity Group, IUCN
Eastern Pipistrelle	Pipistrellus subflavus	NL	NYSDEC Wildlife Diversity Group, IUCN
Big Brown Bat	Eptesicus fuscus	NL	NYSDEC Wildlife Diversity Group, IUCN
Eastern Red Bat	Lasiurus borealis	NL	NYSDEC Wildlife Diversity Group, IUCN
Hoary Bat	Lasiurus cinereus	NL	NYSDEC Wildlife Diversity Group, IUCN
Marsupials			
Virginia Opossum	Didelphis virginiana	NL	NYSDEC Wildlife Diversity Group, IUCN
Shrews and Mole	<u>s</u>		
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
American Pygmy Shrew	Sorex hoyi	NL	NYSDEC Wildlife Diversity Group, IUCN
Northern Short- tailed Shrew	Blarina brevicaudali	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
Hairy-tailed Mole	Parascalops breweri	NL	NYSDEC Wildlife Diversity Group, IUCN
Star-nosed Mole	Condylura cristata	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
<u>Canids</u>			
Coyote	Canis latrans	NL	NYSDEC Wildlife Diversity Group, IUCN
Red Fox	Vulpes	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
Gray Fox	Urocyon cinereoargenteus	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
<u>Bear</u>			
American Black Bear	Ursus americanus	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
<u>Skunk</u>			
Striped Skunk	Mephitis	NL	NYSDEC Wildlife Diversity Group, IUCN
<u>Raccoon</u>			
Raccoon	Procyon lotor	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
<u>Mustelids</u>			
Fisher	Pekania pennanti	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
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, iNaturalist
North American River Otter	Lontra canadensis	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
<u>Ungulates</u>			
White-tailed Deer	Odocoileus virginianus	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
Moose	Alces americanus	NL	NYSDEC Wildlife Diversity Group, IUCN
<u>Rodents</u>			
Eastern Chipmunk	Tamias striatus	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
Woodchuck	Marmota monax	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
Eastern Grey Squirrel	Sciurus carolinensis	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
Red Squirrel	Tamiasciurus hudsonicus	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
Southern Flying Squirrel	Glacomys volans	NL	NYSDEC Wildlife Diversity Group, IUCN
Northern Flying Squirrel	Flaucomys 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

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
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
Common Muskrat	Ondatra zibethicus	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
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, iNaturalist
Rabbits and Hare	<u>'S</u>		
Eastern Cottontail	Sylvilagus floridanus	NL	NYSDEC Wildlife Diversity Group, IUCN, iNaturalist
Snowshoe Hare	Lepus americanus	NL	NYSDEC Wildlife Diversity Group, IUCN
<b>Reptiles and Am</b>	phibians		
<u>Snakes</u>			
Ring-necked Snake	Diadophis punctatus	NL	Nature Explorer
Milk Snake	Lampropeltis triangulum	NL	Nature Explorer
Northern Water Snake	Nerodia sipedon	NL	Nature Explorer
Smooth Green Snake	Opheodrys vernalis	NL	Nature Explorer
Dekay's Brown Snake	Storeria dekayi	NL	Nature Explorer

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Red-bellied Snake	Storeria occipitomaculata	NL	Nature Explorer
Common Garter Snake	Thamnophis sirtalis	NL	Nature Explorer
<u>Turtles</u>			
Snapping Turtle	Chelydra serpentina	NL	Nature Explorer
Painted Turtle	Chrysemys picta	NL	Nature Explorer
Wood Turtle	Glyptemys insculpta	SSC	Nature Explorer
Blanding's Turtle	Emydoidea blandingii	ST	Appendix 12-A Wildlife Site Characterization Report
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
Western Chorus Frog	Pseudacris triceriata	NL	NYSDEC Wildlife Diversity Group,
Mink Frog	Lithobates serpentrionalis	NL	NYSDEC Wildlife Diversity Group,
<u>Salamanders</u>			
Jefferson	Ambystoma		Nature Fuelence
Salamander	jeffersonianum	SSC	Nature Explorer
Jefferson	Ambystoma		
Salamander	jeffersonianum x	SSC	Nature Explorer
Complex	laterale		
Spotted	Ambystoma	NL	Nature Explorer
Salamander	maculatum	INL	

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>		
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		
Common Mudpuppy	Necturus maculosus	NL	NYSDEC Wildlife Diversity Group,		
Fish					
Comely Shiner	Notropis amoenus	SGCN - HP	Nature Explorer		
Bridle Shiner	Notropis bifrenatus	NL	Nature Explorer		
Blackchin Shiner	Notropis heterodon	SGCN - HP	Nature Explorer		
Blacknose Shiner	Notropis heterolepis	NL	Nature Explorer		
Swallowtail Shiner	Notropis procne	SGCN - HP	Nature Explorer		
Mussels and Clams					
Brook Floater	Alasmidonta varicosa	ST	Nature Explorer		
Yellow Lampmussel	Lampsilis cariosa	SGCN - HP	Nature Explorer, NYNHP		
Green Floater	Lasmigona subviridis	ST	Nature Explorer		
Eastern Pearlshell	Margaritifera margaritifera	SGCN - HP	Nature Explorer		

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Invertebrates		Status	
	onflies, and Fishflies		
	Chauliodes		
Summer Fishfly	pectinicornis	NL	iNaturalist
Spring Fishfly	Chauliodes rastricornis	NL	iNaturalist
Beetles			
Sweet Click Beetle	Aeolus mellillus	NL	iNaturalist
	Agrilus cyanescens	NL	iNaturalist
Eastern Eyed Click Beetle	Alaus oculatus	NL	iNaturalist
	Analeptura lineola	NL	iNaturalist
Dandelion Anthaxia Beetle	Anthaxia inornata	NL	iNaturalist
Eurasian Red-			
and-black	Anthocomus equestris	NL	iNaturalist
Melyrid			
	Anthrenus fuscus	NL	iNaturalist
Common	Anthrenus	NL	iNaturalist
Carpet Beetle	scrophulariae		
Two-lined Leatherwing	Atalantycha bilineata	NL	iNaturalist
	Atalantycha neglecta	NL	iNaturalist
	Bellamira scalaris	NL	iNaturalist
Sumac Flea Beetle	Blepharida rhois	NL	iNaturalist
	Calleida punctata	NL	iNaturalist
Russet Alder Leaf Beetle	Calligrapha alni	NL	iNaturalist
	Cantharis livida	NL	iNaturalist
Thistle Tortoise Beetle	Cassida rubiginosa	NL	iNaturalist
Red-rot Decay Stag Beetle	Ceruchus piceus	NL	iNaturalist
Small Orange Tortoise Beetle	Charidotella purpurata	NL	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name	Charidatella	Status	
Golden Tortoise Beetle	Charidotella	NL	iNaturalist
Goldenrod	sexpunctata		
Soldier Beetle	Chauliognathus	NL	iNaturalist
	pensylvanicus		
Dogbane Leaf Beetle	Chrysochus auratus	NL	iNaturalist
Twelve-spotted	Cicindela	NL	iNaturalist
Tiger Beetle	duodecimguttata		
Big Sand Tiger Beetle	Cicindela formosa	NL	iNaturalist
Eastern Sand	Cicindela formosa	NL	Noturalist
Tiger Beetle	generosa	INL	iNaturalist
Punctured Tiger Beetle	Cicindela punctulata	NL	iNaturalist
Purple Tiger		NU	
Beetle	Cicindela purpurea	NL	iNaturalist
Bronzed Tiger	Cicindola ronanda	NL	iNaturalist
Beetle	Cicindela repanda		Inatulalist
Festive Tiger	Cicindela scutellaris	NL	iNaturalist
Beetle	Cicindeia scatellaris		inaturalist
LeConte's Tiger	Cicindela scutellaris	NL	iNaturalist
Beetle	lecontei		
Six-spotted	Cicindela sexquttata	NL	iNaturalist
Tiger Beetle	5		
Seven-spotted	Coccinella	NL	iNaturalist
Lady Beetle	septempunctata		
Three-banded	Coccinella trifasciata	SGCN-HP	iNaturalist
Lady Beetle			
Spotted Pink	Coleomegilla	NL	iNaturalist
Lady Beetle	maculata		
Long-necked	Colliuris pensylvanica	NL	iNaturalist
Ground Beetle	Copris frigstor	NII	Naturalist
Spottad	Copris fricator	NL	iNaturalist
Spotted Asparagus	Crioceris	NL	iNaturalist
Beetle	duodecimpunctata	INL	nvataranst
Deetie			

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
ant-like longhorn beetle	Cyrtophorus verrucosus	NL	iNaturalist
Larder Beetle	Dermestes lardarius	NL	iNaturalist
Eastern			
Elderberry Borer	Desmocerus palliatus	NL	iNaturalist
Spotted	Diabrotica		
Cucumber Beetle	undecimpunctata	NL	iNaturalist
Flat-headed			
Hardwood	Dicerca divaricata	NL	iNaturalist
Borer			
	Dircaea liturata	NL	iNaturalist
Antelope Beetle	Dorcus parallelus	NL	iNaturalist
Ghost Tiger	Ellipsoptera lepida	NL	iNaturalist
Beetle			
Winter Firefly	Ellychnia corrusca	NL	iNaturalist
Oriental Beetle	Exomala orientalis	NL	iNaturalist
Banded Graphisurus	Graphisurus fasciatus	NL	iNaturalist
Asian Lady Beetle	Harmonia axyridis	NL	iNaturalist
Clavate Tortoise			
Beetle	Helocassis clavata	NL	iNaturalist
Parenthesis	Hippodamia	NL	iNaturalist
Lady Beetle	parenthesis		
Variegated Lady Beetle	Hippodamia variegata	NL	iNaturalist
Sigil Lady Beetles	Hyperaspis	NL	iNaturalist
	Kuschelina thoracica	NL	iNaturalist
Swamp			
Milkweed Leaf	Labidomera clivicollis	NL	iNaturalist
Beetle	-		
Blunt Knapweed Flower Weevil	Larinus obtusus	NL	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
Three-lined Potato Beetle	Lema daturaphila	NL	iNaturalist
Colorado Potato Beetle	Leptinotarsa decemlineata	NL	iNaturalist
Lily Leaf Beetle	Lilioceris lilii	NL	iNaturalist
American Rose Chafer	Macrodactylus subspinosus	NL	iNaturalist
Red-banded Fungus Beetle	Megalodacne fasciata	NL	iNaturalist
	Microgoes oculatus	NL	iNaturalist
Goldenrod Leaf Miner Beetle	Microrhopala vittata	NL	iNaturalist
	Molorchus bimaculatus	NL	iNaturalist
Northeastern Pine Sawyer Beetle	Monochamus notatus	NL	iNaturalist
White-spotted Sawyer Beetle	Monochamus scutellatus	NL	iNaturalist
American Carrion Beetle	Necrophila americana	NL	iNaturalist
Pustulated Carrion Beetle	Nicrophorus pustulatus	NL	iNaturalist
	Odontocorynus umbellae	NL	iNaturalist
Hermit Flower Beetle	Osmoderma eremicola	NL	iNaturalist
Rough Hermit Beetle	Osmoderma scabra	NL	iNaturalist
Black Vine Weevil	Otiorhynchus sulcatus	NL	iNaturalist
	Oxyporus rufipennis	NL	iNaturalist
Grapevine Beetle	Pelidnota punctata	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Common Eastern Firefly	Photinus pyralis	NL	iNaturalist
Willow Leaf Beetle	Plagiodera versicolora	NL	iNaturalist
Woodland Ground Beetle	Poecilus lucublandus	NL	iNaturalist
Green Immigrant Leaf Weevil	Polydrusus formosus	NL	iNaturalist
Japanese Beetle	Popillia japonica	NL	iNaturalist
Fourteen- spotted Lady Beetle	Propylea quatuordecimpunctata	NL	iNaturalist
	Pseudanostirus hieroglyphicus	NL	iNaturalist
Ribbed Pine Borer	Rhagium inquisitor	NL	iNaturalist
Common Red Soldier Beetle	Rhagonycha fulva	NL	iNaturalist
	Scaphinotus viduus	NL	iNaturalist
Big-headed Ground Beetle	Scarites subterraneus	NL	iNaturalist
Strangalepta Flower Longhorn Beetle	Strangalepta abbreviata	NL	iNaturalist
	Synchroa punctata	NL	iNaturalist
Red Milkweed Beetle	Tetraopes tetrophthalmus	NL	iNaturalist
Goldenrod Leaf Beetle	Trirhabda canadensis	NL	iNaturalist
Banded Longhorn Beetle	Typocerus velutinus	NL	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name	othe	Status	
Butterflies and M Water Veneer		NL	iNaturalist
	Acentria ephemerella Achatia distincta	NL	iNaturalist
Distinct Quaker		INL	INdturdiist
Garden Webworm	Achura rantalic	NL	iNaturalist
Moth	Achyra rantalis	INL	Indulalist
			_
Snowy- shouldered	Acleris nivisellana	NL	iNaturalist
Acleris Moth	Acteris mivisellunu	INL	inatulalist
Walnut Shoot			
Moth	Acrobasis demotella	NL	iNaturalist
Dark			
Acrolophus	Acrolophus mora	NL	iNaturalist
American			
Dagger	Acronicta americana	NL	iNaturalist
Clear Dagger	Acronicta clarescens	NL	iNaturalist
Large Gray			
Dagger	Acronicta insita	NL	iNaturalist
Marsh Dagger	Acronicta insularis	NL	iNaturalist
Hesitant Dagger	Acronicta modica	NL	iNaturalist
North American			· · · · · · · · · · · · · · · · · · ·
Luna Moth	Actias luna	NL	iNaturalist
Juniper Conch	Aethes rutilana	NL	iNaturalist
Large Tabby	Aglossa pinguinalis	NL	iNaturalist
Unspotted	Allagrapha gorog	NI	iNaturalist
Looper Moth	Allagrapha aerea	NL	iNaturalist
Common			
Roadside-	Amblyscirtes vialis	NL	iNaturalist
Skipper			
Walnut Sphinx	Amorpha juglandis	NL	iNaturalist
American	Amphipyra		
Copper	pyramidoides	NL	iNaturalist
Underwing	pyrannaolaes		
Yellow-spotted	Anageshna		
Webworm	primordialis	NL	iNaturalist
Moth	oth primoratalis		

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
White-spotted Sable	Anania funebris	NL	iNaturalist
Guenee's Pearl	Anania tertialis	NL	iNaturalist
Common Gray	Anavitrinella pampinaria	NL	iNaturalist
Least Skipper	Ancyloxypha numitor	NL	iNaturalist
Schlaeger's Fruitworm Moth	Antaeotricha schlaegeri	NL	iNaturalist
Polyphemus Moth	Antheraea polyphemus	NL	iNaturalist
Anna Tiger Moth	Apantesis anna	NL	iNaturalist
Virgin Tiger Moth	Apantesis virgo	NL	iNaturalist
Checkered Apogeshna Moth	Apogeshna stenialis	NL	iNaturalist
Infant Moth	Archiearis infans	NL	iNaturalist
Ugly-nest Caterpillar Moth	Archips cerasivorana	NL	iNaturalist
Short-lined Chocolate	Argyrostrotis anilis	NL	iNaturalist
White-spotted Leafroller Moth	Argyrotaenia alisellana	NL	iNaturalist
Gray-banded Leafroller Moth	Argyrotaenia mariana	NL	iNaturalist
Yellow-winged Oak Leafroller Moth	Argyrotaenia quercifoliana	NL	iNaturalist
lo Moth	Automeris io	NL	iNaturalist
Eyed Baileya Moth	Baileya ophthalmica	NL	iNaturalist
Three-lined Balsa Moth	Balsa tristrigella	NL	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
Bog			
Bibarrambla	Bibarrambla allenella	NL	iNaturalist
Moth			
Hollow-spotted	Blepharomastix	N.I.	161 A. 19 A.
Blepharomastix	ranalis	NL	iNaturalist
Moth			
Meadow	Boloria bellona	NL	iNaturalist
Fritillary			
Forage Looper	Caenurgina erechtea	NL	iNaturalist
Moth	Calladaptora		
Brown	Calledapteryx drventerata	NL	iNaturalist
Scoopwing	dryopterata		
Juniper Hairstreak	Callophrys gryneus	NL	iNaturalist
Eastern Pine			
Elfin	Callophrys niphon	NL	iNaturalist
Hoary Elfin	Callophrys polios	NL	iNaturalist
Promethea	Cullopinys pollos		
Silkmoth	Callosamia promethea	NL	iNaturalist
Poison Ivy Leaf-	Cameraria		
miner Moth	guttifinitella	NL	iNaturalist
Pale Beauty	Campaea perlata	NL	iNaturalist
Maple Trumpet			
Skeletonizer	Catastega aceriella	NL	iNaturalist
Moth	5		
Northern Azure	Celastrina lucia	NL	iNaturalist
Maple-			
Basswood	Cenopis pettitana	NL	iNaturalist
Leafroller Moth			
Waved Sphinx	Ceratomia undulosa	NL	iNaturalist
Common	Communication	NU	Net wellet
Wood-Nymph	Cercyonis pegala	NL	iNaturalist
Laugher Moth	Charadra deridens	NL	iNaturalist
Blackberry	Chlorochlamys	NL	iNaturalist
Looper Moth	chloroleucaria	INL	

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Harris's Checkerspot	Chlosyne harrisii	NL	iNaturalist
Spruce Budworm Moth	Choristoneura fumiferana	NL	iNaturalist
Oblique- banded Leafroller Moth	Choristoneura rosaceana	NL	iNaturalist
Topiary Grass- veneer	Chrysoteuchia topiarius	NL	iNaturalist
Morbid Owlet	Chytolita morbidalis	NL	iNaturalist
Yellow-collared Scape Moth	Cisseps fulvicollis	NL	iNaturalist
Black-patched Clepsis Moth	Clepsis melaleucanus	NL	iNaturalist
White Triangle Tortrix	Clepsis persicana	NL	iNaturalist
Common Ringlet	Coenonympha california	NL	iNaturalist
Clouded Sulphur	Colias philodice	NL	iNaturalist
Close-banded Yellowhorn Moth	Colocasia propinquilinea	NL	iNaturalist
Dusky Groundling	Condica vecors	NL	iNaturalist
Grass-veneers and Allies	Crambinae	NL	iNaturalist
Double-banded Grass-veneer	Crambus agitatellus	NL	iNaturalist
Virginia Ctenucha Moth	Ctenucha virginica	NL	iNaturalist
Brown-hooded Owlet	Cucullia convexipennis	NL	iNaturalist
Eastern Tailed- Blue	Cupido comyntas	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Sweetfern	Cyclophora	NL	iNaturalist
Geometer Moth Hickory	pendulinaria		
Shuckworm	Cydia caryana	NL	iNaturalist
Moth			
Filbertworm Moth	Cydia latiferreana	NL	iNaturalist
Monarch	Danaus plexippus	NL	iNaturalist
Angus' Datana Moth	Datana angusii	NL	iNaturalist
Yellow-necked Caterpillar Moth	Datana ministra	NL	iNaturalist
Lettered Sphinx	Deidamia inscriptum	NL	iNaturalist
	Desmia	NL	iNaturalist
White-spotted Brown	Diastictis ventralis	NL	iNaturalist
Spotted Dichomeris Moth	Dichomeris punctidiscellus	NL	iNaturalist
Rosy Maple Moth	Dryocampa rubicunda	NL	iNaturalist
Bad-wing Moth	Dyspteris abortivaria	NL	iNaturalist
Orange-barred Carpet Moth	Dysstroma hersiliata	NL	iNaturalist
Imperial Moth	Eacles imperialis	NL	iNaturalist
Pine Imperial Moth	Eacles imperialis pini	NL	iNaturalist
Locust Twig Borer Moth	Ecdytolopha insiticiana	NL	iNaturalist
Three-spotted Concealer	Eido trimaculella	NL	iNaturalist
Pondside Crambid Moth	Elophila icciusalis	NL	iNaturalist
Maple Spanworm Moth	Ennomos magnaria	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Elm Spanworm Moth	Ennomos subsignaria	NL	iNaturalist
Dreamy Duskywing	Erynnis icelus	NL	iNaturalist
Juvenal's Duskywing	Erynnis juvenalis	NL	iNaturalist
Columbine Duskywing	Erynnis lucilius	NL	iNaturalist
Beggar Moth	Eubaphe mendica	NL	iNaturalist
Milkweed Tussock Moth	Euchaetes egle	NL	iNaturalist
Least-marked Euchlaena Moth	Euchlaena irraria	NL	iNaturalist
	Euchlaena muzaria	NL	iNaturalist
Olympia Marble	Euchloe olympia	SC	iNaturalist
Scalloped Sallow	Eucirroedia pampina	NL	iNaturalist
Spiny Oak-slug Moth	Euclea delphinii	NL	iNaturalist
White Pine Coneborer Moth	Eucopina tocullionana	NL	iNaturalist
Beautiful Wood-nymph	Eudryas grata	NL	iNaturalist
Pearly Wood- nymph	Eudryas unio	NL	iNaturalist
Powdered Geometer Moths	Eufidonia	NL	iNaturalist
Powder Moth	Eufidonia notataria	NL	iNaturalist
Pandorus Sphinx	Eumorpha pandorus	NL	iNaturalist
Dun Skipper	Euphyes vestris	NL	iNaturalist
American Sharp-angled Carpet	Euphyia intermediata	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Small Pine Looper Moth	Eupithecia palpata	NL	iNaturalist
Curved-toothed Geometer Moth	Eutrapela clemataria	NL	iNaturalist
Purple-backed Cabbageworm Moth	Evergestis pallidata	NL	iNaturalist
Harvester	Feniseca tarquinius	NL	iNaturalist
Boxwood Leaftier Moth	Galasa nigrinodis	NL	iNaturalist
Yarrow Plume Moth	Gillmeria pallidactyla	NL	iNaturalist
	Glaucolepis saccharella	NL	iNaturalist
Silvery Blue	Glaucopsyche lygdamus	NL	iNaturalist
Chickweed Geometer Moth	Haematopis grataria	NL	iNaturalist
Banded Tussock Moth	Halysidota tessellaris	NL	iNaturalist
Clymene Moth	Haploa clymene	NL	iNaturalist
Grapeleaf Skeletonizer Moth	Harrisina americana	NL	iNaturalist
Common Spring Moth	Heliomata cycladata	NL	iNaturalist
Black-marked Plume Moth	Hellinsia inquinatus	NL	iNaturalist
Snowberry Clearwing	Hemaris diffinis	NL	iNaturalist
Hummingbird Clearwing	Hemaris thysbe	NL	iNaturalist
Indian Skipper	Hesperia sassacus	NL	iNaturalist
Three-spotted Fillip	Heterophleps triguttaria	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Pistachio Emerald	Hethemia pistasciaria	NL	iNaturalist
Brown Bark Carpet Moth	Horisme intestinata	NL	iNaturalist
Cecropia Moth	Hyalophora cecropia	NL	iNaturalist
Unadorned Carpet Moth	Hydrelia inornata	NL	iNaturalist
Bedstraw Hawkmoth	Hyles gallii	NL	iNaturalist
Pine Measuringworm Moth	Hypagyrtis piniata	NL	iNaturalist
One-spotted Variant	Hypagyrtis unipunctata	NL	iNaturalist
Baltimore Snout	Hypena baltimoralis	NL	iNaturalist
Giant Leopard Moth	Hypercompe scribonia	NL	iNaturalist
Fall Webworm Moth	Hyphantria cunea	NL	iNaturalist
Painted Lichen Moth	Hypoprepia fucosa	NL	iNaturalist
Yellow-fringed Dolichomia Moth	Hypsopygia olinalis	NL	iNaturalist
Single-dotted Wave	Idaea dimidiata	NL	iNaturalist
Common Idia Moth	Idia aemula	NL	iNaturalist
Bent-line Gray	Iridopsis larvaria	NL	iNaturalist
Bridled Arches Moth	Lacinipolia lorea	NL	iNaturalist
Hemlock Looper Moth	Lambdina fiscellaria	NL	iNaturalist
Northern Pine Sphinx	Lapara bombycoides	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Light-ribboned Wave	Leptostales ferruminaria	NL	iNaturalist
Northern Pearly-eye	Lethe anthedon	NL	iNaturalist
Eyed Brown	Lethe eurydice	NL	iNaturalist
Unarmed Wainscot	Leucania inermis	NL	iNaturalist
White Satin Moth	Leucoma salicis	NL	iNaturalist
Green Leuconycta Moth	Leuconycta diphteroides	NL	iNaturalist
Viceroy	Limenitis archippus	NL	iNaturalist
Red-spotted Admiral	Limenitis arthemis	NL	iNaturalist
American White Admiral	Limenitis arthemis arthemis	NL	iNaturalist
Double-lined Prominent	Lochmaeus bilineata	NL	iNaturalist
White Spring Moth	Lomographa vestaliata	NL	iNaturalist
Hobomok Skipper	Lon hobomok	NL	iNaturalist
Hickory Tussock Moth	Lophocampa caryae	NL	iNaturalist
Spotted Tussock Moth	Lophocampa maculata	NL	iNaturalist
Merrick's Pyralid Moth	Loxostegopsis merrickalis	NL	iNaturalist
Small Copper	Lycaena phlaeas	NL	iNaturalist
Black-and- yellow Lichen Moth	Lycomorpha pholus	NL	iNaturalist
LD Moth	Lymantria dispar	NL	iNaturalist
Common Angle	Macaria aemulataria	NL	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name	Scientific Name	Status	Source
Red-headed Inchworm Moth	Macaria bisignata	NL	iNaturalist
Minor Angle	Macaria minorata	NL	iNaturalist
White Pine Angle	Macaria pinistrobata	NL	iNaturalist
Lesser Maple Spanworm Moth	Macaria pustularia	NL	iNaturalist
Mottled Prominent	Macrurocampa marthesia	NL	iNaturalist
Eastern Tent Caterpillar Moth	Malacosoma americana	NL	iNaturalist
Forest Tent Caterpillar Moth	Malacosoma disstria	NL	iNaturalist
Black-dotted Glyph	Maliattha synochitis	NL	iNaturalist
Dark Marathyssa Moth	Marathyssa inficita	NL	iNaturalist
Little Wood Satyr	Megisto cymela	NL	iNaturalist
Hitched Arches	Melanchra adjuncta	NL	iNaturalist
Zebra Caterpillar Moth	Melanchra picta	NL	iNaturalist
Pale Metarranthis Moth	Metarranthis indeclinata	NL	iNaturalist
Minor Grass- veneer	Microcrambus minor	NL	iNaturalist
White-dotted Prominent	Nadata gibbosa	NL	iNaturalist
Large Yellow Underwing	Noctua pronuba	NL	iNaturalist
Mourning Cloak	Nymphalis antiopa	NL	iNaturalist
Compton Tortoiseshell	Nymphalis l-album	NL	iNaturalist

Table 11.B-1	Wildlife Species	<b>Potentially P</b>	Present within the Stu	dy Area
--------------	------------------	----------------------	------------------------	---------

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
Astronomer	Olethreutes	NL	iNaturalist
Moth	astrologana		
	Olethreutes auricapitana	NL	iNaturalist
Banded			
Olethreutes	Olethreutes fasciatana	NL	iNaturalist
Moth			
Woolly-backed	Olethreutes	NL	iNaturalist
Moth	furfuranum		
	Olethreutes quadrifidum	NL	iNaturalist
White-streaked Prominent	Oligocentria lignicolor	NL	iNaturalist
White-marked			
Tussock Moth	Orgyia leucostigma	NL	iNaturalist
Cynical Quaker	Orthodes cynica	NL	iNaturalist
Splendid Palpita Moth	Palpita magniferalis	NL	iNaturalist
Faint-spotted Palthis Moth	Palthis asopialis	NL	iNaturalist
Three-lined Leafroller Moth	Pandemis limitata	NL	iNaturalist
Red-lined Panopoda Moth	Panopoda rufimargo	NL	iNaturalist
Eastern Panthea Moth	Panthea furcilla	NL	iNaturalist
Blinded Sphinx	Paonias excaecata	NL	iNaturalist
Small-eyed Sphinx	Paonias myops	NL	iNaturalist
Canadian Tiger Swallowtail	Papilio canadensis	NL	iNaturalist
Eastern Giant Swallowtail	Papilio cresphontes	NL	iNaturalist
Black Swallowtail	Papilio polyxenes	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Spicebush Swallowtail	Papilio troilus	NL	iNaturalist
Maple Leafcutter Moth	Paraclemensia acerifoliella	NL	iNaturalist
Chestnut- marked Pondweed Moth	Parapoynx badiusalis	NL	iNaturalist
Obscure Pondweed Moth	Parapoynx obscuralis	NL	iNaturalist
Green Pug	Pasiphila rectangulata	NL	iNaturalist
Titian Peale's Moth	Perispasta caeculalis	NL	iNaturalist
Morrison's Pero Moth	Pero morrisonaria	NL	iNaturalist
American Oak Beauty	Phaeoura quernaria	NL	iNaturalist
Dark-banded Owlet	Phalaenophana pyramusalis	NL	iNaturalist
Small Phigalia Moth	Phigalia strigataria	NL	iNaturalist
Half-wing Moth	Phigalia titea	NL	iNaturalist
Pearl Crescent	Phyciodes tharos	NL	iNaturalist
	Phyllocnistis vitifoliella	NL	iNaturalist
American Lappet Moth	Phyllodesma americana	NL	iNaturalist
Basswood Miner Moth	Phyllonorycter lucetiella	NL	iNaturalist
Beech Midget	Phyllonorycter maestingella	NL	iNaturalist
Mustard White	Pieris oleracea	NL	iNaturalist
Cabbage White	Pieris rapae	NL	iNaturalist
Tufted Apple Bud Moth	Platynota idaeusalis	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Common Tan Wave	Pleuroprucha insulsaria	NL	iNaturalist
Putnam's Looper Moth	Plusia putnami	NL	iNaturalist
Long Dash	Polites mystic	NL	iNaturalist
Peck's Skipper	Polites peckius	NL	iNaturalist
Tawny-edged Skipper	Polites themistocles	NL	iNaturalist
Eastern Comma	Polygonia comma	NL	iNaturalist
Question Mark	Polygonia interrogationis	NL	iNaturalist
Small Bird- dropping Moth	Ponometia erastrioides	NL	iNaturalist
Carpenterworm Moth	Prionoxystus robiniae	NL	iNaturalist
Friendly Probole Moth	Probole amicaria	NL	iNaturalist
Pale Glyph	Protodeltote albidula	NL	iNaturalist
Large Mossy Glyph	Protodeltote muscosula	NL	iNaturalist
Pink-barred Pseudeustrotia Moth	Pseudeustrotia carneola	NL	iNaturalist
Poplar Leafroller Moth	Pseudosciaphila duplex	NL	iNaturalist
Dotted Leaftier Moth	Psilocorsis reflexella	NL	iNaturalist
lsabella Tiger Moth	Pyrrharctia isabella	NL	iNaturalist
Spotted Grass Moth	Rivula propinqualis	NL	iNaturalist
Hickory Hairstreak	Satyrium caryaevorus	NL	iNaturalist
Morning-glory Prominent	Schizura ipomaeae	NL	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
Unicorn Prominent	Schizura unicornis	NL	iNaturalist
Many-spotted Scoparia Moth	Scoparia basalis	NL	iNaturalist
Dark Brown Scoparia Moth	Scoparia penumbralis	NL	iNaturalist
Large Lace- border Moth	Scopula limboundata	NL	iNaturalist
Carrot Seed Moth	Sitochroa palealis	NL	iNaturalist
Six-spotted Gray	Spargaloma sexpunctata	NL	iNaturalist
Distinct Sparganothis Moth	Sparganothis distincta	NL	iNaturalist
Mosaic Sparganothis Moth	Sparganothis xanthoides	NL	iNaturalist
Aphrodite Fritillary	Speyeria aphrodite	NL	iNaturalist
Great Spangled Fritillary	Speyeria cybele	NL	iNaturalist
Great Ash Sphinx	Sphinx chersis	NL	iNaturalist
Laurel Sphinx	Sphinx kalmiae	NL	iNaturalist
Virginian Tiger Moth	Spilosoma virginica	NL	iNaturalist
	Stigmella prunifoliella	NL	iNaturalist
	Symmerista	NL	iNaturalist
Maple Callus Borer Moth	Synanthedon acerni	NL	iNaturalist
Triangle- marked Twirler Moth	Taygete attributella	NL	iNaturalist
Y-backed Telphusa	Telphusa longifasciella	NL	iNaturalist

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

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
White Slant-line	Tetracis cachexiata	NL	iNaturalist
Yellow Slant- line	Tetracis crocallata	NL	iNaturalist
Bronze Copper	Tharsalea hyllus	NL	iNaturalist
Northern Cloudywing	Thorybes pylades	NL	iNaturalist
Essex Skipper	Thymelicus lineola	NL	iNaturalist
Birch Conch	Thyraylia nana	NL	iNaturalist
Large Tolype Moth	Tolype velleda	NL	iNaturalist
Early Button Slug Moth	Tortricidia testacea	NL	iNaturalist
White-striped Black	Trichodezia albovittata	NL	iNaturalist
Snowy Urola Moth	Urola nivalis	NL	iNaturalist
Red Admiral	Vanessa atalanta	NL	iNaturalist
Painted Lady	Vanessa cardui	NL	iNaturalist
American Lady	Vanessa virginiensis	NL	iNaturalist
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	NL	iNaturalist
Crocus Geometer Moths	Xanthotype	NL	iNaturalist
	Xestia	NL	iNaturalist
Greater Black- letter Dart	Xestia dolosa	NL	iNaturalist
Brown-spotted Zale Moth	Zale helata	NL	iNaturalist
Grayish Fan- foot	Zanclognatha pedipilalis	NL	iNaturalist
Caddisflies			
	Nectopsyche exquisita	NL	iNaturalist

Table 11.B-1 Wildli	fe Species Potentiall	y Present within the Study Area
---------------------	-----------------------	---------------------------------

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name	Scientific Name	Status	Source
Cockroaches and	Termites		
Pennsylvania Wood Cockroach	Parcoblatta pennsylvanica	NL	iNaturalist
Daddy Longlegs			
European Harvestman	Phalangium opilio	NL	iNaturalist
Dragonflies and I	Damselflies		
Canada Darner	Aeshna canadensis	NL	iNaturalist
Lance-tipped Darner	Aeshna constricta	NL	iNaturalist
Shadow Darner	Aeshna umbrosa	NL	iNaturalist
Common Green Darner	Anax junius	NL	iNaturalist
Lilypad Clubtail	Arigomphus furcifer	NL	iNaturalist
Springtime Darner	Basiaeschna janata	NL	iNaturalist
Halloween Pennant	Celithemis eponina	NL	iNaturalist
Aurora Damsel	Chromagrion conditum	NL	iNaturalist
Stream Cruiser	Didymops transversa	NL	iNaturalist
Racket-tailed Emerald	Dorocordulia libera	NL	iNaturalist
Familiar Bluet	Enallagma civile	NL	iNaturalist
Stream Bluet	Enallagma exsulans	NL	iNaturalist
Orange Bluet	Enallagma signatum	NL	iNaturalist
Swamp Darner	Epiaeschna heros	NL	iNaturalist
Beaverpond Baskettail	Epitheca canis	NL	iNaturalist
Common Baskettail	Epitheca cynosura	NL	iNaturalist
Prince Baskettail	Epitheca princeps	NL	iNaturalist
Spiny Baskettail	Epitheca spinigera	NL	iNaturalist
Eastern Pondhawk	Erythemis simplicicollis	NL	iNaturalist

Common Conservation Conservation			
Name	Scientific Name	Status	Source <sup>1</sup>
Harlequin	Gomphaeschna	NL	iNaturalist
Darner	furcillata	INL	inaturalist
Dragonhunter	Hagenius brevistylus	NL	iNaturalist
Fragile Forktail	Ischnura posita	NL	iNaturalist
Eastern Forktail	Ischnura verticalis	NL	iNaturalist
Chalk-fronted Corporal	Ladona julia	NL	iNaturalist
Spotted Spreadwing	Lestes congener	NL	iNaturalist
Slender Spreadwing	Lestes rectangularis	NL	iNaturalist
Lyre-tipped Spreadwing	Lestes unguiculatus	NL	Nature Explorer
Swamp Spreadwing	Lestes vigilax	NL	iNaturalist
Hudsonian Whiteface	Leucorrhinia hudsonica	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
Four-spotted Skimmer	Libellula quadrimaculata	NL	iNaturalist
Painted Skimmer	Libellula semifasciata	NL	iNaturalist
Swift River Cruiser	Macromia illinoiensis	NL	iNaturalist
Elfin Skimmer	Nannothemis bella	NL	iNaturalist
Blue Dasher	Pachydiplax longipennis	NL	iNaturalist
Eastern Amberwing	Perithemis tenera	NL	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
Common Whitetail	Plathemis lydia	NL	iNaturalist
Meadowhawks	Sympetrum	NL	iNaturalist
Autumn Meadowhawk	Sympetrum vicinum	NL	iNaturalist
Flies			
Woodland Pool Mosquito	Aedes canadensis	NL	iNaturalist
Oblique Streaktail	Allograpta obliqua	NL	iNaturalist
Carbonifera goldenrod gall midge	Asteromyia carbonifera	NL	iNaturalist
Greater Bee Fly	Bombylius major	NL	iNaturalist
Pygmy Bee Fly	Bombylius pygmaeus	NL	iNaturalist
	Calycomyza flavinotum	NL	iNaturalist
Ornate Snipe Fly	Chrysopilus ornatus	NL	iNaturalist
	Chrysops geminatus	NL	iNaturalist
Bathroom Moth Fly	Clogmia albipunctata	NL	iNaturalist
	Condylostylus patibulatus	NL	iNaturalist
Cattail Mosquito	Coquillettidia perturbans	NL	iNaturalist
	Dioctria hyalipennis	NL	iNaturalist
European Drone Fly	Eristalis arbustorum	NL	iNaturalist
Black- shouldered Drone Fly	Eristalis dimidiata	NL	iNaturalist
Common Drone Fly	Eristalis tenax	NL	iNaturalist
Tomato Bristle Fly	Hystricia abrupta	NL	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
	Laphria flavicollis	NL	iNaturalist
Bumble Bee Mimic Robber Fly	Laphria thoracica	NL	iNaturalist
Milkweed Leaf- miner Fly	Liriomyza asclepiadis	NL	iNaturalist
	Liriomyza carphephori	NL	iNaturalist
Common European Greenbottle Fly	Lucilia sericata	NL	iNaturalist
Hairy-eyed Bee- mimic Fly	Mallota posticata	NL	iNaturalist
Narcissus Bulb Fly	Merodon equestris	NL	iNaturalist
Beautiful Patterneye	Orthonevra pulchella	NL	iNaturalist
Dusky Bog Fly	Parhelophilus rex	NL	iNaturalist
	Phytomyza loewii	NL	iNaturalist
	Phytomyza minuscula group	NL	iNaturalist
Oak Leaf Gall Midge	Polystepha pilulae	NL	iNaturalist
Dark Ricefield Mosquito	Psorophora columbiae	NL	iNaturalist
Common Snipe Fly	Rhagio mystaceus	NL	iNaturalist
Black Horse Fly	Tabanus atratus	NL	iNaturalist
Antlered Crane Fly	Tanyptera dorsalis	NL	iNaturalist
Eastern Calligrapher	Toxomerus geminatus	NL	iNaturalist
Margined Calligrapher	Toxomerus marginatus	NL	iNaturalist
Swift Feather- legged Fly	Trichopoda pennipes	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Four-barred Knapweed Gall Fly	Urophora quadrifasciata	NL	iNaturalist
Tiger Bee Fly	Xenox tigrinus	NL	iNaturalist
Woodland Pool Mosquito	Aedes canadensis	NL	iNaturalist
Grasshoppers, Lo	custs, and Crickets		
Davis's Shieldback	Atlanticus davisi	NL	iNaturalist
Wingless Mountain Grasshopper	Booneacris glacialis	NL	iNaturalist
Sprinkled Locust	Chloealtis conspersa	NL	iNaturalist
Green-striped Grasshopper	Chortophaga viridifasciata	NL	iNaturalist
Northern Green-striped Grasshopper	Chortophaga viridifasciata viridifasciata	NL	iNaturalist
Slender Meadow Katydid	Conocephalus fasciatus	NL	iNaturalist
Carolina Grasshopper	Dissosteira carolina	NL	iNaturalist
Fall Field Cricket	Gryllus pennsylvanicus	NL	iNaturalist
Spring Field Cricket	Gryllus veletis	NL	iNaturalist
Two-striped Grasshopper	Melanoplus bivittatus	NL	iNaturalist
Northern Spur- throat Grasshopper	Melanoplus borealis	NL	iNaturalist
Huckleberry Spur-throat Grasshopper	Melanoplus fasciatus	NL	iNaturalist

Common	Coincide Norma	Conservation	
Name	Scientific Name	Status	Source <sup>1</sup>
Pine-tree Spur- throat Grasshopper	Melanoplus punctulatus	NL	iNaturalist
Pine Tree Cricket	Oecanthus pini	NL	iNaturalist
Marsh meadow grasshopper	Pseudochorthippus curtipennis	NL	iNaturalist
Roesel's Bush- cricket	Roeseliana roeselii	NL	iNaturalist
Boll's Grasshopper	Spharagemon bolli	NL	iNaturalist
Lacewings			
Black-horned Green Lacewing	Chrysopa nigricornis	NL	iNaturalist
	Chrysopa oculata	NL	iNaturalist
Mantises			
European Mantis	Mantis religiosa	NL	iNaturalist
Mayflies			
Giant Mayfly	Hexagenia limbata	NL	iNaturalist
Mites			
Poison Ivy Leaf Mite	Aculops rhois	NL	iNaturalist
Sawflies, Wasps, I	Bees, and Ants		
	Acrotaphus wiltii	NL	iNaturalist
Spongy Oak Apple Gall Wasp	Amphibolips confluenta	NL	iNaturalist
Oak Apple Gall Wasp	Amphibolips cookii	NL	iNaturalist
Translucent Oak Gall Wasp	Amphibolips nubilipennis	NL	iNaturalist
Acorn Plum Gall Wasp	Amphibolips quercusjuglans	NL	iNaturalist
Lobed Mason Wasp	Ancistrocerus antilope	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Spinola's Mason Wasp	Ancistrocerus spinolae	NL	iNaturalist
Clark's Mining Bee	Andrena clarkella	NL	iNaturalist
Hairy-banded Mining Bee	Andrena hirticincta	NL	iNaturalist
Oblong Woolcarder Bee	Anthidium oblongatum	NL	iNaturalist
Orange-tipped Wood-digger Bee	Anthophora terminalis	NL	iNaturalist
Queen Ant Kidnapper	Aphilanthops frigidus	NL	iNaturalist
Western Honey Bee	Apis mellifera	NL	iNaturalist
Pure Green- Sweat bee	Augochlora pura	NL	iNaturalist
Golden Sweat Bee	Augochlorella aurata	NL	iNaturalist
Metallic Epauletted- Sweat bee	Augochloropsis metallica	NL	iNaturalist
Four-banded Stink Bug Wasp	Bicyrtes quadrifasciatus	NL	iNaturalist
Rusty-patched Bumble Bee	Bombus affinis	SGCN-HP	iNaturalist
Black-and-gold Bumble Bee	Bombus auricomus	NL	iNaturalist
Northern Amber Bumble Bee	Bombus borealis	SGCN-HP	iNaturalist
Lemon Cuckoo- Bumble bee	Bombus citrinus	NL	iNaturalist
Golden Northern Bumble Bee	Bombus fervidus	SGCN-HP	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
Brown-belted	Bombus griseocollis	NL	iNaturalist
Bumble Bee	20000 9. 00000000		
Common			
Eastern Bumble	Bombus impatiens	NL	iNaturalist
Вее			
American	Bombus pensylvanicus	SGCN-HP	iNaturalist
Bumble Bee			
Tricolored	Bombus ternarius	NL	iNaturalist
Bumble Bee			
Yellow-banded	Bombus terricola	SGCN-HP	iNaturalist
Bumble Bee			
Half-black	Bombus vagans	NL	iNaturalist
Bumble Bee	5		
Hairless Rover	Brachymyrmex depilis	NL	iNaturalist
Ant			
New York	Camponotus	NL	iNaturalist
Carpenter Ant	novaeboracensis		
Eastern Black	Camponotus	NL	iNaturalist
Carpenter Ant	pennsylvanicus		
Typical Weevil			
Wasps and	Cerceris	NL	iNaturalist
Allies			
Smoky-winged			
Beetle Bandit	Cerceris fumipennis	NL	iNaturalist
Wasp			
Nearctic Blue	Chalybion	NU	
Mud-dauber	californicum	NL	iNaturalist
Wasp			
Steel-blue Cricket-hunter	Chlorion concrision	NI	iNlaturalist
	Chlorion aerarium	NL	iNaturalist
Wasp	Chrycic cossata	NL	iNaturalist
Charny Ant	Chrysis cessata	NL	
Cherry Ant	Crematogaster cerasi	INL	iNaturalist
Feather-legged	Dielis plumipes	NL	iNaturalist
Scoliid Wasp			

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
Mossy Rose Gall Wasp	Diplolepis rosae	NL	iNaturalist
Common Aerial Yellowjacket	Dolichovespula arenaria	NL	iNaturalist
Bald-faced Hornet	Dolichovespula maculata	NL	iNaturalist
Fraternal Potter Wasp	Eumenes fraternus	NL	iNaturalist
Uncertain Field Ant	Formica incerta	NL	iNaturalist
Pale Field Ant	Formica pallidefulva	NL	iNaturalist
Blueberry Digger Bee	Habropoda laboriosa	NL	iNaturalist
Confusing Furrow Bee	Halictus confusus	NL	iNaturalist
Ligated Furrow Bee	Halictus ligatus	NL	iNaturalist
Orange-legged Furrow Bee	Halictus rubicundus	NL	iNaturalist
Produced Small-Mason	Hoplitis producta	NL	iNaturalist
	Lasioglossum vierecki	NL	iNaturalist
Shaded Fuzzy Ant	Lasius aphidicola	NL	iNaturalist
Smaller Yellow Ant	Lasius claviger	NL	iNaturalist
New World Fuzzy Ant	Lasius nearcticus	NL	iNaturalist
	Leucospis affinis	NL	iNaturalist
Broad-handed Leafcutter	Megachile latimanus	NL	iNaturalist
Black Giant Ichneumonid Wasp	Megarhyssa atrata	NL	iNaturalist
Long-tailed Giant	Megarhyssa macrurus	NL	iNaturalist

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
lchneumonid Wasp			
Pickerelweed Long-horned Bee	Melissodes apicatus	NL	iNaturalist
Drury's Long- horned Bee	Melissodes druriellus	NL	iNaturalist
	Microbembex monodonta	NL	iNaturalist
Bufflehead Mason Bee	Osmia bucephala	NL	iNaturalist
American Pelecinid Wasp	Pelecinus polyturator	NL	iNaturalist
Flat-collared Beewolf	Philanthus ventilabris	NL	iNaturalist
European Paper Wasp	Polistes dominula	NL	iNaturalist
Dark Paper Wasp	Polistes fuscatus	NL	iNaturalist
	Pseudomethoca frigida	NL	iNaturalist
Yellow-legged Mud-dauber Wasp	Sceliphron caementarium	NL	iNaturalist
Eastern Cicada- killer Wasp	Sphecius speciosus	NL	iNaturalist
Great Black Digger Wasp	Sphex pensylvanicus	NL	iNaturalist
Vampire Ant	Stigmatomma pallipes	NL	iNaturalist
Immigrant Pavement Ant	Tetramorium immigrans	NL	iNaturalist
	Timulla vagans	NL	iNaturalist
Pigeon Horntail	Tremex columba	NL	iNaturalist
European Hornet	Vespa crabro	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Downy Yellowjacket	Vespula flavopilosa	NL	iNaturalist
German Yellowjacket	Vespula germanica	NL	iNaturalist
Eastern Yellowjacket	Vespula maculifrons	NL	iNaturalist
Widow Yellowjacket	Vespula vidua	NL	iNaturalist
Eastern Carpenter Bee	Xylocopa virginica	NL	iNaturalist
Snails and Slugs			
Northern Walkingstick	Diapheromera femorata	NL	iNaturalist
Hedgehog Slug	Arion intermedius	NL	iNaturalist
Western Dusky Slug	Arion subfuscus	NL	iNaturalist
Brown-lipped Snail	Cepaea nemoralis	NL	iNaturalist
Leopard Slug	Limax maximus	NL	iNaturalist
Spiders			
Grass Spiders	Agelenopsis	NL	iNaturalist
Cross Orbweaver	Araneus diadematus	NL	iNaturalist
Marbled Orbweaver	Araneus marmoreus	NL	iNaturalist
Shamrock Orbweaver	Araneus trifolium	NL	iNaturalist
Six-spotted Orbweaver	Araniella displicata	NL	iNaturalist
Yellow Garden Spider	Argiope aurantia	NL	iNaturalist
Banded Garden Spider	Argiope trifasciata	NL	iNaturalist
Asiatic Wall Jumping Spider	Attulus fasciger	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Dark Fishing Spider	Dolomedes tenebrosus	NL	iNaturalist
Six-spotted Fishing Spider	Dolomedes triton	NL	iNaturalist
Common candy-striped spider	Enoplognatha ovata	NL	iNaturalist
Hoy's Jumping Spider	Evarcha hoyi	NL	iNaturalist
Boreal Paradise Spider	Habronattus borealis	NL	iNaturalist
Maddison's Jumping Spider	Habronattus calcaratus maddisoni	NL	iNaturalist
	Habronattus decorus	NL	iNaturalist
Eastern Parson Spider	Herpyllus ecclesiasticus	NL	iNaturalist
Furrow Orbweaver	Larinioides cornutus	NL	iNaturalist
Grey Cross Spider	Larinioides sclopetarius	NL	iNaturalist
Tuft-legged Orbweaver	Mangora placida	NL	iNaturalist
Eastern Cave Long-jawed Spider	Meta ovalis	NL	iNaturalist
Goldenrod Crab Spider	Misumena vatia	NL	iNaturalist
flea jumping spider	Naphrys pulex	NL	iNaturalist
Common White-cheeked Jumping Spider	Pelegrina proterva	NL	iNaturalist
Bold Jumping Spider	Phidippus audax	NL	iNaturalist
Brilliant Jumping Spider	Phidippus clarus	NL	iNaturalist

Table 11.B-1	Wildlife Species	Potentially	<b>Present within the Stud</b>	y Area
--------------	------------------	-------------	--------------------------------	--------

Common	Scientific Name	Conservation	Source <sup>1</sup>
Name		Status	
Marbled Purple Jumping Spider	Phidippus purpuratus	NL	iNaturalist
American Nursery Web Spider	Pisaurina mira	NL	iNaturalist
Zebra Jumping Spider	Salticus scenicus	NL	iNaturalist
Black Purseweb Spider	Sphodros niger	NL	iNaturalist
False Widow Spiders	Steatoda	NL	iNaturalist
Triangulate Combfoot	Steatoda triangulosa	NL	iNaturalist
Broad-Faced Sac Spider	Trachelas tranquillus	NL	iNaturalist
Hart's Jumping Spider	Tutelina harti	NL	iNaturalist
Featherlegged Orbweaver	Uloborus glomosus	NL	iNaturalist
Ticks			
American Dog Tick	Dermacentor variabilis	NL	iNaturalist
Eastern Black- legged Tick	Ixodes scapularis	NL	iNaturalist
True Bugs			
Two-striped Planthopper	Acanalonia bivittata	NL	iNaturalist
	Acanthocephala terminalis	NL	iNaturalist
	Atymna querci	NL	iNaturalist
Chinch Bug	Blissus leucopterus	NL	iNaturalist
Eastern Boxelder Bug	Boisea trivittata	NL	iNaturalist
Green Stink Bug	Chinavia hilaris	NL	iNaturalist
Dogwood Spittlebug	Clastoptera proteus	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>
Saddled Leafhopper	Colladonus clitellarius	NL	iNaturalist
Twice-stabbed Stink Bug	Cosmopepla lintneriana	NL	iNaturalist
Grape Phylloxera	Daktulosphaira vitifoliae	NL	iNaturalist
Widefooted Treehopper	Enchenopa latipes	NL	iNaturalist
Keeled Treehopper	Entylia carinata	NL	iNaturalist
Big-eyed Toad Bug	Gelastocoris oculatus	NL	iNaturalist
Red-banded Leafhopper	Graphocephala coccinea	NL	iNaturalist
Brown Marmorated Stink Bug	Halyomorpha halys	NL	iNaturalist
Coppery Leafhopper	Jikradia olitoria	NL	iNaturalist
Western Conifer Seed Bug	Leptoglossus occidentalis	NL	iNaturalist
Fringetree Lace Bug	Leptoypha mutica	NL	iNaturalist
American Giant Water Bug	Lethocerus americanus	NL	iNaturalist
Small Milkweed Bug	Lygaeus kalmii	NL	iNaturalist
Eastern Small Milkweed Bug	Lygaeus kalmii angustomarginatus	NL	iNaturalist
Sumac Gall Aphid	Melaphis rhois	NL	iNaturalist
	Merocoris distinctus	NL	iNaturalist
Citrus Flatid Planthopper	Metcalfa pruinosa	NL	iNaturalist
	Mormidea lugens	NL	iNaturalist
	Nabis roseipennis	NL	iNaturalist

Common Name	Scientific Name	Conservation Status	Source <sup>1</sup>			
Northern Dog- day Cicada	Neotibicen canicularis	NL	iNaturalist			
Say's Cicada	Okanagana rimosa	NL	iNaturalist			
Large Milkweed Bug	Oncopeltus fasciatus	NL	iNaturalist			
Meadow spittlebug	Philaenus spumarius	NL	iNaturalist			
Four-lined Plant Bug	Poecilocapsus lineatus	NL	iNaturalist			
	Ranatra	NL	iNaturalist			
Masked Hunter	Reduvius personatus	NL	iNaturalist			
Two-spotted Grass Bug	Stenotus binotatus	NL	iNaturalist			
	Stictocephala lutea	NL	iNaturalist			
Anchor Stink Bug	Stiretrus anchorago	NL	iNaturalist			
Pale Green Assassin Bug	Zelus luridus	NL	iNaturalist			

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

Notes:

<sup>1</sup> 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.

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