Breeding Bird Survey Report

Agricola Wind Project

Towns of Venice, Scipio, and Moravia

Cayuga County, New York

Prepared for:

Liberty Renewables Inc.
90 State Street, Suite 700
Albany, NY 12207
https://liberty-renewables.com/agricolawind/

Prepared by:

Environmental Design & Research, D.P.C.
217 Montgomery Street, Suite 1100
Syracuse, New York 13202
www.edrdpc.com

October 2022

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYMS AND ABBREVIATIONS

BBS	Breeding Bird Survey
EDR	Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C.
IPaC	Information for Planning and Consultation
MW	megawatt
NYNHP	New York Natural Heritage Program
NYSDEC	New York State Department of Environmental Conservation
NYSOA	New York State Ornithological Association
ORES	New York State Office of Renewable Energy Siting
POI	point of interconnection
SGCN	species of greatest conservation need
SGCN-HP	high priority species of greatest conservation need
SSC	species of special concern
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Service

1.0 INTRODUCTION

1.1 Purpose of the Investigation

On behalf of Liberty Renewables Inc. (the Applicant), Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) prepared this Breeding Bird Survey Report for a proposed wind energy generation facility and associated infrastructure (the Facility) located in Cayuga County, New York. This report supports an Application for a siting permit under New York's Accelerated Renewable Energy Growth and Community Benefit Act, Executive Law § 94-c (Section 94-c) regulations.[1] The information included in this report is intended to help the Applicant design the Facility in a manner that minimizes adverse environmental impacts. This information will also assist the New York State Office of Renewable Energy Siting (ORES) and the New York State Department of Environmental Conservation (NYSDEC) in their determination of whether occupied habitat[2] for one or more state-listed threatened or endangered avian species exists within the area under consideration to host the Facility components in accordance with the requirements of Section 94-c.

Breeding bird surveys were conducted between early May and mid-July 2022 to document the presence, abundance, and use patterns of breeding birds (including grassland bird species) within the Breeding Bird Survey (BBS) Study Area.[3] Trained, qualified biologists conducted the 2022 breeding bird surveys following the methodology established in the NYSDEC 2022 *Survey Protocol for State-listed Breeding Grassland Bird Species* (NYSDEC 2022 Survey Protocol; NYSDEC, 2022). The scope of these surveys was defined in a Breeding Bird Survey Work Plan (EDR, 2022), submitted to ORES and the NYSDEC in April 2022. Based on recommendations provided by ORES and NYSDEC staff following submittal of the Breeding Bird Survey Work Plan, EDR added more than 30 point count locations and shifted several point count locations to improve coverage of the BBS Study Area. In addition, a total of 24 point count locations (and associated parcels) were removed from the study due to lack of land access permission. Surveys also began in early May **BEGIN CONFIDENTIAL INFORMATION**<[redacted]>**END CONFIDENTIAL INFORMATION** that were previously documented during spring raptor migration surveys conducted in 2021.

[1] Chapter XVIII, Title 19 of the New York Codes, Rules and Regulations (NYCRR) Part 900. Available at: https://ores.ny.gov/regulations

[2] The New York State Endangered Species Act (Environmental Conservation Law §11-0535) and its implementing regulations at 6 New York Codes, Rules, and Regulations (NYCRR) Part 182 define occupied habitat as follows: a geographic area in New York within which a species listed as endangered or threatened in this Part has been determined by the department to exhibit one or more essential behaviors. Essential behavior refers to any of the behaviors exhibited by a species listed as endangered or threatened in this Part that are a part of its normal or traditional life cycle and that are essential to its survival and perpetuation. Essential behavior includes behaviors associated with breeding, hibernation, reproduction, feeding, sheltering, migration and overwintering.

[3] The BBS Study Area is defined as all parcels, or portions of parcels, which are currently under consideration by the Applicant for the location of Facility components with an aboveground footprint (e.g., wind turbines, substations, access roads).

1.2 Facility Location and Description

The Applicant is planning to develop the Agricola Wind Project, a wind energy generation facility of up to 100 megawatts (MW) located in the Towns of Venice, Scipio, and Moravia, Cayuga County, New York (see **Figure 1**). The proposed Facility will consist of wind turbines, a point of interconnection (POI) substation, temporary construction laydown areas, access roads, and electrical collection lines. The BBS Study Area corresponds with the current Facility Site, an approximately 4,300-acre area within which a more limited subset of land will be selected for the siting, design, construction, and operation of the Facility (see **Figure 2**). It is anticipated that much of the Facility will be constructed in areas where disturbance has already occurred (i.e., within agricultural fields that are used for hay and/or row crop production) to minimize the need for vegetation removal within undisturbed natural communities.

2.0 BACKGROUND INFORMATION

2.1 Existing Conditions

The Applicant has gathered a substantial amount of information on the existing ecological conditions within the BBS Study Area. These investigations have included developing a Wildlife Site Characterization for the Facility, plus additional desktop analyses and on-site field assessments (e.g., spring raptor migration surveys, fall raptor migration surveys). Based on these assessments, the lands currently under consideration for the Facility are primarily composed of agricultural row cropland, hayfields, and pastureland. In addition, some areas of deciduous, mixed, and evergreen forest, woody wetlands, emergent herbaceous wetlands, successional shrubland, and developed land (mainly rural houses, farms, and associated yards) are also present. On-site crop cover types for the past five years (2017-2021) are presented in **Appendix** .

2.2 Agency Database Review and Consultation

As part of the Wildlife Site Characterization, EDR consulted with federal and state agencies regarding the potential presence of listed threatened or endangered species within the vicinity of the Facility. This included database review via the U.S. Fish and Wildlife Service (USFWS) online Information for Planning and Consultation (IPaC) system, correspondence with the New York Natural Heritage Program (NYNHP), and a pre-application consultation meeting with ORES and NYSDEC.

A review of the IPaC system was performed for the Facility on March 4, 2021. According to the IPaC system, one federally listed species, the northern long-eared bat (*Myotis septentrionalis*; threatened) may occur within the boundaries of the Facility Site and/or may be potentially affected by the proposed Facility (see **Appendix A**). A site-specific request for documented occurrences in the vicinity of the Facility was submitted to NYNHP on March 5, 2021, and a response was received on April 26, 2021. **BEGIN CONFIDENTIAL INFORMATION<** [redacted]

[redacted]>**END CONFIDENTIAL INFORMATION**

Additional publicly available records on significant natural communities and species' occurrences were obtained from the NYSDEC Environmental Resource Mapper, the NYSDEC EAF Mapper, the New York Nature Explorer, the New York Breeding Bird Atlas, the Cornell Lab of Ornithology (eBird), the National Audubon Society Christmas Bird Count, the United States Geological Service (USGS) North American Breeding Bird Survey, the New York State Ornithological Association (NYSOA), and several local birding organizations. **BEGIN CONFIDENTIAL INFORMATION**<[redacted]>**END CONFIDENTIAL INFORMATION**

In a pre-application consultation letter provided in August 2021, ORES noted that the Facility is located **BEGIN CONFIDENTIAL INFORMATION**<[redacted]>**END CONFIDENTIAL INFORMATION** ORES and NYSDEC recommended conducting on-site avian field surveys, with a focus on open fields greater than 25 acres in size. These open areas may represent suitable habitat for grassland bird species (state-listed and others). The Applicant will continue to consult with the appropriate agencies to ensure that the most current state-listed species information is being considered throughout the Facility design and development process.

3.0 BREEDING BIRD SURVEYS

3.1 Survey Period and Frequency

Biologists conducted breeding bird surveys between early May and mid-July 2022, which corresponds with the typical breeding period for most avian species that may be present within the Facility Site during the breeding season (and the optimal window for surveys for state-listed grassland bird species), as well as the early portion of the breeding season when some state-listed grassland bird species **BEGIN CONFIDENTIAL INFORMATION**<[redacted]>**END CONFIDENTIAL INFORMATION** may be present. Surveys began on May 5, 2022 and were performed multiple days per week until July 21, 2022. Survey locations were visited according to a regimented, alternating rotation so that each individual survey location was

surveyed at different times of the day and multiple times throughout the breeding season. Refer to Sections 3.4 and 6.0 for additional information.

3.2 Survey Methodology

As described in the Breeding Bird Survey Work Plan (EDR, 2022), the primary method for surveying breeding birds consisted of five-minute morning point count surveys that were conducted within on-site open habitats. A total of 138 point count locations were designated within the BBS Study Area (**Figure 3**). Point count locations were systematically located to provide coverage of open habitats (e.g., hayfields, pastureland, row cropland, fallow fields) throughout the BBS Study Area, and point count locations were spaced approximately 250 meters apart to minimize the potential for overlapping detections while maintaining adequate coverage in accordance with the NYSDEC 2022 Survey Protocol. In addition to point count surveys, biologists also conducted qualitative meander surveys while walking to, from, and among point count locations.

Point count surveys were conducted multiple days per week between first light (one half hour before sunrise) and approximately 10:30 a.m. as weather conditions permitted. To the greatest extent practicable, surveys were conducted in conditions that were conducive to: (1) hearing bird vocalizations; and (2) seeing birds move about in vegetation and in flight. Surveys were not conducted in conditions that could significantly reduce detectability, such as high winds, steady/heavy precipitation, fog, or extreme temperatures. Survey locations were surveyed in a different order each week to minimize sampling bias, as detectability of some species can vary at different times of day. As the season progressed, increased crop heights restricted access and/or visibility for some locations during some visits. In these instances, point count surveys were conducted from alternate locations near field edges, and the use of alternate locations was noted on the survey data sheets. Alternate locations were selected to provide visual and auditory coverage of the same open field areas.

Surveys were conducted by qualified biologists with experience and training in both acoustic and visual identification of birds in New York State. Upon arriving at each point count location, biologists waited silently for at least two minutes before beginning the timed five-minute survey (to allow birds to habituate to the presence of the observer). During surveys, biologists recorded all birds seen and heard. Visual identification was aided by the use of binoculars with 8x or 10x magnification. Incidental species that were heard or seen during qualitative meander surveys between point count survey periods were also recorded, including any species listed by the state as endangered, threatened, or SSC, and birds listed as species of greatest conservation need (SGCN) (NYSDEC, 2015a; NYSDEC, 2015b; NYSDEC, 2015c). Standardized four-letter alpha codes were used for each avian species (Pyle and DeSante, 2021). Behavior and breeding codes were developed based on those used for the New York Breeding Bird Atlas III, and the activity or behavior observed that was most indicative of breeding was documented for each individual bird (eBird, 2022a). The following data were recorded for each point count survey:

- Survey date.
- Observer name.
- Point count location identification number or name.

- Start time.
- Pertinent weather conditions including temperature, wind speed and direction, precipitation, cloud cover, and visibility, as applicable.
- General habitat characteristics and vegetation measurements, including photographs.
- Species and number of each individual bird observed.
- Distance of each identified bird from the observer (recorded as 0-100 meters or greater than 100 meters).
- Detailed locations for all state-listed threatened or endangered species and SSC observed.
- Observed activities, behaviors, and signs of breeding (if any) for each individual bird.

3.3 Data Analysis

Avian Use, Abundance, Composition, and Frequency

In order to avoid duplicate records of the same individuals between point count locations, only observations recorded within 100 meters of the point count locations were used to calculate avian use, composition, and frequency for each species. Avian use for each species was determined by dividing the total number of observations recorded within 100 meters of point count locations by the total number of surveys conducted. Because it is not always possible to discern among individuals of the same species during a given survey, relative abundance was used to quantify species abundance based on the number of observations recorded. Composition for each species was calculated as the percent of species-specific observations divided by the number of total observations (of all species). Frequency for each species was calculated as the percentage of surveys during which the species was recorded.

Species Richness and Spatial Avian Use

Data analysis included a review of the variability in mean species richness (per survey), total species richness, and spatial avian use across the Facility Site. Mean species richness at each point count location was determined for each survey location by calculating the mean number of species recorded at each survey location per survey. Total species richness was determined by calculating the total number of species recorded over the course of the breeding season at each point count location. Spatial avian use was calculated by dividing the total number of observations recorded (for all species) by the total number of surveys conducted.

Incidental Observations

During point count surveys, birds detected at distances beyond 100 meters were recorded, but were not included in the calculation of the metrics described above. Incidental observations (i.e., birds observed before, after, and between point count surveys) were also documented for all special status species (i.e., state-listed endangered, threatened, SSC, and/or SGCN) detected. Incidental observations also included other avian species that were observed independent of the point count surveys.

Essential Behaviors

For state-listed endangered or threatened species that were documented, EDR reviewed behavioral descriptions, flight heights/patterns, and temporal data to identify the subset of observations of these species that appeared to include one or more essential behaviors.[4]

3.4 Survey Results

Surveys were conducted each week between May 5 and July 21, 2022. In total, morning point count surveys were completed on 42 different days and included a total of 1,227 breeding bird point count surveys and 6,135 survey-minutes. Up to 10 surveys were completed at point count locations by the end of the survey period, and the majority of point count locations were surveyed eight or nine times (the NYSDEC Survey Protocol recommends at least eight surveys per point count location). The overall survey effort, including travel among point count locations, totaled more than 18,695 survey-minutes (more than 311 survey-hours). Completed survey information is provided in **Table 1** (see Section 6.0 below).

A total of 4,383 birds representing 80 different species were recorded within 100 meters of point count locations during breeding bird surveys. Red-winged blackbird (*Agelaius phoeniceus*) was the most abundant species recorded at the Facility Site, with 833 observations, which accounted for 19.01% of all observations. Other abundant species included savannah sparrow (*Passerculus sandwichensis;* 510 observations), song sparrow (*Melospiza melodia;* 410 observations), and barn swallow (*Hirundo rustica;* 314 observations). Together, these four species accounted for 47.16% of all observations within 100 meters of point count locations. Savannah sparrow was the most frequently observed species (27.87% of surveys). Song sparrow was the second-most frequently observed species (26.49% of surveys). **Table** 2 (see Section 6.0 below) provides a summary of abundance (total number of species observed), composition (percent of species observations/total observations), use (specific species observations/total number of surveys), and frequency (percentage of surveys during which the species was recorded) for each species observed.

Spatially, point count location 94 had the highest mean species richness at 11.10 species per survey, followed by point count locations 42 (10.88 species per survey) and 130 (10.75 species per survey). Point count locations 7 (4.88 species per survey), 6 (4.88 species per survey), 109 (4.88 species per survey), and 10 (4.75 species per survey) had the lowest mean species richness. Point count location 42 had the highest total species richness, with 43 species recorded over the course of the season. Point count locations 38 and 23 had the lowest total species richness, with a total of 15 and 16 species, , respectively, recorded over the course of the season. The highest avian use was recorded at point count location 46, with an average of approximately 28.63 birds recorded per survey. **Table 3** (see Section 6.0, below) provides a summary of abundance (total observations), avian use, total species richness, and mean species richness (per survey) for each point count location.

[4] 6 NYCRR Part 182.2(f) defines essential behavior as any of the behaviors exhibited by a species listed as endangered or threatened (in New York State) that are a part of its normal or traditional life cycle and that are essential to its survival and perpetuation. Essential behavior includes behaviors associated with breeding, hibernation, reproduction, feeding, sheltering, migration and overwintering.

In addition to bird observation data, habitat data were collected during each survey, and included observations of plant species, vegetation percent cover, vegetation height, litter depth (if any), and human activities or other factors that would be likely to alter avian behavior. The dominant cover types at survey locations included field cropland (in the form of alfalfa and hay fields) and row cropland (in the form of corn and soybean fields). Some on-site hayfields were mowed/harvested during the survey period. Other cover types present throughout the season included successional old fields, fallow fields with remnant row crop vegetation, forested edges, and successional shrubland. Habitat information and vegetative measurements, including representative photographs, are provided on the survey data sheets in **Appendix B**.

A total of 24 additional species were observed over 100 meters from point count locations, and therefore were not included in the data analysis (although these observations are included in **Table 2** and **Appendix C**). A total of 44 species were recorded before or after timed point count surveys, or during meander surveys that were conducted when traveling between/among point count locations; of these, three species were recorded only outside of timed point count surveys. These three species included American pipit (*Anthus rubescens*), ruffed grouse (*Bonasa umbellus*), and magnolia warbler (*Setophaga magnolia*). Incidental species observed during each survey are noted on the survey data sheets in **Appendix B**.

A total of 12 species were confirmed as breeding within or in the vicinity of the BBS Study Area based on behavioral observations made during the 2022 surveys. American robins (*Turdus migratorius*) were observed carrying food and nesting material. One Baltimore oriole (*Icterus galbula*) fledgling was observed in a tree near point count location 63. A killdeer (*Charadrius vociferus*) fledgling was observed calling near point count location 121. Canada geese (*Branta canadensis*) were seen near a pond with multiple recently fledged young. **BEGIN CONFIDENTIAL INFORMATION<** [redacted] **>END CONFIDENTIAL INFORMATION** A song sparrow and a **BEGIN CONFIDENTIAL INFORMATION<** [redacted] **>END CONFIDENTIAL INFORMATION** In addition, as noted in **Appendix C**, many other species exhibited behaviors consistent with possible or probable breeding within the BBS Study Area, including singing birds, pairs in suitable breeding habitat, males chasing females, courtship displays, territorial defenses, and/or agitated behavior (refer to eBird, 2022a for details pertaining to breeding codes/definitions).

3.4.1 State-Listed Species

No state-listed endangered species were observed during the survey period, **BEGIN CONFIDENTIAL INFORMATION<** [redacted]

[redacted]

[redacted]

[redacted]

[redacted]>END CONFIDENTIAL INFORMATION

3.4.2 Other Special Status Species

Species for which conservation actions are needed within the next ten years in order to maintain or increase populations are designated by the NYSDEC as high priority species of greatest conservation need (SGCN-HP; NYSDEC, 2015c).[5] Three species listed as SGCN-HP were recorded during the survey period, including bobolink, brown thrasher (*Toxostoma rufum*), and eastern meadowlark (*Sturnella magna*). Bobolinks were observed 173 times throughout the BBS Study Area, mostly within open grasslands. Observed behaviors included courtship, agitated behavior, territorial defense, and, most commonly, singing. Brown thrashers were most commonly observed singing from wooded areas located near point count locations. Eastern meadowlark observations were mainly concentrated in the hayfield containing point count locations 109 to 112, and most individuals were heard singing.

Species of conservation concern in New York State are listed by the NYSDEC as SGCN.[5] These species are in need conservation actions to maintain or increase population levels (NYSDEC, 2015c). A total of five SGCN species were observed during the survey period, including American kestrel (*Falco sparverius*), American woodcock (*Scolopax minor*), black-billed cuckoo (*Coccyzus erythropthalmus*), scarlet tanager (*Piranga olivacea*), and wood thrush (*Hylocichla mustelina*). American kestrel observations were primarily concentrated in the central portion of the BBS Study Area, within the fields containing point count locations 62 to 78. The most notable observation was a pair perched in a tree on the edge of the field containing point count location 92. One American woodcock auditory observation was documented near point count location 70, and one black-billed cuckoo was observed near point count location 53. Scarlet tanager and wood thrush observations included singing birds located in woody areas near survey locations.

[5] Some endangered, threatened, and special concern species are also listed as SGCN-HP or SGCN; these species are described in other sections of this report.

4.0 SUMMARY AND CONCLUSIONS

EDR biologists conducted breeding bird surveys by at 138 point count locations within the BBS Study Area between May 5, 2022 and July 21, 2022. A total of 1,227 point count surveys were conducted over a period of 12 weeks, and point count locations were surveyed between eight and ten times during the breeding season. Overall, a total of 4,383 birds of 80 different species were recorded within 100 meters of point count locations. A total of 44 species were recorded before or after timed point count surveys, or during meander surveys that were conducted when traveling between/among point count locations; of these, three species were recorded only outside of timed point count surveys.

BEGIN CONFIDENTIAL INFORMATION< [redacted] **>END CONFIDENTIAL INFORMATION** The studies conducted for the Facility to date to document on-site use by state-listed breeding grassland birds have been effective to characterize potential impacts to these species, and additional breeding bird study work is not recommended. Winter raptor surveys are being planned for Facility, and the results of winter raptor study work will provide additional information to make conclusions about potential impacts to occupied habitat and the requirements for a net conservation benefit plan (if applicable).

5.0 REFERENCES

eBird. 2022a. *Breeding Codes*. Available at: https://ebird.org/atlasny/about/breeding-codes (Accessed August 2022).

eBird. 2022b. *Breeding Season Table from Atlas 2000*. Available at: https://s3.amazonaws.com/is-ebird-wordpress-prod-s3/wp-content/uploads/sites/79/2019/11/BreedingSeasonTable_Atlas2000.pdf (Accessed August 2022).

Environmental Design & Research, D.P.C. (EDR). 2021. *Wildlife Site Characterization. Agricola Wind Project*. Prepared for Liberty Renewables Inc. by Environmental Design & Research, D.P.C., Syracuse, NY. May 2021.

EDR. 2022. *Breeding Bird Survey Work Plan. Agricola Wind Project*. Prepared for Liberty Renewables Inc. by Environmental Design & Research, D.P.C., Syracuse, NY. April 2022.

New York State Department of Environmental Conservation (NYSDEC). 2015a. *List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State*. Available at: http://www.dec.ny.gov/animals/7494.html (Accessed August 2022).

NYSDEC. 2015b. *Species of Greatest Conservation Need (SGCN)*. Available at: https://www.dec.ny.gov/docs/wildlife_pdf/sgnc2015list.pdf (Accessed August 2022).

NYSDEC. 2015c. *New York State Wildlife Action Plan*. Available at: https://www.dec.ny.gov/docs/wildlife_pdf/swapfinaldraft2015.pdf (Accessed August 2022).

NYSDEC. 2022. *Survey Protocol for State-listed Breeding Grassland Bird Species*. March 2022.

Pyle, P. and D.F. DeSante. 2021. *Four-letter (English Name) Alpha Codes for 2143 Bird Species*. The Institute for Bird Populations. Available at: https://www.birdpop.org/docs/misc/Alpha_codes_eng.pdf (Accessed August 2022).

6.0 TABLES

Table 1. Completed Survey Information

Survey Date	Point Count Locations Surveyed	Start Time (a.m.)	End Time (a.m.)	Number of Surveyors	Number of Survey-Hours[1]	Temperature Range (°F)	Cloud Cover Range (%)	Wind Direction(s)	Wind Speed Range (mph)	Precipitation	Visibility Range (miles)
5/5/2022	47-67	5:30	10:19	1	4:29	42-54	0-1	NNW, N	1-7	None	10+
5/6/2022	68-85	5:37	10:15	1	4:38	47-55	90-100	NNE, NW	1-3	None	10+
5/6/2022	86-105	5:25	10:50	1	5:25	47-56	90-100	NE, E	1-3	None	10+
5/11/2022	47-67	5:18	10:32	1	5:14	53-69	0-1	SE, SSE	4-1	None	10+
5/12/2022	86-105	5:20	10:39	2	5:19	52-73	0-25	SE	1-3	None	10+
5/13/2022	68-85	5:16	10:26	2	5:10	60-69	0-50	SSE	4-7	None	10+
5/17/2022	6-17	5:11	10:16	1	5:05	51-57	25-50	SW, W	4-12	None	10+
5/17/2022	62-78	5:22	9:51	1	4:29	49-54	50-90	SSW, W	1-7	None	10+
5/18/2022	79-96, 104	5:25	10:27	1	5:02	44-54	0-90	NW, NNW	1-7	None	10+
5/19/2022	4, 5, 26-34, 39-43, 47, 48, 136-138	4:43	10:27	1	3:52	52-56	90-100	ESE, S	4-7	Rain (Intermittent/ Light)	0.62 – 10
5/20/2022	35-38, 49-61, 109-112	5:08	10:30	1	5:22	56-71	25-100	SE, E	4-12	None	10+
5/20/2022	44-46, 121-135	5:28	10:46	1	5:23	56-74	90-100	SE, S	4-12	None	10+

Survey Date	Point Count Locations Surveyed	Start Time (a.m.)	End Time (a.m.)	Number of Surveyors	Number of Survey-Hours[1]	Temperature Range (°F)	Cloud Cover Range (%)	Wind Direction(s)	Wind Speed Range (mph)	Precipitation	Visibility Range (miles)
5/20/2022	18-25	6:22	8:15	1	1:53	57-66	25-50	SE	4-7	None	10+
5/24/2022	44-46, 62-67, 126-135	5:27	10:39	1	5:12	43-61	0-25	N, ESE	1-3	None	10+
5/25/2022	6-25	5:00	10:30	1	5:30	52-63	25-90	ESE, S	7-3	None	10+
5/25/2022	79-96, 104, 105	5:25	10:15	1	4:50	51-64	90-100	ESE, SSE	1-3	None	10+
5/26/2022	109-112, 49-61, 35-38	5:05	10:40	1	5:35	58-65	90-50	SSE, NE	8 - 13+	None	10+
5/26/2022	68, 69, 106-108, 113-122, 123-	5:33	10:25	1	4:52	58-66	90-50	SSE, S	13+	None	10+
5/27/2022	5, 4, 26-34	5:01	10:40	1	5:39	66-70	90-50	S	13+	Rain (Sustained/ Light)	0.62-10
5/27/2022	70-78, 97-103	5:39	9:02	1	3:23	66-68	90-100	SSE, S	8-12	Rain (Intermittent/ Light)	10+
5/31/2022	68-89	5:06	10:30	1	5:27	63-81	10-25	SSW, W	1-7	None	10+
6/1/2022	26-34, 136-138,	5:30	10:30	1	5:39	66-70	50-90	SSE, N	4-7	None	10+
6/1/2022	1-3, 47-56, 59-67	5:09	10:39	1	5:30	64-76	25-100	SSW, W	4-12	None	10+
6/2/2022	90-108	5:10	10:30	1	5:20	59-64	90-100	N, W	1-7	None	10+

Survey Date	Point Count Locations Surveyed	Start Time (a.m.)	End Time (a.m.)	Number of Surveyors	Number of Survey-Hours[1]	Temperature Range (°F)	Cloud Cover Range (%)	Wind Direction(s)	Wind Speed Range (mph)	Precipitation	Visibility Range (miles)
6/3/2022	109-122, 44-46, 123-125	5:19	10:30	1	5:11	51-63	10-90	WNW	1-12	None	10+
6/3/2022	1-21	5:20	9:57	1	4:37	54-60	0-90	WSW, W	1-7	None	10+
6/6/2022	49-69	5:23	10:23	1	5:00	59-68	90-100	ESE, SSE	1-13+	None	10+
6/8/2022	1-21	5:37	10:35	1	4:58	54-64	10-50	W	4-7	None	10+
6/7/2022	70-92	5:30	10:20	1	4:50	66-68	90-100	SSE	13+	None	10+
6/10/2022	124-135, 35-43	5:10	10:30	1	5:20	53-59	10-50	WSW, W	8-13+	None	10+
6/10/2022	1-3, 22-34, 136-138	5:00	10:24	1	5:24	54-64	0-90	WSW, W	4-7	None	10+
6/13/2022	47-67	5:55	10:54	1	4:58	61-67	50-90	N, NW	1-7	Fog	<0.62-10+
6/14/2022	1-25	5:02	10:30	1	5:28	57-70	10-25	ENE	0-1	None	10+
6/14/2022	104-122	5:17	10:26	1	5:09	57-71	50-25	NE, NW	1-3	None	10+
6/15/2022	97-103, 126-135	5:31	10:21	1	4:50	57-75	0-25	NE, SSE	1-7	None	10+
6/15/2022	41-46, 136-138, 26-34, 125, 124	5:10	10:45	1	5:35	57-75	1-25	ESE, SE	1-7	None	10+
6/15/2022	68-84	5:33	10:22	1	4:49	51-75	0-25	NNE, SSE	1-7	None	10+

Survey Date	Point Count Locations Surveyed	Start Time (a.m.)	End Time (a.m.)	Number of Surveyors	Number of Survey-Hours[1]	Temperature Range (°F)	Cloud Cover Range (%)	Wind Direction(s)	Wind Speed Range (mph)	Precipitation	Visibility Range (miles)
6/16/2022	85-96, 35-38	5:55	10:16	1	4:21	67-74	90-50	SSE	8-13+	None	10+
6/20/2022	75-96	5:04	10:08	1	5:04	48-62	10-0	WSW, W	1-7	None	10+
6/21/2022	97-115	4:59	10:23	1	5:54	56-68	25-100	E, S	1-12	None	10+
6/22/2022	1-23	5:05	10:45	1	5:40	68-76	25-75	SE, ESE	4-7	None	10+
6/22/2022	116-135	4:59	10:24	1	5:25	68-72	50-90	SSE, NNW	4-1	None	10+
6/23/2022	35-43, 47-56, 59-60	5:24	10:05	1	4:41	63-61	90-100	SSE	4-7	None	10+
6/23/2022	24-36, 136-138	5:16	10:45	1	5:29	62-64	90-100	SE	4-7	None	10+
6/24/2022	44-46, 57, 58, 61-78	5:21	10:19	1	4:58	60-73	10-25	S, WNW	1-3	None	10+
6/28/2022	1-3, 40-48, 91-93	5:08	9:25	1	4:17	53-60	10-25	SSW, W	1-7	None	10+
6/30/2022	97-103, 106-108, 113-122	5:24	9:50	1	4:26	54-69	10-25	NE, SSW	1-7	None	10+
7/1/2022	104, 105, 109-112, 123-135	5:20	10:19	1	4:59	65-80	25-50	S, SSW	4-7	None	10+
7/5/2022	73-75, 79-85, 93-96	5:57	10:29	1	4:32	68-75	90-100	E	4-7	None	10+
7/7/2022	1-22	5:05	10:30	1	5:25	55-70	90-25	N, NW	0-1	Fog	0.62-10

Survey Date	Point Count Locations Surveyed	Start Time (a.m.)	End Time (a.m.)	Number of Surveyors	Number of Survey-Hours[1]	Temperature Range (°F)	Cloud Cover Range (%)	Wind Direction(s)	Wind Speed Range (mph)	Precipitation	Visibility Range (miles)
7/7/2022	86-92, 97-112	5:14	10:30	1	5:16	56-69	0-25	N, NNW	1-3	None	10+
7/8/2022	23-38, 136-138	5:09	10:35	1	5:26	59-71	10-25	ESE, NNW	1-7	None	10+
7/8/2022	39-59	5:26	10:26	1	5:00	59-74	0-25	ENE, NW	1-7	None	10+
7/8/2022	113-115, 119-135	5:25	11:00	1	5:35	60-79	0	NE, S	1-7	None	10+
7/11/2022	80-96, 116-118	5:25	10:53	1	5:28	57-79	0	SSE, S	4-7	None	10+
7/13/2022	39-48, 52-61	5:27	10:19	1	4:52	60-72	90-50	N, NNW	1-3	None	10+
7/13/2022	86-88, 97-115, 119	5:12	10:43	1	5:31	64-73	50-90	NW, NNW	0-3	None	10+
7/15/2022	49-51, 62-78	5:22	10:15	1	4:53	51-71	0	NE, NW	1-3	None	10+
7/19/2022	4-25	5:15	10:20	1	5:05	67-78	10-25	WSW	4-12	None	10+
7/19/2022	68-72,79, 123-135	5:28	10:30	1	5:02	69-78	10-25	WSW	4-7	None	10+
7/20/2022	1-3, 24-38, 136-138	5:14	10:30	1	5:16	71-80	90-25	S, WSW	1-7	None	10+
7/21/2022	60-67, 76-78, 116-118, 120-122	5:30	10:03	1	4:33	75-80	90-25	SSE, SW	4-12	None	10+

[1] The total amount of time surveyors conducted surveys on-site (h:mm).

Table 2. Summary of Avian Species Observed

BEGIN CONFIDENTIAL INFORMATION<

Alpha Code[1]	Common Name	Scientific Name	Within 100 meters[2]	Beyond 100 meters[3]	Total[4]	Avian Use[5]	Composition[6]	Frequency[7]	Activity Code[8]
ALFL	Alder Flycatcher	*Empidonax alnorum*	2	7	9	0.00	0.05%	0.08%	S
AMCR	American Crow	*Corvus brachyrhynchos*	56	1,032	1,088	0.05	1.28%	3.75%	T
AMGO	American Goldfinch	*Spinus tristis*	258	279	537	0.21	5.89%	14.67%	T
AMKE	American Kestrel	*Falco sparverius*	1	8	9	0.00	0.02%	0.08%	P
AMRE	American Redstart	*Setophaga ruticilla*	11	47	58	0.01	0.25%	0.73%	S
AMRO	American Robin	*Turdus migratorius*	148	853	1,001	0.12	3.38%	10.11%	CF
AMWO	American Woodcock	Scolopax minor	0	1	1	0.00	0.00%	0.00%	H
[redacted]			0	2	2	0.00	0.00%	0.00%	H
BANS	Bank Swallow	*Riparia riparia*	27	49	76	0.02	0.62%	1.14%	H
BAOR	Baltimore Oriole	*Icterus galbula*	21	36	57	0.02	0.48%	1.39%	FL
BARS	Barn Swallow	*Hirundo rustica*	314	193	507	0.26	7.16%	9.45%	C
BBCU	Black-billed Cuckoo	*Coccyzus erythropthalmus*	0	1	1	0.00	0.00%	0.00%	H
BCCH	Black-capped Chickadee	*Poecile atricapillus*	6	70	76	0.00	0.14%	0.49%	S
BEKI	Belted Kingfisher	*Megaceryle alcyon*	0	3	3	0.00	0.00%	0.00%	H
BHCO	Brown-headed Cowbird	*Molothrus ater*	76	79	155	0.06	1.73%	3.59%	P
BLJA	Blue Jay	*Cyanocitta cristata*	28	190	218	0.02	0.64%	1.71%	T
BOBO	Bobolink	*Dolichonyx oryzivorus*	81	91	172	0.07	1.85%	3.50%	A
BRTH	Brown Thrasher	*Toxostoma rufrum*	0	7	7	0.00	0.00%	0.00%	S
BTNW	Black-throated Green Warbler	*Setophaga virens*	0	4	4	0.00	0.00%	0.00%	S
CANG	Canada Goose	*Branta canadensis*	41	213	254	0.03	0.94%	0.90%	FL
CARW	Carolina Wren	*Thryothorus ludovicianus*	2	1	3	0.00	0.05%	0.16%	A
CEDW	Cedar Waxwing	*Bombycilla cedrorum*	63	36	99	0.05	1.44%	3.02%	S
CHSP	Chipping Sparrow	*Spizella passerina*	44	230	274	0.04	1.00%	3.34%	S
CHSW	Chimney Swift	*Chaetura pelagica*	1	0	1	0.00	0.02%	0.08%	HF
COGA	Common Gallinule	*Gallinula galeata*	1	0	1	0.00	0.02%	0.08%	S
COGR	Common Grackle	*Quiscalus quiscula*	82	132	214	0.07	1.87%	4.16%	S
CORA	Common Raven	*Corvus corax*	7	36	43	0.01	0.16%	0.16%	S

Alpha Code[1]	Common Name	Scientific Name	Within 100 meters[2]	Beyond 100 meters[3]	Total[4]	Avian Use[5]	Composition[6]	Frequency[7]	Activity Code[8]
COYE	Common Yellowthroat	*Geothlypis trichas*	112	600	712	0.09	2.56%	8.56%	S
CSWA	Chestnut-sided Warbler	*Setophaga pensylvanica*	24	97	121	0.02	0.55%	1.79%	S
DEJU	Dark-eyed Junco	*Junco hyemalis*	0	2	2	0.00	0.00%	0.00%	S
DOWO	Downy Woodpecker	*Dryobates pubescens*	2	22	24	0.00	0.05%	0.16%	S
EABL	Eastern Bluebird	*Sialia sialis*	9	7	16	0.01	0.21%	0.73%	S
EAKI	Eastern Kingbird	*Tyrannus tyrannus*	7	21	28	0.01	0.16%	0.57%	S
EAME	Eastern Meadowlark	*Sturnella magna*	2	11	13	0.00	0.05%	0.16%	S
EAPH	Eastern Phoebe	*Sayornis phoebe*	3	26	29	0.00	0.07%	0.24%	S
EATO	Eastern Towhee	*Pipilo erythrophthalmus*	0	19	19	0.00	0.00%	0.00%	S
EAWP	Eastern Wood-Pewee	*Contopus virens*	9	162	171	0.01	0.21%	0.73%	S
EUST	European Starling	*Sturnus vulgaris*	242	532	774	0.20	5.52%	3.34%	CF
FICR	Fish Crow	*Corvus ossifragus*	0	1	1	0.00	0.00%	0.00%	S
FISP	Field Sparrow	*Spizella pusilla*	24	64	88	0.02	0.55%	1.63%	A
GBHE	Great Blue Heron	*Ardea herodias*	5	12	17	0.00	0.11%	0.41%	S
GCFL	Great Crested Flycatcher	*Myiarchus crinitus*	9	60	69	0.01	0.21%	0.65%	S
GRCA	Gray Catbird	*Dumetella carolinensis*	101	218	319	0.08	2.30%	7.25%	A
[redacted]			10	2	12	0.01	0.23%	0.49%	S
HAWO	Hairy Woodpecker	*Dryobates vilosus*	3	4	7	0.00	0.07%	0.24%	S
HETH	Hermit Thrush	*Catharus Guttatus*	0	25	25	0.00	0.00%	0.00%	S
HOFI	House Finch	*Haemorhous mexicanus*	2	4	6	0.00	0.05%	0.16%	S
[redacted]			175	225	400	0.14	3.99%	10.59%	NE
HOSP	House Sparrow	*Passer domesticus*	8	35	43	0.01	0.18%	0.41%	S
HOWA	Hooded Warbler	*Setophaga citrina*	3	3	6	0.00	0.07%	0.24%	S
HOWR	House Wren	*Troglodytes aedon*	10	45	55	0.01	0.23%	0.81%	S
INBU	Indigo Bunting	*Passerina cyanea*	56	247	303	0.05	1.28%	4.16%	S
KILL	Killdeer	*Charadrius vociferus*	65	177	242	0.05	1.48%	3.75%	FL
LEFL	Least Flycatcher	*Empidonax minimus*	0	4	4	0.00	0.00%	0.00%	S
MALL	Mallard	*Anas platyrhynchos*	6	6	12	0.00	0.14%	0.24%	P
MAWR	Marsh Wren	*Cistothorus palustris*	1	0	1	0.00	0.02%	0.08%	S
MERL	Merlin	*Falco columbarius*	2	0	2	0.00	0.05%	0.08%	H
MODO	Mourning Dove	*Zenaida macroura*	27	160	187	0.02	0.62%	1.71%	P
MOWA	Mourning Warbler	*Geothlypis philadelphia*	0	1	1	0.00	0.00%	0.00%	S

Alpha Code[1]	Common Name	Scientific Name	Within 100 meters[2]	Beyond 100 meters[3]	Total[4]	Avian Use[5]	Composition[6]	Frequency[7]	Activity Code[8]
NAWA	Nashville Warbler	*Leiothlypis ruficapilla*	0	4	4	0.00	0.00%	0.00%	S
NOCA	Northern Cardinal	*Cardinalis cardinalis*	22	292	314	0.02	0.50%	1.80%	P
NOFL	Northern Flicker	*Colaptes auratus*	17	133	150	0.01	0.39%	1.22%	S
[redacted]			4	6	10	0.00	0.09%	0.24%	P
NOMO	Northern Mockingbird	*Mimus polyglottos*	4	24	28	0.00	0.09%	0.33%	S
NOWA	Northern Waterthrush	*Parkesia noveboracensis*	0	2	2	0.00	0.00%	0.00%	S
NRWS	Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	5	0	5	0.00	0.11%	0.33%	A
[redacted]			5	20	25	0.00	0.11%	0.41%	CF
OVEN	Ovenbird	*Seiurus aurocapilla*	0	56	56	0.00	0.00%	0.00%	S
PIWO	Pileated Woodpecker	*Dryocopus pileatus*	2	18	20	0.00	0.05%	0.16%	S
PUFI	Purple Finch	*Haemorhous purpureus*	2	1	3	0.00	0.05%	0.16%	S
RBGR	Rose-breasted Grosbeak	*Pheucticus ludovicianus*	5	23	28	0.00	0.11%	0.41%	S
RBNU	Red-breasted Nuthatch	*Sitta canadensis*	0	6	6	0.00	0.00%	0.00%	S
RBWO	Red-bellied Woodpecker	*Melanerpes carolinus*	4	68	72	0.00	0.09%	0.33%	S
REVI	Red-eyed Vireo	*Vireo olivaceus*	31	128	159	0.03	0.71%	2.36%	S
RNEP	Ring-necked Pheasant	*Phasianus colchicus*	0	2	2	0.00	0.00%	0.00%	S
ROPI	Rock Pigeon	*Columba livia*	33	149	182	0.03	0.75%	0.73%	P
RTHA	Red-tailed Hawk	*Buteo jamaicensis*	27	84	111	0.02	0.62%	1.87%	A
RTHU	Ruby-throated Hummingbird	*Archilochus colubris*	1	0	1	0.00	0.02%	0.08%	H
RWBL	Red-winged Blackbird	*Agelaius phoeniceus*	833	2,223	3,056	0.68	19.01%	24.61%	CF
SACR	Sandhill Crane	*Antigone canadensis*	1	2	3	0.00	0.02%	0.08%	H
SAVS	Savannah Sparrow	*Passerculus sandwichensis*	510	591	1,101	0.41	11.64%	27.87%	CF
SCTA	Scarlet Tanager	*Piranga olivacea*	2	5	7	0.00	0.05%	0.16%	S
SOSP	Song Sparrow	*Melospiza melodia*	410	972	1,382	0.33	9.35%	26.49%	CN
SPSA	Spotted Sandpiper	*Actitis macularius*	1	0	1	0.00	0.02%	0.08%	CL
[redacted]			1	1	2	0.00	0.02%	0.08%	CN
SWSP	Swamp Sparrow	*Melospiza georgiana*	1	6	7	0.00	0.02%	0.08%	S
TRES	Tree Swallow	*Tachycineta bicolor*	94	110	204	0.08	2.14%	1.96%	S
TUTI	Tufted Titmouse	*Baeolophus bicolor*	15	85	100	0.01	0.34%	1.14%	S
TUVU	Turkey Vulture	*Cathartes aura*	15	62	77	0.01	0.34%	0.90%	H

Alpha Code[1]	Common Name	Scientific Name	Within 100 meters[2]	Beyond 100 meters[3]	Total[4]	Avian Use[5]	Composition[6]	Frequency[7]	Activity Code[8]
VEER	Veery	*Catharus fuscescens*	0	16	16	0.00	0.00%	0.00%	S
[redacted]			10	28	38	0.01	0.23%	0.65%	A
WAVI	Warbling Vireo	*Vireo gilvus*	17	111	128	0.01	0.39%	1.39%	S
WBNU	White-breasted Nuthatch	*Sitta carolinensis*	1	20	21	0.00	0.02%	0.08%	S
WCSP	White-crowned Sparrow	*Zonotrichia leucophrys*	0	1	1	0.00	0.00%	0.00%	S
WIFL	Willow Flycatcher	*Empidonax traillii*	18	37	55	0.01	0.41%	1.30%	S
WISN	Wilson's Snipe	*Gallinago delicata*	0	1	1	0.00	0.00%	0.00%	C
WITU	Wild Turkey	*Meleagris gallopavo*	0	7	7	0.00	0.00%	0.00%	H
WODU	Wood Duck	*Aix sponsa*	2	0	2	0.00	0.05%	0.16%	H
WOTH	Wood Thrush	*Hylocichla mustelina*	19	294	313	0.02	0.43%	1.55%	S
YBCU	Yellow-billed Cuckoo	*Coccyzus americanus*	0	4	4	0.00	0.00%	0.00%	S
YBSA	Yellow-bellied Sapsucker	*Sphyrapicus varius*	0	32	32	0.00	0.00%	0.00%	S
YEWA	Yellow Warbler	*Setophaga petechia*	83	249	33	0.07	1.89%	5.87%	S
YRWA	Yellow-rumped Warbler	*Setophaga coronata*	1	0	1	0.00	0.02%	0.08%	S
YTVI	Yellow-throated Vireo	*Vireo flavifrons*	0	1	1	0.00	0.00%	0.00%	S

[1] Species codes are based on standardized four-letter AOU alpha codes defined by the Institute for Bird Populations (https://www.birdpop.org/docs/misc/Alpha_codes_eng.pdf).

[2] Includes all observations recorded within 100 meters of point count locations during 5-minute point count surveys.

[3] Includes all observations recorded more than 100 meters from point count locations during 5-minute point count surveys.

[4] Includes all observations recorded within and more than 100 meters from point count locations during 5-minute point count surveys.

[5] Represents the mean number of birds recorded per 5-minute point count survey (based on all observations recorded within 100 meters of point count locations).

[6] Reflects the percentage of point count survey observations that were of the species (based on all observations recorded within 100 meters of point count locations).

[7] Represents the percentage of 5-minute point count surveys during which the species was recorded (based on all observations recorded within 100 meters of point count locations).

[8] Represents the activity or behavior observed (based on all point count survey observations) that was most indicative of on-site breeding, based on the codes used for the New York Breeding Bird Atlas III (eBird, 2022a). The following additional codes were used when no other more indicative behavior was observed: CL = Calling; HF = Hunting/Foraging.

>END CONFIDENTIAL INFORMATION

Table 3. Summary of Avian Metrics for Each Point Count Location

Point Count Location	Habitat Type(s)	Number of Point Count Surveys[1]	Total Observations	Avian Use[2]	Total Species Richness[3]	Mean Species Richness[4]
1	Row Cropland (Corn)	8	107	13.38	26	8.22
2	Field Cropland (Hay)	8	91	11.38	28	7.11
3	Row Cropland (Corn)	8	88	11.00	20	6.56
4	Successional Old Field	8	89	11.13	23	7.75
5	Field Cropland (Alfalfa)	8	117	14.63	21	7.38
6	Field Cropland (Alfalfa)	8	49	6.13	17	4.88
7	Field Cropland (Alfalfa)	8	59	7.38	19	4.88
8	Row Cropland (Soybeans)	8	64	8.00	21	5.00
9	Row Cropland (Soybeans)	8	46	5.75	22	5.13
10	Row Cropland (Soybeans)	8	48	6.00	17	4.75
11	Row Cropland (Corn)	8	89	11.13	27	8.63
12	Row Cropland (Corn)	8	88	11.00	24	6.25
13	Row Cropland (Corn)	8	118	14.75	21	6.25
14	Field Cropland (Hay)	8	74	9.25	23	7.00
15	Field Cropland (Hay)	8	82	10.25	29	7.63
16	Field Cropland (Hay)	8	83	10.38	19	6.00
17	Field Cropland (Hay)	8	93	11.63	22	6.38
18	Row Cropland (Corn)/ Field Cropland (Alfalfa)	8	58	7.25	21	5.13

Point Count Location	Habitat Type(s)	Number of Point Count Surveys[1]	Total Observations	Avian Use[2]	Total Species Richness[3]	Mean Species Richness[4]
19	Field Cropland (Alfalfa)	8	73	9.13	25	7.25
20	Row Cropland (Corn)	8	68	8.50	22	5.75
21	Field Cropland (Alfalfa)	8	59	7.38	20	5.50
22	Row Cropland (Corn)	8	109	13.63	22	7.75
23	Field Cropland (Alfalfa)	8	135	16.88	16	5.25
24	Row Cropland (Corn)	8	112	14.00	21	7.38
25	Row Cropland (Corn)	8	86	10.75	18	6.00
26	Field Cropland (Alfalfa)	8	106	13.25	20	6.63
27	Field Cropland (Alfalfa)/ Row Cropland (Corn)	8	124	15.50	28	8.38
28	Row Cropland (Corn)	8	120	15.00	18	8.00
29	Row Cropland (Corn)	8	79	9.88	28	7.88
30	Row Cropland (Corn)	8	103	12.88	26	9.13
31	Row Cropland (Corn)	8	81	10.13	22	5.75
32	Row Cropland (Corn)	8	82	10.25	26	7.50
33	Row Cropland (Corn)	8	85	10.63	21	7.13
34	Field Cropland (Alfalfa)	8	85	10.63	22	6.63
35	Field Cropland (Alfalfa)	9	98	10.89	23	6.13
36	Field Cropland (Alfalfa)	9	82	9.11	18	5.75
37	Field Cropland (Alfalfa)	8	72	9.00	21	5.75

Point Count Location	Habitat Type(s)	Number of Point Count Surveys[1]	Total Observations	Avian Use[2]	Total Species Richness[3]	Mean Species Richness[4]
38	Field Cropland (Alfalfa)	8	84	10.50	15	5.50
39	Field Cropland (Alfalfa)	8	111	13.88	27	8.75
40	Field Cropland (Alfalfa)	8	137	17.13	35	10.38
41	Field Cropland (Alfalfa)	8	104	13.00	34	8.88
42	Field Cropland (Alfalfa)	8	141	17.63	43	10.38
43	Field Cropland (Alfalfa)	8	115	14.38	28	7.75
44	Row Cropland (Corn)	8	111	13.88	18	7.63
45	Row Cropland (Corn)	8	146	18.25	29	8.50
46	Row Cropland (Corn)	8	229	28.63	25	7.75
47	Field Cropland (Alfalfa)	9	140	15.56	31	8.20
48	Field Cropland (Alfalfa)	9	160	17.78	26	8.00
49	Row Cropland (Corn)	10	172	17.20	34	8.80
50	Field Cropland (Alfalfa)	10	157	15.70	26	8.00
51	Field Cropland (Alfalfa)	10	160	16.00	32	8.10
52	Field Cropland (Alfalfa)	10	167	16.70	31	8.10
53	Field Cropland (Alfalfa)	10	149	14.90	40	9.90
54	Field Cropland (Alfalfa)	10	157	15.70	30	8.80
55	Field Cropland (Alfalfa)	10	188	18.80	27	9.20
56	Field Cropland (Alfalfa)	10	105	10.50	26	7.00

Point Count Location	Habitat Type(s)	Number of Point Count Surveys[1]	Total Observations	Avian Use[2]	Total Species Richness[3]	Mean Species Richness[4]
57	Field Cropland (Wheat)	9	169	18.78	29	7.44
58	Field Cropland (Wheat)	9	139	15.44	30	8.44
59	Field Cropland (Wheat)	10	146	14.60	28	7.60
60	Field Cropland (Wheat)	10	98	9.80	31	6.50
61	Field Cropland (Wheat)	10	161	16.10	27	6.70
62	Field Cropland (Wheat)	10	244	24.40	30	7.80
63	Field Cropland (Wheat)	10	183	18.30	19	7.00
64	Row Cropland (Corn)	10	174	17.40	25	7.40
65	Field Cropland (Alfalfa)	10	157	15.70	28	8.40
66	Field Cropland (Alfalfa)	10	180	18.00	28	8.30
67	Row Cropland (Corn)	10	173	17.30	33	10.00
68	Row Cropland (Corn)	11	133	12.09	31	8.70
69	Field Cropland (Hay)	11	159	14.45	23	7.00
70	Field Cropland (Hay)	10	185	18.50	29	8.30
71	Field Cropland (Hay)	10	156	15.60	31	9.00
72	Row Cropland (Corn)	10	132	13.20	34	8.80
73	Row Cropland (Corn)	10	131	13.10	23	7.20
74	Row Cropland (Corn)	10	147	14.70	26	7.70
75	Row Cropland (Corn)	10	133	13.30	28	8.10

Point Count Location	Habitat Type(s)	Number of Point Count Surveys[1]	Total Observations	Avian Use[2]	Total Species Richness[3]	Mean Species Richness[4]
76	Row Cropland (Corn)	10	131	13.10	32	8.27
77	Row Cropland (Corn)	10	174	17.40	29	8.82
78	Row Cropland (Corn)	10	208	20.80	28	8.91
79	Row Cropland (Corn)	10	102	10.20	32	7.27
80	Row Cropland (Corn)	10	78	7.80	20	5.40
81	Row Cropland (Corn)	10	107	10.70	30	7.90
82	Row Cropland (Corn)	10	104	10.40	30	7.70
83	Row Cropland (Corn)	10	161	16.10	24	7.90
84	Row Cropland (Corn)	10	131	13.10	21	7.00
85	Row Cropland (Corn)	10	145	14.50	27	7.40
86	Row Cropland (Soybeans)	10	131	13.10	32	9.50
87	Row Cropland (Soybeans)	10	117	11.70	30	8.40
88	Row Cropland (Soybeans)	10	98	9.80	32	7.10
89	Row Cropland (Soybeans)	10	93	9.30	30	7.50
90	Row Cropland (Corn)	10	201	20.10	31	9.20
91	Field Cropland (Hay)	10	228	22.80	30	9.80
92	Field Cropland (Hay)	10	151	15.10	32	8.30
93	Row Cropland (Corn)	10	131	13.10	34	8.80
94	Row Cropland (Corn)	10	146	14.60	34	11.10

Point Count Location	Habitat Type(s)	Number of Point Count Surveys[1]	Total Observations	Avian Use[2]	Total Species Richness[3]	Mean Species Richness[4]
95	Row Cropland (Corn)	10	115	11.50	36	9.30
96	Row Cropland (Corn)	10	121	12.10	31	8.20
97	Row Cropland (Corn)	10	116	11.60	29	7.60
98	Row Cropland (Corn)	10	110	11.00	28	8.20
99	Row Cropland (Corn)	10	110	11.00	33	7.90
100	Row Cropland (Corn)	10	109	10.90	34	8.40
101	Row Cropland (Corn)	10	109	10.90	33	8.50
102	Row Cropland (Corn)	10	137	13.70	36	10.00
103	Row Cropland (Corn)	10	140	14.00	38	10.60
104	Row Cropland (Corn)	10	96	9.60	28	6.90
105	Row Cropland (Corn)	10	109	10.90	31	7.80
106	Row Cropland (Soybeans)	8	161	20.13	28	9.63
107	Row Cropland (Soybeans)	8	136	17.00	26	8.38
108	Row Cropland (Soybeans)	8	190	23.75	20	6.63
109	Field Cropland (Hay)	8	67	8.38	18	4.88
110	Field Cropland (Hay)	8	86	10.75	18	6.00
111	Field Cropland (Hay)	8	92	11.50	24	7.50
112	Field Cropland (Hay)	8	86	10.75	27	7.25
113	Row Cropland (Corn)	8	82	10.25	31	7.50

Point Count Location	Habitat Type(s)	Number of Point Count Surveys[1]	Total Observations	Avian Use[2]	Total Species Richness[3]	Mean Species Richness[4]
114	Row Cropland (Corn)	8	78	9.75	23	7.63
115	Row Cropland (Corn)	8	70	8.75	26	7.00
116	Row Cropland (Corn)	8	108	13.50	25	8.63
117	Row Cropland (Corn)	8	114	14.25	25	8.13
118	Row Cropland (Corn)	8	132	16.50	27	8.25
119	Row Cropland (Corn)	8	78	9.75	23	6.63
120	Row Cropland (Corn)	8	94	11.75	26	8.75
121	Row Cropland (Corn)	8	136	17.00	26	8.00
122	Row Cropland (Soybeans)	8	110	13.75	30	9.75
123	Row Cropland (Corn)	8	139	17.35	29	8.13
124	Field Cropland (Hay)	8	124	15.50	25	7.38
125	Field Cropland (Hay)	8	118	14.75	24	7.50
126	Row Cropland (Corn)	8	85	10.63	28	8.00
127	Row Cropland (Corn)	8	104	13.00	29	9.25
128	Row Cropland (Corn)	9	201	22.33	23	8.25
129	Row Cropland (Corn)	8	172	21.50	22	8.13
130	Field Cropland (Hay)	8	139	17.38	29	10.75
131	Row Cropland (Corn)	8	123	15.38	29	9.63
132	Row Cropland (Corn)	8	87	10.88	28	8.38

Point Count Location	Habitat Type(s)	Number of Point Count Surveys[1]	Total Observations	Avian Use[2]	Total Species Richness[3]	Mean Species Richness[4]
133	Field Cropland (Hay)	8	142	17.75	28	9.50
134	Row Cropland (Corn)	8	139	17.38	29	8.50
135	Row Cropland (Corn)	8	108	13.50	32	8.75
136	Field Cropland (Alfalfa)	8	90	11.25	30	8.63
137	Field Cropland (Alfalfa)	8	93	11.63	28	8.50
138	Field Cropland (Alfalfa)	8	121	15.13	37	10.50

[1] As the season progressed, increased crop heights restricted access and/or visibility for some locations during some visits. In these instances, point count surveys were conducted from alternate locations near field edges, and the use of alternate locations was noted on the survey data sheets. Alternate locations were selected to provide visual and auditory coverage of the same open field areas.

[2] The mean number of observations recorded during 5-minute point count surveys.

[3] The total number of species observed at the survey location.

[4] The mean number of species observed during 5-minute point count surveys.

Table 4. State-Listed Species Observations

BEGIN CONFIDENTIAL INFORMATION<

Common Name	Scientific Name	Conservation Status[1]	Number of Observations[2]	Sex/Age	Date(s)	Nearest Point Count Location(s)	Observed Behavior(s)	Probable or Confirmed Breeding Behavior(s)[3]	Observed Essential Behavior(s)[4]
[redacted]									

Common Name	Scientific Name	Conservation Status[1]	Number of Observations[2]	Sex/Age	Date(s)	Nearest Point Count Location(s)	Observed Behavior(s)	Probable or Confirmed Breeding Behavior(s)[3]	Observed Essential Behavior(s)[4]
[redacted]									

Common Name	Scientific Name	Conservation Status[1]	Number of Observations[2]	Sex/Age	Date(s)	Nearest Point Count Location(s)	Observed Behavior(s)	Probable or Confirmed Breeding Behavior(s)[3]	Observed Essential Behavior(s)[4]
[redacted]									

Common Name	Scientific Name	Conservation Status[1]	Number of Observations[2]	Sex/Age	Date(s)	Nearest Point Count Location(s)	Observed Behavior(s)	Probable or Confirmed Breeding Behavior(s)[3]	Observed Essential Behavior(s)[4]
[redacted]									

[1] Highest conservation status based on the List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State (https://www.dec.ny.gov/animals/7494.html).

[2] Includes all observations documented, including those recorded during point count surveys and incidentally.

[3] Based on the codes used for the New York Breeding Bird Atlas III (eBirda, 2022).

[4] 6 NYCRR Part 182.2(f) defines essential behavior as any of the behaviors exhibited by a species listed as endangered or threatened (in New York State) that are a part of its normal or traditional life cycle and that are essential to its survival and perpetuation. Essential behavior includes behaviors associated with breeding, hibernation, reproduction, feeding, sheltering, migration and overwintering.

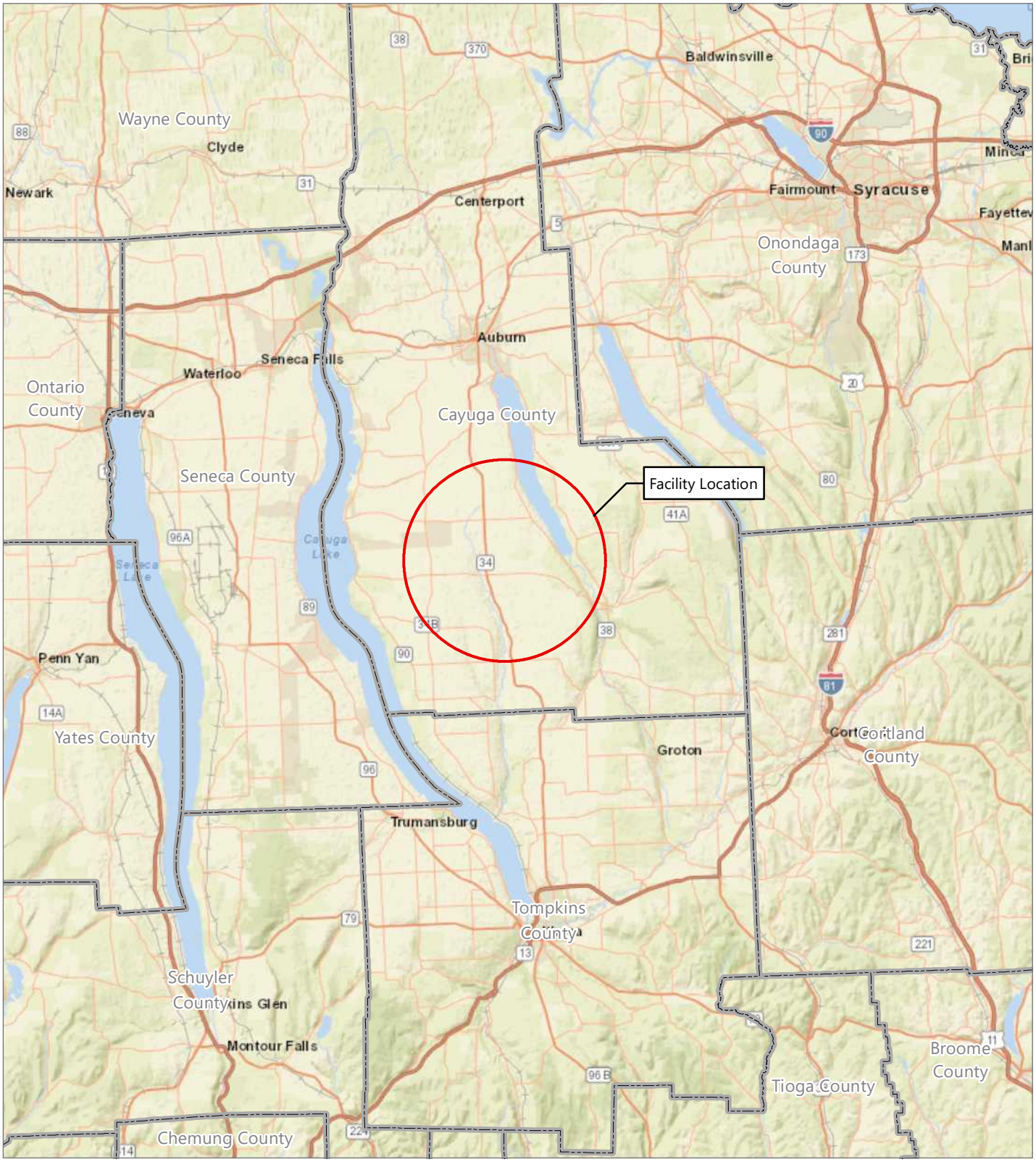
[5] Sex assumed for some individuals based on song characteristics; however, sex could not always be confirmed.

[6] Some singing birds were likely present for seven or more days, indicating probable breeding (eBird, 2022a).

>END CONFIDENTIAL INFORMATION

FIGURES

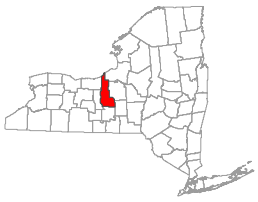
Figure 1. Regional Facility Location



Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

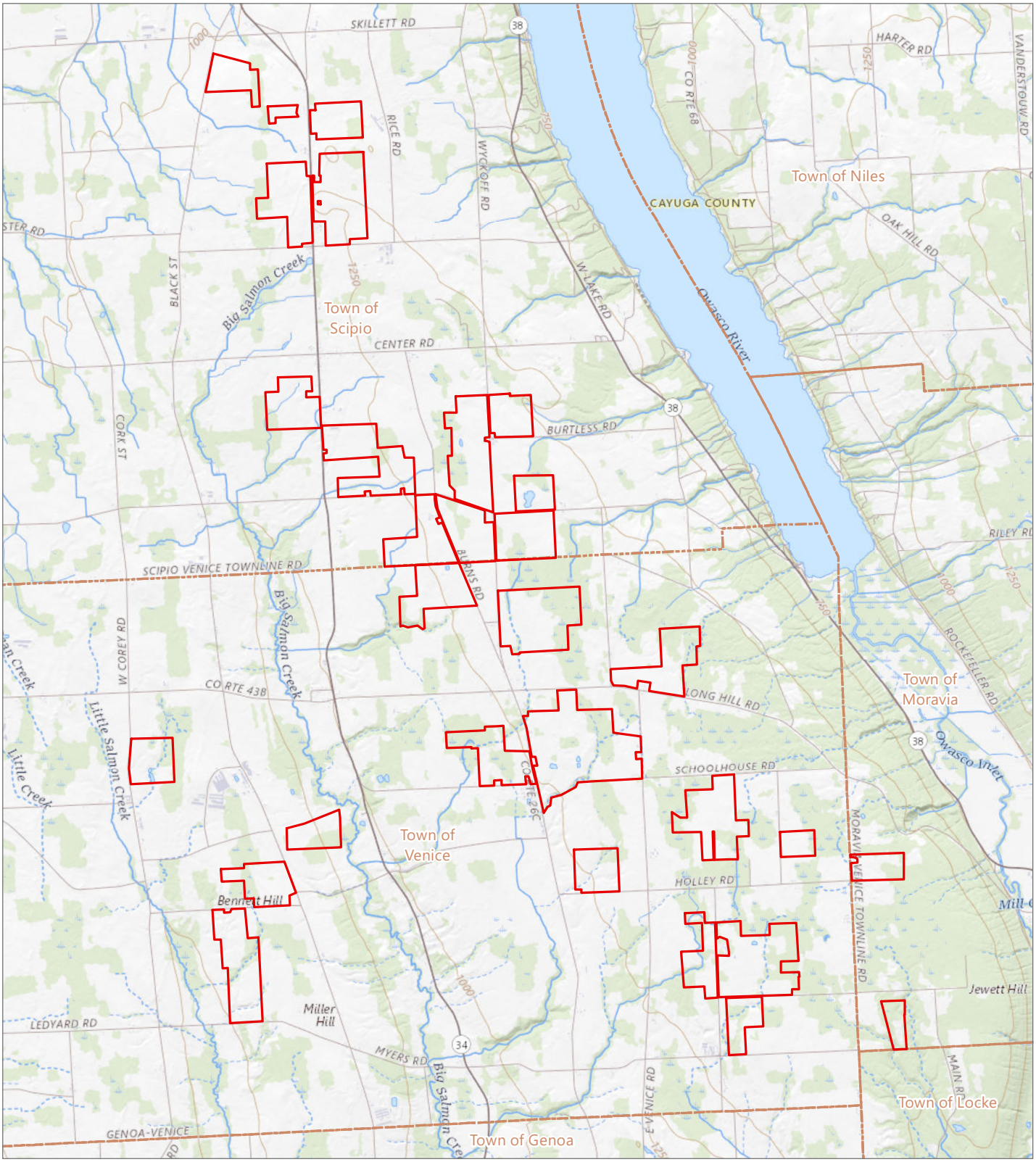
Breeding Bird Survey Report



0 2.5 5 10
Miles

Prepared July 15, 2022
Basemap: Esri "World Street Map" map service

Figure 2. Breeding Bird Survey (BBS) Study Area



Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

BBS Study Area

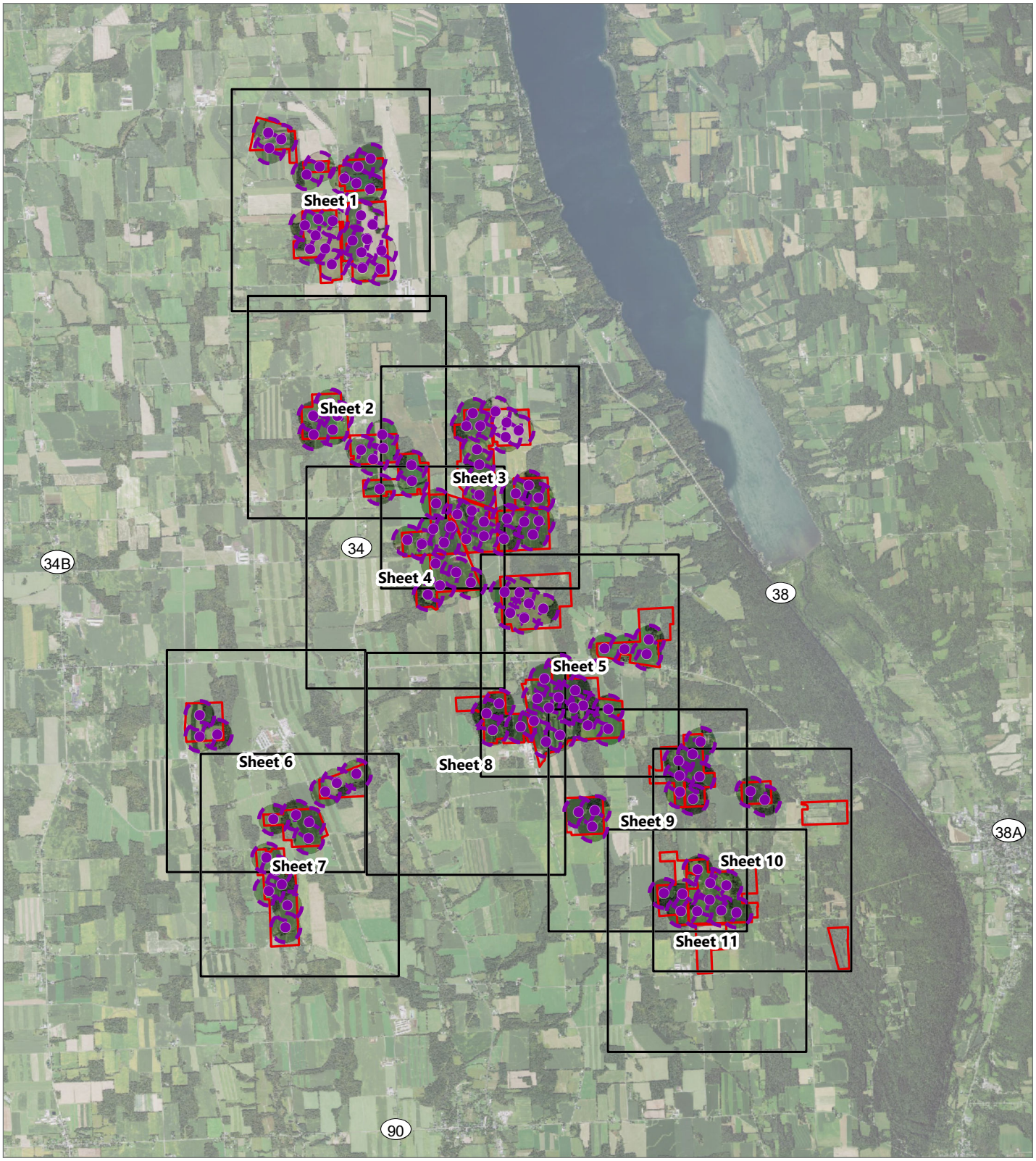
0 0.5 1 2
Miles

Prepared August 22, 2022
Basemap: Esri "USGS Topo" map service

EDR

Figure 3. Survey Locations

Index Sheet



Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

Point Count Location
Area within 250 meters of Point Count Location
BBS Study Area

0 0.5 1 2
Miles

Prepared August 25, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

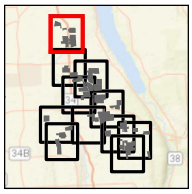
Figure 3. Survey Locations

Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area



0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

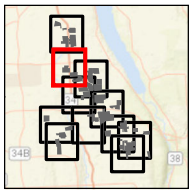
Figure 3. Survey Locations

Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

Point Count Location
Area within 250 meters of Point Count Location
BBS Study Area

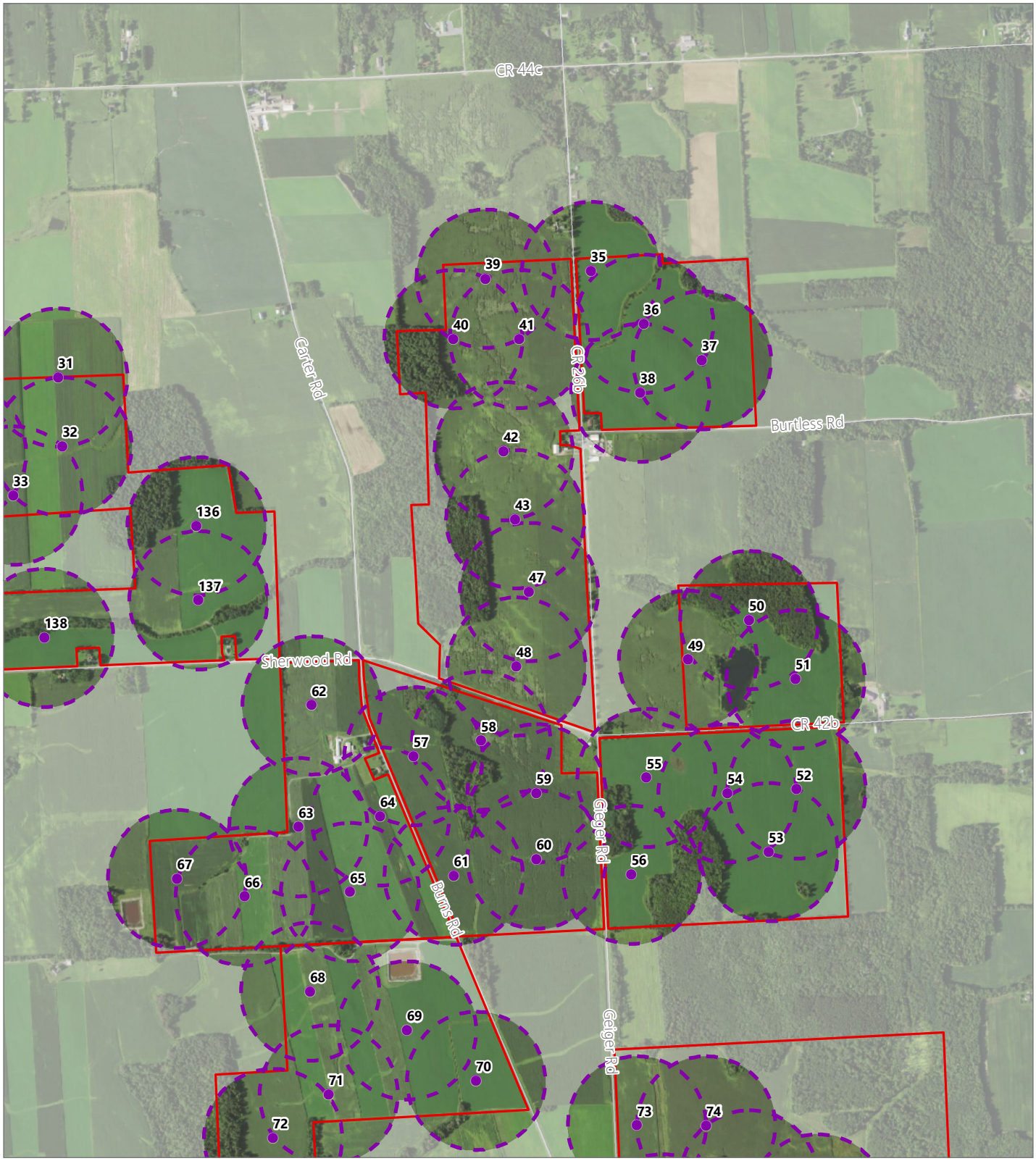


0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

Figure 3. Survey Locations

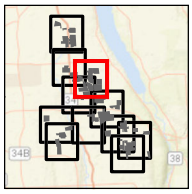


Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area

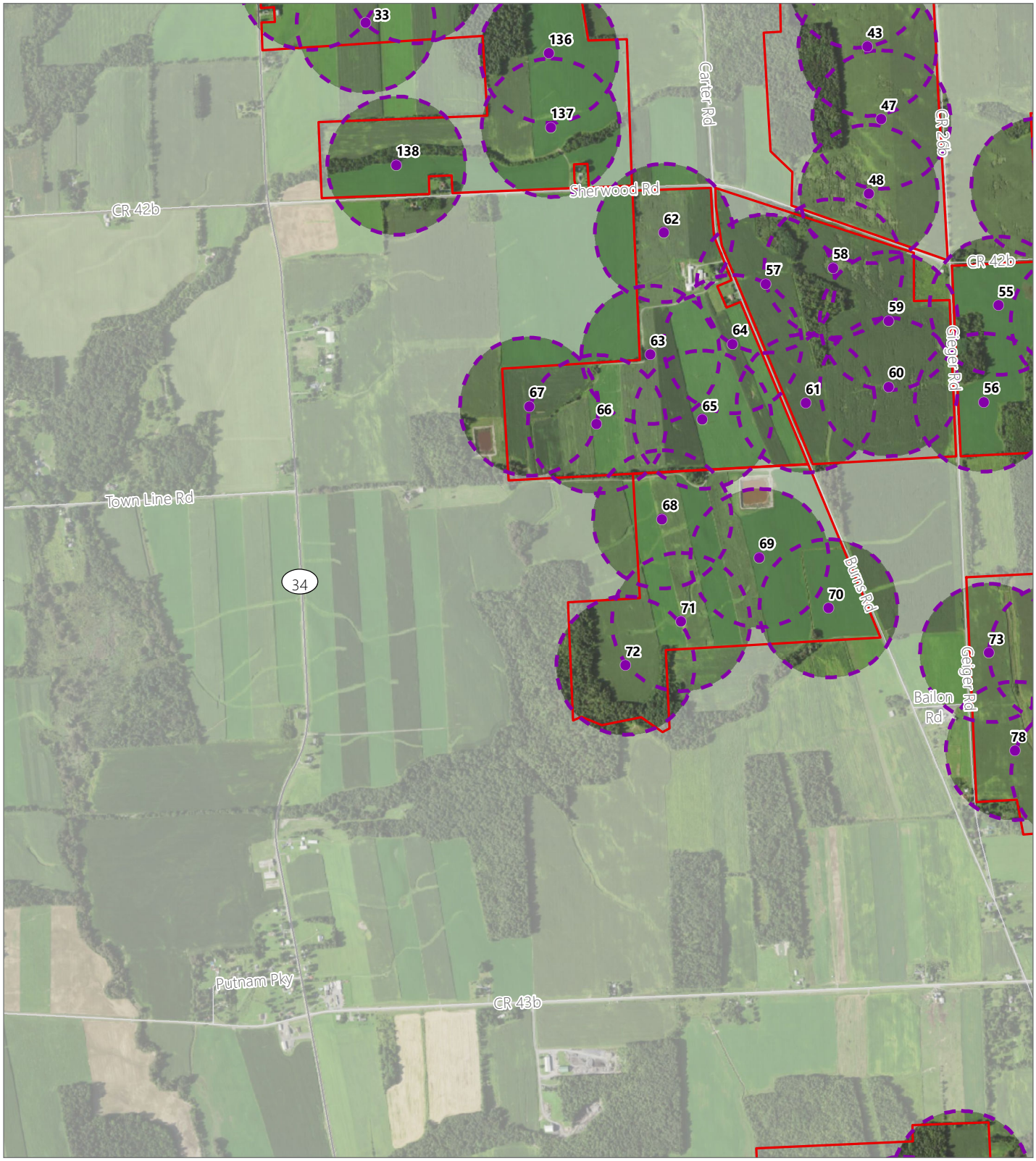


0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

Figure 3. Survey Locations

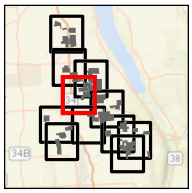


Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area

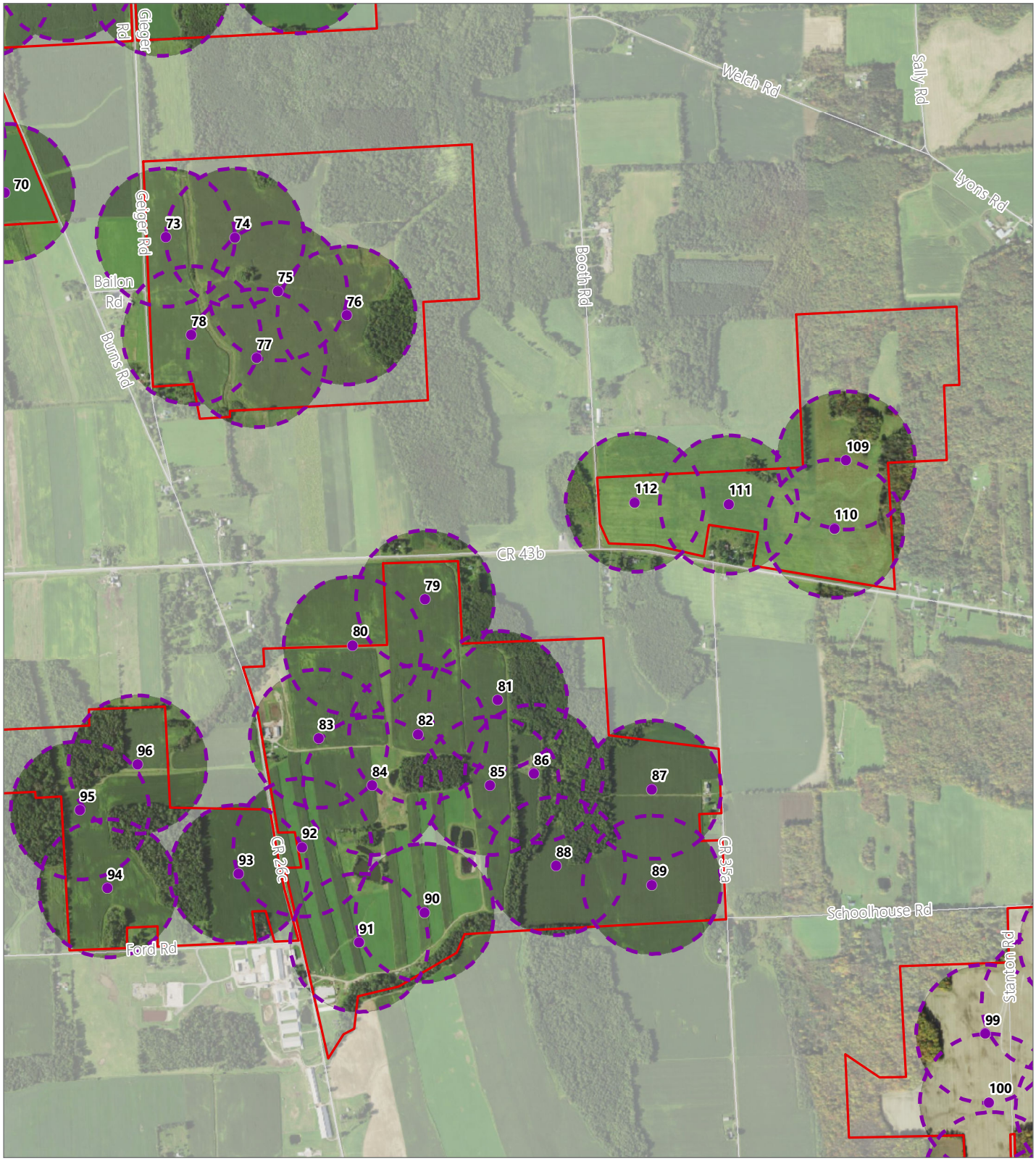


0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

Figure 3. Survey Locations

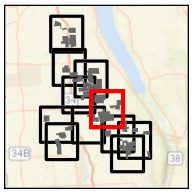


Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area



0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

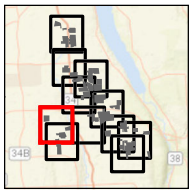
Figure 3. Survey Locations

Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area



0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

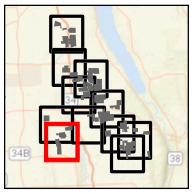
Figure 3. Survey Locations

Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area

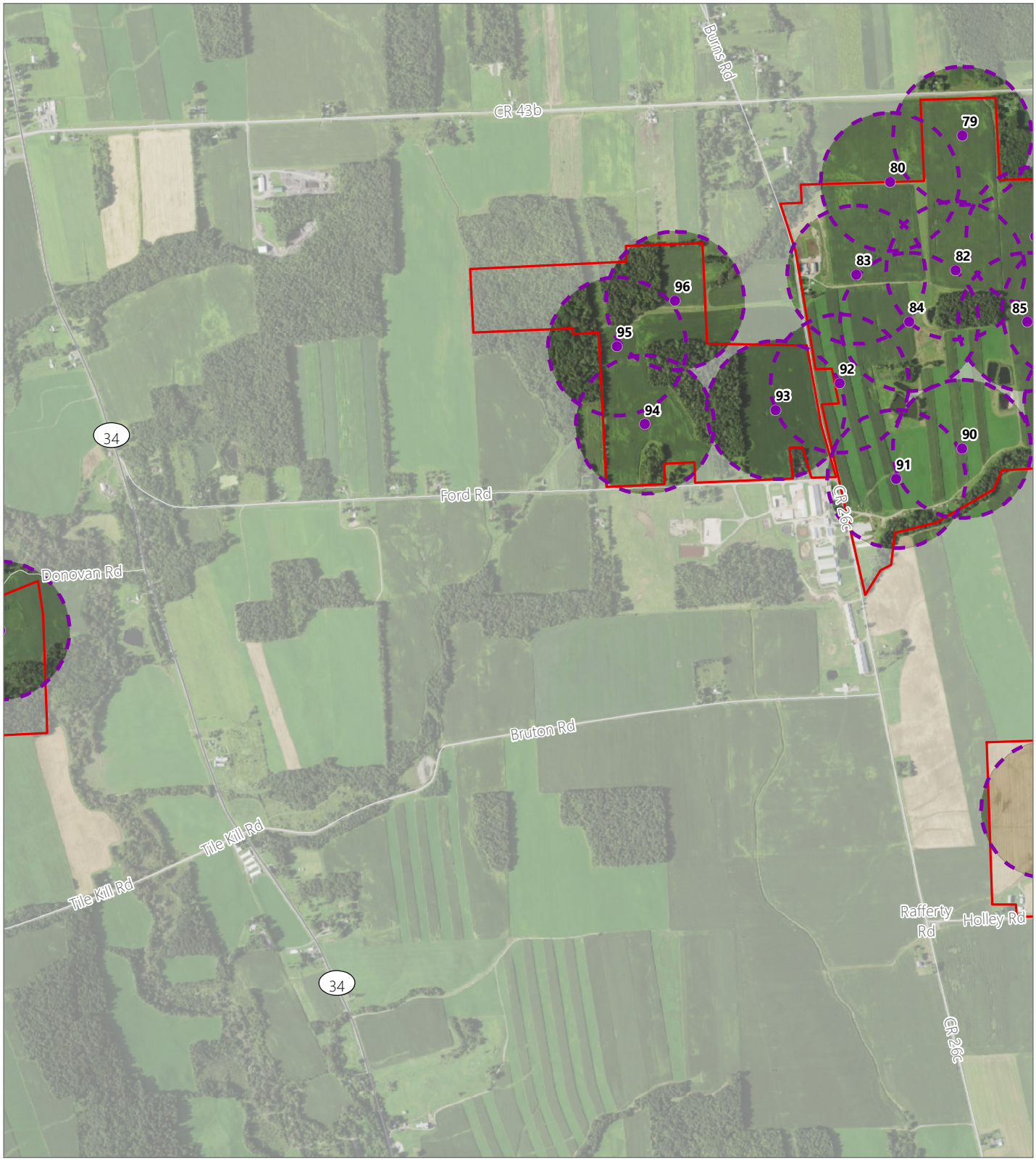


0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

Figure 3. Survey Locations

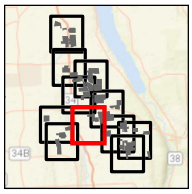


Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area

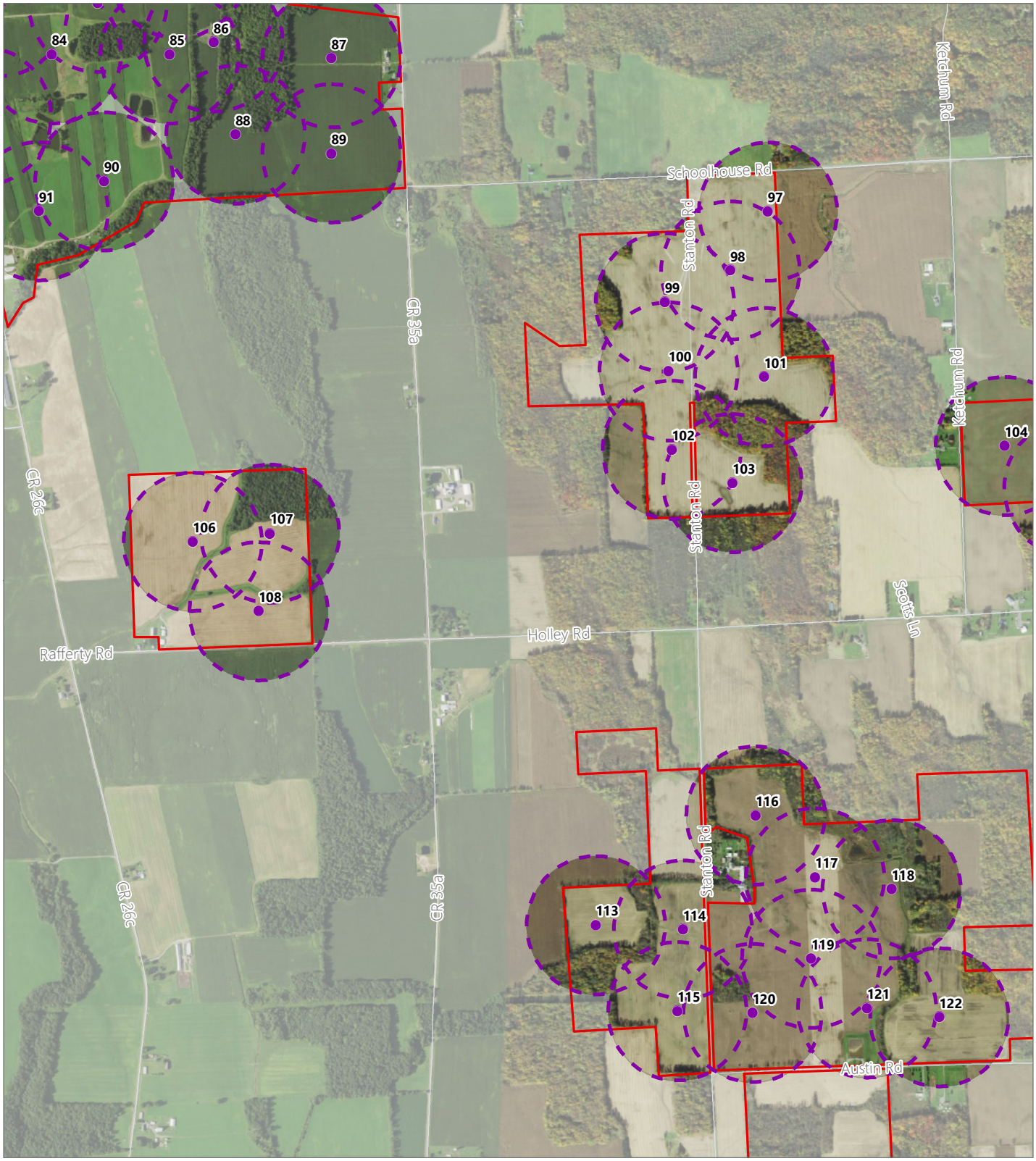


0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

Figure 3. Survey Locations

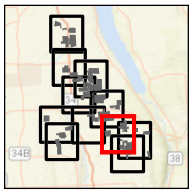


Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area

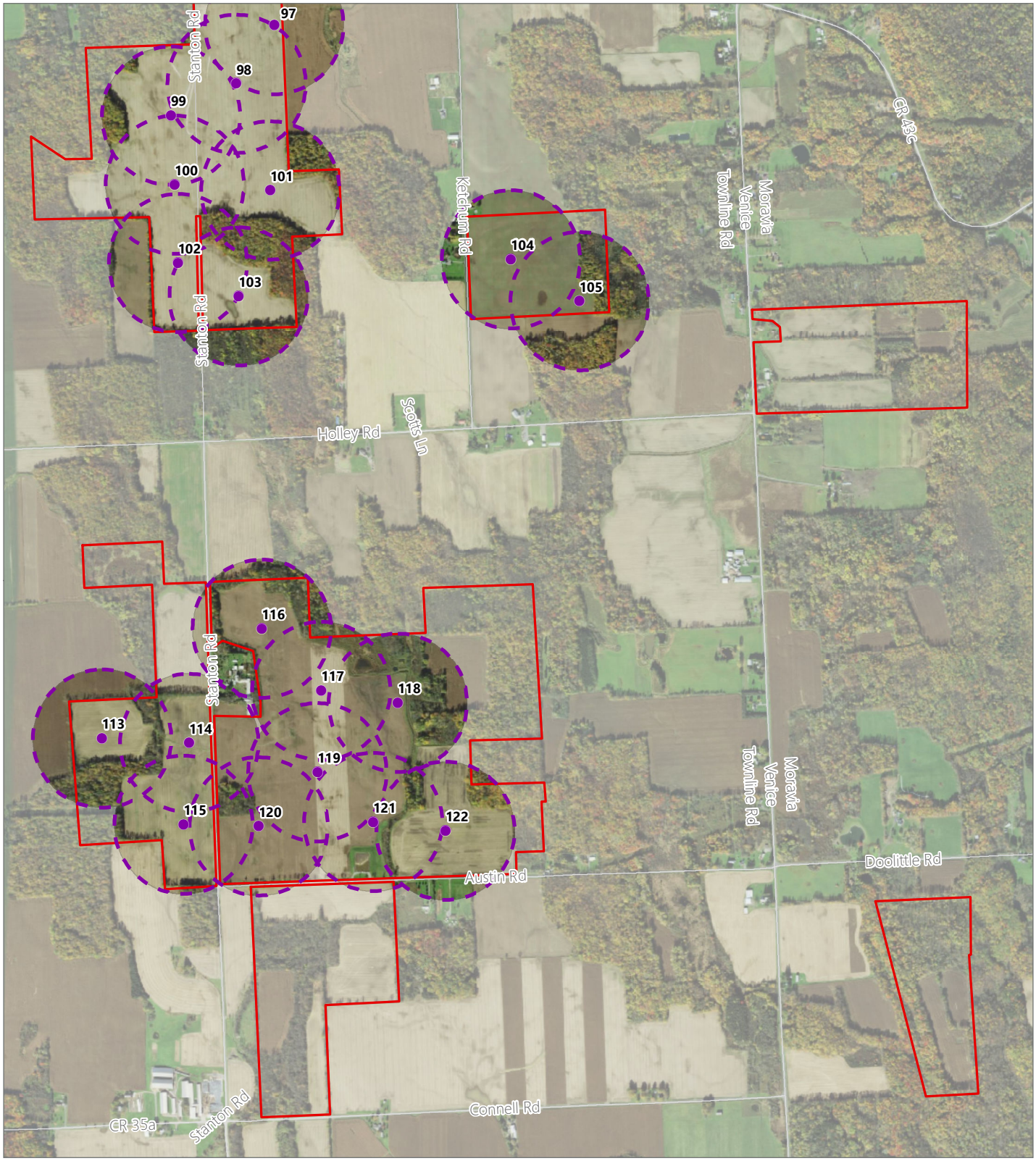


0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

Figure 3. Survey Locations

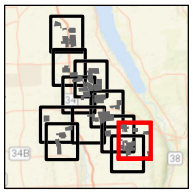


Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area

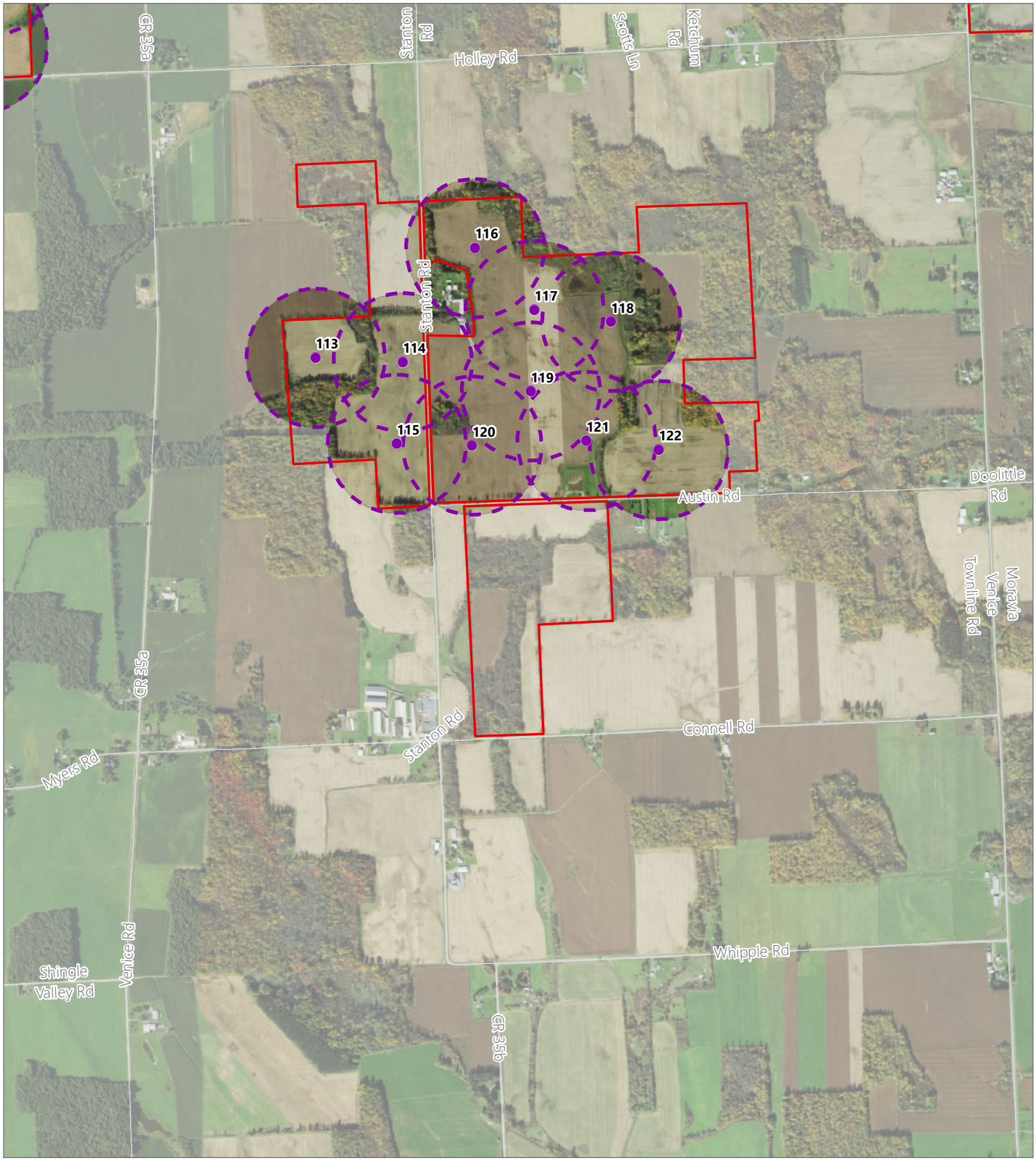


0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

Figure 3. Survey Locations

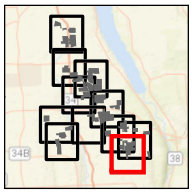


Agricola Wind Project

Towns of Venice, Scipio, and Moravia,
Cayuga County, New York

Breeding Bird Survey Report

- Point Count Location
- Area within 250 meters of Point Count Location
- BBS Study Area



0 500 1,000 2,000
Feet

Prepared September 22, 2022
Basemap: USDA NAIP "2019 New York 60cm" orthoimagery map service

EDR

This figure has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This figure has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This figure has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This figure has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This figure has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This figure has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This figure has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This figure has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This figure has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

APPENDIX

Crop Cover Types within the Facility Site

2017

Land Cover Categories

(by decreasing acreage)

AGRICULTURE

- Corn
- Alfalfa
- Soybeans
- Other Hay/Non Alfalfa
- Winter Wheat
- Grass/Pasture
- Fallow/Idle Cropland
- Clover/Wildflowers
- Peas
- Oats
- Rye
- Buckwheat
- Grapes
- Sunflowers

NON-AGRICULTURE*

- Deciduous Forest
- Woody Wetlands
- Shrubland
- Developed/Open Space
- Mixed Forest
- Open Water

* Only top 6 non-agriculturecategories are listed.

REDACTED – Permit Application No. 23-00064

2018

Land Cover Categories

(by decreasing acreage)

AGRICULTURE

- Corn
- Alfalfa
- Soybeans
- Winter Wheat
- Other Hay/Non Alfalfa
- Grass/Pasture
- Dry Beans
- Clover/Wildflowers
- Oats
- Fallow/Idle Cropland
- Grapes
- Rye
- Barley
- Sunflowers

NON-AGRICULTURE*

- Deciduous Forest
- Woody Wetlands
- Shrubland
- Developed/Open Space
- Mixed Forest
- Open Water

* Only top 6 non-agriculturecategories are listed.

REDACTED – Permit Application No. 23-00064

2019

Land Cover Categories

(by decreasing acreage)

AGRICULTURE

- Corn
- Alfalfa
- Soybeans
- Other Hay/Non Alfalfa
- Winter Wheat
- Grass/Pasture
- Rye
- Fallow/Idle Cropland
- Dbl Crop Triticale/Corn
- Oats
- Sweet Corn
- Clover/Wildflowers
- Barley
- Grapes
- Dry Beans

NON-AGRICULTURE*

- Deciduous Forest
- Woody Wetlands
- Developed/Open Space
- Mixed Forest
- Shrubland
- Open Water

2020

Land Cover Categories

(by decreasing acreage)

AGRICULTURE*

- Corn
- Alfalfa
- Other Hay/Non Alfalfa
- Winter Wheat
- Soybeans
- Rye
- Grass/Pasture
- Oats
- Sweet Corn
- Fallow/Idle Cropland
- Clover/Wildflowers
- Triticale
- Barley
- Grapes
- Dry Beans
- Dbl Crop Triticale/Corn

NON-AGRICULTURE**

- Deciduous Forest
- Woody Wetlands
- Developed/Open Space
- Mixed Forest
- Shrubland
- Open Water

REDACTED – Permit Application No. 23-00064

2021

Land Cover Categories

(by decreasing acreage)

AGRICULTURE*

- Corn
- Alfalfa
- Soybeans
- Other Hay/Non Alfalfa
- Winter Wheat
- Grass/Pasture
- Rye
- Dbl Crop Triticale/Corn
- Clover/Wildflowers
- Oats
- Fallow/Idle Cropland
- Dry Beans
- Pumpkins
- Triticale
- Grapes
- Sugarbeets

NON-AGRICULTURE**

- Deciduous Forest
- Woody Wetlands
- Developed/Open Space
- Developed/Low Intensity
- Open Water
- Mixed Forest

APPENDIX A

Results of Agency Database Review and Consultation

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To:
Consultation Code: 05E1NY00-2021-SLI-1760
Event Code: 05E1NY00-2021-E-05605
Project Name: Venice Wind

March 04, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Services wind

energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2021-SLI-1760
Event Code: 05E1NY00-2021-E-05605
Project Name: Venice Wind
Project Type: POWER GENERATION
Project Description: Proposed wind project with up to 22 wind turbines.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.7419901,-76.51479957469081,14z

Counties: Cayuga County, New York

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

April 26, 2021

Benjamin Roosa
EDR
41 State St, Suite 806
Albany, NY 12207

Re: Proposed Venice Wind Project (EDR Project No. 21029)
County: Cayuga Town/City: Moravia, Scipio, Venice

Dear Benjamin Roosa:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity. Due to the proposed number of turbines, I have enclosed a report of rare birds documented within 10 miles of the project site, and rare bats documented within 40 miles of the project site, for use in assessing potential impacts of bird and bat collisions. For information on NYSDEC's environmental review of proposed wind energy projects, and for the document Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects, please contact the Bureau of Ecosystem Health at: fw.ecohealth@dec.ny.gov

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 7 Office, Division of Environmental Permits, at dep.r7@dec.ny.gov.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

* Conservation status in NYS as ranked by NY Natural Heritage Program on a 1 to 5 scale:
  S1 = Critically imperiled
  S2 = Imperiled
  S3 = Rare or uncommon
  S4 = Abundant and apparently secure
  S5 = Demonstrably abundant and secure

B after one of the above ranks indicates the status rank is for breeding populations only.
N after one of the above ranks indicates the status rank is for nonbreeding wintering populations only.

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

APPENDIX B

Survey Data Sheets

EDR

Field Data Sheet

Breeding Bird Survey

Submitted By: abutler@edrdpc.com

Submitted Time: May 6, 2022 1:21 PM

Survey Information

Project Name: Agricola Wind

Survey Date: May 5, 2022

Surveyor Name: Anna Butler

Points Surveyed: 47-67

Survey Start Time: 05:30

Survey End Time: 10:19

Weather Conditions at Start of Survey

Temperature (°F): 42

Wind Speed (mph): 1 – 3 (Light Air; Smoke drifts)

Wind Direction: NNW

Cloud Cover: None (Clear)

Visibility: Good (10+ miles; clear)

Precipitation: None (Clear)

Weather Notes:

EDR

Field Data Sheet

Open Field Condition Observations

Corresponding Point ID(s): 47, 48

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): None

Estimated Forb Cover (%): None

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 90-100%

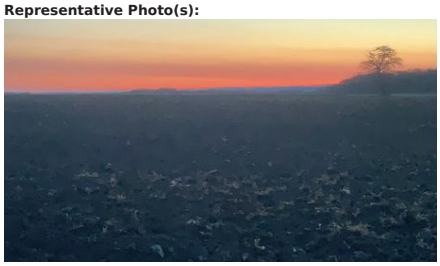
Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 0

Dominant Plant Species (Common Names): Trees to west, otherwise bare ground

Invasive Plant Species (Common Names):

Representative Photo(s):



EDR

Field Data Sheet

Notes :

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 49

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): None

Estimated Forb Cover (%): None

Estimated Woody Vegetation Cover (%): 1-10%

Estimated Bare Ground (%): 90-100%

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 0

Dominant Plant Species (Common Names): Some willow, mostly bare though

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

Notes :
Pond

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 50, 51, 52, 53, 54, 56, 55

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): None

Estimated Forb Cover (%): 90-100%

Estimated Woody Vegetation Cover (%): 1-10%

Estimated Bare Ground (%): None

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 8

Dominant Plant Species (Common Names): Alfalfa, sugar maple, willow

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

EDR

Field Data Sheet

Notes :
Pond near 50 & 51, two more photos saved at end b/c I had to take a screenshot and delete from form in order to save

Do you need to report observations of another open field?
Yes

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

EDR

Field Data Sheet

Corresponding Point ID(s): 69, 70

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): None

Estimated Forb Cover (%): 90-100%

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 1-10%

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 8

Dominant Plant Species (Common Names): Alfalfa

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

Notes :

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 73, 78

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): None

Estimated Forb Cover (%): None

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 90-100%

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 0

Dominant Plant Species (Common Names):

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

Notes :
Bare field

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 74, 75, 76, 77

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Fallow)

Estimated Grass Cover (%): 50-90%

Estimated Forb Cover (%): None

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 50-90%

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 8

Dominant Plant Species (Common Names): Grass sp

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

EDR

Field Data Sheet

Notes :

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 79, 81, 85, 82, 80

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): 10-25%

Estimated Forb Cover (%): None

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 90-100%

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 3

Dominant Plant Species (Common Names):

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

EDR

Field Data Sheet

Notes :
Bare field

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 83, 84

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): None

Estimated Forb Cover (%): None

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 90-100%

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 0

Dominant Plant Species (Common Names):

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

Notes :
Bare field

Do you need to report observations of another open field?

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

EDR

Field Data Sheet

Notes :

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 97-103

Anthropogenic Disturbance/Management Practices: None notable

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): None

Estimated Forb Cover (%): 1-10%

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 90-100%

Estimated Litter Depth (inches): 0-1"

Average Vegetation Height (inches): 2

Dominant Plant Species (Common Names): Dandelion, other weeds

Invasive Plant Species (Common Names): None observed

Representative Photo(s):

EDR

Field Data Sheet

EDR

Field Data Sheet

Notes :
No grasses observed

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 87-89

Anthropogenic Disturbance/Management Practices: None notable

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): 1-10%

Estimated Forb Cover (%): 10-25%

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 50-90%

Estimated Litter Depth (inches): 1-4"

Average Vegetation Height (inches): 3

Dominant Plant Species (Common Names): Dandelion, purple deadnettle, weeds, grasses

Invasive Plant Species (Common Names): None observed

Representative Photo(s):

EDR

Field Data Sheet

EDR

Field Data Sheet

Notes :

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 86

Anthropogenic Disturbance/Management Practices: Other (describe in notes)

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): 1-10%

Estimated Forb Cover (%): 1-10%

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): None

Estimated Litter Depth (inches): 1-4"

Average Vegetation Height (inches): 3

Dominant Plant Species (Common Names): Dandelion, unknown weeds

Invasive Plant Species (Common Names): None observed

Representative Photo(s):

EDR

Field Data Sheet

Notes :
Meteorological tower and remote sensing equipment with audible beeps present in field

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 90-92

Anthropogenic Disturbance/Management Practices: None notable

Primary Open Field Cover Type: Field Cropland (including hay, wheat, oats, etc.)

Estimated Grass Cover (%): 50-90%

Estimated Forb Cover (%): 10-25%

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 25-50%

Estimated Litter Depth (inches): 0-1"

Average Vegetation Height (inches): 6

Dominant Plant Species (Common Names): Grasses, clover, dandelion, purple deadnettle

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

EDR

Field Data Sheet

Notes :
Field includes a mix of hay and recently tilled bare ground areas

Do you need to report observations of another open field?
Yes

This appendix has been redacted from this publicly available document because it contains protected/confidential information regarding species listed as endangered, threatened, or special concern in New York.

EDR

Field Data Sheet

Breeding Bird Survey

Submitted By: abutler@edrdpc.com

Submitted Time: May 12, 2022 3:13 PM

Survey Information

Project Name: Agricola Wind

Survey Date: May 11, 2022

Surveyor Name: Anna Butler

Points Surveyed: 47-67

Survey Start Time: 05:18

Survey End Time: 10:32

Weather Conditions at Start of Survey

Temperature (°F): 53

Wind Speed (mph): 4 – 7 (Light Breeze; Leaves rustle)

Wind Direction: SE

Cloud Cover: None (Clear)

Visibility: Good (10+ miles; clear)

Precipitation: None (Clear)

Weather Notes:

EDR

Field Data Sheet

Open Field Condition Observations

Corresponding Point ID(s): 61, 63, 57, 62, 58

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): 90-100%

Estimated Forb Cover (%): None

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 1-10%

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 10

Dominant Plant Species (Common Names): Grass sp, corn

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

EDR

Field Data Sheet

Notes :

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 64, 67

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): None

Estimated Forb Cover (%): None

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 90-100%

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 0

Dominant Plant Species (Common Names):

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

Notes :
Bare field surrounded by hayfields

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 65, 66

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Field Cropland (including hay, wheat, oats, etc.)

Estimated Grass Cover (%): 10-25%

Estimated Forb Cover (%): 50-90%

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): 1-10%

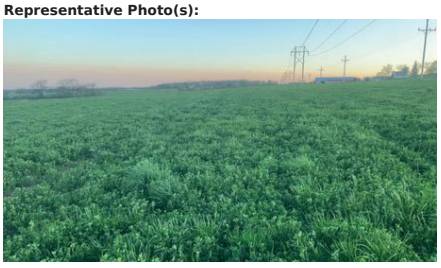
Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 10

Dominant Plant Species (Common Names): Alfalfa, grass sp, dandelion, self-heal

Invasive Plant Species (Common Names):

Representative Photo(s):



EDR

Field Data Sheet

Notes :

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 59, 60

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Row Cropland (Active)

Estimated Grass Cover (%): 90-100%

Estimated Forb Cover (%): None

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): None

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 12

Dominant Plant Species (Common Names): Grass sp, corn

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet

Notes :

Do you need to report observations of another open field?
Yes

EDR

Field Data Sheet

Corresponding Point ID(s): 55, 56, 54, 53, 52

Anthropogenic Disturbance/Management Practices: Traffic Noise

Primary Open Field Cover Type: Field Cropland (including hay, wheat, oats, etc.)

Estimated Grass Cover (%): None

Estimated Forb Cover (%): 90-100%

Estimated Woody Vegetation Cover (%): None

Estimated Bare Ground (%): None

Estimated Litter Depth (inches): None

Average Vegetation Height (inches): 10

Dominant Plant Species (Common Names): Alfalfa, dandelion

Invasive Plant Species (Common Names):

Representative Photo(s):

EDR

Field Data Sheet