# Wildlife Site Characterization

## Gillie Brook Solar Project

### Towns of Camillus and Elbridge, Onondaga County, New York

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## 1.0 INTRODUCTION

AES Clean Energy (the Applicant) is proposing to construct the Gillie Brook Solar Project, a solar energy generation facility (the Facility) within an approximately 550-acre area (the Facility Study Area) in the Towns of Camillus and Elbridge in Onondaga County, New York (Figure 1). The Facility Study Area encompasses all potential parcels on which Facility components may be sited and consists primarily of row cropland used for production of corn and/or soybeans, and areas of deciduous forestland. In addition, field cropland used for the production of hay, woody wetlands, shrubland, mixed forestland, evergreen forestland, and disturbed/developed land (primarily rural single-family houses, farms, and associated yards) are also present. The Facility Study Area is roughly bounded by **BEGIN CONFIDENTIAL INFORMATION<** [redacted] **>END CONFIDENTIAL INFORMATION** (Figure 2). The Facility will consist of arrays of photovoltaic (PV) panels and associated support structures, with a total generating capacity of up to 60 megawatts (MW). Other proposed Facility components will include inverters, a collection substation, a point of interconnection substation, temporary construction laydown areas, access roads, electrical collection lines, and fencing.

The Office of Renewable Energy Siting and Electric Transmission (ORES) issues permits for major renewable energy facilities (i.e., projects larger than 25 MW) under Article VIII of the New York State Executive Law (Article VIII; formerly known as Section 94-c of the New York State Executive Law).[1] Chapter XI, Title 16 of the New York Codes, Rules and Regulations (NYCRR) Part 1100 establishes the procedural and substantive requirements for the permit applications under Article VIII, including submittal of a Wildlife Site Characterization. The purpose of the Wildlife Site Characterization is to summarize existing public information on bird, bat, and other animal species that may potentially occur in the vicinity of a proposed facility, and to provide additional analysis with respect to those species formally listed by New York State as threatened, endangered, or species of special concern.

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) was retained by the Applicant to prepare a Wildlife Site Characterization Report for the Facility. This report is organized to follow the structure of the regulations set forth in Section 1100-1.3(g)(1), with the relevant requirements provided at the start of each section.

## 2.0 PUBLICLY AVAILABLE DATA SOURCES

This section provides information in response to the following requirement of Section 1100-1.3(g)(1):

*At the earliest point possible in the applicant's preliminary project planning, the applicant shall conduct a wildlife site characterization summarizing existing public information on bird, bat, and other species, including, but not limited to, New York's Environmental Assessment Form (EAF) Mapper, New York Natural Heritage Program (NYNHP), USFWS iPaC* [sic] *and ECOs databases, New York's Environmental Resource Mapper, Nature Explorer, and Biodiversity and Wind Siting Mapping Tool, eBird, Audubon Christmas Bird Counts, United States Geological Survey (USGS) breeding bird surveys, the*

[1] Chapter XI, Title 16 of the New York Codes, Rules and Regulations Part 1100. Available at: https://dps.ny.gov/ores-regulatory-documents. On December 18, 2024, ORES proposed changes to the existing Article VIII regulations, and is currently accepting public comments on the proposed draft regulations until March 18, 2025. The revised regulations are expected to be finalized on April 20, 2025.

*current New York Breeding Bird Atlas III program, New York State Ornithological Association, local birding organizations, Bat Conservation International's database on bat species ranges, NYSDEC bat information.*

In querying publicly available data sources, the Applicant used the Facility Study Area as the default search area. However, due to variable data collection regimes for each data source, additional data from beyond the Facility Study Area were included in some cases. The Applicant searched all records within 1 mile of the Facility Study Area for the following data sources: eBird, Audubon Christmas Bird Count (CBC), New York Breeding Bird Atlas III, and the U.S. Geological Survey (USGS) breeding bird surveys. The CBC data were only available at the count circle level, which covers a 15-mile diameter. In addition, the New York State Ornithological Association's data are only available at the county level and the New York State Department of Environmental Conservation's (NYSDEC's) bat information is only available at the town level.

## 2.1 New York's EAF Mapper

The Environmental Assessment Form (EAF) Mapper is a tool developed by the NYSDEC that takes a user-defined project site and searches multiple Geographic Information System (GIS) data sets. The results generated by the EAF Mapper appear in Part 1 of an electronically fillable EAF with certain location-based questions automatically filled out and is accompanied by a report that includes answers to specific questions on the EAF and a map showing the project site. The EAF Mapper was queried for the Facility, using an approximate boundary of the roads bounding the Facility Study Area **BEGIN CONFIDENTIAL INFORMATION<** [redacted] **>END CONFIDENTIAL INFORMATION** The responses to EAF questions E.2.n, E.2.o, and E.2.p, respectively, indicate that there are no records of significant natural communities, threatened or endangered species, or rare plants or animals listed as species of special concern within the Facility Study Area (Appendix A).

## 2.2 New York Natural Heritage Program

The New York Natural Heritage Program (NYNHP) maintains data on state listed rare, threatened, and endangered plant and animal species, as well as significant ecological communities. The NYNHP recommends that the NYSDEC Environmental Resource Mapper (ERM) be reviewed prior to submitting a request for information for a given project. If the project boundary does not fall within an area displayed in the Rare Plants and Rare Animals layer or in the Significant Natural Communities layer of the ERM, then NYNHP has no records to report in the vicinity of the project and submitting a project screening request is not necessary. If the Facility Study Area does fall within an area of state listed animals or state listed bats, question E.2.o. on the EAF Mapper will provide a list of the species in question. The NYSDEC recommends a formal project screening to the NYNHP only if the project overlaps the location of unlisted animals, rare plants, or significant natural communities, and more information on these resources is required.

The ERM indicates that the Facility Study Area is not in the vicinity of animals listed as endangered or threatened. Refer to Section 2.4 for additional information about the ERM and the query performed for the Facility. In addition, as previously discussed in Section 2.1, the responses to EAF questions E.2.n, E.2.o, and E.2.p, respectively, indicate that there are no records of significant natural communities, threatened or endangered species, or rare plants or animals listed as species of special concern within the Facility Study

Area. Therefore, in accordance with the NYSDEC guidance, further consultation with the NYNHP through a formal project screening request is not necessary.

## 2.3 IPaC and ECOs Databases

The Environmental Conservation Online System (ECOs) is a gateway website that provides access to U.S. Fish and Wildlife Service (USFWS) and other federal government databases, including the Information for Planning and Consultation (IPaC) tool, which streamlines the USFWS environmental review process. Users define a proposed project area and provide basic information about the project. IPaC then generates an official species list containing information to assist in evaluating the potential impacts of the project. The official species list is a formal letter from the local USFWS office that includes a list of species and critical habitat that should be considered under Section 7 of the Endangered Species Act, as well as other pertinent information from the local field office.

A shapefile of the Facility Study Area was uploaded to IPaC on January 16, 2025. **BEGIN CONFIDENTIAL INFORMATION<** [redacted] **>END CONFIDENTIAL INFORMATION** According to the official species list, there are no records of critical habitats that could be affected by the proposed Facility (Appendix B). Federally listed wildlife species identified by the USFWS are listed in Table 1 and discussed in Section 3.2.

## 2.4 New York's Environmental Resource Mapper

The Environmental Resource Mapper (ERM) is an interactive mapping application developed by the NYSDEC that can be used to identify some of New York State's natural resources and environmental features that are state or federally protected, or of conservation concern. Specifically, the maps display the general areas where rare animals, rare plants, and significant natural communities have been documented by the NYNHP. The ERM also displays locations of New York State regulated freshwater wetlands and protected streams, rivers, and lakes. These maps are provided as a source of information for landowners, land managers, citizens, local officials, and project sponsors engaged in land use decision making, conservation planning, or environmental assessment of proposed projects or actions (NYSDEC, 2025a).

The ERM does not support user-defined search areas or shapefile-based areas of interest. The Facility Study Area was traced on the ERM using the "Measure Area" tool. The "Identify Tool" was then used to generate informational outputs on overlapping areas of rare plants and animals. Results are included in Appendix A. There are no records in the ERM of significant natural communities or threatened or endangered animal species within the Facility Study Area.

## 2.5 New York Nature Explorer

New York Nature Explorer is an online tool developed by the NYSDEC to help inform land use decisions, natural resource management, biodiversity conservation, and environmental assessment. Users can define a specific search area (or query by county, town, or watershed) and obtain a list of the rare and listed animals,

plants, and significant natural communities that have been found there, as documented in databases maintained by NYSDEC. However, because not all species are included in the list (i.e., location information for some sensitive species is excluded due to vulnerability to collection), the results of a New York Nature Explorer query should be considered only an initial indication of the potential presence of rare and/or listed animals and plants in the vicinity of the search area (NYSDEC, 2025b). Direct correspondence with the NYNHP, if needed, affords access to site-specific data for all rare and listed species, including those sensitive species not reported in New York Nature Explorer results.

The New York Nature Explorer tool was queried for the Facility, using an approximate boundary of the roads bounding the Facility Study Area. Results are included in Appendix A. The New York Nature Explorer database indicates that there are no public records of significant natural communities or listed threatened or endangered animal species within the Facility Study Area.

## 2.6 New York's Biodiversity and Wind Siting Mapping Tool

The Biodiversity and Wind Siting Online Mapping Tool is intended to help New York meet its renewable energy goals while avoiding and minimizing impacts on sensitive biodiversity resources. This tool, developed by scientists from The Nature Conservancy, the NYNHP, and the Cornell Lab of Ornithology in collaboration with the New York State Energy Research and Development Authority, uses GIS technology to map important ecological resources, such as sensitive habitats, large forest blocks, and migration routes. Although specifically designed to help decision-makers balance environmental concerns with siting wind energy projects, understanding ecological resources is relevant to the siting of any large-scale energy project. As of January 23, 2025 and after repeated attempts in multiple browsers, this online tool is not functioning. However, many other sources of information were reviewed to develop an understanding of the types of ecological resources included in the Biodiversity and Wind Siting Online Mapping Tool. Refer to Sections 3.3 and 3.5 for discussion of ecological resources in the vicinity of the Facility Study Area.

## 2.7 Cornell Lab Ornithology's eBird

The eBird database, managed by the Cornell Lab of Ornithology, is an online database of bird observations collected by citizen scientists around the world and vetted by regional experts. Data are used to document bird distribution, abundance, habitat use, and trends within a simple, scientific framework to help inform bird research worldwide. **BEGIN CONFIDENTIAL INFORMATION<** [redacted] **>END CONFIDENTIAL INFORMATION** Several other eBird hotspots are located within 5 miles of the Facility Study Area, as shown in Figure 3. Because of these distances, species observed at these hotspots are not representative of the bird community within the Facility Study Area and are not further evaluated herein. In addition to hotspots, the eBird database also contains data reported from the public under "personal locations," which are not associated with the hotspots. Personal location data were queried for all state listed bird species between 2021 and 2025.

[redacted]

A total of six state listed bird species have been observed at eBird personal locations within approximately 1 mile of the Facility Study Area since 2021 (i.e., the last 5 years). These species are listed in Table 1 and Appendix C, and discussed in Section 3.2.

## 2.8 Audubon Christmas Bird Count

The CBC, which was created by the National Audubon Society in 1900, is the longest-running citizen science project in the country. The primary objective of the CBC is to monitor the status and distribution of wintering bird populations across the Western Hemisphere. Counts take place on a single day within defined 15-mile (24 kilometer) diameter count circles, and all bird species and individuals observed are recorded by volunteers (National Audubon Society, 2025a). Data from the last five years (2019-2023) [3] were queried for the closest count circle, Skaneateles (abbreviated NYSK), which overlaps the southern portion of the Facility Study Area (Figure 3). Due to the large diameter of the count circles, the complete list of species observed within the NYSK count circle may not be representative of the bird community within the Facility Study Area.

A total of eight state listed bird species have been observed within the NYSK count circle since 2019. These species are listed in Table 1 and discussed in Section 3.2. The Wildlife Species List provided in Appendix C identifies all bird species observed within the NYSK count circle from 2019 to 2023.

## 2.9 USGS Breeding Bird Survey

The USGS Breeding Bird Survey (BBS), overseen by the Patuxent Wildlife Research Center, is a long-term, large-scale, international avian monitoring program that tracks the status and trends of North American bird populations. Each survey route is 24.5 miles long, with 3-minute point counts completed at 0.5-mile intervals. During the point counts, every bird seen or heard within a 0.25-mile radius is recorded. The closest BBS route, Cayuga, is located approximately 3 miles south of the Facility Study Area. Because of this distance, species observed at the Cayuga BBS route are not representative of the bird community within the Facility Study Area and are not further evaluated herein.

## 2.10 New York Breeding Bird Atlas III

The New York Breeding Bird Atlas (BBA) is a statewide inventory of all birds breeding in the state. The first atlas inventory was conducted from 1980-1985, the second from 2000-2005, and NYSDEC recently worked with agency and conservation partners to conduct the third atlas inventory from 2020-2024 (BBA III). Field work was conducted by dividing the state into blocks of approximately 9 square miles, within which volunteers record all the bird species observed during the breeding season and document evidence of breeding activity (NYSDEC, 2025c). A key change for the BBA III compared to the previous atlases was the use of eBird for data collection. eBird offers real-time data entry and outputs, so partial data results were available throughout the entire survey period (eBird, 2025b). BBA III results were reviewed for the four atlas blocks that overlap the 1-Mile Study Area and encompass the Facility Study Area (i.e., Jordan CE, Jordan SE, Camillus CW and Camillus SW; Figure 3).

[3] CBC data for 2024 were not yet available for review.

A total of four state listed bird species have been recorded within survey blocks Jordan CE, Jordan SE, Camillus CW, and Camillus SW over the last five years (2020-2024) within 1 mile of the Facility Study Area. These species are listed in Table 1 and discussed in Section 3.2. The Wildlife Species List provided in Appendix C identifies all bird species observed within survey blocks overlapping the 1-Mile Study Area, Jordan CE, Jordan SE, Camillus CW, and Camillus SW, from 2020 to 2024, including observations more than 1 mile from the Facility Study Area.

## 2.11 New York State Ornithological Association

The New York State Ornithological Association (NYSOA) is a conservation organization focused on documenting the ornithology of New York State, fostering interest in and appreciation of birds, and protecting birds and their habitats. Members of NYSOA participate in citizen science efforts, contributing data to eBird, the CBC, BBS, and BBA (described in Sections 2.7, 2.8, 2.9, and 2.10). In addition, the New York State Avian Records Committee (NYSARC; a committee of the NYSOA) is responsible for maintaining the official list of species of birds that are known to occur (or to have occurred) in New York State and adjacent coastal waters (including the Great Lakes). As part of this effort, NYSARC reviews all data pertaining to records of scarce or rare birds reported in the state (NYSOA, 2024).

The NYSOA website includes a complete, downloadable list of all reports of rare birds submitted to and reviewed by NYSARC since its inception, including species, date, county, status, and publication date. All Onondaga County records in this list, last updated in July 2024, were reviewed. No birds state listed as threatened, endangered, or species of special concern have been reported from Onondaga County within the last five years for which data are available (2018-2022; NYSOA, 2024).

## 2.12 Local Birding Organizations

The NYSOA website includes links to local breeding clubs and organizations, based on region. The Facility Study Area is located in NYSOA's Region five, which contains two such groups: the Kirkland Bird Club and the Onondaga Audubon Society (NYSOA, 2024).

The link for the Kirkland Bird Club leads to a Facebook page where members share photos and announcements for programs, field trips, and special events. The page includes some photos of state listed bird species, including **BEGIN CONFIDENTIAL INFORMATION**<[redacted]>**END CONFIDENTIAL INFORMATION** However, most of the pictures are not geo-tagged. For the few photos where location information is provided, none were taken in close proximity to the Facility Study Area (e.g., Delta Lake State Park, approximately 65 miles northeast; Oneida Lake, approximately 35 miles northeast; Onondaga Lake, approximately 7 miles northeast; and Montezuma National Wildlife Refuge, approximately

[redacted]

20 miles to the southwest). No database or list of observed birds is available on the club's Facebook page (Kirkland Bird Club, 2025).

Onondaga Audubon Society (OAS) is the National Audubon Chapter for central New York and the eastern Lake Ontario basin (i.e., Cayuga, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, and Oswego Counties). The website includes information on meetings, field trips, and other programs hosted by the 2,200-member chapter, as well as information about the two sanctuaries on Lake Ontario that OAS owns and operates. Derby Hill Bird Observatory and Richard A. Noyes Sanctuary are both located approximately 40 miles from the Facility Study Area. The OAS website also has a Rare Bird Alerts page that directs visitors to the eBird New York Rare Bird Alert page (OAS, 2025). The eBird page shares information about sightings of uncommon birds throughout the region within the last seven days. EDR reviewed the rare bird reports for Onondaga County. As of January 21, 2025, no state listed species were reported within the Rare Bird Alert page (eBird, 2025c).

## 2.13 Bat Conservation International's Database on Bat Species Ranges

According to the Bat Conservation International (BCI) database, nine species of bat have ranges that extend into New York State. The BCI database's "approximate range" maps show that eight of these species have ranges that overlap the Facility Study Area, including both migratory tree bats and cave-hibernating bats. Most of these species, such as the big brown bat (*Eptesicus fuscus*) and the eastern red bat (*Lasiurus borealis*), are relatively common. **BEGIN CONFIDENTIAL INFORMATION<** [redacted] **>END CONFIDENTIAL INFORMATION** Although the ranges for these species include the Facility Study Area, BCI does not provide occurrence data that could be used to determine the actual presence or absence of bat species at any given location (BCI, 2025).

## 2.14 NYSDEC Bat Information

NYSDEC data indicate that nine bat species have the potential to occur in New York State, including six cave bats and three tree bats (Stegemann & Hicks, 2008). **BEGIN CONFIDENTIAL INFORMATION<** [redacted] **>END CONFIDENTIAL INFORMATION** This section provides more specific information regarding the potential occurrence of each of these listed species.

**BEGIN CONFIDENTIAL INFORMATION<** [redacted]

[redacted]

[redacted]

[redacted]>**END CONFIDENTIAL INFORMATION**

The Wildlife Species List provided in Appendix C identifies all bat species with recorded occurrences within the Facility Study Area.

# 3.0 THREATENED OR ENDANGERED SPECIES OR SPECIES OF SPECIAL CONCERN

This section provides more information about the state listed threatened or endangered species or species of special concern identified in the publicly available data sources, as summarized in Section 2.0. Sections 3.1 through 3.6 respond to specific requirements of Section 1100-1.3(g)(1), which are provided for reference at the beginning of each discussion.

## 3.1 Species Documented at the Proposed Facility

This section provides information in response to the following requirement of Section 1100-1.3(g)(1):

*With respect to NYS threatened or endangered species or species of special concern, the wildlife site characterization shall include:*

*(i) Species documented at the proposed facility, access roads, interconnections, connecting lines, from available data sources. A subset of NYS threatened or endangered species identified within the last five (5) years shall be provided.*

A full list of wildlife species documented within the Facility Study Area[5] is included as Appendix C. A subset of the full list, comprising those species that are state listed and have been identified within the last five years, is presented in Table 1.

**Table 1. State Listed Species Observed Within the Last Five Years**
**BEGIN CONFIDENTIAL INFORMATION<**

| Species | NYS Status | USFWS Status | SGCN Status[1] | Source[2] |
|---|---|---|---|---|
| [redacted] | | | | |

[5] In querying publicly available data sources, the Applicant used the Facility Study Area as the default search area. However, due to variable data collection regimes for each data sources, additional data from beyond the Facility Study Area were included in some cases. Specifically, the Applicant included all eBird records within approximately 1 mile of the Facility Study Area, all Audubon CBC records within 15-mile count circles that overlapped with the 1-Mile Study Area, and all BBA III records within blocks of approximately 9 square miles that overlapped with the 1-Mile Study Area. In addition, the NYSOA's data are only available at the county level and the NYSDEC's bat information is available at the town level.

| Species | NYS Status | USFWS Status | SGCN Status[1] | Source[2] |
|---|---|---|---|---|
| [redacted] | | | | |

[1] SGCN Status refers to status under the Comprehensive State Wildlife Strategy. SGCN = Species of Greatest Conservation Need, SGCN-HP = High Priority Species of Greatest Conservation.
[2] CBC = Audubon Christmas Bird Count, Skaneateles Count Circle; BBA= New York Breeding Bird Atlas III within 1 mile of the Facility Study Area, Jordan CE, Jordan SE, Camillus CW, and Camillus SW atlas blocks; USFWS IPaC = U.S. Fish and Wildlife Service Information for Planning and Consultation official species list; eBird= hotspot data, personal location data, and/or species observation map data located within approximately 1 mile of the Facility Study Area.

**>END CONFIDENTIAL INFORMATION**

## 3.2 Evaluation of Habitat Suitability for Listed Species at the Facility Study Area

This section provides information in response to the following requirement of Section 1100-1.3(g)(1):

*With respect to NYS threatened or endangered species or species of special concern, the wildlife site characterization shall include:*

*(ii) For each listed animal species documented from available data sources, provide an evaluation of current habitat suitability for those species at the project site.*

**BEGIN CONFIDENTIAL INFORMATION<**

### *3.2.1* [redacted]

[redacted]

### *3.2.2* [redacted]

[redacted]

### *3.2.3* [redacted]

[redacted]

### *3.2.4* [redacted]

[redacted]

### *3.2.5* [redacted]

[redacted]

[redacted]

### *3.2.6* [redacted]

[redacted]

[redacted]

### *3.2.7* [redacted]

[redacted]

[redacted]

[redacted]

### *3.2.8* [redacted]

[redacted]

[redacted]

### *3.2.9* [redacted]

[redacted]

[redacted]

[redacted]

### *3.2.10 [redacted]*

[redacted]

[redacted]

### *3.2.11 [redacted]*

[redacted]

[redacted]

[redacted]

[redacted]>**END CONFIDENTIAL INFORMATION**

## 3.3 Landscape Features and Resources within Five Miles

This section provides information in response to the following requirement of Section 1100-1.3(g)(1):

*With respect to NYS threatened or endangered species or species of special concern, the wildlife site characterization shall include:*

*(iii) Landscape features and resources of potential concern within five (5) miles of the facility that may function to funnel or concentrate birds and bats, with a focus on NYS threatened or endangered species, during migration or for feeding, breeding, wintering, or roosting activities, such as national wildlife refuges, wildlife management areas, grassland focus areas, core forest blocks (contiguous areas one hundred fifty (150) acres or larger), Audubon Important Bird Areas, high elevation mountaintops, prominent ridgelines, forested riparian areas, known hibernacula, records of caves and mines, or other significant habitat areas.*

No grassland focus areas, national wildlife refuges, high elevation mountaintops, prominent ridgelines, known bat hibernacula, or other documented significant habitat areas are present within 5 miles of the Facility Study Area. However, other landscape features and resources within 5 miles of the Facility Study Area that could function to funnel or concentrate birds or bats are discussed in greater detail in the following sub-sections.

### *3.3.1 Wildlife Management Areas*

The NYSDEC Fish and Wildlife Division administers 128 Wildlife Management Areas (WMAs) across the state. These areas provide important habitat resources for a variety of wildlife and the NYSDEC actively manages portions of these areas to maintain quality habitat for targeted species. WMAs also provide recreational and educational opportunities to the public, primarily in the form of hunting, fishing, trapping, wildlife observation, photography, hiking, and other passive recreation (NYSDEC, 2018). One NYSDEC WMA, the Cross Lake Islands WMA, is located approximately 4.9 miles northwest of the Facility Study Area (Figure 3). The Cross Lake Islands WMA encompasses a 26.6-acre area that includes two islands on Cross Lake.

### *3.3.2 Core Forest Blocks*

New York's forests provide important breeding, migratory stopover, and wintering habitat for more than a hundred species of birds. One of their most important ecological functions is to provide breeding habitat for bird species that are experiencing population declines due to habitat fragmentation and the loss of quality forest habitat (Treyger, 2019). Research has demonstrated that larger forest tracks typically support more species than smaller forest stands. The amount of forest cover, size of individual forest patches, forest type, and linkages to other patches in a landscape determine their ability to support wildlife species which depend on them, including area-sensitive and edge-intolerant species. This is particularly true for mammals and forest interior birds that require extensive forests (Environment Canada, 2004). Ongoing development is resulting in the fragmentation of privately held forest habitats that connect publicly managed open spaces. If these trends continue, New York's future forest ecosystems will have a higher proportion of isolated forest

patches that will be less connected across the landscape. Large blocks of forest also play an important role by providing 'source' populations of plants and animals that can repopulate nearby smaller patches of habitat after disturbance events (NYSDEC, 2011).

In accordance with the Article VIII regulations, EDR conducted a desktop analysis to identify core forest blocks (i.e., contiguous areas 150 acres or larger) in the vicinity of the proposed Facility. Based on data from the 2016 USGS NLCD, there are 63 core forest blocks at least partially within 5 miles of the Facility Study Area (Figure 6). These forest blocks range in size from 156 acres to 890 acres and collectively total 17,152 acres, or approximately 26% of the total land area within 5 miles of the Facility Study Area boundaries. This analysis included all areas classified by the NLCD as one of the four forest types (i.e., deciduous forest, mixed forest, evergreen forest, and woody wetlands).

EDR also reviewed an analysis, conducted by The Nature Conservancy (TNC) in partnership with the NYNHP, to identify matrix forest blocks, which were defined as large contiguous areas whose size and natural condition allow for the maintenance of ecological processes, embedded large and small patch communities, and embedded species populations. The goal of the matrix forest selection was to identify viable examples of the dominant forest types that could serve as critical source areas for species requiring interior forest conditions or associated with the dominant forest types. Matrix occurrences are bounded by fragmenting features such as roads, railroads, major utility lines, and major shorelines. Tier 1 occurrences represent the best examples of viable matrix forest, while Tier 2 occurrences are also viable matrix occurrences, but are considered alternates. The closest matrix forest blocks are the Oswego matrix, located approximately 19 miles north-northwest of the Facility Study Area, and the Oneida Lake matrix, located approximately 22.3 miles north-northeast of the Facility Study Area. The TNC/NYNHP analysis also identified linkage zones, which represent the easiest/most suitable paths for forest species traveling between matrix forest blocks. The closest linkage zone that connects the Oswego matrix forest block to the Oneida Lake matrix forest is located to the north and outside of the Facility Study Area. Most of the Facility Study Area lies within the linkage zone that connects the Rome Sand Plains and Oneida Lake matrix forest blocks to the Chenango Highlands matrix forest, located approximately 24.3 miles south of the Facility Study Area (The Nature Conservancy, 2012).

### *3.3.3 Audubon Important Bird Areas*

Audubon Important Bird Areas (IBAs) are part of an international effort to conserve bird habitats. Designated IBAs must meet one or more of the following three criteria: 1) be a place where birds congregate in large numbers at one time, 2) be a place that provides habitat for species that are at-risk, or 3) be a place that supports groups of birds representing certain habitats such as forests, wetlands, grasslands, and shrublands. Within New York State, 132 IBAs that have been recognized as significant places for birds. Whisky [sic] Hollow is an Audubon IBA that overlaps the northern portion of the 5-Mile Study Area (Figure 3). The Whisky Hollow IBA is a mostly privately-owned forested valley adjacent to farmland located northwest of Syracuse, New York. This IBA supports breeding populations of several state listed species including **BEGIN CONFIDENTIAL INFORMATION<** [redacted] **>END CONFIDENTIAL INFORMATION**

### *3.3.4 Forested Riparian Areas*

Riparian areas are located immediately adjacent to streams and rivers and are distinguished from uplands by their high soil moisture levels, frequent flooding, and unique plant and animal species assemblages. Riparian areas in the eastern U.S. are among the most productive biological systems in the world and provide critical habitat for many types of wildlife, including both common and rare species. Wildlife may be permanent residents of a riparian area or occasional visitors that use the area for food, water, temporary shelter, or travel corridors. The importance of a particular riparian area depends on the surrounding land uses and the vegetation present. For example, in areas of intensive agriculture, forested riparian areas can provide important natural habitat "islands" or refugia where species that depend on forests for their survival can live and reproduce (Klapproth & Johnson, 2009).

Mapped NYSDEC streams can be used as a preliminary screening tool to help identify forested riparian areas, as most NYSDEC streams have riparian corridors that are forested, at least in part. Refer to Section 3.5.1 for a discussion of mapped NYSDEC streams.

### *3.3.5 Caves and Mines*

Large numbers of cave-dwelling bats now use abandoned subterranean mines as roosting sites and hibernacula. Like caves, abandoned mines offer bats the advantage of a stable microclimate, reduced risk from predation and disturbance, and protection from adverse weather. Hard-rock mining provides structures that cave-dwelling bats find attractive for roosting (Belwood & Waugh, 1991). There are no caves or mines within the Facility Study Area. However, NYSDEC's downloadable mining database contains records of 27 mines within 5 miles of the Facility Study Area boundaries (Figure 4). Of these, 17 are sand and gravel mines, four are limestone mines, four are glacial till mines, one is a shale mine, and one is a clay mine. None of these are sub-surface mines operating underground (NYSDEC, 2025f; NYSDEC, 2025g) and, therefore, would not provide suitable winter hibernacula for cave-dwelling bats.

## 3.4 Geographical, Topographical, or Other Physical Features within Five Miles

This section provides information in response to the following requirement of Section 1100-1.3(g)(1):

*With respect to NYS threatened or endangered species or species of special concern, the wildlife site characterization shall include:*

*(iv) Geographical, topographical, and other physical features within five (5) miles of the facility, interconnections, connecting lines, and access roads.*

Every spring and fall, millions of birds and bats migrate through the Great Lakes region as they travel between their wintering and breeding grounds. The Facility Study Area is located within the Atlantic Flyway, a broad front north-south route for migratory birds that encompasses much of eastern North America (American Bird Conservancy, 2022). Migrating raptors and other soaring birds tend to concentrate along linear ridges, which create updrafts or "thermals" that raptors use to fly long distances with minimal exertion (Berthold, 2001). As indicated in Section 3.3, there are no prominent ridgelines within 5 miles of the Facility Study Area (Figure 7).

On a smaller scale, birds and bats often follow more local migration corridors. The migration corridor system is not well understood, but areas near the shorelines of large waterbodies are known to host concentrated movements of birds and bats. For example, the Great Lakes act as barriers to migrating birds and bats because they are devoid of safe places to land and require substantial energy to cross. Conversely, the shorelines of these lakes concentrate migrants by providing the last refuge near a geographic obstacle and are likely used for navigation (USFWS & USGS, 2012; Heist et al., 2018). The NYSDEC has also identified large river corridors (e.g., the Hudson, the St. Lawrence) as features that can concentrate movements of migrating birds and bats (NYSDEC, 2016). There are no Great Lakes shorelines or large river corridors within 5 miles of the Facility Study Area.

## 3.5 Mapped Wetlands, Streams, State Forests, State Parks, Land Use

This section provides information in response to the following requirement of Section 1100-1.3(g)(1):

*With respect to NYS threatened or endangered species or species of special concern, the wildlife site characterization shall include:*

*(v) National Wetlands Inventory (NWI) and NYSDEC mapped wetlands, streams, waterbodies, state forests, parks, land use, and other available information relevant to siting the facility.*

### *3.5.1 Mapped Wetlands, Streams, and Waterbodies*

National Wetlands Inventory (NWI) mapping indicates the presence of four wetland communities within the Facility Study Area, totaling 9.96 acres (Figure 8). Freshwater forested/shrub wetlands are the dominant community types mapped on-site, totaling approximately 6.4 acres. Other NWI-mapped communities within the Facility Study Area are classified as riverine (2.15 acres), freshwater pond (0.92 acres), and freshwater emergent (0.50 acres).

New York State Freshwater Wetlands mapping data indicates that portions of one Previously Mapped Wetland regulated under Article 24 of the Environmental Conservation Law occur within the Facility Study Area, totaling 10 acres (Figure 8). Based on available NYSDEC stream classification mapping, the Facility Study Area includes approximately 1.04 miles of Class C(T) streams (Figure 8). All of these mapped streams appear to exhibit wooded riparian corridors, at least in part, though some segments pass through agricultural fields and/or open wetland areas where wooded riparian corridors are narrow or absent. Additionally, the mapping identified portions of five Informational Freshwater Wetlands within the Facility Study Area (Figure 8).[6]

There are no significant areas of open water within the Facility Study Area. In addition, as indicated in Section 3.5.3, no features classified as open water by the NLCD exists within the Facility Study Area.

[6] As of January 1, 2025, the NYSDEC regulatory protection of freshwater wetlands is no longer limited to wetlands depicted on the New York State Freshwater Wetlands Maps and the New York State Freshwater Wetlands Maps are referred to as Previously Mapped Freshwater Wetlands.

### *3.5.2 State Forests and Parks*

There are no state parks or state forests within the Facility Study Area. The closest state park is Clark Reservation State Park, located approximately 19.3 miles east of the Facility Study Area. The closest state forest is Frozen Ocean State Forest located approximately 23.2 miles south of the Facility Study Area. There are no other state parks or state forests within 5 miles of the Facility Study Area.

### *3.5.3 Land Use/Land Cover*

The Facility Study Area is primarily composed of agricultural land that is actively managed to produce cultivated crops (i.e., row crops), and to a lesser extent, used for pastureland and/or hay production (Figure 5). Deciduous forests also comprise a significant portion of the land cover within the Facility Study Area. Table 2 summarizes the NLCD land cover types found within the Facility Study Area.

**Table 2. Land Cover Classes Found within the Facility Study Area**

| Land Cover Class | Acres | Percent Cover |
|---|---|---|
| Cultivated Crops | 350.5 | 64.2 |
| Deciduous Forest | 150.2 | 27.5 |
| Mixed Forest | 10.2 | 1.9 |
| Woody Wetlands | 10.0 | 1.8 |
| Hay/Pasture | 9.0 | 1.6 |
| Developed/Open Space | 6.3 | 1.2 |
| Evergreen Forest | 2.7 | 0.5 |
| Shrub/Scrub | 2.6 | 0.5 |
| Developed, Low Intensity | 2.0 | 0.4 |
| Emergent Herbaceous Wetlands | 1.2 | 0.2 |
| Barred Land | 0.4 | 0.1 |
| Developed, Medium Intensity | 0.3 | 0.1 |
| Developed, High Intensity | 0.2 | <0.1 |
| **Total** | **545.6** | **100** |

Source: USGS, 2021.

## 4.0 CONCLUSIONS

In accordance with the requirements of the Article VIII permitting process, publicly available data sources were queried to determine wildlife species that have the potential to be present within the Facility Study Area. Table 3 provides a summary of state listed species with documented occurrences in the vicinity of the Facility Study Area in the last 5 years.

**Table 3. State Listed Species Summary**

**BEGIN CONFIDENTIAL INFORMATION<**

| Species | NYS Status[1] | Habitat Present within the Facility Study Area | Documented Within the Facility Study Area | Multiple Supporting Data Sources[2] |
|---|---|---|---|---|
| [redacted] | | | | |

[1] E = endangered; T = threatened; SSC = species of special concern.

[2] Multiple publicly available data sources identify this species as potentially occurring within the Facility Study Area or its vicinity. Refer to Table 1.

**>END CONFIDENTIAL INFORMATION**

In accordance with Section 1100-1.3(g)(2) through (4), project-specific consultations with ORES and NYSDEC will take place to determine the need for on-site surveys of these species and/or their habitats. If such surveys are necessary, the Applicant will prepare associated work plans in consultation with ORES and conduct the required surveys in accordance with Section 1100-1.3(g)(4) and (5). Should ORES ultimately determine that there is confirmed or presumed occupied habitat at the Facility Study Area, the Article VIII application will identify any unavoidable impacts to state listed threatened or endangered species or species of special concern and provide an evaluation of avoidance and minimization measures to be incorporated into Facility design, as per the requirements of Section 1100-2.13(d).

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# Figures

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# Appendix A

New York State Database Reports

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**Appendix B**

Agency Correspondence

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**Appendix C**

Wildlife Species List

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