

Appendix 12-A Wildlife Site Characterization Report

**Wildlife Site Characterization
for Wethersfield Wind
Repowering Project
Wyoming County, New York**

January 2024

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List of Abbreviations and Acronyms

AES	AES Clean Energy Inc.
Audubon	National Audubon Society
BBS	breeding bird survey
BGEPA	Bald and Golden Eagle Protection Act
CBC	Christmas Bird Count
°C	degrees Celsius
EAf	Environmental Assessment Form
ERM	Environmental Resource Mapper
IBA	Important Bird Area
IPaC	USFWS Information for Planning and Conservation
NWI	National Wetlands Inventory
NY BBA	New York State Breeding Bird Atlas
NYCRR	New York Codes, Rules, and Regulations
NYNHP	New York Natural Heritage Program
NYSDEC	New York State Department of Environmental Conservation
NYSERDA	New York State Energy and Research Authority
NYSOA	New York State Ornithological Association, Inc.
ORES	New York State Office of Renewable Energy Siting
Project	Wethersfield Wind Repowering Project
SF	State Forest
SSC	species of special concern
ST	state-listed threatened
Study Area	Wethersfield Wind Repowering Project located within the towns of Wethersfield and Eagle in Wyoming County, New York
T&E	threatened and endangered
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WSC	wildlife site characterization
WSP	WSP USA, Inc.

1

Introduction

1.1 Project Description

AES Clean Energy, Inc. (AES) is proposing to repower and operate the Wethersfield Windpark. The project currently consists of sixty-eight (68) 1.5 MW GE 1.5-77 turbines on the site. Under the repower project, AES is proposing to replace the existing 68 turbines with 32 new turbines. The specific model choice is still under review. This wildlife site characterization (WSC) report was compiled for the Wethersfield Wind Repowering Project (Project) located within the towns of Wethersfield and Eagle in Wyoming County, New York (Study Area; see Figure 1-1). The term Study Area refers to project parcels that form a general boundary around the site, while Project Boundary refers to the specific areas of the Project construction limit of disturbance with a surrounding 100-foot buffer, according to the current construction plan.

1.2 Project Status

In accordance with regulations set forth in the New York State Office of Renewable Energy Siting (ORES) Executive Law (94c), the Project will be required to submit a 94c application. WSP USA, Inc. (WSP) prepared this WSC following the regulations issued by ORES. The ORES 19 New York Codes, Rules, and Regulations (NYCRR) 900-1.3(g) requires submittal of a WSC at the earliest stage possible in the preliminary Project planning because the findings will be used to evaluate the need for wildlife surveys.

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2

Methods

The WSC was completed using existing information obtained from publicly available sources including reports, published literature, online databases, and geographic information system data per 19 NYCRR 900-1.3(g)1.

2.1 Existing Information from Publicly Available Sources

The following data sources were used to complete this WSC:

- New York’s Environmental Assessment Form (EAF) Mapper (NYSDEC 2023a);
- New York Natural Heritage Program (NYNHP) response letter (awaiting response to request made on October 24, 2023);
- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) System (USFWS 2023a);
- New York Environmental Resource Mapper (ERM; NYSDEC 2023b);
- New York Nature Explorer (NYSDEC 2023c);
- Biodiversity and Wind Siting Mapping Tool (NYNHP and TNC 2014);
- eBird (eBird 2023);
- National Audubon Society’s (Audubon’s) Christmas Bird Count (CBC) (Audubon 2023a);
- U.S. Geological Survey (USGS) breeding bird survey (BBS) data (USGS 2023);
- New York State Breeding Bird Atlas III (NY BBA) data (NYSDEC 2023d);
- New York State Ornithological Association, Inc. (NYSOA) data;
- Aerial photography and topographic maps;
- National Land Cover data (USGS 2021);
- USFWS National Wetlands Inventory (NWI) data (USFWS 2021b);
- New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetland Data (NYSDEC 2023e); and

- Data regarding other areas of interest (e.g., Audubon Important Bird Areas [IBAs], national wildlife refuges, wildlife management areas, grassland focus areas, core forest blocks, and known bat hibernacula).

Section 3 presents the characterization of the Study Area based on the findings from these sources, including New York State-listed species potentially occurring in the Study Area and their typical habitat requirements, and review of land cover types to document whether suitable habitat for identified listed species may occur. Many of the analyses were conducted at the scale of the Study Area, while certain assessments, specifically land cover, core forest blocks, wetland features, were evaluated on the more specific locations of the Project Boundary (see Figure 1-1).

3

Findings and Site Characterization

3.1 Review of Wildlife Data

3.1.1 New York’s Environmental Assessment Form Mapper

New York’s EAF Mapper, maintained by NYSDEC, is a screening tool intended to assist sponsors and reviewing agencies in preparing an EAF for a project. The EAF Mapper was used to evaluate potential presence of state-listed threatened and endangered (T&E) species within the Study Area.

[REDACTED]

[REDACTED] No rare plant species or natural communities were reported for the Study Area. According to the EAF Mapper, the Study Area is not a “critical environmental area.”

3.1.2 New York Natural Heritage Program

WSP submitted a project screening request to the NYNHP on October 24, 2023, for the Study Area. WSP received a response from the NYNHP on December 27, 2023. This response letter indicated that the NYNHP does not have any records within their database of rare, threatened, or endangered species, or significant natural communities within or near the Study Area.

[REDACTED]

3.1.3 U.S. Fish and Wildlife Service Information for Planning and Conservation and Environmental Conservation Online System Databases

The IPaC system is a component of the USFWS Environmental Conservation Online System, which supports reports, conservation plans, and mapping tools regarding the USFWS T&E species. According to the IPaC system, [REDACTED]

[REDACTED] and the proposed

3 Findings and Site Characterization

endangered Salamander Mussel (*Simpsonaias ambigua*). It is the opinion of WSP that the freshwater bivalve species is most likely included in the report generated from the IPaC system because the Study Area is near the East Fork Tonawanda Creek and related waterbodies not impacted by the Project. In addition, one candidate species for federal listing is potentially affected by activities within the Study Area: Monarch Butterfly (*Danaus plexippus*) (USFWS 2023a).

The IPaC review also identified eight bird species on the USFWS Birds of Conservation Concern list that could potentially occur within the Study Area or its vicinity (USFWS 2023a).

[REDACTED]

The other bird species identified in the IPaC review included: Black-billed Cuckoo (*Coccyzus erythrophthalmus*), Black-capped Chickadee (*Poecile atricapillus*), Bobolink (*Dolichonyx oryzivorus*), Canada Warbler (*Cardellina canadensis*), Northern Saw-whet Owl (*Aegolius acadicus*), Prairie Warbler (*Setophaga discolor*), and Wood Thrush (*Hylocichla mustelina*).

[REDACTED]

No critical habitats were identified in the vicinity of the Study Area by the IPaC system. Similarly, no federal wildlife refuges or fish hatcheries were identified in the vicinity of the Study Area (USFWS 2023a).

3.1.4 New York's Environmental Resource Mapper

New York's ERM is maintained by NYSDEC and was used to evaluate potential presence of state-listed T&E species within the Study Area. The ERM shows buffered polygons around known locations of state-listed species but does not identify individual species.

[REDACTED]

The Study Area is not in the immediate vicinity of any significant natural communities (NYSDEC 2023b).

[REDACTED]

In addition, there are other locations from the middle-western portion of Study Area, approximately 1.9 miles, with significant natural communities, including Java Lake Swamp and the Cattaraugus Creek Balsam area (NYSDEC 2023b).

3.1.5 Nature Explorer

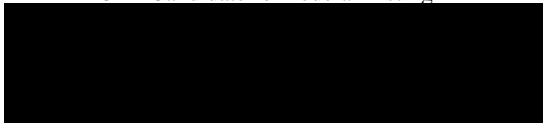
The NYSDEC Nature Explorer tool was used to identify rare, threatened, and endangered flora and fauna within the Study Area (NYSDEC 2023c). This is a historical account of sightings of federally and state-listed species since 1946. The Nature Explorer tool did not identify any rare or state-listed species for the Study Area.

Table 3-1 Wildlife Species with Potential Occurrence in the Study Area from the USFWS IPaC Website

Common Name	Scientific Name	Status	Habitat by Season	Seasons of Potential Occurrence in the Study Area			
				Spring	Summer	Fall	Winter
Salamander Mussel	<i>Simpsonaias ambigua</i>	FPE, HPSGCN	Fast running rivers and streams within rocky areas or crevices. Known historical extent occurs in western New York. Adults are sessile; juveniles transported by host mudpuppies (<i>Necturus maculosus</i>).	X	X	X	X
Monarch Butterfly	<i>Danaus Plexippus</i>	FC	Meadows and fields containing a variety of wildflowers. Lays eggs on milkweed. Migrates south for winter.	X	X	X	

Key:

FC = Candidate for Federal Listing



FPE = Federally proposed as Endangered

HPSGCN = High Priority Species of Greatest Conservation Need (currently not state-listed Endangered, Threatened, or Species of Special Concern)

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It is important to note that the Nature Explorer output is not a definitive statement about the presence of all plants and animals, including rare or state-listed species, or of all significant natural communities. For most areas, comprehensive field surveys have not been conducted. The Nature Explorer output also noted that rare plants and animals may be documented in one or more of the towns in the Study Area; however, these results were not listed in the results for the Study Area.

3.1.6 Biodiversity and Wind Siting Mapping Tool

The Nature Conservancy, NYNHP, and the New York State Energy and Research Authority (NYSERDA), with the help of the Project Advisory Committee, developed the Biodiversity and Wind Siting Online Mapping Tool to protect New York's biodiversity and to help New York meet its renewable energy goals (NYNHP and TNC 2014). The tool is intended to provide an understanding of the local and regional landscape within New York State, within the context of conservation and energy development.

The mapping tool models the spatial distributions of rare species and migratory bird activity. According to the models, no rare animal species would be expected to occur within the Study Area boundary. [REDACTED]

The mapping tool models predict moderate migratory bird activity in the spring and fall within the Study Area. The predicted activity level is somewhat higher than predicted activity in other parts of Wyoming County (NYNHP and TNC 2014).

3.1.7 eBird

eBird is the world's largest repository for bird observation data launched by Audubon and the Cornell Laboratory of Ornithology in 2002 (Sullivan et al. 2009). It houses hundreds of millions of bird observations, with millions more arriving each month.

The eBird review conducted for the Study Area involved a search for records within the last 10 years of any state-listed species potentially occurring within a 1-mile vicinity of the Study Area. One eBird hotspot is located approximately 0.7 miles northwest of the Study Area: Faun Lake, Wethersfield (eBird 2023). Based on a review of the eBird database from October 2013 through October 2023 (last 10 years), [REDACTED]

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Study Area at various times of the year. Some species sighting locations are recorded where the observer initiated their eBird checklist and, therefore, may not represent the exact location of sightings.

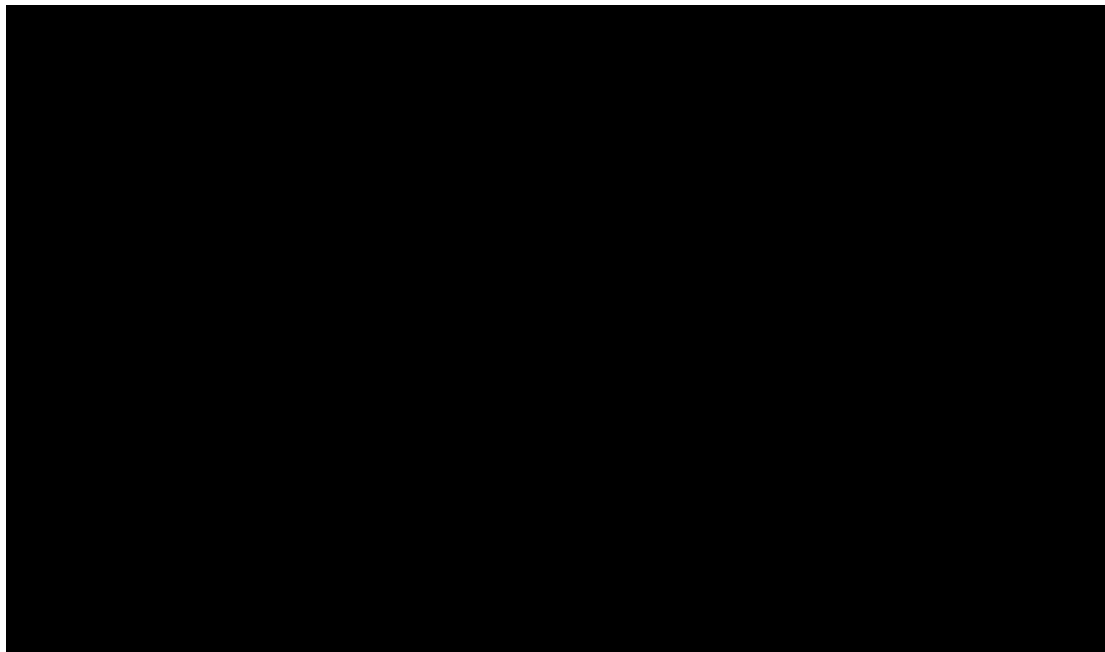
3.1.8 Audubon Christmas Bird Counts

The Audubon CBCs are conducted to monitor the status and distribution of wintering bird populations across the Western Hemisphere (Audubon 2023a). Birds observed during CBCs conducted near the Study Area provide information on birds likely occurring in the Study Area during the winter months in similar habitat; however, past observations of bird species during a nearby CBC do not mean that such species are currently present in or near the Study Area (see Figure 3-1).

With the exception of the southeastern portion of the Study Area, the site overlaps with the Beaver Meadow count circle. Each count circle is 15 miles in diameter. The Beaver Meadow count is centered on the Beaver Meadow Audubon Center, located approximately 6.6 miles northwest of the center of the Project area. Much of the area within the Beaver Meadow count circle is a mix of forested and agricultural lands, which is consistent with the Project area's habitat.

The number of species identified in the Beaver Meadow count identified during the 2013 to 2022 period (10 years of data) ranged from 37 to 43, averaging 39.9 species per year (Audubon 2023a). There were 329.1 hours of effort for the Beaver Meadow count over the period. [REDACTED]

[REDACTED] The percentages of survey years in which each species was detected for each CBC and the average number of birds per hour of survey effort between the 2013 to 2022 period are presented in Table 3-2. The average number of birds was calculated as the total number of birds divided by the total hours of survey effort for each species. No federally listed species were identified during these surveys.



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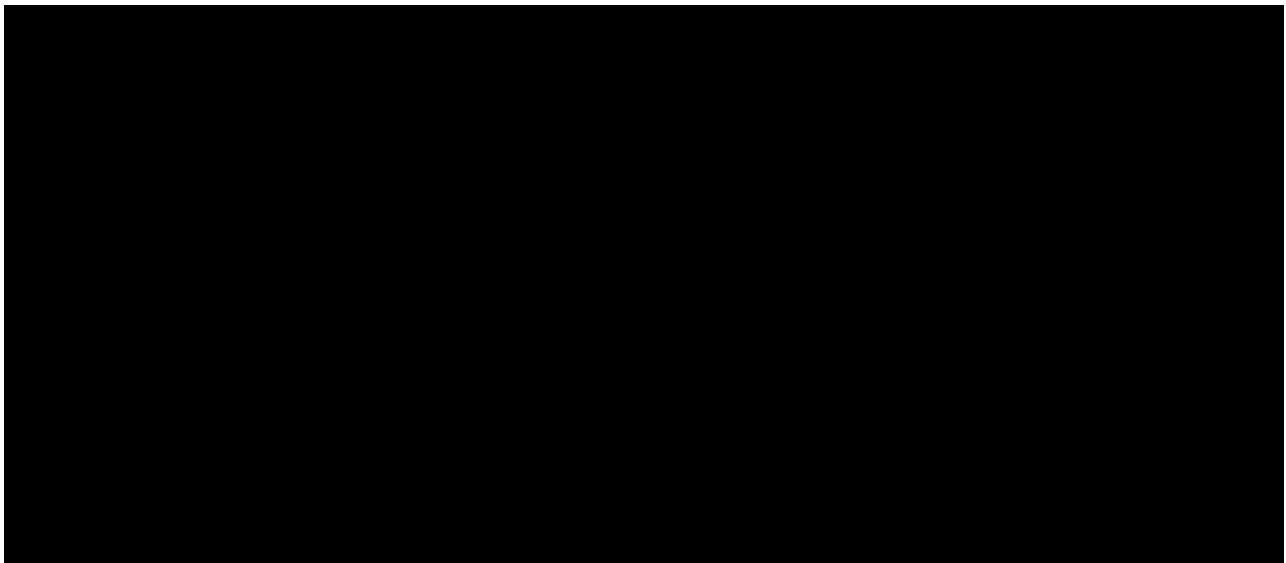
3.1.9 U.S. Geological Survey Breeding Bird Survey

There are two USGS BBS routes in the vicinity of the Study Area (USGS 2023). The southern end of the Gainesville BBS route is approximately 4.0 miles east of the Project area. The eastern section of the East Java BBS route is approximately 5.2 miles west of the Project area (see Figure 3-1). Both of these routes have sections where the habitat is comparable to the habitat in the Project area.

From 2013 to 2022 on the East Java route (not surveyed in 2020, so nine years of BBS data), the total number of species ranged from 42 to 61, averaging 52 species per year. [REDACTED]

[REDACTED] From 2013 to 2022 on the Gainesville BBS route (nine years of BBS data), the total number of species ranged from 40 to 55, averaging 48 species per year. [REDACTED]

[REDACTED] The number of survey years in which each species was detected and the average number of birds per year between 2013 and 2022 are presented in Table 3-3. The average number of birds was calculated as the total count across the period divided by the number of years with survey data. No federally listed species were identified during these surveys (USGS 2023).

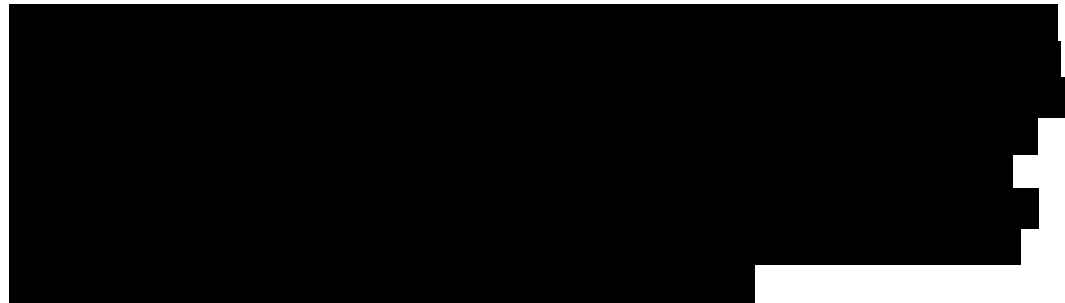


3.1.10 New York State Breeding Bird Atlas III

The NY BBA III uses volunteer efforts across the state to assess the distribution and abundance of New York's breeding birds during the period from 2020 to 2024. These data will allow valid comparisons with prior and future NY BBAs and inform the conservation of birds and their habitats (NYSDEC 2023d). The first NY BBA was conducted from 1980 to 1985, and the second atlas was conducted from 2000 to 2005. The data presented here represent the first four years of a five-year effort; some areas have been surveyed extensively, while others have received minimal survey effort to date.

3 Findings and Site Characterization

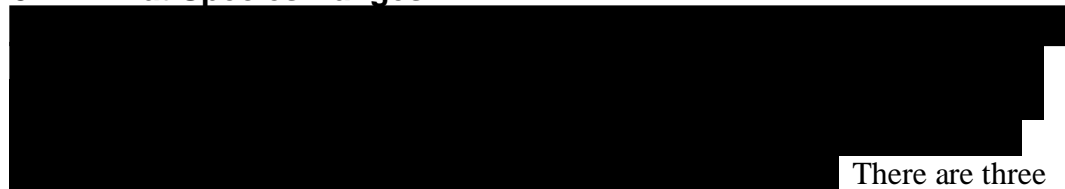
The Study Area lies within sections of four 3-mile by 3-mile blocks of the NY BBA III (see Figure 3-1). A majority of the Study Area is located within the Bliss NE, with portions within the Johnsonburg SE, Pike NW, and Warsaw SW blocks (NYSDEC 2023d). Data was collected within these four blocks during 2020 through 2023, totaling 25.5 hours of diurnal effort and 0 hours of nocturnal effort (effort primarily within the Pike NW block). A total of 43 species were confirmed as breeders in at least one of the four blocks. An additional 40 species were identified as potential breeders or observed, excluding species already confirmed as breeding.



3.1.11 Data from New York State Birding Organizations

The most recent five years available (2018 through early 2023) of *The Kingbird* was reviewed for reported sightings in the towns of Wethersfield and Eagle in Wyoming County (Morgante 2018, 2019, 2020, 2021, 2022, 2023). This is a peer-reviewed quarterly issued publication from the NYSOA. The publication's purpose is to further the study of bird life and to disseminate knowledge thereof, to educate the public in the need for conserving natural resources, and to document the ornithology of the state and maintain the official Checklist of the Birds of New York State. There were no reports of state-listed species being observed in the towns of Wethersfield or Eagle (Morgante 2018, 2019, 2020, 2021, 2022, 2023).

3.1.12 Bat Species Ranges



There are three species of “tree bats” that live year-round in trees but migrate from New York in the winter to seek warmer temperatures in the southern United States. Tree bats include Red Bat (*Lasiurus borealis*), Hoary Bat (*Lasiurus cinereus*), and Silver-haired Bat (*Lasiyonicterius noctivagans*).

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[REDACTED]

[REDACTED]

3.2 New York State Listed Species

3.2.1 Summary of Listed Species Documented at Proposed Facility

Per the requirement of 900-1.3(g) 1(i) and (ii), Table 3-4 summarizes the species documented in the Study Area from available data sources, including a subset of New York State T&E species identified within the last five years. Table 3-4 provides an evaluation of current habitat suitability for each listed species documented from available data sources at the Project site. [REDACTED]

3.2.2 Evaluation of Current Habitat Suitability

Determination of potential occupied habitat at the site is a consideration for New York State-listed T&E species. This section describes the species and an evaluation of current habitat suitability for the [REDACTED]

[REDACTED]

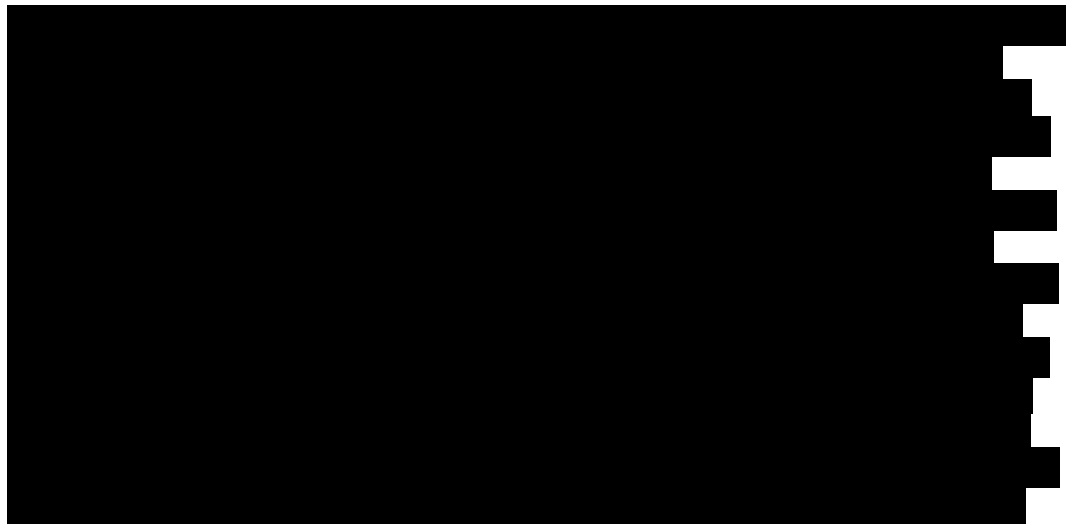
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3 Findings and Site Characterization



3.3 Landscape Features within 5 Miles and Resources of Potential Concern

Per the requirement of 19 NYCRR 900-1.3(g) 1(iii) and (iv), this section summarizes landscape features and resources of potential concern relevant to birds and bats, with a focus on New York State T&E species during migration or for feeding, breeding, wintering, or roosting activities; and geographical, topographical, and other physical features within five miles of the Study Area.

3.3.1 Special Status Lands

There are multiple special status lands within five miles of the Study Area, including Federal Wetland Reserve Program, SF, Natural Resources Conservation Service, State Fishing Access, county and town land, municipal water land, and non-government organization land (see Figure 3-2). A review of the National Conservation Easement database indicated there were three easement blocks that totaled 50.3 acres within 5 miles of the Study Area (TFPL and DU 2020).

The Study Area is within NYSDEC Grassland Focus Area 1 (NYSDEC 2023j; see Figure 3-1). The Study Area is not within the vicinity of any IBAs. The nearest IBA is Letchworth State Park which is approximately 10 miles to the east of

the Study Area and includes the Letchworth Bird Conservation Area (Audubon 2018; see Figure 3-1).

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3.3.2 Geography, Topography, and Land Use

There are two small lakes within 5 miles of the Study Area that could attract waterfowl during migration: Java Lake and Faun Lake. Faun Lake is approximately 0.7 miles northwest and Java Lake is 1.9 miles west from the Study Area.

The elevations within the Study Area are approximately 1,923 feet (586 meters) above sea level on average. There is higher elevation in the western portion of the Study Area, reaching as high as 2,109 feet (643 meters) above sea level.

Based on data from the 2021 National Land Cover Database and site reconnaissance, most of the land cover within the Project Boundary is composed of cultivated crops (approximately 45%; USGS 2021). Other land cover types throughout the area include deciduous forest (approximately 21%), and hay/pasture (approximately 19%). The land cover types within the Project Boundary are presented on Figure 3-3 and in Table 3-5.

Table 3-5 Acreage of NLCD Land Cover Types within the Project Boundary (2021)

Land Cover Type	Acreage	Percentage of Project Boundary (%)
Cultivated Crops	353.7	44.7
Deciduous Forest	163.6	20.7
Developed, Low Intensity	6.9	0.9
Developed, Medium Intensity	1.8	0.2
Developed, Open Space	47.5	6.0
Emergent Herbaceous Wetlands	2.0	0.3
Evergreen Forest	5.5	0.7
Hay/Pasture	154.2	19.5
Mixed Forest	29.7	3.8
Shrub/Scrub	2.5	0.3
Woody Wetlands	24.2	3.1
Total	791.6	100.0

The Wildlife Conservation Society created a map of large or core forest blocks in New York State (see Figure 3-4). This map identifies forest patches that are regionally important (greater than 6,000 acres), locally important (2,000 to 6,000 acres), and stepping stone forests (200 to 2,000 acres). There are core forests in the range of 0.18 to 36.65 acres, totaling approximately 138 acres within the Project Boundary (NALCC 2016).

There is no evidence to suggest that there are regularly large concentrations of birds or other wildlife in the Study Area or the more limited Project Boundary beyond what would be expected for broad front migration throughout most of New York State.

3.4 National Wetland Inventory and New York State Department of Environmental Conservation Wetlands

Per the requirement of 19 NYCRR 900-1.3(g)1(v), this section summarizes the NWI and NYSDEC-mapped wetlands, streams, and waterbodies relevant to the Project Boundary.

Figures 3-3 and 3-5 detail wetland locations and classifications. Figure 3-3 details NYSDEC streams and wetlands, and their respective classifications. Figure 3-5 details the NWI wetland types within the Project Boundary. Discrepancies in acreage between NWI and NYSDEC mapping may be due to differences in qualification, map creation, and calculation methods of the databases.

Approximately 24.01 acres (9.71 hectares) of wetlands are mapped by the NWI within the Project Boundary (see Table 3-6). All wetlands mapped within the Project Boundary are classified as freshwater forested/shrub wetland, freshwater emergent wetland, or riverine. Freshwater forested/shrub wetlands comprise approximately 19.63 acres (7.94 hectares), riverine wetlands comprise approximately 3.35 acres (1.36 hectares), and freshwater emergent wetlands comprise approximately 1.03 acres (0.42 hectares).

Table 3-6 Summary of NWI Wetlands within the Project Boundary

Type	Riverine	Freshwater Emergent Wetland	Freshwater Forested/Shrub Wetland	Total
Number of Features	2	2	7	11
Total Acres	3.35	1.03	19.63	24.01

There is one Class 2 and one Class 3 NYSDEC mapped wetland within the Project Boundary totaling 2.49 acres.

Additionally, there are several streams mapped by NYSDEC within the Project Boundary identified as Class C. Class C streams are waters supporting fisheries and suitable for non-contact activities. There are approximately 0.63 miles of Class C streams within the Project Boundary (see Table 3-7).

Table 3-7 Summary of NYSDEC Streams within the Project Boundary

Type	Class A	Class B	Class C	Class D	Total
Number of Features	0	0	8	0	8
Linear Feet	0.00	0.00	3,344.32	0.00	3,344.32

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3 Findings and Site Characterization

3.5 Review of Climate Change Modeling for Birds

Review of potential environmental impacts of renewable energy projects is typically dominated by potential negative impacts, with a focus on possible short-term habitat displacement, habitat loss, wildlife mortality or injury, and T&E species “take” or take of habitat. What is often missing is a recognition of climate change as the primary long-term threat to wildlife and the potential benefits that renewable energy can bring beyond the scale of one project.

Audubon showed the alarming risks to birds due to climate change in their birds and climate change report (Audubon 2019). Audubon utilized data from more than 70 sources and more than 140 million observations to assess the impacts of climate change on North American Birds and a climate threats analysis (Audubon 2019; Bateman et al. 2020a, b). Audubon scientists modeled 604 North American bird species along with climate models to map where bird ranges in summer and winter could be under scenarios with warming of 1.5, 2.0, and 3.0 degrees Celsius (°C; warming of 2.7, 3.6, and 5.4-degrees Fahrenheit). Audubon indicated that holding warming at an increase of no more than 1.5°C is needed to avoid increasingly dire consequences (Audubon 2019). Should nothing be done to reduce the warming trend from climate change then a 1.5°C increase is imminent, while a 2.0°C increase could happen as soon as 2050, and a 3.0°C increase could occur by 2080 (Audubon 2019). Audubon’s work shows that two thirds of North American bird species are at risk of extinction from climate change at 3.0°C, but also, that if action is taken now to combat climate change, then the chances would improve for nearly 75% of the species at risk (Audubon 2019).

WSP reviewed the Audubon climate change model for species predicted to be vulnerable to climate change in Wyoming County, New York. The most vulnerable bird species could lose more than half of their current geographic range, which could occur in Wyoming County or elsewhere. Table 3-8 lists the number of bird species included in the climate change model that are considered high vulnerability species, moderate vulnerability species, low vulnerability species, and stable species for the summer and winter models. The high vulnerability and moderate vulnerability species are listed for the three warming scenarios for summer and winter in Tables 3-8 and 3-9, respectively.

[REDACTED]

[REDACTED]

Table 3-8 Number of Vulnerable Bird Species by Audubon Climate Change Scenarios for Wyoming County, New York

Warming Scenario	High Vulnerability Species	Moderate Vulnerability Species	Low Vulnerability Species	Stable Species
+1.5°C Summer	2	31	60	55
+2.0°C Summer	4	47	42	55
+3.0°C Summer	24	49	29	46
+1.5°C Winter	0	1	29	59
+2.0°C Winter	0	1	21	67
+3.0°C Winter	0	6	26	57

Source: Audubon 2023b

Key:
°C = degrees Celsius

Table 3-9 High and Moderate Vulnerability Species for the Audubon Climate Change Warming Scenarios for Summer, Wyoming County, New York

Species	High Vulnerability +1.5°C	High Vulnerability +2.0°C	High Vulnerability +3.0°C	Moderate Vulnerability +1.5°C	Moderate Vulnerability +2.0°C	Moderate Vulnerability +3.0°C
Canada Goose				X	X	X
American Black Duck				X	X	X
Ring-necked Duck					X	X
Common Merganser				X	X	X
Ruffed Grouse						X
Virginia Rail						X
Sora				X	X	X
Sandhill Crane					X	X
American Woodcock				X	X	X
Spotted Sandpiper					X	X
Great Black-backed Gull						X
Yellow-bellied Sapsucker			X			
Northern Flicker						X
Merlin						X
Acadian Flycatcher						X
Alder Flycatcher						X
Willow Flycatcher						X
Least Flycatcher					X	X
Great Crested Flycatcher						X
Eastern Kingbird					X	X
Yellow-throated Vireo						X
Blue-headed Vireo			X	X	X	
Tree Swallow					X	X
Red-breasted Nuthatch				X	X	X
Brown Creeper				X	X	X
House Wren					X	X
Winter Wren			X	X	X	

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Table 3-9 High and Moderate Vulnerability Species for the Audubon Climate Change Warming Scenarios for Summer, Wyoming County, New York

Species	High Vulnerability +1.5°C	High Vulnerability +2.0°C	High Vulnerability +3.0°C	Moderate Vulnerability +1.5°C	Moderate Vulnerability +2.0°C	Moderate Vulnerability +3.0°C
Golden-crowned Kinglet					X	X
Veery						X
Hermit Thrush			X	X	X	
Wood Thrush			X		X	
American Robin					X	X
Brown Thrasher		X	X	X		
Purple Finch						X
American Goldfinch				X	X	X
Chipping Sparrow					X	X
Field Sparrow			X	X	X	
Dark-eyed Junco			X	X	X	
White-throated Sparrow			X	X	X	
Savannah Sparrow			X	X	X	
Song Sparrow					X	X
Swamp Sparrow				X	X	X
Eastern Towhee		X	X	X		
Bobolink			X	X	X	
Eastern Meadowlark						X
Ovenbird				X	X	X
Northern Waterthrush						X
Blue-winged Warbler				X	X	X
Black-and-white Warbler						X
Hooded Warbler						X
Mourning Warbler			X	X	X	
Black-throated Green Warbler	X	X	X			
American Redstart						X
Northern Parula				X	X	X
Magnolia Warbler			X	X	X	

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Table 3-9 High and Moderate Vulnerability Species for the Audubon Climate Change Warming Scenarios for Summer, Wyoming County, New York

Species	High Vulnerability +1.5°C	High Vulnerability +2.0°C	High Vulnerability +3.0°C	Moderate Vulnerability +1.5°C	Moderate Vulnerability +2.0°C	Moderate Vulnerability +3.0°C
Blackburnian Warbler			X	X	X	
Yellow Warbler					X	X
Chestnut-sided Warbler			X	X	X	
Black-throated Blue Warbler			X		X	
Pine Warbler			X	X	X	
Yellow-rumped Warbler				X	X	X
Prairie Warbler						X
Canada Warbler			X		X	
Scarlet Tanager			X	X	X	
Rose-breasted Grosbeak						X
Indigo Bunting						X

Source: Audubon 2023b

Key:

°C = degrees Celsius

Table 3-10 High and Moderate Vulnerability Species for the Audubon Climate Change Warming Scenarios for Winter, Wyoming County, New York

Species	High Vulnerability +1.5°C	High Vulnerability +2.0°C	High Vulnerability +3.0°C	Moderate Vulnerability +1.5°C	Moderate Vulnerability +2.0°C	Moderate Vulnerability +3.0°C
Ruffed Grouse						X
Rough-legged Hawk						X
Northern Shrike						X
Evening Grosbeak						X
Red Crossbill				X	X	X
White-winged Crossbill						X

Source: Audubon 2023b

Key:

°C = degrees Celsius

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Summary

This WSC included a review of existing information obtained from publicly available sources including reports, published literature, online databases, and geographic information system data per 19 NYCRR 900-1.3(g)1.



Landscape features and special status lands relevant to birds and bats, with a focus on New York State T&E species were reviewed, during migration or for feeding, breeding, wintering, or roosting activities and geographical, topographical, and other physical features within five miles of the Study Area. It is not anticipated that the geography, topography, or land use in the Study Area will serve as a location for concentrated bird migration.

The Audubon climate change model was reviewed for bird species predicted to be vulnerable to climate change in Wyoming County, New York. The most vulnerable bird species could lose more than half of their current geographic range, which could occur in Wyoming county or elsewhere. There were 73 high vulnerability and moderate vulnerability species identified for the three warming scenarios for summer and six high vulnerability and moderate vulnerability species identified for winter.

Per 19 NYCRR 900-1.3(g)2, this WSC, along with Project details, will be reviewed by ORES and NYSDEC. Within four weeks of delivery of this WSC, the agencies shall hold a meeting to provide feedback, and provide recommendations for conducting habitat assessments or field surveys. The agencies shall also provide any data they are aware of beyond what is included in this WSC.

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