

**Exhibit K. Diurnal Bird/Raptor
Migration Survey**



December 2011

**RESULTS OF THE
DIURNAL BIRD/RAPTOR MIGRATION SURVEY
REPUBLIC WIND FARM
SENECA AND SANDUSKY COUNTIES, OHIO**

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EXECUTIVE SUMMARY

BHE Environmental, Inc. (BHE) was contracted to complete diurnal bird/raptor migration surveys following methods described in the *On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio* issued by the Ohio Department of Natural Resources, Division of Wildlife. This report provides data and analysis of results of the diurnal bird/raptor migration surveys conducted by BHE in spring (March 17 through April 30) and fall (September 4 through October 28) 2011. Surveys were conducted by BHE at the proposed Republic Wind Farm project in Seneca and Sandusky counties, Ohio.

A total of 52 species were identified during the migration surveys, including the state-listed endangered northern harrier (*Circus cyaneus*) and sandhill crane (*Grus canadensis*); state threatened osprey (*Pandion haliaetus*) and bald eagle (*Haliaeetus leucocephalus*); and state species of special interest northern pintail (*Anas acuta*). Northern harriers were observed multiple times (13) during the course of the diurnal bird/raptor migration survey; bald eagles were observed four times, and several (18) northern pintails were observed. The remaining two species were observed a single time each.

Due to the limited size of woodlots, wetlands, open water, and potential stopover sites present, and due to an availability of similar habitat in northwestern Ohio, the Project Area does not represent a unique resource for large numbers of diurnal birds and raptors during migration. Diurnal bird/raptor migration monitoring confirmed limited avian migrant use.

The bald eagle was observed during the migration survey. This species is protected by the Bald and Golden Eagle Protection Act. Three bald eagle nests are located within 2.25 miles of the Project Area. The only successful nest in 2011 was located near the proposed power line and is more than 5 miles from the nearest proposed turbine location. In addition, the US Fish and Wildlife Service records indicate 20 bald eagle nests have been documented within 10 miles of the Project boundary. Additional studies on eagle use of the Project Area are ongoing.

1.0 INTRODUCTION

Republic Wind Farm, LLC, a subsidiary of Nordex USA, Inc. (Nordex), proposes construction of the Republic Wind Farm (RWF or Project Area) wind energy generation facility in Seneca and Sandusky counties, Ohio. The Project Area spans approximately 39,627 acres (ac; 16,036 hectares [ha]) northeast of the town of Republic, Ohio (Figure 1). The Project Area represents the maximum area considered for placement of turbines and facility infrastructure. The layout and number of turbines has not yet been selected; however, the actual area disturbed by the turbines and access roads that will comprise the facility will be a very small percentage of the Project Area (less than 1 percent).

BHE Environmental, Inc. (BHE) was contracted by Nordex to conduct diurnal bird/raptor migration surveys at the proposed RWF according to specifications outlined in the Ohio Department of Natural Resources (ODNR) *On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio, An Addendum to the Ohio Department of Natural Resource's Voluntary Cooperative Agreement* ("Ohio Protocol"). The purpose of this report is to document the results of the survey.

Raptor collision rates at modern wind farms outside of California are small (NAS 2007; NWCC 2010). Raptors may be affected by wind power development in several ways, including: a) collisions with operating turbine rotors or blades; b) habitat disturbance resulting from construction or new infrastructure on site; and c) disturbance from increased human activity in the vicinity of the turbines. Collision mortality risk on raptor populations are often evaluated because raptors are not numerous and typically reproduce and mature slowly; thus, in contrast to passerine species, raptors cannot absorb mortalities and recover from losses on an annual basis as easily (Kuvlesky et al. 2007).

2.0 METHODS

2.1 DIURNAL BIRD / RAPTOR MIGRATION SURVEY

In order to gauge the rate at which diurnal birds and raptors could potentially come into conflict with wind turbines at RWF, BHE conducted day-long (9:00 a.m. to 4:00 p.m.) diurnal bird/raptor migration surveys three times a week during seasonally favorable weather for migration (northerly winds in fall, southerly winds in spring). The surveys were made from three observation points that afforded largely unobstructed views and were placed in the north, central, and south portions of the Project Area (Figure 1). Point 2 was moved during the spring of 2011 to a location between the Project area and the bald eagle nest south of the Project Area to better determine whether bald eagles from this nest were using the Project Area (Figure 1). Due to species-specific differences in migration, 20 days of surveys were conducted in spring (March 17 through April 30) and 22 days of surveys were completed during fall (September 4 through October 28) 2011. During surveys, migrants were identified to species, and whenever possible, the sex and age class of individuals was recorded. Using the data sheet provided in the Ohio Protocol, the surveyor also recorded the number of individuals, the approximate height of flight, whether the migrant(s) entered the Project Area, an estimate of the time they spent in the rotor-swept zone (between 40 and 180 meters above ground), and general behaviors observed (e.g., foraging, circling in updraft).

3.0 RESULTS

3.1 BIRD MIGRATION

Land use of the Project Area is dominated by cropland (Table 1). The types of birds observed were consistent with the agricultural uses. A total of 12,337 birds were observed from 52 species during migration surveys (Table 2). Forty-six percent of birds were observed during spring surveys (5,725 individuals from 40 species) and 54 percent were observed during fall surveys (6,612 individuals from 40 species; Appendix A).

Red-winged blackbirds (*Agelaius phoeniceus*), European starlings (*Sturnus vulgaris*), and common grackles (*Quiscalus quiscula*) comprised over half of the birds observed. Red-winged blackbirds were the most numerous birds, observed at an average of 119 birds per day for a total of 4,986 birds. European starlings were recorded at an average of 47 birds per day and common grackles at an average of 33 birds per day; 1,974 and 1,376 total birds, respectively. The majority (80 percent [6,614]) of blackbirds, starlings, and grackles observed were at low heights (0 to 40 meters above ground), with 20 percent (1,725) observed between 40 and 180 meters above ground. A flock of Bonaparte's gulls (*Chroicocephalus philadelphia*; 62 birds) observed between 40 and 180 meters on April 7, 2011 was the only other large flock of birds outside of blackbirds, starlings, and grackles.

3.2 SENSITIVE SPECIES AND RAPTOR MIGRATION

Results of the diurnal bird/raptor migration surveys showed limited use of the Project Area by avian species of conservation concern. Two flocks of northern pintails (*Anas acuta*; 18 total birds) were observed during the spring surveys, both flocks were observed between 40 and 180 meters above ground level. A single sandhill crane (*Grus canadensis*) was observed during spring surveys, and a single osprey (*Pandion haliaetus*) was observed during autumn surveys. The sandhill crane was observed low to the ground (less than 40 meters above ground level) and the osprey was observed above the rotor-swept zone (higher than 180 meters above ground level). Northern harriers were observed using the Project Area multiple times during both the spring (10 observations) and autumn (three observations) surveys, averaging 0.30 birds per day. Northern harriers were frequently observed flying in their characteristically close-to-the-ground manner. Out of the 13 total observations, only one bird was observed flying within the rotor-swept zone. Four bald eagles were observed during the spring migration surveys. Three of the observations occurred in the northwestern portion of the Project Area, each of these observations were of a juvenile bird flying between 40 and 180 meters above the ground. A single observation of an adult bird occurred in the southern portion of the Project Area flying between 40 and 180 meters above the ground (Table 3; Appendix A). The average observations per day during the survey were 0.10 birds per day.

Five other species of raptor were observed during the migration surveys. The most common species observed was the turkey vulture (*Cathartes aura*). The highest count in a single day was 16 turkey vultures observed on April 11, 2011. Sightings of turkey vultures averaged 12.55 birds per day for a total of 527 birds. The second most common species observed was the red-tailed hawk (*Buteo jamaicensis*). Red-tailed hawks were observed an average of 1.7 birds per day for a total of 71 birds. Red-tailed hawks were observed soaring at heights ranging from just about the ground to higher than 180 meters above ground. They were also observed perched on telephone poles and in the few trees located on the Project Area. Other raptor species observed include: Cooper's hawk (*Accipiter cooperii*; 28 birds, 0.66

Table 1. National land use/land cover acreages in the Republic Wind, LLC Project Area, Seneca and Sandusky Counties Ohio.

Land Use	Acres	Percent
Cultivated Crops	33,571.5	84.7%
Deciduous Forest	3,012.7	7.6%
Developed, Open Space	2,101.0	5.3%
Hay/Pasture	425.0	1.1%
Herbaceous	209.96	0.5%
Developed, Low Intensity	136.6	0.3%
Open Water	116.1	0.3%
Woody Wetlands	32.0	0.1%
Emergent Herbaceous Wetlands	10.5	<0.1%
Developed, Medium Intensity	8.3	<0.1%
Evergreen Forest	3.2	<0.1%
Total	39,626.6	100.0%

Table 2. Bird species observed during the Republic Wind Farm Diurnal Bird/Raptor Migration Survey.

Common Name	Species Name	Birds Observed			
		Spring	Autumn	Birds/Day^	Total
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	1212	3774	118.71	4986
European Starling	<i>Sturnus vulgaris</i>	1094	880	47.00	1974
Common Grackle	<i>Quiscalus quiscula</i>	1183	196	32.83	1379
American Crow	<i>Corvus brachyrhynchos</i>	256	498	17.95	754
American Robin	<i>Turdus migratorius</i>	478	67	12.98	545
Turkey Vulture	<i>Cathartes aura</i>	407	120	12.55	527
Horned Lark	<i>Eremophila alpestris</i>	228	69	7.07	297
House Sparrow	<i>Passer domesticus</i>	0	225	5.36	225
Canada Goose	<i>Branta canadensis</i>	66	156	5.29	222
Killdeer	<i>Charadrius vociferus</i>	166	49	5.12	215
Brown-headed Cowbird	<i>Molothrus ater</i>	182	19	4.79	201
Mourning Dove	<i>Zenaida macroura</i>	35	164	4.74	199
Eastern Bluebird	<i>Sialia sialis</i>	21	93	2.71	114
Bonaparte's Gull	<i>Chroicocephalus philadelphia</i>	81	0	1.93	81
American Goldfinch	<i>Spinus tristis</i>	12	61	1.74	73
Red-tailed Hawk	<i>Buteo jamaicensis</i>	60	11	1.69	71
Duck sp.	N/A	60	0	1.43	60
Blue Jay	<i>Cyanocitta cristata</i>	5	52	1.36	57
Song Sparrow	<i>Melospiza melodia</i>	11	35	1.10	46
Ring-billed Gull	<i>Larus delawarensis</i>	0	34	0.81	34

Table 2. Bird species observed during the Republic Wind Farm Diurnal Bird/Raptor Migration Survey.

Common Name	Species Name	Birds Observed			
		Spring	Autumn	Birds/Day [^]	Total
Cedar Waxwing	<i>Bombycilla cedrorum</i>	0	32	0.76	32
Cooper's Hawk	<i>Accipiter cooperii</i>	26	2	0.67	28
Mallard	<i>Anas platyrhynchos</i>	19	8	0.64	27
Pectoral Sandpiper	<i>Calidris melanotos</i>	23	0	0.55	23
Barn Swallow	<i>Hirundo rustica</i>	20	0	0.48	20
Northern Pintail*	<i>Anas acuta</i>	18	0	0.43	18
Northern Harrier*	<i>Circus cyaneus</i>	10	3	0.31	13
Great Blue Heron	<i>Ardea herodias</i>	5	7	0.29	12
Northern Flicker	<i>Colaptes auratus</i>	2	10	0.29	12
American Kestrel	<i>Falco sparverius</i>	5	5	0.24	10
Eastern Meadowlark	<i>Sturnella magna</i>	10	0	0.24	10
Northern Cardinal	<i>Cardinalis cardinalis</i>	0	10	0.24	10
American Pipit	<i>Anthus rubescens</i>	3	6	0.21	9
Tree Swallow	<i>Tachycineta bicolor</i>	1	7	0.19	8
Wood Duck	<i>Aix sponsa</i>	8	0	0.19	8
Rock Pigeon	<i>Columba livia</i>	3	3	0.14	6
Bald Eagle*	<i>Haliaeetus leucocephalus</i>	4	0	0.10	4
Chipping Sparrow	<i>Spizella passerina</i>	4	0	0.10	4
Savannah Sparrow	<i>Passerculus sandwichensis</i>	1	3	0.10	4
Wild Turkey	<i>Meleagris gallopavo</i>	2	2	0.10	4
Belted Kingfisher	<i>Ceryle alcyon</i>	0	2	0.05	2
Pileated Woodpecker	<i>Dryocopus pileatus</i>	1	1	0.05	2
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	0	2	0.05	2
Downy Woodpecker	<i>Picoides pubescens</i>	0	1	0.02	1
Field Sparrow	<i>Spizella pusilla</i>	1	0	0.02	1
Osprey*	<i>Pandion haliaetus</i>	0	1	0.02	1
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	0	1	0.02	1
Red-shouldered Hawk	<i>Buteo lineatus</i>	1	0	0.02	1
Sandhill Crane*	<i>Grus canadensis</i>	1	0	0.02	1
Short-billed Dowitcher	<i>Limnodromus griseus</i>	0	1	0.02	1
Tufted Titmouse	<i>Baeolophus bicolor</i>	0	1	0.02	1
White-breasted Nuthatch	<i>Sitta carolinensis</i>	0	1	0.02	1
Total		5,725	6,612	n/a	12,337

[^]42 observation days

*Listed by the State of Ohio, see Table 3.

Table 3. Bird species listed by the State of Ohio and recorded during the Republic Wind Farm Diurnal Bird/Raptor Migration Survey.

Common Name	Ohio Listed Species Classification	Total Number of Birds Observed
Northern Pintail	Species of Special Interest	18
Bald Eagle	Threatened	4
Osprey	Threatened	1
Northern Harrier	Endangered	13
Sandhill Crane	Endangered	1

birds/day); American kestrel (*Falco sparverius*; 10 birds, 0.23 birds/day); and red-shouldered hawk (*Buteo lineatus*; 1 bird, 0.02 birds/day).

All data collected during the spring and fall migration surveys are in Appendix A.

4.0 DISCUSSION

Bird migration is commonly perceived as involving north-south movements of populations on a large scale, typically associated with seasons. However, there are many types of migratory behavior; some are simple, others more complex. Most seasonal movement between northern and southern climes follows a system of flyways and these flyways are loosely defined by geographical features. These physical features include coasts, river valleys, and mountain ranges, and together form the four major North American migratory corridors: the Atlantic, Mississippi, Central, and Pacific flyways. The Project Area lies along the eastern edge of the Mississippi flyway which also includes, although to a lesser extent, the Ohio River Valley and tributaries. The Project Area also lies along known pathways of raptor migration both in the spring and the fall (Appendix B).

The Project Area is largely covered with row crops and does not contain features known to attract large concentrations of migrating birds, i.e., lakes, rivers, large streams, large wetlands, topographic ridges, large forests, or large grasslands (see Appendix C for site photos). However, several woodlots and tree lines of various sizes are interspersed throughout the Project Area. Based upon observations of diurnally-migrating birds and raptors, the Project Area does not appear to be an important diurnal bird and raptor migratory pathway. Large flocks observed using the area consisted of common species (blackbirds, grackles, and starlings) and listed species were not recorded in large numbers.

Several (18) northern pintails were observed flying within the rotor-swept zone during the spring migration surveys. Northern harriers were observed using the Project Area multiple times during spring (10 observations) and autumn (three observations) surveys, but their low-to-the-ground flight pattern largely avoids the rotor-swept zone, suggesting that collision risk is low. Four bald eagles were observed during the spring migration surveys. Additional studies on potential eagle use of the Project Area are ongoing through March 2013 to further evaluate risk.

Mortality studies at operational wind farms outside of California have shown relatively low raptor fatality rates (NRC 2007; NWCC 2010). Of the studies reviewed by the National

Research Council (NRC 2007), 14 were conducted using a survey protocol for all seasons of occupancy for a one-year period and incorporated scavenging and searcher-efficiency biases into estimates. The combined average raptor mortality for the 14 studies was 0.03 raptors/turbine/year and 0.04 raptors/megawatt/year. In a review of bird collisions documented in 31 studies at wind-energy facilities outside California, Erickson et al. (2001) reported that diurnal raptors comprised 2.7 percent of avian fatalities, while 78 percent of birds killed were protected songbirds. In a 3-year study conducted at a 354-turbine facility in Buffalo Ridge, Minnesota, Johnson et al. (2002) found that of 55 documented fatalities, only one was a raptor (red-tailed hawk; 1.8 percent of fatalities; 0.0009/turbine/year). When examined by region (East, Midwest, Pacific Northwest, and Rocky Mountain), raptor fatalities resulting from collision with wind turbines were found to be lowest in the Midwest (NRC 2007).

5.0 CONCLUSIONS

Due to the limited size of woodlots, wetlands, open water, and potential stopover sites present, and due to an availability of similar habitat in northwestern Ohio, the Project Area does not appear to represent a unique resource for large numbers of migratory diurnal birds and raptors. Diurnal bird/raptor migration monitoring and raptor nest searches confirmed limited avian migrant use.

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FIGURES

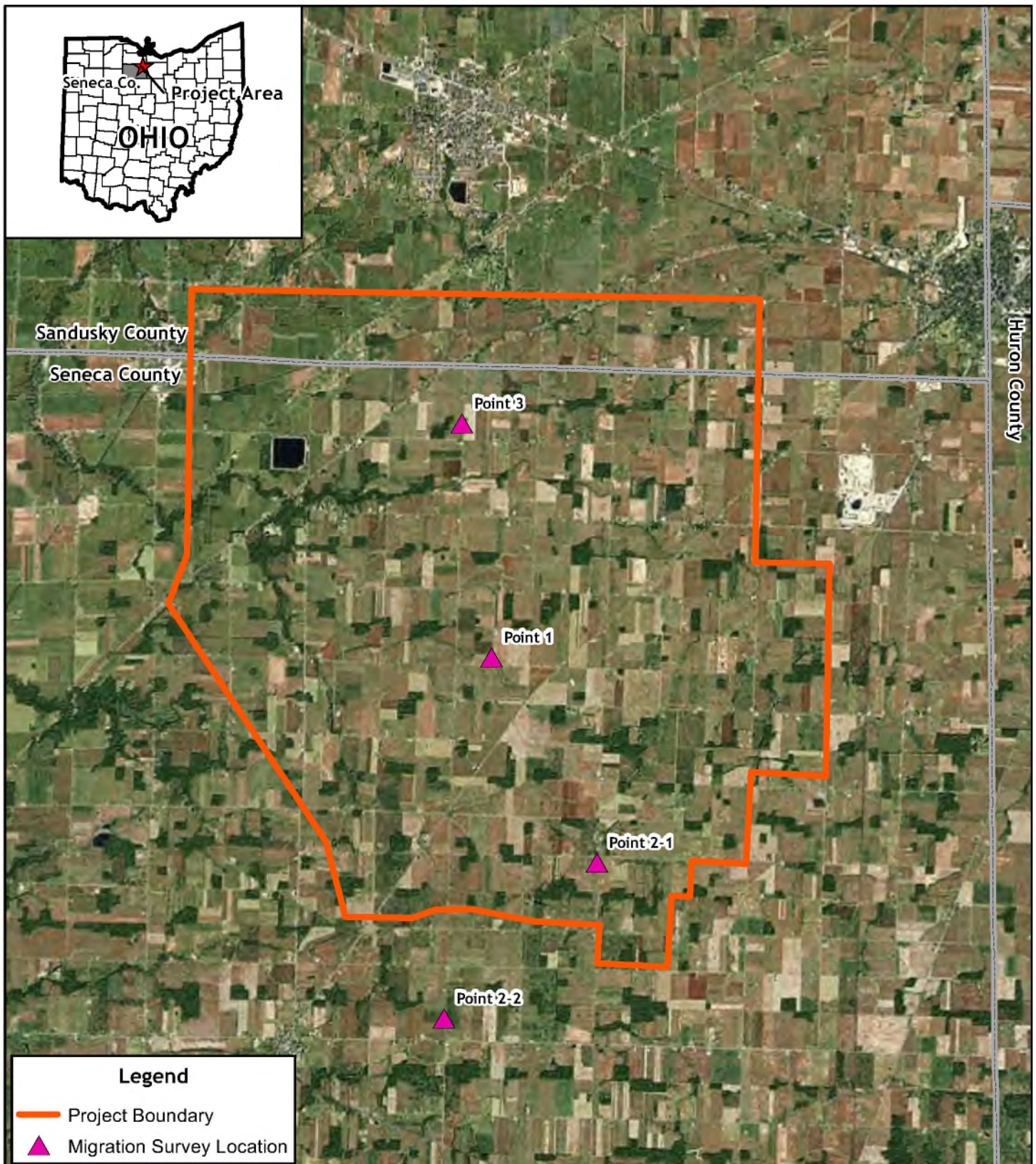


Figure 1. Diurnal Bird/Raptor Migration Survey Locations for the Republic Wind Farm Project Area, Seneca and Sandusky counties, Ohio.

			December 2011	
	Project No. 1953.001		Basemap: NAIP Imagery - Seneca County, OH (2010)	

APPENDIX A

Diurnal Bird/Raptor Migration Survey Observations

Date	Point	Season	Code	Species	#	Age	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
17 Mar-11	1	Spring	COGR	Common Grackle	8		0 - 40 m	South	no	yes	-
		Spring	COGR	Common Grackle	2		0 - 40 m	East	no	yes	-
		Spring	AMRO	American Robin	7		0 - 40 m	South	no	yes	-
		Spring	MODO	Mourning Dove	1		0 - 40 m	Northwest	no	yes	-
		Spring	COGR	Common Grackle	1		40 - 180 m	West	no	yes	15 min
		Spring	EUST	European Starling	7		40 - 180 m	West	no	yes	5 min
		Spring	AMCR	American Crow	1		0 - 40 m	Southwest	no	yes	-
		Spring	AMCR	American Crow	1		0 - 40 m	Northwest	no	yes	-
		Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	Northwest	yes	yes	-
		Spring	RWBL	American Robin	12		0 - 40 m	South	no	yes	-
		Spring	RWBL	Red-winged Blackbird	30		0 - 40 m	West	no	yes	-
		Spring	EUST	European Starling	6		0 - 40 m	Southwest	no	yes	-
		Spring	COGR	Common Grackle	4		40 - 180 m	East	no	yes	2 min
		Spring	AMRO	American Robin	1		0 - 40 m	North	no	yes	-
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	Northwest	no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	Southwest	no	yes	-
		Spring	COGR	Common Grackle	30		0 - 40 m	Southwest	yes	yes	-
		Spring	RWBL	Red-winged Blackbird	30		0 - 40 m	Southwest	yes	yes	-
		Spring	COGR	Common Grackle	7		0 - 40 m	Southwest	no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	South	no	yes	-
		Spring	RWBL	Red-winged Blackbird	14		0 - 40 m	Southwest	no	yes	-
		Spring	HOLA	Horned Lark	5		0 - 40 m	South	no	yes	-
		Spring	KILL	Killdeer	1		0 - 40 m	Northwest	no	yes	-
		Spring	RWBL	Red-winged Blackbird	6		0 - 40 m	East/Southwest	no	yes	-
		Spring	NOHA	Northern Harrier	1	Adult	0 - 40 m	Northwest	yes	yes	hunting
		Spring	COGR	Common Grackle	2		0 - 40 m	South	no	yes	-
		Spring	COGR	Common Grackle	8		0 - 40 m	Southwest	no	yes	-
		Spring	TUVU	Turkey Vulture	1	Adult	0 - 40 m	Northeast	yes	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	Southwest	no	yes	-
		Spring	TUVU	Turkey Vulture	1	Adult	40 - 180 m	Northwest	yes	yes	8 min
		Spring	AMCR	American Crow	2		0 - 40 m	West	no	yes	-
		Spring	AMCR	American Crow	8		0 - 40 m	Northwest	no	yes	-
		Spring	AMRO	American Robin	20		40 - 180 m	Northeast	no	yes	2 min
		Spring	AMCR	American Crow	4		0 - 40 m	Southwest	no	yes	-
		Spring	TUVU	Turkey Vulture	1	Adult	0 - 40 m	East/Northeast	yes	yes	3 min
		Spring	TUVU	Turkey Vulture	1	Adult	0 - 40 m	South/Southwest	yes	yes	-
		Spring	COGR	Common Grackle	10		40 - 180 m	West/Northeast	no	yes	1 min
		Spring	RWBL	Red-winged Blackbird	10		40 - 180 m	West/Northeast	no	yes	1 min
		Spring	GBHE	Great Blue Heron	1		40 - 180 m	North	no	yes	3 min
		Spring	TUVU	Turkey Vulture	1		0 - 40 m	East/Southwest	yes	yes	-
		Spring	EUST	European Starling	6		0 - 40 m	South	no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	East	no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North/Northeast	yes	yes	2 min
		Spring	EUST	European Starling	5		0 - 40 m	-	-	-	-
		Spring	HOLA	Horned Lark	3		0 - 40 m	South	no	yes	-
		Spring	RWBL	Red-winged Blackbird	10		40 - 180 m	East/Northeast	yes	yes	2 min
		Spring	COGR	Common Grackle	10		40 - 180 m	East/Northeast	yes	yes	2 min
		Spring	EUST	European Starling	6		40 - 180 m	East	no	yes	1 min

Date	Point	Season	Code	Species	#	Age	Observation	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
17-Mar-11	1	Spring	TUVU	Turkey Vulture	1		0 - 40 m	yes	yes	2 min
		Spring	COGR	Common Grackle	1		0 - 40 m	no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	no	yes	-
		Spring	KILL	Killdeer	8		0 - 40 m	yes	yes	-
		Spring	TUVU	Turkey Vulture	3		0 - 40 m	North/Northeast	yes	-
		Spring	TUVU	Turkey Vulture	2		>180 m	Southwest	yes	4 min
		Spring	HOLA	Horned Lark	1		0 - 40 m	Southwest	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	Northwest	yes	-
		Spring	COGR	Common Grackle	3		0 - 40 m	South/Southeast	yes	-
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	North/Northeast	yes	3 min
		Spring	AMCR	American Crow	2		0 - 40 m	South	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	South	yes	-
		Spring	RWBL	Red-winged Blackbird	4		0 - 40 m	Northwest	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest	yes	2 min
		Spring	NOHA	Northern Harrier	1		40 - 180 m	North/Northeast	yes	1 min
		Spring	TUVU	Turkey Vulture	1		0 - 40 m	East/Northeast	yes	-
		Spring	TUVU	Turkey Vulture	4		40 - 180 m	South	yes	4 min
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	North	yes	2 min
		Spring	COGR	Common Grackle	15		40 - 180 m	Southwest	yes	1 min
		Spring	EUST	European Starling	12		0 - 40 m	West	yes	-
		Spring	KILL	Killdeer	1		0 - 40 m	South	no	-
		Spring	AMCR	American Crow	1		0 - 40 m	North/Northeast	yes	-
		Spring	TUVU	Turkey Vulture	1		0 - 40 m	West	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	West	yes	2 min
		Spring	KILL	Killdeer	1		0 - 40 m	North/Northeast	no	-
		Spring	TUVU	Turkey Vulture	1		0 - 40 m	West/Southwest	yes	-
		Spring	AMCR	American Crow	1		0 - 40 m	West	yes	-
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	North/Northeast	yes	2 min
		Spring	KILL	Killdeer	1		0 - 40 m	South/Southwest	no	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	East/Northeast	yes	1 min
		Spring	KILL	Killdeer	1		0 - 40 m	South	no	-
		Spring	EUST	European Starling	60		0 - 40 m	West/Northeast	yes	-
		Spring	TUVU	Turkey Vulture	1		0 - 40 m	East	yes	-
		Spring	EUST	European Starling	15		0 - 40 m	West/Southwest	no	-
		Spring	AMCR	American Crow	2		0 - 40 m	North	yes	-
		Spring	AMRO	American Robin	6		0 - 40 m	South/Southwest	yes	-
		Spring	RWBL	Red-winged Blackbird	10		0 - 40 m	Northwest	yes	-
		Spring	TUVU	Turkey Vulture	1		0 - 40 m	Northwest	yes	-
		Spring	COGR	Common Grackle	3		0 - 40 m	West	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North	yes	2 min
		Spring	AMCR	American Crow	1		40 - 180 m	South	yes	1 min
		Spring	AMCR	American Crow	1		0 - 40 m	West/Northeast	yes	-
		Spring	BHCO	Brown-headed Cowbird	25		40 - 180 m	Northwest	yes	2 min
		Spring	COGR	Common Grackle	25		40 - 180 m	Northwest	yes	2 min
		Spring	EUST	European Starling	2		40 - 180 m	Northwest	yes	1 min
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	Northwest	yes	1 min
		Spring	TUVU	Turkey Vulture	3		40 - 180 m	Northwest	yes	2 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southwest	yes	3 min

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
17-Mar-11	1	Spring	KILL	Killdeer	2			0 - 40 m	East	yes	yes	-
		Spring	TUVU	Turkey Vulture	1			40 - 180 m	South	yes	yes	3 min
		Spring	RWBL	Red-winged Blackbird	15			40 - 180 m	East/Northeast	no	yes	1 min
		Spring	COGR	Common Grackle	15			40 - 180 m	East/Northeast	no	yes	1 min
		Spring	RWBL	Red-winged Blackbird	7			40 - 180 m	East	no	yes	2 min
		Spring	COGR	Common Grackle	12			0 - 40 m	East	no	yes	-
		Spring	EUST	European Starling	50			0 - 40 m	Northeast	yes	yes	3 min
		Spring	RTHA	Red-tailed Hawk	1			40 - 180 m	Northeast	yes	yes	4 min
		Spring	TUVU	Turkey Vulture	3			40 - 180 m	Northeast	yes	yes	3 min
		Spring	KILL	Killdeer	1			0 - 40 m	South	no	yes	-
		Spring	TUVU	Turkey Vulture	1			40 - 180 m	North/Northeast	yes	yes	2 min
		Spring	TUVU	Turkey Vulture	1			0 - 40 m	North/Northeast	yes	yes	-
		Spring	RTHA	Red-tailed Hawk	1			40 - 180 m	West/Southwest	yes	yes	2 min
		Spring	TUVU	Turkey Vulture	1			40 - 180 m	West/Southwest	yes	yes	3 min
		Spring	TUVU	Turkey Vulture	2			40 - 180 m	East/Southeast	yes	yes	4 min
		Spring	TUVU	Turkey Vulture	1			0 - 40 m	South	yes	yes	-
		Spring	TUVU	Turkey Vulture	1			0 - 40 m	East	yes	yes	-
		Spring	TUVU	Turkey Vulture	1			0 - 40 m	North/Northeast	yes	yes	-
18-Mar-11	1	Spring	COGR	Common Grackle	15			0 - 40 m	North/Northeast	no	yes	-
		Spring	EUST	European Starling	15			0 - 40 m	North/Northeast	no	yes	-
		Spring	AMRO	American Robin	2			40 - 180 m	East/Northeast	no	yes	-
		Spring	COGR	Common Grackle	12			40 - 180 m	East	no	yes	1 min
		Spring	AMRO	American Robin	1			0 - 40 m	South	no	yes	-
		Spring	COGR	Common Grackle	5			0 - 40 m	East/Northeast	no	yes	-
		Spring	AMRO	American Robin	1			0 - 40 m	South	no	yes	-
		Spring	CAGO	Canada Goose	9			40 - 180 m	West	no	yes	2 min
		Spring	CAGO	Canada Goose	4			40 - 180 m	North/Northeast	no	yes	2 min
		Spring	KILL	Killdeer	2			0 - 40 m	North	no	yes	-
		Spring	AMRO	American Robin	1			0 - 40 m	North	no	yes	-
		Spring	EUST	European Starling	4			0 - 40 m	East	no	yes	-
		Spring	COGR	Common Grackle	7			0 - 40 m	Northeast	no	yes	-
		Spring	AMRO	American Robin	3			0 - 40 m	West	no	yes	-
		Spring	KILL	Killdeer	1			40 - 180 m	West	no	yes	2 min
		Spring	COGR	Common Grackle	3			40 - 180 m	Southwest	no	yes	1 min
		Spring	COGR	Common Grackle	5			0 - 40 m	South	no	yes	-
		Spring	SOSP	Song Sparrow	1			0 - 40 m	Southeast	no	yes	-
		Spring	AMRO	American Robin	4			0 - 40 m	Northeast	no	yes	-
		Spring	COGR	Common Grackle	3			40 - 180 m	East/Northeast	no	yes	-
		Spring	KILL	Killdeer	1			0 - 40 m	North	no	yes	-
		Spring	COGR	Common Grackle	2			0 - 40 m	North/Northeast	no	yes	-
		Spring	MODD	Mourning Dove	2			0 - 40 m	North/Northeast	no	yes	-
		Spring	AMRO	American Robin	2			0 - 40 m	Northwest	no	yes	-
		Spring	COGR	Common Grackle	2			40 - 180 m	West/Northeast	no	yes	1 min
		Spring	HOLA	Horned Lark	4			0 - 40 m	South	no	yes	-
		Spring	COGR	Common Grackle	4			0 - 40 m	Northeast	no	yes	-
		Spring	COGR	Common Grackle	2			0 - 40 m	East	no	yes	-
		Spring	EUST	European Starling	1			0 - 40 m	West	no	yes	-
		Spring	COGR	Common Grackle	4			0 - 40 m	North/Northeast	no	yes	-
		Spring	RWBL	Red-winged Blackbird	7			0 - 40 m	Northwest	no	yes	-

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
18-Mar-11	1	Spring	COGR	Common Grackle	3		40-180 m	Northwest		no	yes	-
		Spring	RWBL	Red-winged Blackbird	2		40-180 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	1		0-40 m	West		no	yes	-
		Spring	AMRO	American Robin	1		0-40 m	Southwest		no	yes	-
		Spring	COGR	Common Grackle	1		0-40 m	Southwest		no	yes	-
		Spring	RWBL	Red-winged Blackbird	4		0-40 m	North/Northwest		no	yes	1 min
		Spring	COGR	Common Grackle	1		40-180 m	West/Northwest		no	yes	1 min
		Spring	COGR	Common Grackle	1		40-180 m	East/Southeast		no	yes	2 min
		Spring	KILL	Killdeer	1		0-40 m	East		no	yes	-
		Spring	EUST	European Starling	2		0-40 m	West		no	yes	-
		Spring	COGR	Common Grackle	1		0-40 m	Northwest		no	yes	-
		Spring	TUVU	Turkey Vulture	3		40-180 m	Northwest		yes	yes	3 min
		Spring	RWBL	Red-winged Blackbird	2		0-40 m	North		no	yes	-
		Spring	COGR	Common Grackle	2		0-40 m	South/Southeast		no	yes	-
		Spring	AMCR	American Crow	1		0-40 m	Southwest		no	yes	-
		Spring	COGR	Common Grackle	8		40-180 m	Northwest		no	yes	1 min
		Spring	RWBL	Red-winged Blackbird	10		40-180 m	South		no	yes	2 min
		Spring	TUVU	Turkey Vulture	1		40-180 m	East		yes	yes	2 min
		Spring	HOLA	Horned Lark	7		0-40 m	North		no	yes	-
		Spring	AMCR	American Crow	2		0-40 m	North		no	yes	-
		Spring	COGR	Common Grackle	6		40-180 m	South		no	yes	3 min
		Spring	KILL	Killdeer	1		0-40 m	Southeast		no	yes	-
		Spring	TUVU	Turkey Vulture	3		40-180 m	Northwest		yes	yes	-
		Spring	COGR	Common Grackle	2		0-40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	50		0-40 m	South		yes	yes	-
		Spring	EUST	European Starling	50		0-40 m	South		yes	yes	-
		Spring	BHCO	Brown-headed Cowbird	20		0-40 m	South		yes	yes	-
		Spring	EUST	European Starling	12		0-40 m	Northwest		no	yes	-
		Spring	KILL	Killdeer	1		0-40 m	East		no	yes	-
		Spring	EUST	European Starling	8		40-180 m	West		no	yes	1 min
		Spring	RWBL	Red-winged Blackbird	10		0-40 m	Northwest		no	yes	-
		Spring	RWBL	Red-winged Blackbird	8		0-40 m	North		no	yes	-
		Spring	NOFL	Northern Flicker	2		0-40 m	West		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40-180 m	West		yes	yes	2 min
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southeast		yes	no	3 min
		Spring	KILL	Killdeer	1		0-40 m	Northeast		no	yes	-
		Spring	TUVU	Turkey Vulture	3		40-180 m	East/Northeast		yes	yes	2 min
		Spring	WODU	Wood Duck	2		40-180 m	West/Southwest		no	yes	1 min
		Spring	TUVU	Turkey Vulture	4		40-180 m	East		yes	no	2 min
		Spring	COGR	Common Grackle	20		40-180 m	North/Northeast		no	yes	2 min
		Spring	EUST	European Starling	20		40-180 m	North/Northeast		no	yes	2 min
		Spring	AMGO	American Goldfinch	1		0-40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	1		0-40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	12		40-180 m	West		no	yes	2 min
		Spring	EUST	European Starling	2		0-40 m	Northwest		no	yes	-
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southwest		yes	yes	2 min
		Spring	AMCR	American Crow	1		40-180 m	East/Southeast		no	yes	1 min
		Spring	COGR	Common Grackle	50		40-180 m	East/Northeast		yes	yes	2 min
		Spring	EUST	European Starling	50		40-180 m	East/Northeast		yes	yes	2 min

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
18-Mar-11	1	Spring	EUST	European Starling	4		0-40 m	West		no	yes	-
		Spring	AMRO	American Robin	1		0-40 m	West		no	yes	-
		Spring	AMCR	American Crow	1		0-40 m	South/Southwest		no	yes	-
		Spring	EUST	European Starling	10		0-40 m	North/Northwest		no	yes	-
		Spring	AMRO	American Robin	1		0-40 m	West		no	yes	-
		Spring	EUST	European Starling	4		0-40 m	West/Southwest		no	yes	-
		Spring	EUST	European Starling	40		40-180 m	West/Northwest		no	yes	1 min
		Spring	COGR	Common Grackle	15		40-180 m	Southwest		no	yes	2 min
		Spring	RWBL	Red-winged Blackbird	10		40-180 m	Southeast		no	yes	2 min
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southeast		yes	yes	1 min
		Spring	AMCR	American Crow	2		0-40 m	North		no	yes	-
		Spring	COGR	Common Grackle	2		0-40 m	West		no	yes	-
		Spring	KILL	Killdeer	1		0-40 m	Northwest		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40-180 m	North		yes	no	2 min
		Spring	KILL	Killdeer	2		40-180 m	West		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40-180 m	South		yes	yes	2 min
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southwest		yes	yes	1 min
		Spring	COGR	Common Grackle	14		0-40 m	Northwest		no	yes	-
		Spring	RWBL	Red-winged Blackbird	12		40-180 m	East		no	yes	1 min
		Spring	AMRO	American Robin	10		0-40 m	Northwest		no	yes	-
		Spring	EUST	European Starling	22		0-40 m	East		no	yes	-
		Spring	AMCR	American Crow	2		0-40 m	East		no	yes	-
		Spring	AMRO	American Robin	1		0-40 m	Southeast		no	yes	-
		Spring	COGR	Common Grackle	15		40-180 m	Northwest		no	yes	1 min
		Spring	RWBL	Red-winged Blackbird	6		40-180 m	Northwest		no	yes	1 min
		Spring	KILL	Killdeer	1		0-40 m	North/Northeast		no	yes	-
		Spring	AMCR	American Crow	2		40-180 m	East/Southeast		no	yes	1 min
		Spring	COGR	Common Grackle	1		0-40 m	Southeast		no	yes	-
		Spring	AMCR	American Crow	1		40-180 m	Northwest		no	yes	2 min
		Spring	TUVU	Turkey Vulture	2		40-180 m	Northwest		yes	yes	2 min
		Spring	MODO	Mourning Dove	1		0-40 m	East		no	yes	-
22-Mar-11	1	Spring	KILL	Killdeer	2		40-180 m	Northeast		yes	yes	48 min
		Spring	AMRO	American Robin	4		0-40 m	North		no	yes	-
		Spring	TUVU	Turkey Vulture	1		0-40 m	West		no	yes	-
		Spring	COGR	Common Grackle	4		40-180 m	Northwest		no	yes	1 min
		Spring	AMRO	American Robin	2		0-40 m	East		no	yes	-
		Spring	AMRO	American Robin	5		0-40 m	East		no	yes	-
		Spring	COGR	Common Grackle	1		0-40 m	West		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40-180 m	Southwest		yes	yes	3 min
		Spring	COGR	Common Grackle	1		40-180 m	Northwest		no	yes	2 min
		Spring	RWBL	Red-winged Blackbird	1		0-40 m	South		no	yes	-
		Spring	AMRO	American Robin	1		0-40 m	North		no	yes	-
		Spring	COGR	Common Grackle	1		0-40 m	Northwest		no	yes	-
		Spring	RWBL	Red-winged Blackbird	2		0-40 m	Northwest		no	yes	-
		Spring	EUST	European Starling	4		40-180 m	West		no	yes	2 min
		Spring	COGR	Common Grackle	6		40-180 m	East/Southeast		no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		0-40 m	Northeast		yes	yes	2 min
		Spring	CAGO	Canada Goose	2		40-180 m	East/Northeast		no	yes	-
		Spring	COGR	Common Grackle	3		40-180 m	Northwest		no	yes	2 min

Date	Point	Season	Code	Species	#	Age	Height	Observation	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
22-Mar-11	1	Spring	AMRO	American Robin	1		40-180 m	Northwest	no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40-180 m	Southwest	yes	yes	3 min
		Spring	AMCR	American Crow	2		0-40 m	West	no	yes	-
		Spring	EUST	European Starling	1		0-40 m	North	no	yes	-
		Spring	TUVU	Turkey Vulture	1		40-180 m	Northwest	yes	yes	1 min
		Spring	COGR	Common Grackle	2		0-40 m	North	no	yes	-
		Spring	MALL	Mallard	8		40-180 m	Northwest	no	yes	2 min
		Spring	TUVU	Turkey Vulture	2		40-180 m	East	yes	yes	3 min
		Spring	EABL	Eastern Bluebird	2		0-40 m	East	no	yes	-
		Spring	TUVU	Turkey Vulture	2		40-180 m	South/Southeast	yes	yes	3 min
22-Mar-11	2	Spring	COGR	Common Grackle	6		0-40 m	Northwest	no	yes	-
		Spring	KILL	Killdeer	1		40-180 m	East	no	yes	1 min
		Spring	COGR	Common Grackle	4		40-180 m	Southwest	no	yes	2 min
		Spring	PIWO	Pileated Woodpecker	1		0-40 m	North	no	yes	1 min
		Spring	RTHA	Red-tailed Hawk	2		40-180 m	East	yes	yes	3 min
		Spring	TUVU	Turkey Vulture	3		40-180 m	East	yes	yes	3 min
		Spring	AMCR	American Crow	2		0-40 m	Southeast	no	yes	-
		Spring	RTHA	Red-tailed Hawk	1		0-40 m	Southwest	no	yes	1 min
		Spring	AMCR	American Crow	3		0-40 m	West/Southwest	no	yes	-
		Spring	AMCR	American Crow	2		0-40 m	West	no	yes	-
22-Mar-11	2	Spring	AMCR	American Crow	1		40-180 m	West	no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40-180 m	East	yes	yes	2 min
		Spring	KILL	Killdeer	1		40-180 m	East	no	yes	-
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southwest	yes	yes	1 min
		Spring	KILL	Killdeer	1		0-40 m	East	yes	yes	1 min
		Spring	AMCR	American Crow	3		0-40 m	North/Northwest	no	yes	-
		Spring	AMRO	American Robin	1		0-40 m	Northwest	no	yes	-
		Spring	COHA	Cooper's Hawk	1		40-180 m	South	no	yes	1 min
		Spring	NOHA	Northern Harrier	1		0-40 m	Northwest	no	yes	-
		Spring	AMCR	American Crow	3		0-40 m	Northwest	no	yes	-
22-Mar-11	2	Spring	AMCR	American Crow	5		40-180 m	South	no	yes	2 min
		Spring	TUVU	Turkey Vulture	1		0-40 m	Northwest	no	yes	-
		Spring	KILL	Killdeer	2		40-180 m	Southeast	no	yes	2 min
		Spring	AMCR	American Crow	3		0-40 m	East	no	yes	-
		Spring	COGR	Common Grackle	4		40-180 m	Northwest	no	yes	2 min
		Spring	RWBL	Red-winged Blackbird	6		0-40 m	North	no	yes	-
		Spring	KILL	Killdeer	1		0-40 m	Southwest	no	yes	1 min
		Spring	TUVU	Turkey Vulture	2		40-180 m	Southwest	yes	yes	2 min
		Spring	COHA	Cooper's Hawk	1		0-40 m	Northwest	no	yes	-
		Spring	COGR	Common Grackle	2		40-180 m	North	no	yes	1 min
22-Mar-11	3	Spring	HOLA	Horned Lark	1		0-40 m	South	no	yes	-
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	East	yes	yes	2 min
		Spring	AMRO	American Robin	1		40-180 m	Northwest	no	yes	1 min
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southwest	yes	yes	3 min
		Spring	AMCR	American Crow	2		40-180 m	Southwest	yes	yes	2 min
		Spring	BAEA	Bald Eagle	1	3 yrs	40-180 m	West	no	yes	2 min
		Spring	HOLA	Horned Lark	1		0-40 m	North	no	yes	-
		Spring	TUVU	Turkey Vulture	1		40-180 m	South	yes	yes	2 min
		Spring	COGR	Common Grackle	4		0-40 m	East	no	yes	-
		Spring	AMCR	American Crow	3		0-40 m	East	no	yes	-
22-Mar-11	3	Spring	COGR	Common Grackle	4		40-180 m	Northwest	no	yes	2 min
		Spring	RWBL	Red-winged Blackbird	6		0-40 m	North	no	yes	-
		Spring	KILL	Killdeer	1		0-40 m	Southwest	no	yes	1 min
		Spring	TUVU	Turkey Vulture	2		40-180 m	Southwest	yes	yes	2 min
		Spring	COHA	Cooper's Hawk	1		0-40 m	Northwest	no	yes	-
		Spring	COGR	Common Grackle	2		40-180 m	North	no	yes	1 min
		Spring	HOLA	Horned Lark	1		0-40 m	South	no	yes	-
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	East	yes	yes	2 min
		Spring	AMRO	American Robin	1		40-180 m	Northwest	no	yes	1 min
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southwest	yes	yes	3 min
22-Mar-11	3	Spring	AMCR	American Crow	2		40-180 m	Southwest	yes	yes	2 min
		Spring	BAEA	Bald Eagle	1		40-180 m	West	no	yes	2 min
		Spring	HOLA	Horned Lark	1		0-40 m	North	no	yes	-
		Spring	TUVU	Turkey Vulture	1		40-180 m	South	yes	yes	2 min
		Spring	COGR	Common Grackle	4		0-40 m	East	no	yes	-
		Spring	AMCR	American Crow	3		0-40 m	East	no	yes	-
		Spring	COGR	Common Grackle	4		40-180 m	Northwest	no	yes	2 min
		Spring	RWBL	Red-winged Blackbird	6		0-40 m	North	no	yes	-
		Spring	KILL	Killdeer	1		0-40 m	Southwest	no	yes	1 min
		Spring	TUVU	Turkey Vulture	2		40-180 m	Southwest	yes	yes	2 min

Date	Point	Season	Code	Species	#	Age	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
22-Mar-11	3	Spring	TUVU	Turkey Vulture	2		40 - 180 m	West	yes	yes	1 min
		Spring	COGR	Common Grackle	1		0 - 40 m	Southwest	no	yes	-
		Spring	AMRO	American Robin	2		0 - 40 m	West	no	yes	-
		Spring	AMCR	American Crow	1		0 - 40 m	South	no	yes	-
		Spring	COGR	Common Grackle	4		0 - 40 m	Northwest	no	yes	-
		Spring	AMRO	American Robin	14		0 - 40 m	South/Southwest	no	yes	-
		Spring	KILL	Killdeer	3		40 - 180 m	Northwest	no	yes	2 min
		Spring	COGR	Common Grackle	7		40 - 180 m	North/Northwest	no	yes	1 min
		Spring	AMRO	American Robin	4		0 - 40 m	Northwest	no	yes	-
		Spring	EUST	European Starling	15		0 - 40 m	West/Southwest	no	yes	-
		Spring	BHCO	Brown-headed Cowbird	15		0 - 40 m	West/Southwest	no	yes	-
		Spring	COGR	Common Grackle	10		0 - 40 m	West/Southwest	no	yes	-
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	Southwest	yes	yes	2 min
		Spring	TUVU	Turkey Vulture	3		40 - 180 m	South	yes	yes	3 min
24-Mar-11	1	Spring	AMCR	American Crow	2		0 - 40 m	East	no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	Northwest	no	yes	-
		Spring	EUST	European Starling	4		40 - 180 m	Northwest	no	yes	1 min
		Spring	COGR	Common Grackle	3		0 - 40 m	Northwest	no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	Northwest	no	yes	-
		Spring	KILL	Killdeer	3		0 - 40 m	East	no	yes	-
		Spring	COGR	Common Grackle	5		40 - 180 m	South/Southwest	no	yes	1 min
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	Northwest	yes	yes	2 min
		Spring	COGR	Common Grackle	4		0 - 40 m	Northwest	no	yes	-
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	East/Southwest	yes	yes	2 min
		Spring	HOLA	Horned Lark	2		0 - 40 m	Northwest	no	yes	-
		Spring	BHCO	Brown-headed Cowbird	7		0 - 40 m	Northwest	no	yes	-
		Spring	AMCR	American Crow	2		40 - 180 m	North	no	yes	1 min
		Spring	COGR	Common Grackle	1		0 - 40 m	Southeast	no	yes	-
		Spring	AMRO	American Robin	2		0 - 40 m	Northwest	no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southwest	yes	no	2 min
		Spring	CAGO	Canada Goose	2		40 - 180 m	North/Northeast	no	yes	2 min
		Spring	AMCR	American Crow	3		0 - 40 m	Southeast	no	yes	-
		Spring	AMCR	American Crow	4		40 - 180 m	Northwest	no	yes	1 min
		Spring	EAME	Eastern Meadowlark	1		0 - 40 m	North	no	yes	-
		Spring	AMRO	American Robin	5		40 - 180 m	South	no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest	yes	yes	2 min
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	West/Northwest	yes	yes	2 min
		Spring	COGR	Common Grackle	14		40 - 180 m	Northwest	no	yes	1 min
		Spring	EABL	Eastern Bluebird	3		0 - 40 m	Southwest	no	yes	-
		Spring	COGR	Common Grackle	5		40 - 180 m	Northwest	no	yes	1 min
		Spring	KILL	Killdeer	2		40 - 180 m	Northwest	yes	yes	10 min
		Spring	COGR	Common Grackle	7		40 - 180 m	North	no	yes	1 min
		Spring	NOHA	Northern Harrier	1		0 - 40 m	Southeast	yes	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest	yes	yes	2 min
		Spring	COHA	Cooper's Hawk	1		0 - 40 m	East	no	yes	-
		Spring	WODU	Wood Duck	2		40 - 180 m	South	no	yes	1 min
		Spring	EUST	European Starling	30		0 - 40 m	East	no	yes	-
		Spring	CAGO	Canada Goose	4		40 - 180 m	Southeast	no	yes	2 min
		Spring	EUST	European Starling	20		40 - 180 m	South	no	yes	1 min

Date	Point	Season	Code	Species	#	Age	Observation	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
24-Mar-11	2	Spring	N/A	Duck sp.	30		0 - 40 m	Northwest	yes	-
		Spring	HOLA	Horned Lark	5		0 - 40 m	East	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southwest	yes	2 min
		Spring	AMCR	American Crow	3		0 - 40 m	Northwest	yes	-
		Spring	COGR	Common Grackle	6		0 - 40 m	Southwest	yes	-
		Spring	RTHA	Red tailed Hawk	1		40 - 180 m	Northwest	yes	2 min
		Spring	BHCO	Brown-headed Cowbird	10		0 - 40 m	Northwest	yes	-
		Spring	EUST	European Starling	10		0 - 40 m	Northwest	yes	-
		Spring	COGR	Common Grackle	6		40 - 180 m	North	yes	1 min
		Spring	AMRO	American Robin	5		40 - 180 m	East/Southeast	yes	1 min
24-Mar-11	3	Spring	KILL	Killdeer	3		0 - 40 m	East	yes	-
		Spring	AMCR	American Crow	2		0 - 40 m	West/Northwest	yes	-
		Spring	COGR	Common Grackle	3		0 - 40 m	South	yes	-
		Spring	AMRO	American Robin	2		0 - 40 m	Northwest	yes	-
		Spring	KILL	Killdeer	1		0 - 40 m	West	yes	-
		Spring	HOLA	Horned Lark	3		0 - 40 m	Southeast	yes	-
		Spring	COGR	Common Grackle	1		40 - 180 m	Northwest	yes	1 min
		Spring	RWBL	Red winged Blackbird	1		0 - 40 m	North	yes	-
		Spring	COHA	Cooper's Hawk	1		0 - 40 m	West	yes	-
		Spring	BHCO	Brown-headed Cowbird	5		0 - 40 m	North/Northeast	yes	-
24-Mar-11	3	Spring	AMRO	American Robin	1		40 - 180 m	Northwest	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southwest	yes	3 min
		Spring	COGR	Common Grackle	7		40 - 180 m	East	yes	1 min
		Spring	CAGO	Canada Goose	5		40 - 180 m	South	yes	1 min
		Spring	HOLA	Horned Lark	3		0 - 40 m	Northwest	yes	-
		Spring	COGR	Common Grackle	4		40 - 180 m	Northwest	yes	1 min
		Spring	RTHA	Red tailed Hawk	1		40 - 180 m	North	yes	2 min
		Spring	KILL	Killdeer	2		40 - 180 m	Northwest	yes	1 min
		Spring	SOSP	Song Sparrow	1		0 - 40 m	South	yes	-
		Spring	AMCR	American Crow	1		0 - 40 m	South	yes	-
25-Mar-11	1	Spring	AMCR	American Crow	1		40 - 180 m	Northwest	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest	yes	2 min
		Spring	COGR	Common Grackle	6		40 - 180 m	Northwest	yes	1 min
		Spring	AMRO	American Robin	1		0 - 40 m	East	yes	-
		Spring	KILL	Killdeer	3		0 - 40 m	Southwest	yes	-
		Spring	EUST	European Starling	25		0 - 40 m	Northwest	yes	-
		Spring	AMCR	American Crow	1		40 - 180 m	West	yes	1 min
		Spring	COGR	Common Grackle	3		0 - 40 m	East	yes	-
		Spring	AMRO	American Robin	8		40 - 180 m	West/Southwest	yes	1 min
		Spring	COGR	Common Grackle	1		40 - 180 m	Southwest	yes	1 min
25-Mar-11	1	Spring	AMCR	American Crow	2		40 - 180 m	East	yes	1 min
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	West/Southwest	yes	2 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	South	yes	1 min
		Spring	TUVU	Turkey Vulture	2		>180 m	South	yes	-
		Spring	AMRO	American Robin	11		0 - 40 m	West	yes	-
		Spring	HOLA	Horned Lark	4		0 - 40 m	South	yes	-
		Spring	AMCR	American Crow	3		40 - 180 m	North/Northwest	yes	1 min
		Spring	RTHA	Red tailed Hawk	1		40 - 180 m	South/Southwest	yes	2 min
		Spring	COGR	Common Grackle	6		40 - 180 m	Northwest	yes	1 min
		Spring	COGR	Common Grackle	6		40 - 180 m	Northwest	yes	1 min

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
25-Mar-11	1	Spring	KILL	Killdeer	2		0-40 m		East	no	yes	-
		Spring	EUST	European Starling	20		0-40 m	West/Southwest		no	yes	-
		Spring	BHCO	Brown-headed Cowbird	20		0-40 m	West/Southwest		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40-180 m	Northeast		yes	yes	2 min
		Spring	RWBL	Red-winged Blackbird	3		0-40 m	Southwest		no	yes	-
		Spring	AMCR	American Crow	3		0-40 m	West		no	yes	-
		Spring	NOHA	Northern Harrier	1		0-40 m	West		no	yes	hunting
		Spring	AMRO	American Robin	1		0-40 m	Northwest		no	yes	-
		Spring	CAGO	Canada Goose	4		40-180 m	Northeast		no	yes	1 min
		Spring	GBHE	Great Blue Heron	1		40-180 m	North/Northeast		no	yes	1 min
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southwest		yes	yes	1 min
		Spring	COGR	Common Grackle	1		0-40 m	West		no	yes	-
		Spring	EUST	European Starling	4		0-40 m	East		no	yes	-
		Spring	KILL	Killdeer	1		0-40 m	Northeast		no	yes	-
		Spring	COGR	Common Grackle	3		0-40 m	North/Northeast		no	yes	-
		Spring	EUST	European Starling	5		0-40 m	North		no	yes	-
25-Mar-11	2	Spring	COGR	Common Grackle	2		0-40 m	Northwest		no	yes	-
		Spring	AMCR	American Crow	2		0-40 m	West/Northeast		no	yes	-
		Spring	AMCR	American Crow	1		0-40 m	South		no	yes	-
		Spring	AMRO	American Robin	6		40-180 m	Northeast		no	yes	2 min
		Spring	EUST	European Starling	50		40-180 m	South		no	yes	1 min
		Spring	HOLA	Horned Lark	4		0-40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	12		40-180 m	East/Southeast		no	yes	1 min
		Spring	COGR	Common Grackle	2		40-180 m	East/Southeast		no	yes	1 min
		Spring	COGR	Common Grackle	4		0-40 m	West		no	yes	-
		Spring	RWBL	Red-winged Blackbird	5		40-180 m	East/Northeast		no	yes	1 min
		Spring	BLJA	Blue Jay	3		40-180 m	South		no	yes	1 min
		Spring	COGR	Common Grackle	4		40-180 m	Northwest		no	yes	1 min
		Spring	COGR	Common Grackle	5		40-180 m	East		no	yes	1 min
		Spring	AMRO	American Robin	3		0-40 m	Southeast		no	yes	-
		Spring	COGR	Common Grackle	7		40-180 m	West		no	yes	1 min
		Spring	COGR	Common Grackle	20		40-180 m	South		no	yes	2 min
25-Mar-11	3	Spring	COGR	Common Grackle	14		40-180 m	South		no	yes	1 min
		Spring	NOPI	Northern Pintail	12		40-180 m	Southeast		no	yes	1 min
		Spring	N/A	Duck sp.	30		40-180 m	Southeast		yes	yes	2 min
		Spring	COGR	Common Grackle	10		40-180 m	Southwest		no	yes	2 min
		Spring	RWBL	Red-winged Blackbird	10		40-180 m	Southwest		no	yes	2 min
		Spring	COGR	Common Grackle	12		40-180 m	South		no	yes	1 min
		Spring	EUST	European Starling	20		40-180 m	Southeast		no	yes	-
		Spring	EUST	European Starling	50		40-180 m	South		no	yes	2 min
		Spring	COGR	Common Grackle	2		0-40 m	East		no	yes	-
		Spring	AMCR	American Crow	3		40-180 m	East/Southeast		no	yes	1 min
		Spring	HOLA	Horned Lark	4		0-40 m	Northeast		no	yes	-
		Spring	COGR	Common Grackle	3		0-40 m	Southwest		no	yes	-
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Northeast		yes	yes	2 min
		Spring	TUVU	Turkey Vulture	3		40-180 m	North		yes	yes	3 min
		Spring	AMRO	American Robin	4		40-180 m	Southwest		no	yes	1 min
		Spring	COGR	Common Grackle	6		0-40 m	North/Northeast		no	yes	-
		Spring	AMRO	American Robin	2		0-40 m	West		no	yes	-

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
25-Mar-11	3	Spring	KILL	Killdeer	2		40-180 m	South		no	yes	1 min
		Spring	EABL	Eastern Bluebird	2		0-40 m	East		no	yes	-
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southwest		yes	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40-180 m	South		yes	yes	2 min
		Spring	COGR	Common Grackle	2		0-40 m	Northwest		no	yes	-
		Spring	AMCR	American Crow	1		0-40 m	North		no	yes	-
		Spring	AMRO	American Robin	4		40-180 m	Southwest		no	yes	1 min
		Spring	COGR	Common Grackle	1		0-40 m	Northwest		no	yes	-
		Spring	EUST	European Starling	3		0-40 m	North/Northwest		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40-180 m	Northwest		yes	yes	2 min
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	East/Northwest		yes	yes	1 min
		Spring	COGR	Common Grackle	5		40-180 m	Southwest		no	yes	1 min
		Spring	AMCR	American Crow	4		0-40 m	South		no	yes	-
		Spring	AMRO	American Robin	1		0-40 m	Southwest		no	yes	-
		Spring	COHA	Cooper's Hawk	1		0-40 m	East		no	yes	-
		Spring	HOLA	Horned Lark	2		0-40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	3		40-180 m	North		no	yes	1 min
		Spring	AMRO	American Robin	6		40-180 m	Southwest		no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40-180 m	East/Southwest		yes	yes	2 min
		Spring	KILL	Killdeer	2		0-40 m	West		no	yes	-
27-Mar-11	1	Spring	AMRO	American Robin	1		0-40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	6		0-40 m	Southwest		no	yes	-
		Spring	AMCR	American Crow	1		40-180 m	Northwest		no	yes	1 min
		Spring	COGR	Common Grackle	1		40-180 m	Northwest		no	yes	1 min
		Spring	AMRO	American Robin	1		0-40 m	Southwest		no	yes	-
		Spring	AMCR	American Crow	5		0-40 m	East		no	yes	-
		Spring	TUVU	Turkey Vulture	6		40-180 m	Southwest		yes	yes	2 min
		Spring	AMCR	American Crow	2		0-40 m	West		no	yes	-
		Spring	COGR	Common Grackle	1		40-180 m	East		no	yes	1 min
		Spring	AMRO	American Robin	1		0-40 m	North/Northwest		no	yes	-
		Spring	RWBL	Red-winged Blackbird	1		0-40 m	North		no	yes	-
		Spring	BHCO	Brown-headed Cowbird	15		0-40 m	West/Northwest		no	yes	-
		Spring	EUST	European Starling	15		0-40 m	West/Northwest		no	yes	-
		Spring	COGR	Common Grackle	1		0-40 m	Northwest		no	yes	-
		Spring	HOLA	Horned Lark	3		0-40 m	North		no	yes	-
		Spring	CAGO	Canada Goose	2		40-180 m	Southwest		no	yes	1 min
		Spring	COGR	Common Grackle	1		0-40 m	East		no	yes	-
		Spring	COGR	Common Grackle	4		40-180 m	East/Northwest		no	yes	2 min
		Spring	AMRO	American Robin	1		0-40 m	West		no	yes	-
27-Mar-11	1	Spring	AMRO	American Robin	1		0-40 m	West		no	yes	-
		Spring	AMCR	American Crow	3		0-40 m	North/Northwest		no	yes	-
		Spring	COGR	Common Grackle	2		40-180 m	East		no	yes	1 min
		Spring	COGR	Common Grackle	1		0-40 m	West		no	yes	-
		Spring	COGR	Common Grackle	1		40-180 m	South		no	yes	1 min
		Spring	AMRO	American Robin	1		0-40 m	East/Southwest		no	yes	-
		Spring	COGR	Common Grackle	8		0-40 m	South/Southwest		no	yes	-
		Spring	EUST	European Starling	2		0-40 m	South/Southwest		no	yes	-
		Spring	KILL	Killdeer	1		0-40 m	East		no	yes	-
		Spring	HOLA	Horned Lark	2		0-40 m	West/Northwest		no	yes	-

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
27-Mar-11	1	Spring	EUSI	European Starling	3		40 - 180 m	East/Northeast		no	yes	1 min
		Spring	RTHA	Red tailed Hawk	1		40 - 180 m	South		yes	yes	2 min
		Spring	COGR	Common Grackle	1		0 - 40 m	East		no	yes	-
		Spring	HOLA	Horned Lark	1		0 - 40 m	South		no	yes	-
		Spring	COGR	Common Grackle	3		40 - 180 m	North/Northeast		no	yes	1 min
		Spring	AMRO	American Robin	4		0 - 40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	2		40 - 180 m	South/Southwest		no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest		yes	yes	2 min
		Spring	AMCR	American Crow	3		0 - 40 m	Northwest		no	yes	-
		Spring	AMRO	American Robin	1		40 - 180 m	Northwest		no	yes	-
27-Mar-11	2	Spring	TUVU	Turkey Vulture	2		40 - 180 m	South		yes	yes	2 min
		Spring	EUSI	European Starling	10		0 - 40 m	South		no	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	Southwest		no	yes	-
		Spring	AMRO	American Robin	4		0 - 40 m	Northwest		no	yes	-
		Spring	HOLA	Horned Lark	4		0 - 40 m	East		no	yes	-
		Spring	CAGO	Canada Goose	6		40 - 180 m	East/Southeast		no	yes	1 min
		Spring	COGR	Common Grackle	6		40 - 180 m	Northeast		no	yes	1 min
		Spring	AMRO	American Robin	3		0 - 40 m	Northeast		no	yes	-
		Spring	EAME	Eastern Meadowlark	1		0 - 40 m	Northeast		no	yes	-
		Spring	COGR	Common Grackle	3		40 - 180 m	North		no	yes	1 min
		Spring	AMCR	American Crow	2		0 - 40 m	Southeast		no	yes	-
		Spring	AMCR	American Crow	1		40 - 180 m	Northwest		no	yes	2 min
		Spring	AMRO	American Robin	3		0 - 40 m	East		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northeast		yes	yes	1 min
		Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	Southwest		no	yes	-
		Spring	BHCO	Brown-headed Cowbird	2		0 - 40 m	South		no	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	East		no	yes	-
		Spring	RTHA	Red tailed Hawk	1		40 - 180 m	West/Southwest		yes	yes	2 min
		Spring	AMCR	American Crow	2		0 - 40 m	West		no	yes	-
		Spring	HOLA	Horned Lark	4		0 - 40 m	West		no	yes	-
27-Mar-11	3	Spring	AMCR	American Crow	3		40 - 180 m	Southwest		no	yes	1 min
		Spring	EUSI	European Starling	20		0 - 40 m	South		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southeast		yes	yes	3 min
		Spring	AMRO	American Robin	3		40 - 180 m	Southwest		no	yes	1 min
		Spring	NOHA	Northern Harrier	1		0 - 40 m	East/Southeast		no	yes	-
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	Northwest		yes	yes	2 min
		Spring	AMRO	American Robin	4		40 - 180 m	North/Northeast		no	yes	1 min
		Spring	COGR	Common Grackle	3		0 - 40 m	Southwest		no	yes	-
		Spring	KILL	Killdeer	2		0 - 40 m	West		no	yes	-
		Spring	RTHA	Red tailed Hawk	1		40 - 180 m	Northwest		yes	yes	2 min
		Spring	COGR	Common Grackle	2		0 - 40 m	Northwest		no	yes	-
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	-
		Spring	COGR	Common Grackle	5		40 - 180 m	Southeast		no	yes	1 min
		Spring	AMRO	American Robin	6		40 - 180 m	Southwest		no	yes	1 min
		Spring	AMCR	American Crow	1		0 - 40 m	West		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North/Northeast		yes	yes	2 min
		Spring	RTHA	Red tailed Hawk	1		40 - 180 m	Northeast		yes	yes	1 min
		Spring	COGR	Common Grackle	2		0 - 40 m	Northwest		no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	North		no	yes	-

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
27-Mar-11	3	Spring	AMCR	American Crow	2		40 - 180 m	East/Northeast		no	yes	1 min
		Spring	AMRO	American Robin	3		40 - 180 m	Southwest		no	yes	1 min
		Spring	COGR	Common Grackle	3		0 - 40 m	West		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North/Northeast		yes	yes	2 min
		Spring	KILL	Killdeer	2		0 - 40 m	West/Southwest		no	yes	-
		Spring	AMRO	American Robin	10		40 - 180 m	East		no	yes	1 min
		Spring	AMCR	American Crow	1		0 - 40 m	Northeast		no	yes	-
		Spring	EUST	European Starling	15		0 - 40 m	Northwest		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	West		yes	yes	2 min
		Spring	AMRO	American Robin	2		0 - 40 m	Southwest		no	yes	-
		Spring	COGR	Common Grackle	7		40 - 180 m	East/Southwest		no	yes	1 min
		Spring	RTHA	Red tailed Hawk	1		40 - 180 m	Southwest		yes	yes	2 min
		Spring	AMRO	American Robin	6		40 - 180 m	West/Southwest		no	yes	2 min
		Spring	AMCR	American Crow	4		40 - 180 m	Northeast		no	yes	1 min
29-Mar-11	1	Spring	TUVU	Turkey Vulture	2		40 - 180 m	Northeast		yes	yes	2 min
		Spring	COGR	Common Grackle	4		0 - 40 m	North		no	yes	-
		Spring	AMCR	American Crow	3		0 - 40 m	West		no	yes	-
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	South		yes	yes	3 min
		Spring	AMRO	American Robin	1		0 - 40 m	East		no	yes	-
		Spring	COGR	Common Grackle	1		40 - 180 m	Northeast		no	yes	1 min
		Spring	HOLA	Horned Lark	4		0 - 40 m	South		no	yes	-
		Spring	KILL	Killdeer	1		0 - 40 m	East		no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	East/Northeast		no	yes	-
		Spring	HOLA	Horned Lark	20		0 - 40 m	West/Southwest		no	yes	-
		Spring	HOLA	Horned Lark	1		0 - 40 m	West/Northeast		no	yes	-
		Spring	HOLA	Horned Lark	2		0 - 40 m	West		no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	Southwest		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northeast		yes	yes	2 min
		Spring	COGR	Common Grackle	4		40 - 180 m	East		no	yes	1 min
		Spring	AMCR	American Crow	1		0 - 40 m	South		no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	East		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North/Northeast		yes	yes	3 min
		Spring	TUVU	Turkey Vulture	4		40 - 180 m	North/Northeast		yes	yes	5 min
		Spring	KILL	Killdeer	1		0 - 40 m	Southwest		no	yes	-
		Spring	AMCR	American Crow	3		0 - 40 m	West		no	yes	-
		Spring	RTHA	Red tailed Hawk	1		40 - 180 m	Northeast		yes	yes	2 min
		Spring	AMCR	American Crow	1		0 - 40 m	West		no	yes	-
		Spring	RTHA	Red tailed Hawk	1		0 - 40 m	West		no	yes	-
		Spring	AMCR	American Crow	2		40 - 180 m	West/Southwest		no	yes	1 min
		Spring	COGR	Common Grackle	3		0 - 40 m	Northeast		no	yes	-
29-Mar-11	2	Spring	EUST	European Starling	15		0 - 40 m	North/Northeast		no	yes	-
		Spring	AMCR	American Crow	2		0 - 40 m	West/Northeast		no	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	Northeast		no	yes	-
		Spring	COGR	Common Grackle	1		40 - 180 m	Southwest		no	yes	1 min
		Spring	HOLA	Horned Lark	3		0 - 40 m	West		no	yes	-
		Spring	COGR	Common Grackle	6		40 - 180 m	South/Southwest		no	yes	1 min
		Spring	AMRO	American Robin	2		0 - 40 m	Northeast		no	yes	-
		Spring	CAGO	Canada Goose	4		40 - 180 m	North/Northeast		no	yes	1 min
		Spring	COGR	Common Grackle	1		0 - 40 m	North		no	yes	-

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
29-Mar-11	2	Spring	KILL	Killdeer	2		0 - 40 m	Northwest		no	yes	-
		Spring	MODO	Mourning Dove	3		0 - 40 m	East		no	yes	-
		Spring	AMCR	American Crow	1		0 - 40 m	Northwest		no	yes	-
		Spring	HOLA	Horned Lark	4		0 - 40 m	West/Southwest		no	yes	-
		Spring	EUST	European Starling	8		0 - 40 m	Northwest		no	yes	-
		Spring	AMCR	American Crow	3		40 - 180 m	Northwest		no	yes	1 min
		Spring	COGR	Common Grackle	7		0 - 40 m	South		no	yes	-
		Spring	AMRO	American Robin	2		0 - 40 m	Northwest		no	yes	-
		Spring	KILL	Killdeer	3		0 - 40 m	Southwest		no	yes	-
		Spring	COGR	Common Grackle	1		40 - 180 m	South		no	yes	-
		Spring	HOLA	Horned Lark	2		0 - 40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	3		0 - 40 m	Northwest		no	yes	-
		Spring	TUVU	Turkey Vulture	4		40 - 180 m	Southwest		yes	yes	3 min
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	Southwest		yes	yes	2 min
		Spring	AMRO	American Robin	3		0 - 40 m	East		no	yes	-
29-Mar-11	3	Spring	COGR	Common Grackle	1		40 - 180 m	West		no	yes	1 min
		Spring	KILL	Killdeer	1		0 - 40 m	Southwest		no	yes	-
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	Southwest		yes	yes	2 min
		Spring	COGR	Common Grackle	1		0 - 40 m	North		no	yes	-
		Spring	AMRO	American Robin	4		40 - 180 m	Northwest		no	yes	1 min
		Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	Southwest		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	East/Southwest		no	yes	-
		Spring	AMCR	American Crow	4		40 - 180 m	North/Northeast		no	yes	2 min
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	Northwest		yes	yes	1 min
		Spring	COGR	Common Grackle	3		0 - 40 m	Southwest		no	yes	-
		Spring	AMCR	American Crow	1		0 - 40 m	North		no	yes	-
		Spring	AMRO	American Robin	3		40 - 180 m	Southwest		no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North		yes	yes	2 min
		Spring	AMCR	American Crow	1		0 - 40 m	South		no	yes	-
		Spring	COGR	Common Grackle	3		0 - 40 m	West		no	yes	-
31-Mar-11	1	Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	Southwest		yes	yes	1 min
		Spring	HOLA	Horned Lark	10		0 - 40 m	East/Northeast		no	yes	-
		Spring	AMRO	American Robin	6		40 - 180 m	Northwest		no	yes	1 min
		Spring	COGR	Common Grackle	6		0 - 40 m	South		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest		yes	yes	3 min
		Spring	HOLA	Horned Lark	1		0 - 40 m	East/Southwest		no	yes	-
		Spring	KILL	Killdeer	1		0 - 40 m	East		no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	North		no	yes	-
		Spring	COGR	Common Grackle	1		40 - 180 m	Southwest		no	yes	1 min
		Spring	HOLA	Horned Lark	1		0 - 40 m	Southwest		no	yes	-
		Spring	AMCR	American Crow	1		40 - 180 m	Southwest		no	yes	1 min
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	Southwest		no	yes	-
		Spring	EUST	European Starling	5		0 - 40 m	Northwest		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North/Northeast		yes	yes	2 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	South/Southwest		yes	yes	2 min
		Spring	AMRO	American Robin	3		0 - 40 m	Northwest		no	yes	-
29-Mar-11	2	Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southwest		yes	yes	2 min
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	East/Northeast		yes	yes	4 min
		Spring	COGR	Common Grackle	1		0 - 40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	Northwest		no	yes	-

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
31-Mar-11	1	Spring	TUVU	Turkey Vulture	3		40-180 m	South	South/Southwest	yes	yes	3 min
		Spring	KILL	Killdeer	1		0-40 m	South	South/Southwest	no	yes	
		Spring	AMRO	American Robin	25		40-180 m	North	North	no	yes	2 min
		Spring	TUVU	Turkey Vulture	1		40-180 m	South	South	yes	yes	1 min
		Spring	TUVU	Turkey Vulture	1		>180 m	South	South	yes	yes	
		Spring	AMCR	American Crow	1		0-40 m	North	North	no	yes	
		Spring	AMRO	American Robin	1		0-40 m	Northwest	Northwest	no	yes	
		Spring	EUST	European Starling	30		40-180 m	West/Northwest	West/Northwest	no	yes	2 min
		Spring	TUVU	Turkey Vulture	2		40-180 m	Northwest	Northwest	yes	yes	3 min
		Spring	AMCR	American Crow	2		0-40 m	South	South	no	yes	2 min
		Spring	TUVU	Turkey Vulture	1		0-40 m	North	North	yes	yes	
		Spring	TUVU	Turkey Vulture	1		40-180 m	Southwest	Southwest	yes	yes	2 min
		Spring	AMCR	American Crow	3		0-40 m	South	South	no	yes	
		Spring	TUVU	Turkey Vulture	2		40-180 m	North/Northeast	North/Northeast	yes	yes	1 min
		Spring	HOLA	Horned Lark	2		0-40 m	South	South	no	yes	
31-Mar-11	2	Spring	TUVU	Turkey Vulture	1		0-40 m	East	East	yes	yes	
		Spring	TUVU	Turkey Vulture	1		40-180 m	North	North	yes	yes	2 min
		Spring	AMCR	American Crow	2		0-40 m	South	South	no	yes	
		Spring	TUVU	Turkey Vulture	3		40-180 m	South/Southwest	South/Southwest	yes	yes	3 min
		Spring	TUVU	Turkey Vulture	1		0-40 m	South	South	yes	yes	
		Spring	HOLA	Horned Lark	7		0-40 m	West	West	no	yes	
		Spring	COGR	Common Grackle	1		0-40 m	North	North	no	yes	
		Spring	EUST	European Starling	1		0-40 m	West	West	no	yes	
		Spring	AMRO	American Robin	2		0-40 m	Northwest	Northwest	no	yes	
		Spring	TUVU	Turkey Vulture	4		0-40 m	West/Northwest	West/Northwest	yes	yes	
		Spring	TUVU	Turkey Vulture	1		40-180 m	Northwest	Northwest	yes	yes	3 min
		Spring	AMCR	American Crow	1		0-40 m	East	East	no	yes	
		Spring	TUVU	Turkey Vulture	1		40-180 m	East	East	yes	yes	2 min
		Spring	AMRO	American Robin	3		0-40 m	North	North	no	yes	
		Spring	COGR	Common Grackle	4		0-40 m	North/Northeast	North/Northeast	no	yes	
31-Mar-11	3	Spring	RTHA	Red-tailed Hawk	1		40-180 m	South/Southwest	South/Southwest	yes	yes	2 min
		Spring	KILL	Killdeer	2		0-40 m	East/Northeast	East/Northeast	no	yes	
		Spring	TUVU	Turkey Vulture	1		40-180 m	South	South	yes	yes	2 min
		Spring	AMCR	American Crow	3		0-40 m	South	South	no	yes	
		Spring	GBHE	Great Blue Heron	1		0-40 m	North	North	no	yes	
		Spring	TUVU	Turkey Vulture	1		40-180 m	South	South	yes	yes	2 min
		Spring	AMCR	American Crow	3		0-40 m	Northwest	Northwest	no	yes	
		Spring	COGR	Common Grackle	4		0-40 m	East/Northeast	East/Northeast	no	yes	
		Spring	AMRO	American Robin	2		0-40 m	East	East	no	yes	
		Spring	COGR	Common Grackle	2		0-40 m	North/Northeast	North/Northeast	no	yes	
		Spring	COGR	Common Grackle	3		0-40 m	North	North	no	yes	
		Spring	AMRO	American Robin	1		0-40 m	Southwest	Southwest	no	yes	
		Spring	COGR	Common Grackle	4		0-40 m	North	North	no	yes	
		Spring	COGR	Common Grackle	5		40-180 m	South/Southwest	South/Southwest	no	yes	1 min
		Spring	KILL	Killdeer	1		0-40 m	South	South	no	yes	
		Spring	EAME	Eastern Meadowlark	1		0-40 m	South/Southwest	South/Southwest	no	yes	
31-Mar-11	3	Spring	COGR	Common Grackle	3		0-40 m	West	West	no	yes	
		Spring	COGR	Common Grackle	2		0-40 m	South	South	no	yes	
		Spring	COGR	Common Grackle	2		0-40 m	North/Northeast	North/Northeast	no	yes	
		Spring	COGR	Common Grackle	3		0-40 m	North	North	no	yes	
		Spring	AMRO	American Robin	1		0-40 m	Southwest	Southwest	no	yes	
		Spring	COGR	Common Grackle	4		0-40 m	North	North	no	yes	
		Spring	COGR	Common Grackle	5		40-180 m	South/Southwest	South/Southwest	no	yes	
		Spring	KILL	Killdeer	1		0-40 m	South	South	no	yes	
		Spring	EAME	Eastern Meadowlark	1		0-40 m	South/Southwest	South/Southwest	no	yes	
		Spring	COGR	Common Grackle	3		0-40 m	West	West	no	yes	
		Spring	COGR	Common Grackle	2		0-40 m	South	South	no	yes	

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
31-Mar-11	3	Spring	HOLA	Horned Lark	2			0-40 m	West	no	yes	-
		Spring	COGR	Common Grackle	1			0-40 m	North	no	yes	-
		Spring	KILL	Killdeer	24			0-40 m	Northwest	no	yes	-
		Spring	COGR	Common Grackle	2			0-40 m	South	no	yes	-
		Spring	RWBL	Red-winged Blackbird	6			0-40 m	West	no	yes	-
		Spring	COGR	Common Grackle	2			0-40 m	West	no	yes	-
		Spring	MODO	Mourning Dove	1			0-40 m	Northwest	no	yes	-
		Spring	COGR	Common Grackle	1			0-40 m	South	no	yes	-
		Spring	EUST	European Starling	1			0-40 m	North/Northwest	no	yes	-
		Spring	COGR	Common Grackle	10			0-40 m	North/Northwest	no	yes	-
		Spring	RWBL	Red-winged Blackbird	10			0-40 m	North/Northwest	no	yes	-
		Spring	COGR	Common Grackle	2			0-40 m	Northwest	no	yes	-
		Spring	MODO	Mourning Dove	4			0-40 m	North	no	yes	-
		Spring	TUVU	Turkey Vulture	1			40-180 m	West	yes	yes	1 min
		Spring	COGR	Common Grackle	3			40-180 m	South	no	yes	-
		Spring	AMRO	American Robin	1			0-40 m	North/Northeast	no	yes	-
		Spring	KILL	Killdeer	3			0-40 m	East	no	yes	-
		Spring	COGR	Common Grackle	2			0-40 m	North	no	yes	-
		Spring	MODO	Mourning Dove	2			0-40 m	South/Southwest	no	yes	-
		Spring	KILL	Killdeer	1			0-40 m	South	no	yes	-
7-Apr-11	1	Spring	COGR	Common Grackle	2			0-40 m	West/Northwest	no	yes	2 min
		Spring	TUVU	Turkey Vulture	1			40-180 m	South	yes	yes	-
		Spring	COGR	Common Grackle	6			0-40 m	South	no	yes	-
		Spring	AMRO	American Robin	4			40-180 m	Southeast	no	yes	1 min
		Spring	COGR	Common Grackle	3			0-40 m	East	no	yes	-
		Spring	TUVU	Turkey Vulture	1			40-180 m	Northeast	yes	yes	1 min
		Spring	COGR	Common Grackle	4			0-40 m	Southwest	no	yes	-
		Spring	HOLA	Horned Lark	3			0-40 m	North	no	yes	-
		Spring	HOLA	Horned Lark	2			0-40 m	South	no	yes	-
		Spring	AMCR	American Crow	1			0-40 m	North	no	yes	-
		Spring	EUST	European Starling	13			0-40 m	Northwest	no	yes	-
		Spring	KILL	Killdeer	1			0-40 m	East	no	yes	-
		Spring	EAME	Eastern Meadowlark	1			0-40 m	Southeast	no	yes	-
		Spring	AMRO	American Robin	1			0-40 m	East	no	yes	-
		Spring	AMRO	American Robin	1			0-40 m	North	no	yes	-
		Spring	SOSP	Song Sparrow	1			0-40 m	Southwest	no	yes	-
		Spring	RWBL	Red-winged Blackbird	1			0-40 m	East	no	yes	-
		Spring	AMRO	American Robin	1			0-40 m	South	no	yes	-
		Spring	EUST	European Starling	4			0-40 m	Northeast	no	yes	-
		Spring	RWBL	Red-winged Blackbird	7			0-40 m	Southeast	no	yes	-
		Spring	RTHA	Red-tailed Hawk	1			40-180 m	Northeast	yes	yes	3 Minutes
		Spring	AMCR	American Crow	1			0-40 m	Southwest	no	yes	-
		Spring	HOLA	Horned Lark	1			0-40 m	North	no	yes	-
		Spring	AMCR	American Crow	2			0-40 m	South	no	yes	-
		Spring	COGR	Common Grackle	3			0-40 m	Northeast	no	yes	-
		Spring	EUST	European Starling	6			0-40 m	North	no	yes	-
		Spring	COGR	Common Grackle	11			0-40 m	Southwest	no	yes	-
		Spring	AMRO	American Robin	2			0-40 m	South	no	yes	-
		Spring	RWBL	Red-winged Blackbird	8			0-40 m	South	no	yes	-
		Spring										
		Spring										
		Spring										

Date	Point	Season	Code	Species	#	Age	Observation	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
7-Apr-11	1	Spring	RWBL	Red-winged Blackbird	2		0 - 40 m	Northwest	no	yes
		Spring	EUST	European Starling	1		0 - 40 m	North	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	East	no	yes
		Spring	EUST	European Starling	2		0 - 40 m	North	no	yes
		Spring	TUVU	Turkey Vulture	4		0 - 40 m	South	yes	yes
		Spring	CAGO	Canada Goose	6		40 - 180 m	Northeast	no	yes
		Spring	RWBL	Red-winged Blackbird	12		0 - 40 m	South	no	yes
		Spring	TUVU	Turkey Vulture	4		0 - 40 m	West	yes	yes
		Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	West	no	yes
		Spring	RWBL	Red-winged Blackbird	272		40 - 180 m	North	no	yes
7-Apr-11	2	Spring	COGR	Common Grackle	1		0 - 40 m	North	no	yes
		Spring	RWBL	Red-winged Blackbird	27		0 - 40 m	North	no	yes
		Spring	RWBL	Red-winged Blackbird	2		0 - 40 m	South	no	yes
		Spring	COGR	Common Grackle	2		0 - 40 m	North	no	yes
		Spring	COGR	Common Grackle	2		0 - 40 m	North	no	yes
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North	yes	yes
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	North	yes	yes
		Spring	AMCR	American Crow	2		0 - 40 m	South	no	yes
		Spring	COGR	Common Grackle	2		0 - 40 m	South	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	East	no	yes
7-Apr-11	3	Spring	COGR	Common Grackle	4		0 - 40 m	Southwest	no	yes
		Spring	AMRO	American Robin	2		0 - 40 m	Northwest	no	yes
		Spring	AMRO	American Robin	2		0 - 40 m	South	no	yes
		Spring	NOHA	Northern Harrier	1		0 - 40 m	South/North	yes	yes
		Spring	HOLA	Horned Lark	1		0 - 40 m	North	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	East	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	North	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	South	no	yes
		Spring	RWBL	Red-winged Blackbird	2		0 - 40 m	North	no	yes
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	East/Northeast	no	yes
7-Apr-11	3	Spring	KILL	Killdeer	1		40 - 180 m	North	yes	yes
		Spring	NOPI	Northern Pintail	6		40 - 180 m	Northeast	no	yes
		Spring	RTHA	Red-tailed Hawk	1		0 - 40 m	West	no	yes
		Spring	BOGU	Bonaparte's Gull	62		40 - 180 m	Northeast	no	yes
		Spring	COHA	Cooper's Hawk	1		0 - 40 m	East	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	Northeast	no	yes
		Spring	RWBL	Red-winged Blackbird	2		0 - 40 m	North	no	yes
		Spring	COHA	Cooper's Hawk	1		0 - 40 m	Southwest	no	yes
		Spring	RTHA	Red-tailed Hawk	1		0 - 40 m	Southwest	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	North	no	yes
7-Apr-11	3	Spring	EUST	European Starling	1		0 - 40 m	North	no	yes
		Spring	EUST	European Starling	2		0 - 40 m	North	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	East	no	yes
		Spring	RWBL	Red-winged Blackbird	20		40 - 180 m	South	no	yes
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	West	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	Northwest	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	Southwest	no	yes
		Spring	SACR	Sandhill Crane	1		0 - 40 m	North	no	yes
		Spring	RWBL	Red-winged Blackbird	34		0 - 40 m	South	no	yes
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	South	no	yes

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
7-Apr-11	3	Spring	BHCO	Brown-headed Cowbird	6		0 - 40 m	South		no	yes	
		Spring	COGR	Common Grackle	2		0 - 40 m	South		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Northwest		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Southwest		no	yes	
		Spring	EUST	European Starling	1		0 - 40 m	North		no	yes	
		Spring	RTHA	Red-tailed Hawk	1		0 - 40 m	North		no	yes	
		Spring	EAME	Eastern Meadowlark	1		0 - 40 m	Northwest		no	yes	
		Spring	RTHA	Red-tailed Hawk	1		0 - 40 m	Southwest		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	West		no	yes	
		Spring	COGR	Common Grackle	1		40 - 180 m	Southwest		no	yes	1 Minute
		Spring	COHA	Cooper's Hawk	1		0 - 40 m	Southwest		yes	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	South		no	yes	
		Spring	MODD	Mourning Dove	1		0 - 40 m	West		no	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	South		no	yes	
		Spring	COGR	Common Grackle	18		0 - 40 m	North		no	yes	
		Spring	AMRO	American Robin	4		0 - 40 m	North		no	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	Northwest		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	East		no	yes	
8-Apr-11	1	Spring	AMRO	American Robin	2		0 - 40 m	Northwest		no	yes	
		Spring	TUVU	Turkey Vulture	1		0 - 40 m	North		no	yes	
		Spring	TUVU	Turkey Vulture	1		0 - 40 m	North		yes	yes	
		Spring	TUVU	Turkey Vulture	11		40 - 180 m	North		yes	yes	3 Minutes
		Spring	RWBL	Red-winged Blackbird	56		0 - 40 m	Southwest		no	yes	
		Spring	RTHA	Red-tailed Hawk	1		0 - 40 m	Northwest		no	yes	
		Spring	HOLA	Horned Lark	1		40 - 180 m	North		no	yes	1 Minute
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	East		no	yes	
		Spring	HOLA	Horned Lark	2		0 - 40 m	South		no	yes	
		Spring	AMRO	American Robin	3		0 - 40 m	South		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	North		no	yes	
		Spring	EUST	European Starling	1		0 - 40 m	North		no	yes	
		Spring	EUST	European Starling	34		0 - 40 m	Northwest		no	yes	
		Spring	BOGU	Bonaparte's Gull	3		0 - 40 m	East		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	East		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	East		no	yes	
		Spring	EAME	Eastern Meadowlark	1		0 - 40 m	Northwest		no	yes	
8-Apr-11	2	Spring	AMCR	American Crow	1		0 - 40 m	South		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	East		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	South		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	East		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	North		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	South		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	East		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	North		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	North		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
8-Apr-11	7	Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
		Spring	HOLA	Horned Lark	23		0 - 40 m	East		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Southwest		no	yes	
		Spring	EUST	European Starling	1		0 - 40 m	Southwest		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	Southwest		no	yes	
		Spring	AMRO	American Robin	8		40 - 180 m	Southwest		no	yes	1 Minute
		Spring	KILL	Killdeer	2		0 - 40 m	North		no	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	South		no	yes	
		Spring	RWBL	Red-winged Blackbird	98		0 - 40 m	South		no	yes	
		Spring	COGR	Common Grackle	5		40 - 180 m	Southwest		no	yes	1 Minute

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
8-Apr-11	2	Spring	RWBL	Red-winged Blackbird	1		Southwest	0-40 m	Southwest	no	yes	
		Spring	RWBL	Red-winged Blackbird	2		Northwest	0-40 m	Northwest	no	yes	
		Spring	RWBL	Red-winged Blackbird	8		Northwest	0-40 m	Northwest	no	yes	
		Spring	RWBL	Red-winged Blackbird	4		North	0-40 m	North	no	yes	
		Spring	EUST	European Starling	1		Northwest	0-40 m	Northwest	no	yes	
		Spring	COGR	Common Grackle	1		North	0-40 m	North	no	yes	
		Spring	EUST	European Starling	9		North	0-40 m	North	no	yes	
		Spring	BOGU	Bonaparte's Gull	16		North	40-180 m	North	no	yes	1 Minute
		Spring	EUST	European Starling	2		South	0-40 m	South	no	yes	
		Spring	AMRO	American Robin	1		North	0-40 m	North	no	yes	
		Spring	RWBL	Red-winged Blackbird	3		North	0-40 m	North	no	yes	
		Spring	MOGO	Mourning Dove	2		West	0-40 m	West	no	yes	
		Spring	COGR	Common Grackle	2		North	0-40 m	North	no	yes	
		Spring	AMRO	American Robin	3		Northeast	0-40 m	Northeast	no	yes	
		Spring	RWBL	Red-winged Blackbird	4		Northwest	0-40 m	Northwest	no	yes	
8-Apr-11	3	Spring	COHA	Cooper's Hawk	1		East	0-40 m	East	no	yes	
		Spring	RWBL	Red-winged Blackbird	18		South	0-40 m	South	yes	yes	
		Spring	AMRO	American Robin	1		West	0-40 m	West	no	yes	
		Spring	RWBL	Red-winged Blackbird	18		North	40-180 m	North	no	yes	1 Minute
		Spring	AMRO	American Robin	1		Southwest	40-180 m	Southwest	no	yes	1 Minute
		Spring	RWBL	Red-winged Blackbird	7		Southwest	40-180 m	Southwest	no	yes	1 Minute
		Spring	AMCR	American Crow	2		North	0-40 m	North	no	yes	
		Spring	TUVU	Turkey Vulture	14		North	40-180 m	North	yes	yes	3.5 Minutes
		Spring	AMRO	American Robin	2		South	0-40 m	South	no	yes	
		Spring	RWBL	Red-winged Blackbird	3		North	0-40 m	North	no	yes	
11-Apr-11	1	Spring	KILL	Killdeer	3		Southeast	0-40 m	Southeast	no	yes	
		Spring	COGR	Common Grackle	3		South	0-40 m	South	no	yes	
		Spring	HOLA	Horned Lark	1		South	0-40 m	South	no	yes	
		Spring	EUST	European Starling	2		South	0-40 m	South	no	yes	
		Spring	COGR	Common Grackle	1		North	0-40 m	North	no	yes	
		Spring	TUVU	Turkey Vulture	1		Southwest	0-40 m	Southwest	no	yes	
		Spring	RWBL	Red-winged Blackbird	3		Northwest	0-40 m	Northwest	no	yes	
		Spring	KILL	Killdeer	1		North	0-40 m	North	no	yes	
		Spring	EUST	European Starling	7		West	0-40 m	West	no	yes	
		Spring	BHCO	Brown-headed Cowbird	2		Southwest	0-40 m	Southwest	no	yes	
		Spring	HOLA	Horned Lark	1		East	0-40 m	East	no	yes	
		Spring	RWBL	Red-winged Blackbird	3		West	0-40 m	West	no	yes	
		Spring	COGR	Common Grackle	6		North	0-40 m	North	no	yes	
		Spring	SOSP	Song Sparrow	1		East	0-40 m	East	no	yes	
		Spring	KILL	Killdeer	1		West	0-40 m	West	no	yes	
		Spring	HOLA	Horned Lark	1		North	40-180 m	North	no	yes	1 Minute
		Spring	RWBL	Red-winged Blackbird	1		East	0-40 m	East	no	yes	
		Spring	HOLA	Horned Lark	2		South	0-40 m	South	no	yes	
		Spring	AMRO	American Robin	3		South	0-40 m	South	no	yes	
		Spring	AMCR	American Crow	2		North	0-40 m	North	no	yes	
		Spring	EUST	European Starling	22		Northwest	0-40 m	Northwest	no	yes	
		Spring	KILL	Killdeer	1		East	0-40 m	East	no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
11-Apr-11	2	Spring	TUVU	Turkey Vulture	2		40-180 m	North	North	yes	yes	2 Minutes
		Spring	RWBL	Red-winged Blackbird	4		0-40 m	South	South	no	yes	
		Spring	COGR	Common Grackle	2		0-40 m	South	South	no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0-40 m	Northwest	Northwest	no	yes	
		Spring	RWBL	Red-winged Blackbird	12		0-40 m	West	West	no	yes	
		Spring	COGR	Common Grackle	3		0-40 m	West	West	no	yes	
		Spring	BHCO	Brown-headed Cowbird	4		0-40 m	West	West	no	yes	
		Spring	AMCR	American Crow	2		0-40 m	Southeast	Southeast	no	yes	
		Spring	AMKE	American Kestrel	1		0-40 m	East	East	no	yes	
		Spring	NOHA	Northern Harrier	1		0-40 m	Northwest	Northwest	no	yes	5 Minutes
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	South	South	no	yes	
		Spring	AMRO	American Robin	6		0-40 m	North	North	no	yes	
		Spring	TUVU	Turkey Vulture	8		>180 m	North	North	yes	yes	8 Minutes
		Spring	RWBL	Red-winged Blackbird	3		0-40 m	Northwest	Northwest	no	yes	
		Spring	COGR	Common Grackle	6		0-40 m	Northwest	Northwest	no	yes	
		Spring	RWBL	Red-winged Blackbird	4		0-40 m	East	East	no	yes	
		Spring	RWBL	Red-winged Blackbird	2		0-40 m	South	South	no	yes	
		Spring	COGR	Common Grackle	1		0-40 m	North	North	no	yes	
		Spring	BHCO	Brown-headed Cowbird	3		0-40 m	Northwest	Northwest	no	yes	
		Spring	EUST	European Starling	8		0-40 m	Southwest	Southwest	no	yes	
11-Apr-11	3	Spring	RTHA	Red-tailed Hawk	1		40-180 m	North	North	yes	yes	3 Minutes
		Spring	AMRO	American Robin	3		0-40 m	West	West	no	yes	
		Spring	AMRO	American Robin	1		0-40 m	East	East	no	yes	
		Spring	AMCR	American Crow	2		0-40 m	Southeast	Southeast	no	yes	
		Spring	BLJA	Blue Jay	2		0-40 m	North	North	no	yes	
		Spring	EABL	Eastern Bluebird	1		0-40 m	South	South	no	yes	
		Spring	RWBL	Red-winged Blackbird	3		0-40 m	Northeast	Northeast	no	yes	
		Spring	AMRO	American Robin	2		0-40 m	Northwest	Northwest	no	yes	
		Spring	AMRO	American Robin	1		0-40 m	South	South	no	yes	
		Spring	COGR	Common Grackle	4		0-40 m	East	East	no	yes	
		Spring	BHCO	Brown-headed Cowbird	7		0-40 m	West	West	no	yes	
		Spring	EUST	European Starling	1		0-40 m	South	South	no	yes	
		Spring	NOHA	Northern Harrier	1		0-40 m	Northeast	Northeast	no	yes	
		Spring	RWBL	Red-winged Blackbird	8		0-40 m	Southeast	Southeast	no	yes	
		Spring	RWBL	Red-winged Blackbird	2		0-40 m	Southwest	Southwest	no	yes	
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	North	North	yes	yes	2 Minutes
		Spring	TUVU	Turkey Vulture	16		40-180 m	Northwest	Northwest	yes	yes	5 Minutes
		Spring	COGR	Common Grackle	3		0-40 m	North	North	no	yes	
		Spring	RTHA	Red-tailed Hawk	1		0-40 m	Northeast	Northeast	no	yes	
		Spring	RWBL	Red-winged Blackbird	2		0-40 m	Southwest	Southwest	no	yes	
11-Apr-11	3	Spring	SOSP	Song Sparrow	1		0-40 m	South	South	no	yes	
		Spring	AMRO	American Robin	3		0-40 m	North	North	no	yes	
		Spring	AMRO	American Robin	1		0-40 m	Northwest	Northwest	no	yes	
		Spring	MALL	Mallard	2		40-180 m	North	North	no	yes	1 Minute
		Spring	TUVU	Turkey Vulture	5		40-180 m	North	North	no	yes	1 Minute
		Spring	RWBL	Red-winged Blackbird	7		0-40 m	Southwest	Southwest	no	yes	
		Spring	COGR	Common Grackle	4		0-40 m	Northeast	Northeast	no	yes	
		Spring										
		Spring										
		Spring										

Date	Point	Season	Code	Species	#	Age	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
11-Apr-11	3	Spring	EUSI	European Starling	12		0 - 40 m	Northwest	na	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Southeast	na	yes	
		Spring	AMRO	American Robin	2		0 - 40 m	East	na	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	West	na	yes	
		Spring	RWBL	Red-winged Blackbird	4		0 - 40 m	South	na	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	Northwest	na	yes	
		Spring	AMRO	American Robin	2		0 - 40 m	North	na	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	South	na	yes	
		Spring	AMCR	American Crow	3		0 - 40 m	Southeast	na	yes	
		Spring	BHCO	Brown-headed Cowbird	2		0 - 40 m	Southeast	na	yes	
14-Apr-11	1	Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	North	na	yes	
		Spring	TUVU	Turkey Vulture	4		40 - 180 m	Northwest	yes	yes	4 Minutes
		Spring	AMKE	American Kestrel	1		0 - 40 m	East	na	yes	
		Spring	AMRO	American Robin	2		0 - 40 m	East	na	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	West	na	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	Northwest	na	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	Northwest	na	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	North	na	yes	
		Spring	HOLA	Horned Lark	2		0 - 40 m	Northwest	na	yes	
		Spring	CHSP	Chipping Sparrow	1		0 - 40 m	West	na	yes	
14-Apr-11	2	Spring	AMRO	American Robin	2		0 - 40 m	Northwest	na	yes	
		Spring	AMCR	American Crow	4		0 - 40 m	Southeast	na	yes	
		Spring	TUVU	Turkey Vulture	5		40 - 180 m	Southeast	yes	yes	3 Minutes
		Spring	AMRO	American Robin	1		0 - 40 m	West	na	yes	
		Spring	KILL	Killdeer	2		0 - 40 m	East	na	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	Northwest	na	yes	
		Spring	BHCO	Brown-headed Cowbird	4		0 - 40 m	South	na	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North	yes	yes	5 Minutes
		Spring	KILL	Killdeer	1		0 - 40 m	South	na	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	Northwest	na	yes	
14-Apr-11	2	Spring	BHCO	Brown-headed Cowbird	1		0 - 40 m	Southeast	na	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	Southeast	na	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	West	na	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	Southwest	na	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	East	na	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	West	yes	yes	2 Minutes
		Spring	AMRO	American Robin	1		0 - 40 m	North	na	yes	
		Spring	EABL	Eastern Bluebird	1		0 - 40 m	East	na	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	West	na	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North	yes	yes	3 Minutes
14-Apr-11	2	Spring	SAVS	Savannah Sparrow	1		0 - 40 m	South	na	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North	yes	yes	5 Minutes
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	East	na	yes	1 Minute
		Spring	COGR	Common Grackle	4		0 - 40 m	Northwest	na	yes	
		Spring	RWBL	Red-winged Blackbird	7		0 - 40 m	Southeast	na	yes	
		Spring	AMKE	American Kestrel	1		0 - 40 m	Southwest	na	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Southeast	na	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	Northwest	na	yes	
		Spring	COGR	Common Grackle	6		0 - 40 m	Southwest	na	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	Southwest	na	yes	

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
14-Apr-11	2	Spring	RWBL	Red-winged Blackbird	4			0 - 40 m	Southeast	no	yes	
		Spring	AMCR	American Crow	2			0 - 40 m	East	no	yes	
		Spring	TUVU	Turkey Vulture	8			40 - 180 m	West	yes	yes	8 Minutes
		Spring	BHCO	Brown-headed Cowbird	2			0 - 40 m	North	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	Northwest	no	yes	
		Spring	AMRO	American Robin	2			0 - 40 m	South	no	yes	
		Spring	MALL	Mallard	2			0 - 40 m	Southwest	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	North	no	yes	
		Spring	FISP	Field Sparrow	1			0 - 40 m	West	no	yes	
		Spring	COGR	Common Grackle	3			0 - 40 m	East	no	yes	
14-Apr-11	3	Spring	RWBL	Red-winged Blackbird	7			0 - 40 m	Northwest	no	yes	
		Spring	AMRO	American Robin	2			0 - 40 m	Southeast	no	yes	
		Spring	KILL	Killdeer	2			0 - 40 m	Northwest	no	yes	
		Spring	RWBL	Red-winged Blackbird	8			0 - 40 m	North	no	yes	
		Spring	BHCO	Brown-headed Cowbird	3			0 - 40 m	North	no	yes	
		Spring	COGR	Common Grackle	4			0 - 40 m	North	no	yes	
		Spring	AMCR	American Crow	1			0 - 40 m	South	no	yes	
		Spring	RTHA	Red-tailed Hawk	1			0 - 40 m	West	no	yes	
		Spring	EAME	Eastern Meadowlark	1			0 - 40 m	Northwest	no	yes	
		Spring	AMRO	American Robin	2			0 - 40 m	Southeast	no	yes	
		Spring	RWBL	Red-winged Blackbird	3			0 - 40 m	Northwest	no	yes	
		Spring	COGR	Common Grackle	2			0 - 40 m	Southeast	no	yes	
		Spring	TUVU	Turkey Vulture	8			40 - 180 m	Northwest	yes	yes	4 Minutes
		Spring	AMRO	American Robin	1			0 - 40 m	West	no	yes	
		Spring	EUST	European Starling	7			0 - 40 m	Northwest	no	yes	
		Spring	BHCO	Brown-headed Cowbird	2			0 - 40 m	North	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	Northwest	no	yes	
		Spring	AMRO	American Robin	3			0 - 40 m	Southeast	no	yes	
		Spring	RWBL	Red-winged Blackbird	2			0 - 40 m	Northwest	no	yes	
		Spring	TUVU	Turkey Vulture	1			0 - 40 m	South	no	yes	
15-Apr-11	1	Spring	AMCR	American Crow	2			40 - 180 m	East	no	yes	1 Minute
		Spring	RWBL	Red-winged Blackbird	1			0 - 40 m	East	no	yes	
		Spring	RTHA	Red-tailed Hawk	1			0 - 40 m	East	no	yes	
		Spring	AMCR	American Crow	1			40 - 180 m	Northwest	no	yes	1 Minute
		Spring	EUST	European Starling	2			0 - 40 m	South	no	yes	
		Spring	EABL	Eastern Bluebird	2			0 - 40 m	West	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	East	no	yes	
		Spring	TRES	Tree Swallow	1			0 - 40 m	North	yes	yes	
		Spring	KILL	Killdeer	1			0 - 40 m	East	no	yes	
		Spring	BRNS	Barn Swallow	1			0 - 40 m	West	yes	yes	
		Spring	TUVU	Turkey Vulture	1			40 - 180 m	South	yes	yes	2 Minutes
		Spring	AMCR	American Crow	2			0 - 40 m	North	no	yes	
		Spring	COGR	Common Grackle	3			0 - 40 m	West	no	yes	
		Spring	BRNS	Barn Swallow	1			0 - 40 m	North	yes	yes	
		Spring	HOLA	Horned Lark	3			0 - 40 m	East	no	yes	
		Spring	AMRO	American Robin	2			0 - 40 m	Northwest	no	yes	
		Spring	MALL	Mallard	2			0 - 40 m	Northwest	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	East	no	yes	
		Spring	CHSP	Chipping Sparrow	1			0 - 40 m	West	no	yes	

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
15-Apr-11	1	Spring	BHCO	Brown-headed Cowbird	1			0 - 40 m	East	no	yes	
		Spring	HOLA	Horned Lark	1			0 - 40 m	North	no	yes	
		Spring	BHCO	Brown-headed Cowbird	2			0 - 40 m	Northwest	no	yes	
		Spring	HOLA	Horned Lark	1			0 - 40 m	Northwest	no	yes	
		Spring	HOLA	Horned Lark	1			0 - 40 m	East	no	yes	
		Spring	HOLA	Horned Lark	2			0 - 40 m	South	no	yes	
		Spring	CHSP	Chipping Sparrow	1			0 - 40 m	East	no	yes	
		Spring	CHSP	Chipping Sparrow	1			0 - 40 m	North	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	East	no	yes	
		Spring	TUVU	Turkey Vulture	1			40 - 180 m	Southeast	yes	yes	6 Minutes
		Spring	AMCR	American Crow	1			0 - 40 m	East	no	yes	
		Spring	AMRO	American Robin	2			0 - 40 m	Northwest	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	North	no	yes	
		Spring	TUVU	Turkey Vulture	1			0 - 40 m	Northwest	yes	yes	
		Spring	TUVU	Turkey Vulture	7			0 - 40 m	Southeast	no	yes	
		Spring	BRNS	Barn Swallow	1			0 - 40 m	East	no	yes	
		Spring	TUVU	Turkey Vulture	2			40 - 180 m	Southeast	yes	yes	5 Minutes
		Spring	RSHA	Red-shouldered Hawk	1			0 - 40 m	North	no	yes	
		Spring	TUVU	Turkey Vulture	4			40 - 180 m	North	yes	yes	7 Minutes
		Spring	BRNS	Barn Swallow	1			0 - 40 m	Northwest	no	yes	
15-Apr-11	2	Spring	RWBL	Red-winged Blackbird	2			0 - 40 m	Northwest	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	North	no	yes	
		Spring	RWBL	Red-winged Blackbird	2			0 - 40 m	Southeast	no	yes	
		Spring	BRNS	Barn Swallow	1			0 - 40 m	Northwest	no	yes	
		Spring	HOLA	Horned Lark	1			0 - 40 m	Southwest	no	yes	
		Spring	TUVU	Turkey Vulture	3			40 - 180 m	Southeast	yes	yes	12 Minutes
		Spring	EUST	European Starling	2			0 - 40 m	South	no	yes	
		Spring	EUST	European Starling	8			0 - 40 m	East	no	yes	
		Spring	BALA	Bald Eagle	1	Adult		40 - 180 m	Northeast	yes	yes	2 Minutes
		Spring	RWBL	Red-winged Blackbird	18			0 - 40 m	North	no	yes	
		Spring	COHA	Cooper's Hawk	1			0 - 40 m	North	no	yes	
		Spring	HOLA	Horned Lark	2			0 - 40 m	West	no	yes	
		Spring	EUST	European Starling	6			0 - 40 m	Northeast	no	yes	
		Spring	HOLA	Horned Lark	1			0 - 40 m	West	no	yes	
		Spring	RWBL	Red-winged Blackbird	3			0 - 40 m	Southeast	no	yes	
		Spring	KILL	Killdeer	1			0 - 40 m	Northeast	no	yes	
		Spring	COHA	Cooper's Hawk	1			0 - 40 m	North	no	yes	
		Spring	AMKE	American Kestrel	1			0 - 40 m	East	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	Southwest	no	yes	
		Spring	COGR	Common Grackle	3			0 - 40 m	Southeast	no	yes	
15-Apr-11	2	Spring	RWBL	Red-winged Blackbird	7			0 - 40 m	North	no	yes	
		Spring	COGR	Common Grackle	2			0 - 40 m	North	no	yes	
		Spring	BHCO	Brown-headed Cowbird	2			0 - 40 m	West	no	yes	
		Spring	HOLA	Horned Lark	1			0 - 40 m	East	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	West	no	yes	
		Spring	TUVU	Turkey Vulture	4			40 - 180 m	Southeast	yes	yes	6 Minutes
		Spring	AMRO	American Robin	1			0 - 40 m	North	no	yes	
		Spring	RWBL	Red-winged Blackbird	1			0 - 40 m	Southwest	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	North	no	yes	
		Spring	AMRO	American Robin	1			0 - 40 m	North	no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
15-Apr-11	3	Spring	EUST	European Starling	4		0 - 40 m	West		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	East		no	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	East		no	yes	1 Minute
		Spring	AMRO	American Robin	1		0 - 40 m	East		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	South		no	yes	
		Spring	WITU	Wild Turkey	1		0 - 40 m	West		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	Northwest		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	East		no	yes	
		Spring	TUVU	Turkey Vulture	4		40 - 180 m	Southeast		yes	yes	2 Minutes
		Spring	RTHA	Red-tailed Hawk	1		0 - 40 m	East		no	yes	
		Spring	AMRO	American Robin	3		0 - 40 m	Southeast		no	yes	
		Spring	COGR	Common Grackle	2		0 - 40 m	Southwest		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	South		no	yes	
		Spring	AMCR	American Crow	3		0 - 40 m	Northwest		no	yes	
		Spring	COGR	Common Grackle	4		0 - 40 m	Northwest		no	yes	
		Spring	RWBL	Red-winged Blackbird	7		0 - 40 m	North		no	yes	
20-Apr-11	1	Spring	RWBL	Red-winged Blackbird	25		40 - 180 m	Southeast		no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southwest		yes	yes	3 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest		yes	yes	2 min
		Spring	HOLA	Horned Lark	5		0 - 40 m	South		no	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southeast		yes	yes	2 min
		Spring	WODU	Wood Duck	1		40 - 180 m	West/Northwest		no	yes	1 min
		Spring	COGR	Common Grackle	1		40 - 180 m	South/Southeast		no	yes	1 min
		Spring	MODO	Mourning Dove	1		0 - 40 m	North/Northeast		no	yes	
		Spring	RWBL	Red-winged Blackbird	2		0 - 40 m	Southwest		no	yes	
		Spring	COGR	Common Grackle	2		0 - 40 m	South/Southwest		no	yes	
		Spring	KILL	Killdeer	2		0 - 40 m	East		no	yes	
		Spring	HOLA	Horned Lark	2		0 - 40 m	East		no	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	South		yes	yes	2 min
		Spring	EUST	European Starling	2		0 - 40 m	North		no	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North		yes	yes	8 min
		Spring	AMCR	American Crow	1		0 - 40 m	West/Northwest		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East		no	yes	
		Spring	AMCR	American Crow	2		0 - 40 m	North		no	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	Southeast		no	yes	
		Spring	KILL	Killdeer	1		40 - 180 m	South/Southwest		no	yes	
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	North/Northeast		yes	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest		yes	yes	5 min
		Spring	HOLA	Horned Lark	1		0 - 40 m	Southeast		no	yes	3 min
		Spring	EUST	European Starling	5		0 - 40 m	Northwest		no	yes	
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	Southeast		yes	yes	3 min
		Spring	EUST	European Starling	3		0 - 40 m	North/Northeast		no	yes	
		Spring	AMRO	American Robin	2		40 - 180 m	North/Northwest		no	yes	
		Spring	AMKE	American Kestrel	1		40 - 180 m	North		yes	yes	1 min
		Spring	COGR	Common Grackle	2		0 - 40 m	Northwest		no	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	West		yes	yes	5 min
		Spring	HOLA	Horned Lark	3		0 - 40 m	Northwest		no	yes	
		Spring	GBHE	Great Blue Heron	1		40 - 180 m	North/Northeast		no	yes	1 min

Date	Point	Season	Code	Species	#	Age	Observation	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
20-Apr-11	2	Spring	EUST	European Starling	4		0 - 40 m	Southwest	no	yes
		Spring	TUVU	Turkey Vulture	5		0 - 40 m	West	no	yes
		Spring	CAGO	Canada Goose	6		0 - 40 m	North/Northeast	no	yes
		Spring	COGR	Common Grackle	5		0 - 40 m	North	no	yes
		Spring	TUVU	Turkey Vulture	4		40 - 180 m	South	yes	2 min
		Spring	AMCR	American Crow	1		0 - 40 m	East	no	yes
		Spring	EUST	European Starling	3		0 - 40 m	West	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	Northeast	no	yes
		Spring	COGR	Common Grackle	1		40 - 180 m	North/Northeast	no	yes
		Spring	AMCR	American Crow	1		0 - 40 m	Northeast	no	yes
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	South	yes	3 min
		Spring	NOHA	Northern Harrier	1		0 - 40 m	South	no	yes
		Spring	COGR	Common Grackle	3		40 - 180 m	North/Northeast	no	yes
		Spring	AMCR	American Crow	1		0 - 40 m	North	no	yes
		Spring	EUST	European Starling	1		0 - 40 m	North/Northeast	no	yes
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	North/Northeast	yes	yes
		Spring	RWBL	Red-winged Blackbird	5		0 - 40 m	Southwest	no	yes
		Spring	COGR	Common Grackle	1		0 - 40 m	West	no	yes
		Spring	EUST	European Starling	6		0 - 40 m	West/Northeast	no	yes
		Spring	AMPI	American Pipit	3		40 - 180 m	North	no	yes
		Spring	AMRO	American Robin	4		0 - 40 m	North/Northeast	no	yes
20-Apr-11	3	Spring	TUVU	Turkey Vulture	1		40 - 180 m	West/Southwest	yes	3 min
		Spring	COGR	Common Grackle	3		40 - 180 m	East	yes	2 min
		Spring	TUVU	Turkey Vulture	1		0 - 40 m	Northwest	no	yes
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North/Northeast	no	yes
		Spring	COGR	Common Grackle	3		40 - 180 m	Southwest	yes	2 min
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southwest	yes	2 min
		Spring	COGR	Common Grackle	3		40 - 180 m	Southwest	yes	2 min
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	Northeast	yes	yes
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	Southwest	yes	yes
		Spring	COGR	Common Grackle	1		0 - 40 m	North	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	South	no	yes
		Spring	KILL	Killdeer	2		0 - 40 m	East	no	yes
		Spring	EUST	European Starling	3		0 - 40 m	West	no	yes
		Spring	BHCO	Brown-headed Cowbird	5		0 - 40 m	Northeast	no	yes
		Spring	COGR	Common Grackle	3		40 - 180 m	North	no	yes
		Spring	AMCR	American Crow	2		0 - 40 m	East	no	yes
		Spring	MODQ	Mourning Dove	2		0 - 40 m	West	no	yes
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southeast	yes	yes
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest	yes	2 min
		Spring	EUST	European Starling	4		0 - 40 m	West	no	yes
		Spring	AMCR	American Crow	3		0 - 40 m	Southwest	no	yes
20-Apr-11	3	Spring	TUVU	Turkey Vulture	1		40 - 180 m	North/Northeast	no	yes
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southwest	yes	yes
		Spring	COGR	Common Grackle	3		0 - 40 m	West	no	yes
		Spring	EUST	European Starling	5		0 - 40 m	West	no	yes
		Spring	TUVU	Turkey Vulture	2		0 - 40 m	East	yes	yes
		Spring	BACA	Bald Eagle	1	3 yrs	40 - 180 m	East/Southeast	no	yes
		Spring	AMRO	American Robin	3		0 - 40 m	West	no	yes
		Spring	COGR	Common Grackle	4		0 - 40 m	Southwest	no	yes
		Spring	COGR	Common Grackle	7		0 - 40 m	West	no	yes
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	Northeast	yes	yes
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	Southwest	yes	yes
		Spring	COGR	Common Grackle	1		0 - 40 m	North	no	yes
		Spring	AMRO	American Robin	1		0 - 40 m	South	no	yes
		Spring	KILL	Killdeer	2		0 - 40 m	East	no	yes
		Spring	EUST	European Starling	3		0 - 40 m	West	no	yes
		Spring	BHCO	Brown-headed Cowbird	5		0 - 40 m	Northeast	no	yes
		Spring	COGR	Common Grackle	3		40 - 180 m	North	no	yes
		Spring	AMCR	American Crow	2		0 - 40 m	East	no	yes
		Spring	MODQ	Mourning Dove	2		0 - 40 m	West	no	yes
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southeast	yes	yes
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Northwest	yes	2 min
		Spring	EUST	European Starling	4		0 - 40 m	West	no	yes
		Spring	AMCR	American Crow	3		0 - 40 m	Southwest	no	yes

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
20-Apr-11	3	Spring	EUST	European Starling	6		0-40 m	East		no	yes	
		Spring	TUVU	Turkey Vulture	1		40-180 m	North		yes	yes	2 min
		Spring	COGR	Common Grackle	1		0-40 m	North		no	yes	
		Spring	AMRO	American Robin	1		0-40 m	Southwest		no	yes	
		Spring	COGR	Common Grackle	3		0-40 m	Southwest		no	yes	
		Spring	TUVU	Turkey Vulture	1		40-180 m	Northwest		yes	yes	2 min
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southwest		yes	yes	4 min
		Spring	RWBL	Red-winged Blackbird	3		0-40 m	West		no	yes	
		Spring	EUST	European Starling	6		40-180 m	Southeast		no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40-180 m	Southwest		yes	yes	3 min
21-Apr-11	1	Spring	TUVU	Turkey Vulture	1		40-180 m	Southwest		yes	yes	2 min
		Spring	COGR	Common Grackle	1		40-180 m	South		no	yes	1 min
		Spring	CAGO	Canada Goose	4		40-180 m	Northwest		no	yes	1 min
		Spring	AMRO	American Robin	2		0-40 m	East		no	yes	
		Spring	KILL	Killdeer	2		0-40 m	East		no	yes	
		Spring	EUST	European Starling	3		40-180 m	Northwest		no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40-180 m	North/Northwest		yes	yes	3 min
		Spring	COGR	Common Grackle	3		0-40 m	South		no	yes	
		Spring	AMCR	American Crow	4		0-40 m	West		no	yes	
		Spring	EUST	European Starling	2		0-40 m	North		no	yes	
		Spring	HOLA	Horned Lark	3		0-40 m	East		no	yes	
		Spring	COGR	Common Grackle	1		40-180 m	Northwest		no	yes	
		Spring	MODO	Mourning Dove	2		0-40 m	North		no	yes	
		Spring	AMCR	American Crow	1		40-180 m	North		no	yes	1 min
		Spring	RWBL	Red-winged Blackbird	4		0-40 m	North/Northeast		no	yes	
		Spring	BHCO	Brown-headed Cowbird	8		40-180 m	West		no	yes	1 min
		Spring	COGR	Common Grackle	5		40-180 m	Northwest		no	yes	1 min
		Spring	TUVU	Turkey Vulture	1		40-180 m	West		yes	yes	2 min
		Spring	AMRO	American Robin	3		0-40 m	North		no	yes	
		Spring	HOLA	Horned Lark	2		0-40 m	West		no	yes	
21-Apr-11	2	Spring	COGR	Common Grackle	3		0-40 m	North/Northeast		no	yes	
		Spring	AMCR	American Crow	2		0-40 m	Northeast		no	yes	
		Spring	RWBL	Red-winged Blackbird	2		0-40 m	South		no	yes	
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Southeast		yes	yes	3 min
		Spring	KILL	Killdeer	2		0-40 m	East		no	yes	
		Spring	TUVU	Turkey Vulture	2		40-180 m	Northwest		yes	yes	2 min
		Spring	RWBL	Red-winged Blackbird	4		0-40 m	West		no	yes	
		Spring	COGR	Common Grackle	1		0-40 m	West		no	yes	
		Spring	MODO	Mourning Dove	3		0-40 m	North		no	yes	
		Spring	AMCR	American Crow	2		0-40 m	Southwest		no	yes	
		Spring	AMRO	American Robin	1		40-180 m	Northeast		no	yes	1 min
		Spring	GBHE	Great Blue Heron	1		40-180 m	North		no	yes	1 min
		Spring	COGR	Common Grackle	3		0-40 m	West		no	yes	
		Spring	TUVU	Turkey Vulture	1		40-180 m	Southwest		yes	yes	3 min
		Spring	RTHA	Red-tailed Hawk	1		40-180 m	Northwest		yes	yes	2 min
		Spring	CAGO	Canada Goose	4		40-180 m	North/Northeast		no	yes	1 min
		Spring	COGR	Common Grackle	1		0-40 m	North		no	yes	
		Spring	COGR	Common Grackle	1		0-40 m	Northwest		no	yes	
		Spring	AMCR	American Crow	1		0-40 m	North		no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
21-Apr-11	2	Spring	TUVU	Turkey Vulture	1		40 - 180 m	East		yes	yes	2 min
		Spring	SOSP	Song Sparrow	1		0 - 40 m	West		no	yes	-
		Spring	AMRO	American Robin	2		0 - 40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	Southwest		no	yes	-
		Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	Southwest		no	yes	-
		Spring	COGR	Common Grackle	3		0 - 40 m	Northwest		no	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	North		no	yes	-
		Spring	RWBL	Red-winged Blackbird	6		0 - 40 m	South		no	yes	-
		Spring	AMRO	American Robin	2		0 - 40 m	North		no	yes	-
		Spring	COGR	Common Grackle	7		0 - 40 m	West/Southwest		no	yes	-
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	West		yes	yes	4 min
		Spring	TUVU	Turkey Vulture	3		40 - 180 m	East/Southeast		yes	yes	2 min
		Spring	AMRO	American Robin	1		0 - 40 m	South		no	yes	-
		Spring	COGR	Common Grackle	1		40 - 180 m	North		no	yes	1 min
21-Apr-11	3	Spring	EUST	European Starling	2		0 - 40 m	West		no	yes	-
		Spring	EUST	European Starling	4		0 - 40 m	Northwest		no	yes	-
		Spring	AMCR	American Crow	1		40 - 180 m	Southeast		no	yes	1 min
		Spring	AMCR	American Crow	3		0 - 40 m	North		no	yes	-
		Spring	COGR	Common Grackle	2		0 - 40 m	West		no	yes	-
		Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	West		no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	South		no	yes	-
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	North		yes	yes	2 min
		Spring	MODO	Mourning Dove	2		0 - 40 m	Northwest		no	yes	-
		Spring	EUST	European Starling	5		0 - 40 m	East/Northeast		no	yes	-
		Spring	AMCR	American Crow	1		40 - 180 m	North		no	yes	-
		Spring	COGR	Common Grackle	2		0 - 40 m	West/Southwest		no	yes	-
		Spring	AMRO	American Robin	1		0 - 40 m	South		no	yes	-
		Spring	COGR	Common Grackle	2		0 - 40 m	West/Southwest		no	yes	-
		Spring	COGR	Common Grackle	9		0 - 40 m	East		no	yes	-
		Spring	EUST	European Starling	2		0 - 40 m	East		no	yes	-
		Spring	COGR	Common Grackle	12		0 - 40 m	East		no	yes	-
		Spring	RWBL	Red-winged Blackbird	10		40 - 180 m	East/Northeast		no	yes	1 min
		Spring	BAEA	Bald Eagle	1	3 yrs	40 - 180 m	West/Southwest		no	yes	2 min
		Spring	RTHA	Red-tailed Hawk	1		40 - 180 m	North		yes	yes	1 min
		Spring	COGR	Common Grackle	1		0 - 40 m	North		yes	yes	-
		Spring	COGR	Common Grackle	2		0 - 40 m	West		no	yes	-
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	West		no	yes	-
		Spring	COHA	Cooper's Hawk	1		40 - 180 m	West/Northwest		no	yes	1 min
		Spring	COGR	Common Grackle	6		0 - 40 m	East		no	yes	-
		Spring	EUST	European Starling	3		0 - 40 m	North		no	yes	-
22-Apr-11	1	Spring	TUVU	Turkey Vulture	1		40 - 180 m	East		yes	yes	2 min
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	Northwest		yes	yes	2 min
		Spring	COGR	Common Grackle	1		0 - 40 m	Northwest		no	yes	-
		Spring	AMRO	American Robin	2		40 - 180 m	North/Northwest		no	yes	1 min
		Spring	AMCR	American Crow	1		0 - 40 m	South		no	yes	-
		Spring	COGR	Common Grackle	3		0 - 40 m	Southeast		no	yes	-
		Spring	EUST	European Starling	4		0 - 40 m	West		no	yes	-
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	Southeast		yes	yes	2 min
		Spring	COGR	Common Grackle	1		0 - 40 m	North		no	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	North		no	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	North		no	yes	-
		Spring	COGR	Common Grackle	1		0 - 40 m	North		no	yes	-

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
22-Apr-11	1	Spring	EUST	European Starling	3			0 - 40 m	Southeast	no	yes	-
		Spring	AMRO	American Robin	1			0 - 40 m	South	no	yes	-
		Spring	RTHA	Red-tailed Hawk	1			40 - 180 m	Southeast	yes	yes	2 min
		Spring	COGR	Common Grackle	1			0 - 40 m	Northwest	no	yes	-
		Spring	RWBL	Red-winged Blackbird	3			0 - 40 m	West	no	yes	-
		Spring	TUVU	Turkey Vulture	2			40 - 180 m	Northwest	yes	yes	3 min
		Spring	COGR	Common Grackle	3			0 - 40 m	Northwest	no	yes	-
		Spring	AMRO	American Robin	2			0 - 40 m	North	no	yes	-
		Spring	COGR	Common Grackle	3			0 - 40 m	Northwest	no	yes	-
		Spring	TUVU	Turkey Vulture	1			40 - 180 m	South	yes	yes	2 min
22-Apr-11	2	Spring	ROPI	Rock Pigeon	3			0 - 40 m	Northwest	no	yes	-
		Spring	KILL	Killdeer	1			0 - 40 m	Southwest	no	yes	-
		Spring	RWBL	Red-winged Blackbird	3			0 - 40 m	North/Northwest	no	yes	-
		Spring	EUST	European Starling	4			0 - 40 m	North/Northwest	no	yes	-
		Spring	COGR	Common Grackle	2			0 - 40 m	Southeast	no	yes	-
		Spring	COGR	Common Grackle	2			40 - 180 m	East	no	yes	-
		Spring	MALL	Mallard	2			0 - 40 m	Southeast	no	yes	-
		Spring	COGR	Common Grackle	1			40 - 180 m	East	no	yes	1 min
		Spring	AMCR	American Crow	1			0 - 40 m	North	no	yes	-
		Spring	COGR	Common Grackle	2			40 - 180 m	South	no	yes	1 min
22-Apr-11	3	Spring	HOLA	Horned Lark	1			0 - 40 m	East	no	yes	-
		Spring	AMCR	American Crow	2			0 - 40 m	South	no	yes	-
		Spring	RWBL	Red-winged Blackbird	5			40 - 180 m	South	no	yes	1 min
		Spring	EUST	European Starling	5			40 - 180 m	South	no	yes	1 min
		Spring	COGR	Common Grackle	3			0 - 40 m	North	no	yes	-
		Spring	COGR	Common Grackle	2			40 - 180 m	Northwest	no	yes	1 min
		Spring	AMCR	American Crow	2			0 - 40 m	North	no	yes	-
		Spring	HOLA	Horned Lark	1			0 - 40 m	Southwest	no	yes	-
		Spring	COGR	Common Grackle	1			0 - 40 m	North	no	yes	-
		Spring	AMRO	American Robin	2			0 - 40 m	Northwest	no	yes	-
22-Apr-11	3	Spring	COGR	Common Grackle	3			0 - 40 m	West	no	yes	-
		Spring	RWBL	Red-winged Blackbird	6			0 - 40 m	Northwest	no	yes	-
		Spring	AMRO	American Robin	3			40 - 180 m	North	no	yes	1 min
		Spring	KILL	Killdeer	2			0 - 40 m	East	no	yes	-
		Spring	COGR	Common Grackle	1			0 - 40 m	South	no	yes	-
		Spring	MODO	Mourning Dove	2			0 - 40 m	North	no	yes	-
		Spring	EUST	European Starling	5			0 - 40 m	Southwest	no	yes	-
		Spring	RWBL	Red-winged Blackbird	3			0 - 40 m	East	no	yes	-
		Spring	AMRO	American Robin	1			0 - 40 m	South	no	yes	-
		Spring	TUVU	Turkey Vulture	2			40 - 180 m	Southwest	yes	yes	2 min
22-Apr-11	3	Spring	RTHA	Red-tailed Hawk	1			40 - 180 m	Northwest	yes	yes	1 min
		Spring	COGR	Common Grackle	3			0 - 40 m	Northwest	no	yes	-
		Spring	TUVU	Turkey Vulture	1			40 - 180 m	South	yes	yes	2 min
		Spring	CAGO	Canada Goose	2			40 - 180 m	Northwest	no	yes	1 min
		Spring	AMRO	American Robin	1			0 - 40 m	Southeast	no	yes	-
		Spring	AMCR	American Crow	2			0 - 40 m	Northwest	no	yes	-
		Spring	COGR	Common Grackle	3			0 - 40 m	Northwest	no	yes	-
		Spring	RWBL	Red-winged Blackbird	6			0 - 40 m	Northwest	no	yes	-
		Spring	AMRO	American Robin	3			40 - 180 m	North	no	yes	1 min
		Spring	KILL	Killdeer	2			0 - 40 m	East	no	yes	-

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
24-Apr-11	1	Spring	RWBL	Red-winged Blackbird	2		0 - 40 m	West		no	yes	
		Spring	PESA	Pectoral Sandpiper	23		0 - 40 m	East/Northeast		no	yes	
		Spring	HOLA	Horned Lark	2		0 - 40 m	North		no	yes	
		Spring	COGR	Common Grackle	2		0 - 40 m	North		no	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	South		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	West		no	yes	
		Spring	CAGO	Canada Goose	2		40 - 180 m	Southeast		no	yes	1 Minute
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	West		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	West		no	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	East		no	yes	
		Spring	BRNS	Barn Swallow	1		0 - 40 m	South		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	North		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Southeast		no	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	East		no	yes	
		Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	East/Northeast		no	yes	
		Spring	RWBL	Red-winged Blackbird	2		0 - 40 m	East		no	yes	
		Spring	BRNS	Barn Swallow	6		0 - 40 m	North		yes	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	East/Northeast		no	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	South		no	yes	1 Minute
24-Apr-11	2	Spring	BRNS	Barn Swallow	1		0 - 40 m	Northwest		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	West		no	yes	
		Spring	HOLA	Horned Lark	2		0 - 40 m	South		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	Southeast		no	yes	
		Spring	EUST	European Starling	3		0 - 40 m	North		no	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	East		no	yes	
		Spring	EAME	Eastern Meadowlark	1		0 - 40 m	East		no	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	Southeast		yes	yes	2 Minutes
		Spring	KILL	Killdeer	1		0 - 40 m	Southwest		no	yes	
		Spring	TUVU	Turkey Vulture	2		40 - 180 m	South		yes	yes	4 Minutes
		Spring	EABL	Eastern Bluebird	2		0 - 40 m	West		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	South		no	yes	
		Spring	RWBL	Red-winged Blackbird	9		0 - 40 m	West		no	yes	
		Spring	COGR	Common Grackle	2		0 - 40 m	West		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	North		no	yes	
		Spring	EUST	European Starling	2		0 - 40 m	Southwest		no	yes	
24-Apr-11	3	Spring	TUVU	Turkey Vulture	3		40 - 180 m	North		yes	yes	2 Minutes
		Spring	WODU	Wood Duck	1		0 - 40 m	West/Southwest		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Southeast		no	yes	
		Spring	MODO	Mourning Dove	3		0 - 40 m	West		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	North		no	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	South		no	yes	
		Spring	AMGO	American Goldfinch	1		0 - 40 m	Southeast		no	yes	
		Spring	MALL	Mallard	2		0 - 40 m	East/Northeast		no	yes	
		Spring	BRNS	Barn Swallow	1		0 - 40 m	South		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	East		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	North		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	South		no	yes	
		Spring	SOSP	Song Sparrow	2		0 - 40 m	North		no	yes	
		Spring	COGR	Common Grackle	5		0 - 40 m	West		no	yes	

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
27-Apr-11	1	Spring	RWBL	Red-winged Blackbird	3			0-40 m	North	no	yes	
		Spring	RTHA	Red-tailed Hawk	1			0-40 m	Northwest	no	yes	
		Spring	HOLA	Horned Lark	2			0-40 m	East	no	yes	
		Spring	COGR	Common Grackle	4			0-40 m	South	no	yes	
		Spring	AMCR	American Crow	8			0-40 m	Southwest	no	yes	
		Spring	KILL	Killdeer	1			0-40 m	Northwest	no	yes	
		Spring	AMRO	American Robin	1			0-40 m	West	no	yes	
		Spring	COGR	Common Grackle	2			0-40 m	West/Northwest	no	yes	
		Spring	RWBL	Red-winged Blackbird	6			0-40 m	South/Southeast	no	yes	
		Spring	RWBL	Red-winged Blackbird	4			0-40 m	West/Northwest	no	yes	
		Spring	HOLA	Horned Lark	1			0-40 m	Southwest	no	yes	
		Spring	KILL	Killdeer	1			0-40 m	Southwest	no	yes	
		Spring	AMRO	American Robin	1			0-40 m	Southeast	no	yes	
		Spring	COGR	Common Grackle	2			0-40 m	Northwest	no	yes	
		Spring	HOLA	Horned Lark	3			0-40 m	Northeast	no	yes	
27-Apr-11	2	Spring	KILL	Killdeer	1			0-40 m	Northwest	no	yes	
		Spring	AMRO	American Robin	1			0-40 m	Southwest	no	yes	
		Spring	COGR	Common Grackle	2			0-40 m	East	no	yes	
		Spring	RWBL	Red-winged Blackbird	4			0-40 m	South	yes	yes	
		Spring	EUSI	European Starling	4			0-40 m	East	no	yes	
		Spring	RWBL	Red-winged Blackbird	5			0-40 m	Northwest	no	yes	
		Spring	EAME	Eastern Meadowlark	1			0-40 m	North	no	yes	
		Spring	COGR	Common Grackle	2			0-40 m	Northeast	no	yes	
		Spring	KILL	Killdeer	1			0-40 m	East	no	yes	
		Spring	BHCO	Brown-headed Cowbird	3			0-40 m	South	no	yes	
		Spring	EABL	Eastern Bluebird	2			0-40 m	West	no	yes	
		Spring	EUSI	European Starling	1			0-40 m	North/Northeast	no	yes	
		Spring	RWBL	Red-winged Blackbird	1			0-40 m	West	no	yes	
		Spring	RTHA	Red-tailed Hawk	1			0-40 m	South	no	yes	
		Spring	KILL	Killdeer	1			0-40 m	Southeast	no	yes	
27-Apr-11	3	Spring	AMRO	American Robin	1			0-40 m	Southwest	no	yes	
		Spring	TUVU	Turkey Vulture	3			40-180 m	North	yes	yes	2 MINUTES
		Spring	AMRO	American Robin	1			0-40 m	Southeast	no	yes	
		Spring	AMRO	American Robin	1			0-40 m	Northwest	no	yes	
		Spring	TUVU	Turkey Vulture	3			40-180 m	East	yes	yes	2 Minutes
		Spring	AMRO	American Robin	1			0-40 m	East	no	yes	
		Spring	EUSI	European Starling	2			0-40 m	Southeast	no	yes	
		Spring	AMGO	American Goldfinch	4			0-40 m	Southwest	no	yes	
		Spring	COGR	Common Grackle	1			0-40 m	South	no	yes	
		Spring	BRNS	Barn Swallow	1			0-40 m	West	no	yes	
		Spring	KILL	Killdeer	1			0-40 m	South	no	yes	
		Spring	AMRO	American Robin	2			0-40 m	West	no	yes	
		Spring	KILL	Killdeer	1			0-40 m	West	no	yes	
		Spring	SOSP	Song Sparrow	1			0-40 m	Southwest	no	yes	
		Spring	COGR	Common Grackle	3			0-40 m	Southwest	no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
29 Apr-11	1	Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	West		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	Southeast		no	yes	
		Spring	HOLA	Horned Lark	2		0 - 40 m	West		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	West		no	yes	
		Spring	EUST	European Starling	6		0 - 40 m	East		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	South		no	yes	
		Spring	BHCO	Brown-headed Cowbird	2		0 - 40 m	North		no	yes	
		Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	Southeast		no	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	East		no	yes	
		Spring	TUVU	Turkey Vulture	7		40 - 180 m	East/Northeast		yes	yes	7 Minutes
		Spring	COHA	Cooper's Hawk	14		0 - 40 m	West		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	Southeast		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	West		no	yes	
		Spring	COGR	Common Grackle	6		0 - 40 m	West		no	yes	
29 Apr-11	2	Spring	AMRO	American Robin	1		0 - 40 m	East		no	yes	
		Spring	RWBL	Red-winged Blackbird	3		0 - 40 m	Southeast		no	yes	
		Spring	HOLA	Horned Lark	2		0 - 40 m	Southeast		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	North		no	yes	
		Spring	EUST	European Starling	3		0 - 40 m	Northwest		no	yes	
		Spring	COGR	Common Grackle	4		0 - 40 m	Northeast		no	yes	
		Spring	TUVU	Turkey Vulture	3		40 - 180 m	West		yes	yes	3 Minutes
		Spring	TUVU	Turkey Vulture	5		40 - 180 m	West		yes	yes	5 minutes
		Spring	KILL	Killdeer	2		0 - 40 m	Southeast		no	yes	
		Spring	TUVU	Turkey Vulture	5		40 - 180 m	West		yes	yes	2 Minutes
		Spring	EABL	Eastern Bluebird	2		0 - 40 m	West		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	East		no	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	South		no	yes	
		Spring	BHCO	Brown-headed Cowbird	2		0 - 40 m	North		no	yes	
29 Apr-11	3	Spring	WITU	Wild Turkey	1		0 - 40 m	Southeast		no	yes	
		Spring	WODU	Wood Duck	2		0 - 40 m	East		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	West		no	yes	
		Spring	MODO	Mourning Dove	2		0 - 40 m	South		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Southeast		no	yes	
		Spring	COGR	Common Grackle	3		0 - 40 m	Southeast		no	yes	
		Spring	AMGO	American Goldfinch	3		0 - 40 m	West		no	yes	
		Spring	MALL	Mallard	1		0 - 40 m	Southeast		no	yes	
		Spring	BRNS	Barn Swallow	1		0 - 40 m	West		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	West		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	East		no	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	South		no	yes	
		Spring	SOSP	Song Sparrow	1		0 - 40 m	North		no	yes	
		Spring	COGR	Common Grackle	2		0 - 40 m	Southeast		no	yes	
30 Apr-11	1	Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	West		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Southeast		no	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	West		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	West		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	East		no	yes	
		Spring	BRNS	Barn Swallow	1		0 - 40 m	South		no	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	North		no	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	West		no	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	Southeast		no	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	West		no	yes	

Date	Point	Season	Code	Species	#	Age	Observation	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
30-Apr-11	1	Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	South	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	West	yes	
		Spring	BRNS	Barn Swallow	1		0 - 40 m	West	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	East	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	South	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	North	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	South	yes	7 Minutes
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	East	yes	
		Spring	BRNS	Barn Swallow	1		0 - 40 m	East/Northeast	yes	
		Spring	AMCR	American Crow	1		0 - 40 m	West	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	South	yes	
30-Apr-11	2	Spring	BRNS	Barn Swallow	1		0 - 40 m	North	yes	
		Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	South	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	East	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	East/Northeast	yes	
		Spring	EUST	European Starling	1		0 - 40 m	West	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	South	yes	
		Spring	EAME	Eastern Meadowlark	1		0 - 40 m	South	yes	
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	East	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	East/Northeast	yes	6 Minutes
		Spring	TUVU	Turkey Vulture	1		40 - 180 m	West	yes	
		Spring	EABL	Eastern Bluebird	1		0 - 40 m	West	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	South	yes	
30-Apr-11	3	Spring	RWBL	Red-winged Blackbird	1		0 - 40 m	West	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	West	yes	
		Spring	KILL	Killdeer	1		0 - 40 m	East	yes	
		Spring	EUST	European Starling	1		0 - 40 m	South	yes	
		Spring	BHCO	Brown-headed Cowbird	2		0 - 40 m	South	yes	
		Spring	COGR	Common Grackle	2		0 - 40 m	North	yes	
		Spring	HOLA	Horned Lark	2		0 - 40 m	South	yes	
		Spring	MODD	Mourning Dove	1		0 - 40 m	West	yes	
		Spring	COGR	Common Grackle	1		0 - 40 m	South	yes	
		Spring	AMGO	American Goldfinch	3		0 - 40 m	West	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	West	yes	5 Minutes
		Spring	TUVU	Turkey Vulture	4		40 - 180 m	East	yes	
4-Sep-11	1	Spring	KILL	Killdeer	1		0 - 40 m	South	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	North	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	South	yes	
		Spring	SOSP	Song Sparrow	1		0 - 40 m	East	yes	
		Spring	AMRO	American Robin	1		0 - 40 m	East/Northeast	yes	
		Spring	AMCR	American Crow	2		0 - 40 m	South	yes	
		Spring	HOLA	Horned Lark	1		0 - 40 m	West	yes	
		Autumn	SBDG	Short-billed Dowitcher	1		0 - 40 m	North	yes	
		Autumn	AMCR	American Crow	7		0 - 40 m	West	yes	
		Autumn	AMCR	American Crow	3		0 - 40 m	North	yes	
		Autumn	AMCR	American Crow	3		0 - 40 m	West	yes	
		Autumn	AMGO	American Goldfinch	1		0 - 40 m	East	yes	
4-Sep-11	2	Autumn	AMCR	American Crow	2		0 - 40 m	South	yes	
		Autumn	AMCR	American Crow	3		0 - 40 m	Southwest	yes	
		Autumn	AMCR	American Crow	3		0 - 40 m	Southwest	yes	

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
4-Sep-11	3	Autumn	AMCR	American Crow	3		Southwest	0 - 40 m	North/Northwest	no	yes	
		Autumn	MODO	Mourning Dove	2		Southwest	0 - 40 m	Southwest	no	yes	
		Autumn	HOSP	House Sparrow	5		Southwest	0 - 40 m	Southwest	no	yes	
		Autumn	AMCR	American Crow	2		North/Northeast	0 - 40 m	North/Northeast	no	yes	
		Autumn	AMGO	American Goldfinch	1		Southwest	0 - 40 m	Southwest	no	yes	
7-Sep-11	1	Autumn	HOSP	House Sparrow	3		East	0 - 40 m	East	no	yes	
		Autumn	SOSP	Song Sparrow	1		North	0 - 40 m	North	no	yes	2 Minutes
7-Sep-11	2	Autumn	TUVU	Turkey Vulture	2		Southwest	40 - 180 m	Southwest	yes	yes	
		Autumn	No Observations									
7-Sep-11	3	Autumn	MODO	Mourning Dove	3		Southwest	0 - 40 m	Southwest	no	yes	1 Minute
		Autumn	AMCR	American Crow	5		Southwest	40 - 180 m	Southwest	no	yes	3 Minutes
9-Sep-11	1	Autumn	TUVU	Turkey Vulture	4		South	40 - 180 m	South	yes	yes	
		Autumn	AMCR	American Crow	6		South/Southeast	0 - 40 m	South/Southeast	no	yes	
		Autumn	EABL	Eastern Bluebird	2		East	0 - 40 m	East	no	yes	
		Autumn	RBGU	Ring-billed Gull	2		North	0 - 40 m	North	no	yes	
9-Sep-11	2	Autumn	TUVU	Turkey Vulture	3		North	40 - 180 m	North	yes	yes	5 Minutes
		Autumn	AMCR	American Crow	7		East	0 - 40 m	East	no	yes	
9-Sep-11	3	Autumn	HOSP	House Sparrow	12		East	0 - 40 m	East	no	yes	
		Autumn	AMCR	American Crow	1		South	0 - 40 m	South	no	yes	
11-Sep-11	1	Autumn	HOLA	Horned Lark	2		North	0 - 40 m	North	no	yes	
		Autumn	AMGO	American Goldfinch	3		North	0 - 40 m	North	no	yes	
		Autumn	NOFL	Northern Flicker	1		North	0 - 40 m	North	no	yes	
11-Sep-11	2	Autumn	AMCR	American Crow	3		East	0 - 40 m	East	no	yes	
		Autumn	AMCR	American Crow	2		North	0 - 40 m	North	no	yes	
11-Sep-11	3	Autumn	AMCR	American Crow	2		Southwest	0 - 40 m	Southwest	no	yes	
		Autumn	BLJA	Blue Jay	1		North/Northeast	0 - 40 m	North/Northeast	no	yes	
		Autumn	AMCR	American Crow	3		Northwest	>180 m	Northwest	no	yes	
		Autumn	MODO	Mourning Dove	5		North/Northeast	0 - 40 m	North/Northeast	no	yes	
		Autumn	CAGO	Canada Goose	7		South/Southeast	0 - 40 m	South/Southeast	no	yes	
		Autumn	MODO	Mourning Dove	1		South	0 - 40 m	South	no	yes	
		Autumn	BLJA	Blue Jay	2		North	0 - 40 m	North	no	yes	
		Autumn	HOSP	House Sparrow	4		West	0 - 40 m	West	no	yes	
		Autumn	KILL	Killdeer	2		North	0 - 40 m	North	no	yes	
		Autumn	BLJA	Blue Jay	3		East	0 - 40 m	East	no	yes	
18-Sep-11	1	Autumn	AMCR	American Crow	3		Northwest	0 - 40 m	Northwest	no	yes	
		Autumn	HOSP	House Sparrow	7		Northwest	0 - 40 m	Northwest	no	yes	
		Autumn	AMCR	American Crow	4		Southwest	0 - 40 m	Southwest	no	yes	
		Autumn	BLJA	Blue Jay	1		South/Southeast	0 - 40 m	South/Southeast	no	yes	
		Autumn	AMCR	American Crow	3		East/Northeast	0 - 40 m	East/Northeast	no	yes	
		Autumn	MODO	Mourning Dove	2		East	0 - 40 m	East	no	yes	
		Autumn	CAGO	Canada Goose	18		West	40 - 180 m	West	no	yes	1 Minute
		Autumn	MODO	Mourning Dove	4		Southwest	0 - 40 m	Southwest	no	yes	
		Autumn	BLJA	Blue Jay	2		Northwest	0 - 40 m	Northwest	no	yes	
		Autumn	HOSP	House Sparrow	3		West	0 - 40 m	West	no	yes	
		Autumn	KILL	Killdeer	2		West/Southwest	0 - 40 m	West/Southwest	no	yes	
		Autumn	BLJA	Blue Jay	1		Southwest	0 - 40 m	Southwest	no	yes	

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
18-Sep-11	2	Autumn	TUVU	Turkey Vulture	2		40 - 180 m	Northwest	no	no	yes	1 Minute
		Autumn	BLJA	Blue Jay	1		0 - 40 m	Northwest	no	no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	South	no	no	yes	
		Autumn	AMCR	American Crow	9		0 - 40 m	North	no	no	yes	
18-Sep-11	3	Autumn	RTHA	Red-tailed Hawk	1		>180 m	North	yes	yes	yes	
		Autumn	TUVU	Turkey Vulture	3		40 - 180 m	Northwest	yes	yes	yes	4 Minutes
		Autumn	AMCR	American Crow	4		0 - 40 m	Southwest	no	yes	yes	
		Autumn	AMCR	American Crow	6		0 - 40 m	South/Southeast	no	no	yes	
		Autumn	BLJA	Blue Jay	2		0 - 40 m	East	no	no	yes	
		Autumn	EABL	Eastern Bluebird	3		0 - 40 m	West	no	no	yes	
		Autumn	EUST	European Starling	7		0 - 40 m	West/Southwest	no	no	yes	
		Autumn	MODO	Mourning Dove	2		0 - 40 m	North	no	no	yes	
		Autumn	CAGO	Canada Goose	5		>180 m	Northwest	no	no	yes	
		Autumn	MODO	Mourning Dove	1		0 - 40 m	Southwest	no	no	yes	
20-Sep-11	1	Autumn	BLJA	Blue Jay	1		0 - 40 m	Southwest	no	no	yes	
		Autumn	HOSP	House Sparrow	3		0 - 40 m	West	no	no	yes	
		Autumn	KILL	Killdeer	7		0 - 40 m	East/Northeast	no	no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	West	no	no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	North	no	no	yes	
		Autumn	KILL	Killdeer	1		0 - 40 m	North/Northeast	no	no	yes	
		Autumn	EUST	European Starling	7		0 - 40 m	West	no	no	yes	
		Autumn	COGR	Common Grackle	5		0 - 40 m	East	no	no	yes	
		Autumn	EABL	Eastern Bluebird	1		0 - 40 m	Southwest	no	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	South	no	no	yes	
20-Sep-11	3	Autumn	GBHE	Great Blue Heron	1		40 - 180 m	North/Northeast	no	no	yes	1 Minute
		Autumn	AMCR	American Crow	7		0 - 40 m	South	no	no	yes	
		Autumn	AMCR	American Crow	2		0 - 40 m	Southwest	no	no	yes	
		Autumn	AMCR	American Crow	1		0 - 40 m	Northeast	no	no	yes	
		Autumn	MODO	Mourning Dove	4		0 - 40 m	North/Northeast	no	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	West	no	no	yes	
		Autumn	AMCR	American Crow	2		0 - 40 m	North	no	no	yes	
		Autumn	BLJA	Blue Jay	1		0 - 40 m	North/Northeast	no	no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	West	no	no	yes	
		Autumn	MODO	Mourning Dove	5		0 - 40 m	South	no	no	yes	
21-Sep-11	1	Autumn	TUVU	Turkey Vulture	2		40 - 180 m	Southwest	yes	yes	yes	2 Minutes
		Autumn	KILL	Killdeer	1		0 - 40 m	Southwest	no	no	yes	
		Autumn	EABL	Eastern Bluebird	3		0 - 40 m	Southwest	no	no	yes	
		Autumn	EUST	European Starling	9		0 - 40 m	North/Northeast	no	no	yes	
		Autumn	COGR	Common Grackle	2		0 - 40 m	Northwest	no	no	yes	
		Autumn	EUST	European Starling	6		0 - 40 m	North	no	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	Southwest	no	no	yes	
		Autumn	AMCR	American Crow	5		0 - 40 m	Northeast	no	no	yes	
		Autumn	AMCR	American Crow	7		0 - 40 m	North/Northeast	no	no	yes	
		Autumn	CEDW	Cedar Waxwing	11		0 - 40 m	Southwest	no	no	yes	
21-Sep-11	2	Autumn	WITU	Wild Turkey	1		0 - 40 m	South/Southeast	no	no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	West	no	no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
21 Sep-11	3	Autumn	AMCR	American Crow	6		0 - 40 m	North		no	yes	
		Autumn	GBHE	Great Blue Heron	1		40 - 180 m	Southwest		no	yes	1 Minute
		Autumn	TUVU	Turkey Vulture	3		40 - 180 m	North/Northeast		yes	yes	4 Minutes
		Autumn	RTHA	Red tailed Hawk	1		40 - 180 m	West		yes	yes	8 Minutes
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	Southwest		no	yes	
		Autumn	SOSP	Song Sparrow	3		0 - 40 m	North/Northeast		no	yes	
		Autumn	EABL	Eastern Bluebird	1		0 - 40 m	East		no	yes	
		Autumn	EUST	European Starling	9		0 - 40 m	West/Southwest		no	yes	
		Autumn	MODO	Mourning Dove	3		0 - 40 m	South		no	yes	
		Autumn	MODO	Mourning Dove	7		0 - 40 m	South/Southwest		no	yes	
25 Sep-11	1	Autumn	AMCR	American Crow	3		0 - 40 m	North/Northeast		no	yes	
		Autumn	MODO	Mourning Dove	2		0 - 40 m	Southwest		no	yes	
		Autumn	AMKE	American Kestrel	1		0 - 40 m	East		no	yes	
		Autumn	AMCR	American Crow	7		0 - 40 m	South		no	yes	
		Autumn	TUVU	Turkey Vulture	1		0 - 40 m	Southwest		no	yes	
		Autumn	AMPI	American Pipit	4		0 - 40 m	Southwest		no	yes	
		Autumn	AMCR	American Crow	11		40 - 180 m	Southwest		yes	yes	6 Minutes
		Autumn	HOLA	Horned Lark	2		0 - 40 m	North		no	yes	
		Autumn	TUVU	Turkey Vulture	7		40 - 180 m	South		no	yes	1 Minute
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	Northwest		no	yes	
25 Sep-11	3	Autumn	HOSP	House Sparrow	8		0 - 40 m	South/Southwest		no	yes	
		Autumn	EUST	European Starling	42		0 - 40 m	Southwest		yes	yes	
		Autumn	BLJA	Blue Jay	3		0 - 40 m	Southwest		no	yes	
		Autumn	HOSP	House Sparrow	5		0 - 40 m	Southwest		no	yes	
		Autumn	TUVU	Turkey Vulture	4		40 - 180 m	South/Southwest		yes	yes	8 Minutes
		Autumn	COHA	Cooper's Hawk	1		0 - 40 m	West		no	yes	
		Autumn	AMCR	American Crow	6		0 - 40 m	East		no	yes	
		Autumn	HOSP	House Sparrow	7		0 - 40 m	East/Northeast		no	yes	
		Autumn	TUVU	Turkey Vulture	3		40 - 180 m	North		yes	yes	4 Minutes
		Autumn	AMCR	American Crow	4		0 - 40 m	Southwest		no	yes	
28 Sep-11	1	Autumn	MODO	Mourning Dove	5		0 - 40 m	Southwest		no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	East		no	yes	
		Autumn	EUST	European Starling	7		0 - 40 m	East/Northeast		no	yes	
		Autumn	KILL	Killdeer	2		0 - 40 m	East		no	yes	
		Autumn	AMRO	American Robin	4		0 - 40 m	Southwest		no	yes	
		Autumn	AMCR	American Crow	8		0 - 40 m	South/Southwest		no	yes	
		Autumn	SAVS	Savannah Sparrow	1		0 - 40 m	Southwest		no	yes	
		Autumn	BLJA	Blue Jay	2		0 - 40 m	South/Southwest		no	yes	
		Autumn	AMCR	American Crow	6		0 - 40 m	Southwest		no	yes	
		Autumn	AMGO	American Goldfinch	4		0 - 40 m	Southwest		no	yes	
28 Sep-11	2	Autumn	EUST	European Starling	1		0 - 40 m	South		no	yes	
		Autumn	AMPI	American Pipit	2		0 - 40 m	Northwest		no	yes	
		Autumn	HOLA	Horned Lark	3		0 - 40 m	West		no	yes	
		Autumn	RWBL	Red-winged Blackbird	1		0 - 40 m	South/Southwest		no	yes	
		Autumn	EUST	European Starling	8		0 - 40 m	Northwest		no	yes	
		Autumn	KILL	Killdeer	2		0 - 40 m	West/Southwest		no	yes	
		Autumn	KILL	Killdeer	1		0 - 40 m	Northeast		no	yes	

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
28-Sep-11	3	Autumn	AMGO	American Goldfinch	1			0 - 40 m	South	no	yes	
		Autumn	HOSP	House Sparrow	3			0 - 40 m	Southeast	no	yes	
		Autumn	AMCR	American Crow	1			0 - 40 m	North	no	yes	
		Autumn	CAGO	Canada Goose	18			40 - 180 m	North	no	yes	2 Minutes
		Autumn	EUST	European Starling	7			0 - 40 m	North/Northeast	no	yes	
		Autumn	HOSP	House Sparrow	5			0 - 40 m	Southeast	no	yes	
		Autumn	RWBL	Red-winged Blackbird	32			40 - 180 m	Northwest	no	yes	2 Minutes
		Autumn	BHCO	Brown-headed Cowbird	7			40 - 180 m	Northwest	no	yes	2 Minutes
		Autumn	COGR	Common Grackle	9			40 - 180 m	Northwest	no	yes	2 Minutes
		Autumn	AMCR	American Crow	7			0 - 40 m	North/Northeast	no	yes	
30-Sep-11	1	Autumn	AMCR	American Crow	2			0 - 40 m	North	no	yes	
		Autumn	AMCR	American Crow	3			0 - 40 m	North	no	yes	
		Autumn	MODO	Mourning Dove	2			0 - 40 m	Southeast	no	yes	
		Autumn	AMCR	American Crow	4			0 - 40 m	Southeast	no	yes	
30-Sep-11	2	Autumn	TUVU	Turkey Vulture	3			40 - 180 m	South/Southeast	yes	yes	3 Minutes
		Autumn	AMCR	American Crow	7			0 - 40 m	North/Northeast	no	yes	
		Autumn	HOSP	House Sparrow	2			0 - 40 m	North	no	yes	
		Autumn	EUST	European Starling	14			0 - 40 m	Northwest	no	yes	
30-Sep-11	3	Autumn	TUVU	Turkey Vulture	2			0 - 40 m	North	no	yes	
		Autumn	AMCR	American Crow	6			40 - 180 m	Southeast	yes	yes	2 Minutes
		Autumn	AMCR	American Crow	3			0 - 40 m	Northwest	no	yes	
		Autumn	MODO	Mourning Dove	4			0 - 40 m	Southeast	no	yes	
2-Oct-11	1	Autumn	AMRO	American Robin	1			0 - 40 m	Northwest	no	yes	
		Autumn	HOSP	House Sparrow	6			0 - 40 m	West	no	yes	
		Autumn	TUVU	Turkey Vulture	3			40 - 180 m	Southeast	yes	yes	8 Minutes
		Autumn	TUVU	Turkey Vulture	5			>180 m	Southeast	yes	yes	
		Autumn	KILL	Killdeer	2			0 - 40 m	South/Southeast	no	yes	
		Autumn	AMCR	American Crow	1			40 - 180 m	South/Southeast	no	yes	2 Minutes
		Autumn	SOSP	Song Sparrow	1			0 - 40 m	Northwest	no	yes	
		Autumn	CAGO	Canada Goose	24			40 - 180 m	North	no	yes	2 Minutes
		Autumn	HOLA	Horned Lark	2			0 - 40 m	Northwest	no	yes	
		Autumn	EABL	Eastern Bluebird	5			0 - 40 m	Northwest	no	yes	
2-Oct-11	2	Autumn	TRES	Tree Swallow	4			0 - 40 m	South	yes	yes	
		Autumn	AMCR	American Crow	7			0 - 40 m	Northwest	no	yes	
		Autumn	GBHE	Great Blue Heron	1			40 - 180 m	South/Southeast	no	yes	1 Minutes
		Autumn	AMCR	American Crow	18			40 - 180 m	Southeast	yes	yes	11 Minutes
		Autumn	BLJA	Blue Jay	3			0 - 40 m	North	no	yes	
		Autumn	RWBL	Red-winged Blackbird	14			0 - 40 m	South/Southeast	no	yes	
		Autumn	COGR	Common Grackle	8			0 - 40 m	South/Southeast	no	yes	
		Autumn	BHCO	Brown-headed Cowbird	2			0 - 40 m	South/Southeast	no	yes	
		Autumn	EUST	European Starling	32			0 - 40 m	Southeast	yes	no	
		Autumn	EABL	Eastern Bluebird	2			0 - 40 m	North/Northeast	no	yes	
2-Oct-11	2	Autumn	HOLA	Horned Lark	5			0 - 40 m	Southeast	no	yes	
		Autumn	TUVU	Turkey Vulture	7			40 - 180 m	North/Northeast	yes	no	
		Autumn	SOSP	Song Sparrow	2			0 - 40 m	North/Northeast	no	yes	
		Autumn	AMRO	American Robin	1			0 - 40 m	North	no	yes	
		Autumn	AMGO	American Goldfinch	7			0 - 40 m	Northwest	no	yes	
		Autumn	AMCR	American Crow	2			40 - 180 m	North/Northeast	no	yes	2 Minutes
		Autumn	AMCR	American Crow	2			40 - 180 m	North/Northeast	no	yes	
		Autumn	AMCR	American Crow	2			40 - 180 m	North/Northeast	no	yes	
		Autumn	AMCR	American Crow	2			40 - 180 m	North/Northeast	no	yes	
		Autumn	AMCR	American Crow	2			40 - 180 m	North/Northeast	no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
2-Oct-11	3	Autumn	RTHA	Red tailed Hawk	1		0 - 40 m	East/Northeast	no	no	yes	
		Autumn	HOSP	House Sparrow	8		0 - 40 m	East/Southeast	no	no	yes	
		Autumn	AMCR	American Crow	4		40 - 180 m	North	no	no	yes	1 Minute
		Autumn	TUVU	Turkey Vulture	7		40 - 180 m	South/Southwest	yes	yes	yes	4 Minutes
4-Oct-11	1	Autumn	EABL	Eastern Bluebird	3		0 - 40 m	Northeast	no	no	yes	
		Autumn	AMCR	American Crow	6		0 - 40 m	North	no	no	yes	
		Autumn	NOFL	Northern Flicker	1		0 - 40 m	South	no	no	yes	
		Autumn	AMCR	American Crow	3		40 - 180 m	Southwest	no	no	yes	2 Minutes
4-Oct-11	2	Autumn	SOSP	Song Sparrow	2		0 - 40 m	West	no	no	yes	
		Autumn	TUVU	Turkey Vulture	4		40 - 180 m	South/Southwest	yes	yes	yes	5 Minutes
		Autumn	AMKE	American Kestrel	1		0 - 40 m	North/Northwest	no	no	yes	
		Autumn	EUST	European Starling	9		0 - 40 m	Northeast	no	no	yes	
4-Oct-11	3	Autumn	AMCR	American Crow	3		0 - 40 m	Southwest	no	no	yes	
		Autumn	AMGO	American Goldfinch	6		0 - 40 m	South/Southwest	no	no	yes	
		Autumn	AMCR	American Crow	5		0 - 40 m	South/Southeast	no	no	yes	
		Autumn	KILL	Killdeer	4		0 - 40 m	North/Northwest	no	no	yes	
4-Oct-11	3	Autumn	HOSP	House Sparrow	9		0 - 40 m	West	no	no	yes	
		Autumn	AMCR	American Crow	2		0 - 40 m	North	no	no	yes	
		Autumn	TUVU	Turkey Vulture	4		40 - 180 m	Northeast	yes	yes	yes	5 Minutes
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	East	no	no	yes	
4-Oct-11	3	Autumn	HOSP	House Sparrow	6		0 - 40 m	Southeast	no	no	yes	
		Autumn	EUST	European Starling	18		0 - 40 m	South/Southwest	no	no	yes	
		Autumn	COGR	Common Grackle	2		0 - 40 m	West/Southwest	no	no	yes	
		Autumn	EABL	Eastern Bluebird	5		0 - 40 m	Northwest	no	no	yes	
4-Oct-11	3	Autumn	KILL	Killdeer	4		0 - 40 m	North/Northwest	no	no	yes	
		Autumn	HOSP	House Sparrow	8		0 - 40 m	East	no	no	yes	
		Autumn	KILL	Killdeer	3		0 - 40 m	Southwest	yes	yes	yes	
		Autumn	COGR	Common Grackle	2		0 - 40 m	Southwest	no	no	yes	
4-Oct-11	3	Autumn	AMCR	American Crow	1		0 - 40 m	Southwest	no	no	yes	
		Autumn	BLJA	Blue Jay	1		0 - 40 m	South	no	no	yes	
		Autumn	HOLA	Horned Lark	2		0 - 40 m	South	no	no	yes	
		Autumn	KILL	Killdeer	7		0 - 40 m	Northwest	yes	yes	yes	
4-Oct-11	1	Autumn	WBNU	White breasted Nuthatch	1		0 - 40 m	East	no	no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	North	no	no	yes	
		Autumn	KILL	Killdeer	2		0 - 40 m	North	no	no	yes	
		Autumn	NOHA	Northern Harrier	1		0 - 40 m	Northeast	yes	yes	yes	
4-Oct-11	1	Autumn	MODQ	Mourning Dove	1		0 - 40 m	Southwest	no	no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	Southeast	no	no	yes	
		Autumn	HOLA	Horned Lark	1		0 - 40 m	North/Northeast	no	no	yes	
		Autumn	TUTI	Tufted Titmouse	1		0 - 40 m	West	no	no	yes	
4-Oct-11	1	Autumn	TUVU	Turkey Vulture	5		40 - 180 m	Southwest	yes	yes	yes	7 Minutes
		Autumn	AMCR	American Crow	2		0 - 40 m	North/Northwest	no	no	yes	
		Autumn	HOLA	Horned Lark	2		0 - 40 m	North	no	no	yes	
		Autumn	AMCR	American Crow	7		0 - 40 m	Northwest	no	no	yes	
4-Oct-11	2	Autumn	BLJA	Blue Jay	3		0 - 40 m	Southeast	no	no	yes	
		Autumn	TUVU	Turkey Vulture	5		40 - 180 m	South/Southeast	yes	yes	yes	4 Minutes
		Autumn	AMRO	American Robin	2		0 - 40 m	West	no	no	yes	
		Autumn	EUST	European Starling	19		0 - 40 m	East/Northeast	no	no	yes	
4-Oct-11	2	Autumn	RWBL	Red-winged Blackbird	6		0 - 40 m	North/Northeast	no	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	East	no	no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
7-Oct-11	3	Autumn	AMRO	American Robin	2		0 - 40 m	North	North	no	yes	
		Autumn	HOSP	House Sparrow	3		0 - 40 m	North	North	no	yes	
		Autumn	EUST	European Starling	5		0 - 40 m	East/Southeast	East/Southeast	no	yes	
		Autumn	KILL	Killdeer	2		0 - 40 m	South	South	no	yes	
		Autumn	RTHA	Red-tailed Hawk	1		0 - 40 m	Southeast	Southeast	no	yes	
		Autumn	RWBL	Red-winged Blackbird	8		0 - 40 m	Southwest	Southwest	no	yes	
		Autumn	HOLA	Horned Lark	1		0 - 40 m	South/Southwest	South/Southwest	no	yes	
		Autumn	TUVU	Turkey Vulture	6		40 - 180 m	East	East	no	yes	1 Minute
		Autumn	HOSP	House Sparrow	4		0 - 40 m	East/Southeast	East/Southeast	no	yes	
		Autumn	AMCR	American Crow	1		0 - 40 m	North	North	no	yes	
		Autumn	BLJA	Blue Jay	2		0 - 40 m	Northwest	Northwest	no	yes	
9-Oct-11	1	Autumn	SOSP	Song Sparrow	1		0 - 40 m	Southwest	Southwest	no	yes	
		Autumn	AMCR	American Crow	3		0 - 40 m	North	North	no	yes	
		Autumn	MODO	Mourning Dove	2		0 - 40 m	South	South	no	yes	
		Autumn	KILL	Killdeer	1		0 - 40 m	South/Southeast	South/Southeast	no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	Northwest	Northwest	no	yes	
		Autumn	EUST	European Starling	18		0 - 40 m	East	East	no	yes	
		Autumn	BLJA	Blue Jay	2		0 - 40 m	West/Northwest	West/Northwest	no	yes	
		Autumn	EABL	Eastern Bluebird	3		0 - 40 m	North	North	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	Northeast	Northeast	no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	Southeast	Southeast	no	yes	
		Autumn	AMCR	American Crow	5		0 - 40 m	South/Southwest	South/Southwest	no	yes	
		Autumn	RWBL	Red-winged Blackbird	18		40 - 180 m	South	South	no	yes	1 Minute
9-Oct-11	2	Autumn	COGR	Common Grackle	3		40 - 180 m	South	South	no	yes	1 Minute
		Autumn	AMCR	American Crow	8		0 - 40 m	North/Northeast	North/Northeast	no	yes	
		Autumn	AMCR	American Crow	5		0 - 40 m	Southeast	Southeast	no	yes	
		Autumn	CAGO	Canada Goose	17		40 - 180 m	West	West	no	yes	
		Autumn	HOLA	Horned Lark	2		0 - 40 m	Northeast	Northeast	no	yes	
		Autumn	EABL	Eastern Bluebird	6		0 - 40 m	West	West	no	yes	
		Autumn	EUST	European Starling	19		0 - 40 m	West	West	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	East	East	no	yes	
		Autumn	HOSP	House Sparrow	7		0 - 40 m	North	North	no	yes	
		Autumn	AMKE	American Kestrel	1		0 - 40 m	Southwest	Southwest	no	yes	
		Autumn	TUVU	Turkey Vulture	4		40 - 180 m	South	South	yes	yes	3 Minutes
		Autumn	EUST	European Starling	5		0 - 40 m	East/Northeast	East/Northeast	no	yes	
9-Oct-11	3	Autumn	RWBL	Red-winged Blackbird	29		0 - 40 m	West/Northwest	West/Northwest	no	yes	
		Autumn	COGR	Common Grackle	7		0 - 40 m	West/Northwest	West/Northwest	no	yes	
		Autumn	AMGO	American Goldfinch	4		0 - 40 m	Southeast	Southeast	no	yes	
		Autumn	AMRO	American Robin	4		0 - 40 m	North	North	no	yes	
		Autumn	AMCR	American Crow	2		0 - 40 m	Northeast	Northeast	no	yes	
		Autumn	HOSP	House Sparrow	8		0 - 40 m	Northwest	Northwest	no	yes	
		Autumn	MODO	Mourning Dove	2		0 - 40 m	North	North	no	yes	
		Autumn	MODO	Mourning Dove	5		0 - 40 m	South/Southeast	South/Southeast	no	yes	
		Autumn	AMRO	American Robin	2		0 - 40 m	South	South	no	yes	
		Autumn	RTHA	Red-tailed Hawk	1		0 - 40 m	West	West	no	yes	
		Autumn	AMCR	American Crow	6		0 - 40 m	Northwest	Northwest	no	yes	
		Autumn	AMCR	American Crow	7		0 - 40 m	South/Southwest	South/Southwest	no	yes	
9-Oct-11	3	Autumn	RTHA	Red-tailed Hawk	1		40 - 180 m	Southeast	Southeast	yes	yes	4 Minutes
		Autumn	AMGO	American Goldfinch	5		0 - 40 m	West	West	no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	East	East	no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
9 Oct-11	3	Autumn	SOSP	Song Sparrow	1		0 - 40 m	Southwest	no	yes	
		Autumn	KILL	Killdeer	1		0 - 40 m	Southwest	no	yes	
		Autumn	RBGU	Ring-billed Gull	9		40 - 180 m	North/Northeast	yes	yes	11 Minutes
		Autumn	TUVU	Turkey Vulture	3		40 - 180 m	West	yes	yes	4 Minutes
		Autumn	GBHE	Great Blue Heron	1		40 - 180 m	Southwest	no	yes	
11-Oct-11	1	Autumn	MODO	Mourning Dove	4		0 - 40 m	South/Southwest	no	yes	
		Autumn	MODO	Mourning Dove	7		0 - 40 m	North	no	yes	
		Autumn	RTHA	Red-tailed Hawk	1		40 - 180 m	Northwest	no	yes	1 Minute
		Autumn	AMRO	American Robin	2		0 - 40 m	Southwest	no	yes	
		Autumn	BLJA	Blue Jay	3		0 - 40 m	South/Southwest	no	yes	
		Autumn	AMCR	American Crow	5		0 - 40 m	Southwest	no	yes	
		Autumn	BLJA	Blue Jay	1		0 - 40 m	South	no	yes	
		Autumn	KILL	Killdeer	1		0 - 40 m	East	no	yes	
		Autumn	MALL	Mallard	2		0 - 40 m	West/Southeast	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	East/Southeast	no	yes	
11-Oct-11	2	Autumn	SOSP	Song Sparrow	1		0 - 40 m	Southwest	no	yes	
		Autumn	HOLA	Horned Lark	6		0 - 40 m	West	no	yes	
		Autumn	MODO	Mourning Dove	1		0 - 40 m	Northeast	no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	Northeast	no	yes	
		Autumn	BLJA	Blue Jay	1		0 - 40 m	South/Southwest	no	yes	
		Autumn	HOSP	House Sparrow	4		0 - 40 m	Southwest	no	yes	
		Autumn	TUVU	Turkey Vulture	2		40 - 180 m	West	yes	yes	5 Minutes
		Autumn	HOLA	Horned Lark	2		0 - 40 m	East/Northeast	no	yes	
		Autumn	SAVS	Savannah Sparrow	1		0 - 40 m	North/Northeast	no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	North	no	yes	
11-Oct-11	3	Autumn	AMGO	American Goldfinch	6		0 - 40 m	Southwest	no	yes	
		Autumn	RWBL	Red-winged Blackbird	45		0 - 40 m	East	no	yes	
		Autumn	COGR	Common Grackle	12		0 - 40 m	West/Southwest	no	yes	
		Autumn	AMCR	American Crow	1		0 - 40 m	West	no	yes	
		Autumn	EABL	Eastern Bluebird	3		0 - 40 m	Northwest	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	Southwest	no	yes	
		Autumn	HOSP	House Sparrow	6		0 - 40 m	South/Southwest	no	yes	
		Autumn	AMCR	American Crow	3		0 - 40 m	North	no	yes	
		Autumn	NOCA	Northern Cardinal	1		0 - 40 m	East	no	yes	
		Autumn	MODO	Mourning Dove	4		0 - 40 m	Northeast	no	yes	
11-Oct-11	3	Autumn	AMCR	American Crow	5		0 - 40 m	North/Northeast	no	yes	
		Autumn	HOSP	House Sparrow	9		0 - 40 m	Northwest	no	yes	
		Autumn	COGR	Common Grackle	3		0 - 40 m	Southwest	no	yes	
		Autumn	EUST	European Starling	18		0 - 40 m	South/Southeast	no	yes	
		Autumn	ROPI	Rock Pigeon	3		0 - 40 m	West	yes	yes	
		Autumn	HOLA	Horned Lark	2		0 - 40 m	East/Northeast	no	yes	
		Autumn	NOFL	Northern Flicker	1		0 - 40 m	Northwest	no	yes	
		Autumn	TUVU	Turkey Vulture	2		40 - 180 m	South	yes	yes	6 Minutes
		Autumn	HOLA	Horned Lark	2		0 - 40 m	Northwest	no	yes	
		Autumn	MODO	Mourning Dove	3		0 - 40 m	Southwest	no	yes	
14-Oct-11	1	Autumn	BLJA	Blue Jay	1		0 - 40 m	South	no	yes	
		Autumn	AMCR	American Crow	5		0 - 40 m	North/Northeast	no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	East	no	yes	
		Autumn	AMRO	American Robin	3		0 - 40 m	West	no	yes	
		Autumn	HOLA	Horned Lark	3		0 - 40 m	Southwest	no	yes	

Date	Point	Season	Code	Species	#	Age	Observation	Height	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
14-Oct-11	1	Autumn	BEKI	Belted Kingfisher	1			0 - 40 m	West	no	yes	
		Autumn	NOFL	Northern Flicker	1			0 - 40 m	Northwest	no	yes	
		Autumn	DOWO	Downy Woodpecker	1			0 - 40 m	Southeast	no	yes	
		Autumn	MODO	Mourning Dove	6			0 - 40 m	North	no	yes	
		Autumn	KILL	Killdeer	2			0 - 40 m	Southeast	no	yes	
		Autumn	MALL	Mallard	4			0 - 40 m	South/Southeast	no	yes	
14-Oct-11	2	Autumn	RWBL	Red-winged Blackbird	22			0 - 40 m	North	no	yes	
		Autumn	RWBL	Red-winged Blackbird	120			0 - 40 m	Northwest	no	yes	
		Autumn	BHCO	Brown-headed Cowbird	4			0 - 40 m	Northwest	no	yes	
		Autumn	COGR	Common Grackle	16			0 - 40 m	Northwest	no	yes	
		Autumn	HOLA	Horned Lark	1			0 - 40 m	Southeast	no	yes	
		Autumn	SOSP	Song Sparrow	1			0 - 40 m	Northwest	no	yes	
		Autumn	AMCR	American Crow	6			0 - 40 m	East	no	yes	
		Autumn	TUVU	Turkey Vulture	5			40 - 180 m	Southeast	yes	yes	3 Minutes
		Autumn	EBL	Eastern Bluebird	1			0 - 40 m	East/Northeast	no	yes	
		Autumn	MODO	Mourning Dove	4			0 - 40 m	Southwest	no	yes	
		Autumn	AMGO	American Goldfinch	3			0 - 40 m	Northwest	no	yes	
		Autumn	BLJA	Blue Jay	1			0 - 40 m	North	no	yes	
		Autumn	EUST	European Starling	82			0 - 40 m	South	no	yes	
		Autumn	EUST	European Starling	44			0 - 40 m	West	no	yes	
		Autumn	AMCR	American Crow	3			0 - 40 m	Northwest	no	yes	
14-Oct-11	3	Autumn	NOFL	Northern Flicker	1			0 - 40 m	South/Southeast	no	yes	
		Autumn	MODO	Mourning Dove	5			0 - 40 m	North	no	yes	
		Autumn	MODO	Mourning Dove	3			0 - 40 m	East	no	yes	
		Autumn	AMCR	American Crow	13			0 - 40 m	East/Southeast	no	yes	
		Autumn	AMRO	American Robin	1			0 - 40 m	West	no	yes	
		Autumn	SOSP	Song Sparrow	1			0 - 40 m	Northwest	no	yes	
		Autumn	HOSP	House Sparrow	9			0 - 40 m	Southwest	no	yes	
		Autumn	TUVU	Turkey Vulture	2			40 - 180 m	South/Southeast	yes	yes	3 Minutes
		Autumn	EUST	European Starling	15			0 - 40 m	East	no	yes	
		Autumn	RWBL	Red-winged Blackbird	27			0 - 40 m	West	no	yes	
		Autumn	RTHA	Red-tailed Hawk	1			40 - 180 m	North	yes	yes	1 Minutes
16-Oct-11	1	Autumn	MODO	Mourning Dove	3			0 - 40 m	North	no	yes	
		Autumn	AMCR	American Crow	2			0 - 40 m	Southwest	no	yes	
		Autumn	MODO	Mourning Dove	5			0 - 40 m	South/Southeast	no	yes	
		Autumn	AMRO	American Robin	6			0 - 40 m	East	no	yes	
		Autumn	EUST	European Starling	82			0 - 40 m	West	yes	yes	
		Autumn	RWBL	Red-winged Blackbird	150			0 - 40 m	North/Northeast	no	yes	
16-Oct-11	2	Autumn	COGR	Common Grackle	12			0 - 40 m	North/Northeast	no	yes	
		Autumn	EUST	European Starling	8			0 - 40 m	North/Northeast	no	yes	
		Autumn	RTHA	Red-tailed Hawk	1			0 - 40 m	North	no	yes	
		Autumn	AMCR	American Crow	6			0 - 40 m	South	no	yes	
		Autumn	AMCR	American Crow	9			0 - 40 m	East/Southeast	no	yes	
		Autumn	HOLA	Horned Lark	2			0 - 40 m	Southwest	no	yes	
		Autumn	SOSP	Song Sparrow	1			0 - 40 m	Northwest	no	yes	
		Autumn	OSPR	Osprey	1			>180 m	South	no	yes	
		Autumn	AMGO	American Goldfinch	5			0 - 40 m	East	no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
16-Oct-11	3	Autumn	SOSP	Song Sparrow	1		0-40 m	Southwest		no	yes	
		Autumn	HOSP	House Sparrow	9		0-40 m	South		no	yes	
		Autumn	AMCR	American Crow	3		0-40 m	Northwest		no	yes	
		Autumn	BLJA	Blue Jay	2		0-40 m	North/Northwest		no	yes	
		Autumn	HOLA	Horned Lark	1		0-40 m	South		no	yes	
		Autumn	AMRO	American Robin	5		0-40 m	East		no	yes	
		Autumn	EUST	European Starling	48		0-40 m	East/Northeast		no	yes	
		Autumn	EUST	European Starling	2		0-40 m	West/Northwest		no	yes	
		Autumn	RWBL	Red-winged Blackbird	52		0-40 m	North		no	yes	
		Autumn	AMGO	American Goldfinch	5		0-40 m	East		no	yes	
18-Oct-11	1	Autumn	RWBL	Red-winged Blackbird	81		0-40 m	Northeast		no	yes	
		Autumn	COGR	Common Grackle	18		0-40 m	Northeast		no	yes	
		Autumn	AMCR	American Crow	5		0-40 m	Southwest		no	yes	
		Autumn	AMCR	American Crow	9		0-40 m	South/Southeast		no	yes	
		Autumn	RHWO	Red-headed Woodpecker	2		0-40 m	East		no	yes	
		Autumn	KILL	Killdeer	1		0-40 m	Southwest		no	yes	
		Autumn	MALL	Mallard	2		0-40 m	West		no	yes	
		Autumn	HOLA	Horned Lark	3		0-40 m	South		no	yes	
		Autumn	AMRO	American Robin	1		0-40 m	Northwest		no	yes	
		Autumn	RWBL	Red-winged Blackbird	64		0-40 m	North/Northeast		no	yes	
18-Oct-11	2	Autumn	AMCR	American Crow	3		0-40 m	East/Southeast		no	yes	
		Autumn	TUVU	Turkey Vulture	1		>180 m	South		no	yes	
		Autumn	SOSP	Song Sparrow	1		0-40 m	West		no	yes	
		Autumn	TUVU	Turkey Vulture	2		40-180 m	South		yes	yes	5 Minutes
		Autumn	AMCR	American Crow	1		0-40 m	Southwest		no	yes	
		Autumn	EUST	European Starling	7		0-40 m	East		no	yes	
		Autumn	HOLA	Horned Lark	2		0-40 m	Northwest		no	yes	
		Autumn	EUST	European Starling	4		0-40 m	Northeast		no	yes	
		Autumn	CAGO	Canada Goose	8		40-180 m	South/Southwest		no	yes	
		Autumn	GBHL	Great Blue Heron	2		40-180 m	Northeast		no	yes	2 Minutes
18-Oct-11	3	Autumn	HOLA	Horned Lark	3		0-40 m	Northwest		no	yes	
		Autumn	HOSP	House Sparrow	12		0-40 m	Southeast		no	yes	
		Autumn	EUST	European Starling	55		0-40 m	South/Southwest		no	yes	
		Autumn	BLJA	Blue Jay	3		0-40 m	Southeast		no	yes	
		Autumn	EABL	Eastern Bluebird	6		0-40 m	West/Northwest		no	yes	
		Autumn	HOSP	House Sparrow	5		0-40 m	East		no	yes	
		Autumn	SOSP	Song Sparrow	1		0-40 m	West		no	yes	
		Autumn	CEDW	Cedar Waxwing	7		0-40 m	Northwest		no	yes	
		Autumn	RWBO	Red bellied Woodpecker	1		0-40 m	West/Northwest		no	yes	
		Autumn	AMCR	American Crow	6		0-40 m	Southeast		no	yes	
21-Oct-11	1	Autumn	BLJA	Blue Jay	1		0-40 m	North		no	yes	
		Autumn	RTHA	Red-tailed Hawk	1		40-180 m	Northwest		yes	yes	3 Minutes
		Autumn	NOFL	Northern Flicker	1		0-40 m	South/Southeast		no	yes	
		Autumn	HOLA	Horned Lark	4		0-40 m	Southwest		no	yes	
		Autumn	MODO	Mourning Dove	7		0-40 m	Northeast		no	yes	
		Autumn	MODO	Mourning Dove	2		0-40 m	East		no	yes	
		Autumn	AMCR	American Crow	3		0-40 m	West/Southwest		no	yes	
		Autumn	HOSP	House Sparrow	5		0-40 m	North		no	yes	
		Autumn	KILL	Killdeer	1		40-180 m	Southwest		no	yes	
		Autumn	AMCR	American Crow	2		0-40 m	North/Northwest		no	yes	

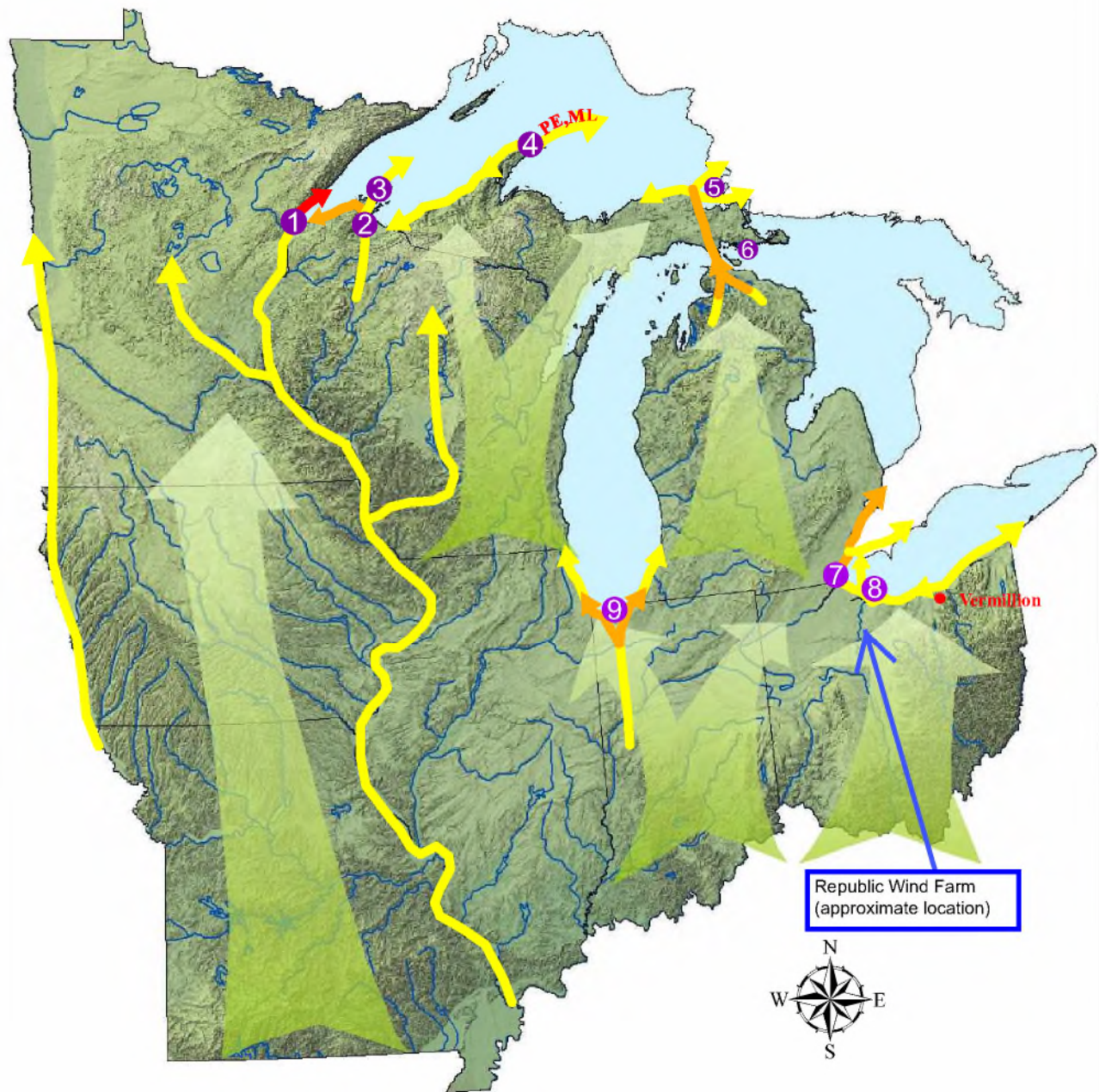
Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
21 Oct-11	2	Autumn	ELST	European Starling	7		0-40 m	Northwest		no	yes	
		Autumn	AMRO	American Robin	2		0-40 m	South/Southeast		no	yes	
		Autumn	CEDW	Cedar Waxwing	9		0-40 m	South		no	yes	
		Autumn	NOCA	Northern Cardinal	1		0-40 m	Southwest		no	yes	
		Autumn	MODO	Mourning Dove	8		0-40 m	East		no	yes	
		Autumn	MODO	Mourning Dove	1		0-40 m	East/Northeast		no	yes	
		Autumn	AMCR	American Crow	4		0-40 m	West		no	yes	
		Autumn	SOSP	Song Sparrow	1		0-40 m	West/Northeast		no	yes	
		Autumn	EABL	Eastern Bluebird	6		0-40 m	Southeast		no	yes	
		Autumn	AMKE	American Kestrel	1		40-180 m	South/Southeast		no	yes	1 Minute
		Autumn	AMRO	American Robin	2		0-40 m	West		no	yes	
		Autumn	BLJA	Blue Jay	4		0-40 m	West/Southwest		no	yes	
		Autumn	NOHA	Northern Harrier	1		0-40 m	Northeast		no	yes	
21 Oct-11	3	Autumn	AMCR	American Crow	5		0-40 m	Southeast		no	yes	
		Autumn	MODO	Mourning Dove	2		0-40 m	South/Southeast		no	yes	
		Autumn	HOLA	Horned Lark	1		0-40 m	East		no	yes	
		Autumn	HOSP	House Sparrow	6		0-40 m	West		no	yes	
		Autumn	EABL	Eastern Bluebird	4		0-40 m	Northwest		no	yes	
		Autumn	CAGO	Canada Goose	22		0-40 m	East/Northeast		no	yes	
		Autumn	SOSP	Song Sparrow	1		0-40 m	Northeast		no	yes	
		Autumn	RWBL	Red-winged Blackbird	250		0-40 m	North		no	yes	
		Autumn	COGR	Common Grackle	18		0-40 m	North		no	yes	
		Autumn	RWBL	Red-winged Blackbird	122		40-180 m	Southeast		no	yes	2 Minutes
		Autumn	BHCO	Brown-headed Cowbird	6		40-180 m	Southeast		no	yes	2 Minutes
		Autumn	MODO	Mourning Dove	1		0-40 m	South/Southwest		no	yes	
23 Oct-11	1	Autumn	RBGU	Ring-billed Gull	15		0-40 m	Northwest		no	yes	
		Autumn	BEKI	Belted Kingfisher	1		40-180 m	North/Northeast		no	yes	
		Autumn	AMRO	American Robin	5		0-40 m	North		no	yes	
		Autumn	EABL	Eastern Bluebird	8		0-40 m	East		no	yes	
		Autumn	NOCA	Northern Cardinal	1		0-40 m	Northwest		no	yes	
		Autumn	BLJA	Blue Jay	2		0-40 m	Northeast		no	yes	
		Autumn	AMRO	American Robin	3		0-40 m	South/Southwest		no	yes	
		Autumn	MODO	Mourning Dove	5		0-40 m	Southeast		no	yes	
		Autumn	AMCR	American Crow	7		0-40 m	East		no	yes	
		Autumn	EABL	Eastern Bluebird	4		0-40 m	West/Southwest		no	yes	
		Autumn	HOSP	House Sparrow	9		0-40 m	East		no	yes	
		Autumn	TUVU	Turkey Vulture	5		40-180 m	South		yes	yes	8 Minutes
		Autumn	RWBL	Red-winged Blackbird	207		0-40 m	Southeast		no	yes	
23 Oct-11	2	Autumn	COGR	Common Grackle	5		0-40 m	Southeast		no	yes	
		Autumn	SAVS	Savannah Sparrow	1		0-40 m	West		no	yes	
		Autumn	CAGO	Canada Goose	13		0-40 m	Northwest		no	yes	
		Autumn	AMCR	American Crow	2		0-40 m	North/Northeast		no	yes	
		Autumn	RTHA	Red-tailed Hawk	1		40-180 m	South		yes	yes	4 Minutes
		Autumn	HOLA	Horned Lark	1		0-40 m	Southwest		no	yes	
		Autumn	CEDW	Cedar Waxwing	5		0-40 m	East		no	yes	
		Autumn	EABL	Eastern Bluebird	3		0-40 m	East/Southeast		no	yes	
		Autumn	AMRO	American Robin	7		0-40 m	West		no	yes	
		Autumn	AMRO	American Robin	1		0-40 m	West/Northeast		no	yes	
		Autumn	SOSP	Song Sparrow	1		0-40 m	North		no	yes	
		Autumn	AMCR	American Crow	4		0-40 m	North		no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Direction	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
23-Oct-11	3	Autumn	COHA	Cooper's Hawk	1		40 - 180 m	South		yes	yes	2 Minutes
		Autumn	NOFL	Northern Flicker	1		0 - 40 m	Northwest		no	yes	
		Autumn	HOSP	House Sparrow	6		0 - 40 m	North/Northwest		no	yes	
		Autumn	NOCA	Northern Cardinal	2		0 - 40 m	South/Southwest		no	yes	
		Autumn	AMRO	American Robin	3		0 - 40 m	North		no	yes	
		Autumn	AMCR	American Crow	16		0 - 40 m	East		no	yes	
		Autumn	EABL	Eastern Bluebird	2		0 - 40 m	West		no	yes	
		Autumn	EUST	European Starling	98		0 - 40 m	Southwest		no	yes	
		Autumn	RWBL	Red-winged Blackbird	160		0 - 40 m	Southwest		no	yes	
		Autumn	RWBL	Red-winged Blackbird	49		0 - 40 m	South/Southwest		no	yes	
23-Oct-11	3	Autumn	COGR	Common Grackle	3		0 - 40 m	South/Southwest		no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	Northeast		no	yes	
		Autumn	MODO	Mourning Dove	3		0 - 40 m	Northwest		no	yes	
		Autumn	AMCR	American Crow	4		0 - 40 m	South		no	yes	
		Autumn	MODO	Mourning Dove	2		0 - 40 m	South/Southwest		no	yes	
		Autumn	WITU	Wild Turkey	1		0 - 40 m	East/Southeast		no	yes	
		Autumn	HOLA	Horned Lark	2		0 - 40 m	East		no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	West		no	yes	
		Autumn	EABL	Eastern Bluebird	5		0 - 40 m	West		no	yes	
		Autumn	HOSP	House Sparrow	7		0 - 40 m	West/Southwest		no	yes	
25-Oct-11	1	Autumn	HOSP	House Sparrow	4		0 - 40 m	Southwest		no	yes	
		Autumn	NOCA	Northern Cardinal	1		0 - 40 m	Southeast		no	yes	
		Autumn	RWBL	Red-winged Blackbird	350		0 - 40 m	North/Northwest		no	yes	
		Autumn	COGR	Common Grackle	14		0 - 40 m	North/Northwest		no	yes	
		Autumn	RWBL	Red-winged Blackbird	700		0 - 40 m	North		no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	Southeast		no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	Northwest		no	yes	
		Autumn	MODO	Mourning Dove	2		0 - 40 m	North/Northeast		no	yes	1 Minute
		Autumn	AMCR	American Crow	4		40 - 180 m	South		no	yes	
		Autumn	HOLA	Horned Lark	1		0 - 40 m	West		no	yes	
25-Oct-11	1	Autumn	TUVU	Turkey Vulture	7		40 - 180 m	West		yes	yes	8 Minutes
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	Northeast		no	yes	
		Autumn	HOLA	Horned Lark	3		0 - 40 m	Southeast		no	yes	
		Autumn	CAGO	Canada Goose	15		40 - 180 m	South/Southeast		no	yes	1 Minute
		Autumn	NOFL	Northern Flicker	1		0 - 40 m	South		no	yes	
		Autumn	MODO	Mourning Dove	2		0 - 40 m	West		no	yes	
		Autumn	AMCR	American Crow	9		0 - 40 m	East		no	yes	
		Autumn	BLJA	Blue Jay	1		0 - 40 m	East/Southeast		no	yes	
		Autumn	NOCA	Northern Cardinal	1		0 - 40 m	North		no	yes	
		Autumn	RWBL	Red-winged Blackbird	500		0 - 40 m	West		no	yes	
25-Oct-11	2	Autumn	NOCA	Northern Cardinal	1		0 - 40 m	Northwest		no	yes	
		Autumn	HOLA	Horned Lark	2		0 - 40 m	Northwest		no	yes	
		Autumn	CAGO	Canada Goose	9		0 - 40 m	South		no	yes	
		Autumn	HOLA	Horned Lark	2		0 - 40 m	Southwest		no	yes	
		Autumn	RWBL	Red-winged Blackbird	220		40 - 180 m	West		no	yes	2 Minutes
		Autumn	EUST	European Starling	105		40 - 180 m	West		no	yes	
		Autumn	RWBL	Red-winged Blackbird	250		0 - 40 m	Southwest		no	yes	
		Autumn	COGR	Common Grackle	18		0 - 40 m	Southwest		no	yes	
		Autumn	AMCR	American Crow	6		0 - 40 m	North		no	yes	
		Autumn	EUST	European Starling	25		0 - 40 m	Northwest		no	yes	
25-Oct-11	2	Autumn	EABL	Eastern Bluebird	2		0 - 40 m	South/Southeast		no	yes	

Date	Point	Season	Code	Species	#	Age	Height	Observation	Circling (yes/no)	Entered Project Area (yes/no)	Estimated time within rooster area
25-Oct-11	3	Autumn	AMCR	American Crow	5		0 - 40 m	Northwest	no	yes	
		Autumn	HOLA	Horned Lark	1		0 - 40 m	North/Northeast	no	yes	
		Autumn	NOHA	Northern Harrier	1		0 - 40 m	South	no	yes	
		Autumn	RWBL	Red-winged Blackbird	45		0 - 40 m	East/Southeast	no	yes	
		Autumn	COGR	Common Grackle	12		0 - 40 m	Southwest	no	yes	
		Autumn	PIWO	Pileated Woodpecker	1		0 - 40 m	South/Southwest	no	yes	
		Autumn	NOFL	Northern Flicker	1		0 - 40 m	Northwest	yes	yes	
		Autumn	RBGU	Ring-billed Gull	8		40 - 180 m	South	yes	yes	6 Minutes
		Autumn	AMCR	American Crow	3		0 - 40 m	North	no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	East/Northeast	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	East	no	yes	
		Autumn	EABL	Eastern Bluebird	5		0 - 40 m	West	no	yes	
		Autumn	EUST	European Starling	7		0 - 40 m	Northwest	no	yes	
		Autumn	HOSP	House Sparrow	4		0 - 40 m	East/Southeast	no	yes	
28-Oct-11	1	Autumn	EABL	Eastern Bluebird	2		0 - 40 m	Northwest	no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	Northwest	no	yes	
		Autumn	AMCR	American Crow	5		0 - 40 m	South	no	yes	
		Autumn	HOLA	Horned Lark	3		0 - 40 m	South/Southwest	no	yes	
		Autumn	EUST	European Starling	22		0 - 40 m	East	no	yes	
		Autumn	RWBL	Red-winged Blackbird	125		0 - 40 m	East	no	yes	
		Autumn	COGR	Common Grackle	18		0 - 40 m	East	no	yes	
		Autumn	COGR	Common Grackle	7		40 - 180 m	Southeast	no	yes	1 Minute
		Autumn	MODO	Mourning Dove	3		0 - 40 m	Northwest	no	yes	
		Autumn	MODO	Mourning Dove	6		0 - 40 m	South/Southwest	no	yes	
		Autumn	AMKE	American Kestrel	1		0 - 40 m	North	no	yes	
		Autumn	HOSP	House Sparrow	3		0 - 40 m	Northwest	no	yes	
		Autumn	SOSP	Song Sparrow	1		0 - 40 m	Northwest	no	yes	
		Autumn	AMCR	American Crow	2		0 - 40 m	East	no	yes	
28-Oct-11	2	Autumn	EUST	European Starling	1		0 - 40 m	Southwest	no	yes	
		Autumn	AMGO	American Goldfinch	1		0 - 40 m	Northwest	no	yes	
		Autumn	GBHE	Great Blue Heron	1		40 - 180 m	South	no	yes	1 Minute
		Autumn	TUVU	Turkey Vulture	1		40 - 180 m	East	yes	yes	3 Minutes
		Autumn	TRES	Tree Swallow	3		0 - 40 m	East	no	yes	
		Autumn	AMCR	American Crow	2		0 - 40 m	South	no	yes	
		Autumn	BLJA	Blue Jay	1		0 - 40 m	Northwest	no	yes	
		Autumn	EUST	European Starling	8		0 - 40 m	Northwest	no	yes	
		Autumn	EABL	Eastern Bluebird	3		0 - 40 m	East/Southeast	no	yes	
		Autumn	NOCA	Northern Cardinal	1		0 - 40 m	West	no	yes	
		Autumn	HOSP	House Sparrow	1		0 - 40 m	West	no	yes	
		Autumn	RWBL	Red-winged Blackbird	100		0 - 40 m	Northwest	no	yes	
		Autumn	AMCR	American Crow	6		0 - 40 m	Southwest	no	yes	
		Autumn	TUVU	Turkey Vulture	1		40 - 180 m	South/Southwest	yes	yes	3 Minutes
28-Oct-11	3	Autumn	AMGO	American Goldfinch	9		0 - 40 m	North	no	yes	
		Autumn	AMRO	American Robin	1		0 - 40 m	East	no	yes	
		Autumn	RWBL	Red-winged Blackbird	27		0 - 40 m	East	no	yes	
		Autumn	COGR	Common Grackle	2		0 - 40 m	East	no	yes	
		Autumn	MODO	Mourning Dove	13		0 - 40 m	Southwest	no	yes	
		Autumn	NOCA	Northern Cardinal	1		0 - 40 m	South	no	yes	
		Autumn	EABL	Eastern Bluebird	3		0 - 40 m	South/Southwest	no	yes	
		Autumn	AMCR	American Crow	1		0 - 40 m	West	no	yes	
		Autumn	NOFL	Northern Flicker	1		0 - 40 m	West	no	yes	

APPENDIX B

Ohio Raptor Migration Maps



SPRING RAPTOR MIGRATION ROUTES

SYMBOL	COMMON NAME
AK	American Kestrel
BE	Bald Eagle
BO	Boreal Owl
BW	Broadwing
CH	Cooper's Hawk
GE	Golden Eagle
LEO	Long-eared Owl
ML	Merlin
NG	Northern Goshawk
NH	Northern Harrier
NSWO	Northern Saw-whet Owl
OS	Osprey
PG	Peregrine Falcon
RL	Rough-legged Hawk
RS	Red-shouldered Hawk
RT	Red-tailed Hawk
SEO	Short-eared Owl
SS	Sharp-shinned Hawk
TV	Turkey Vulture

Major Raptor Migration Observation Sites

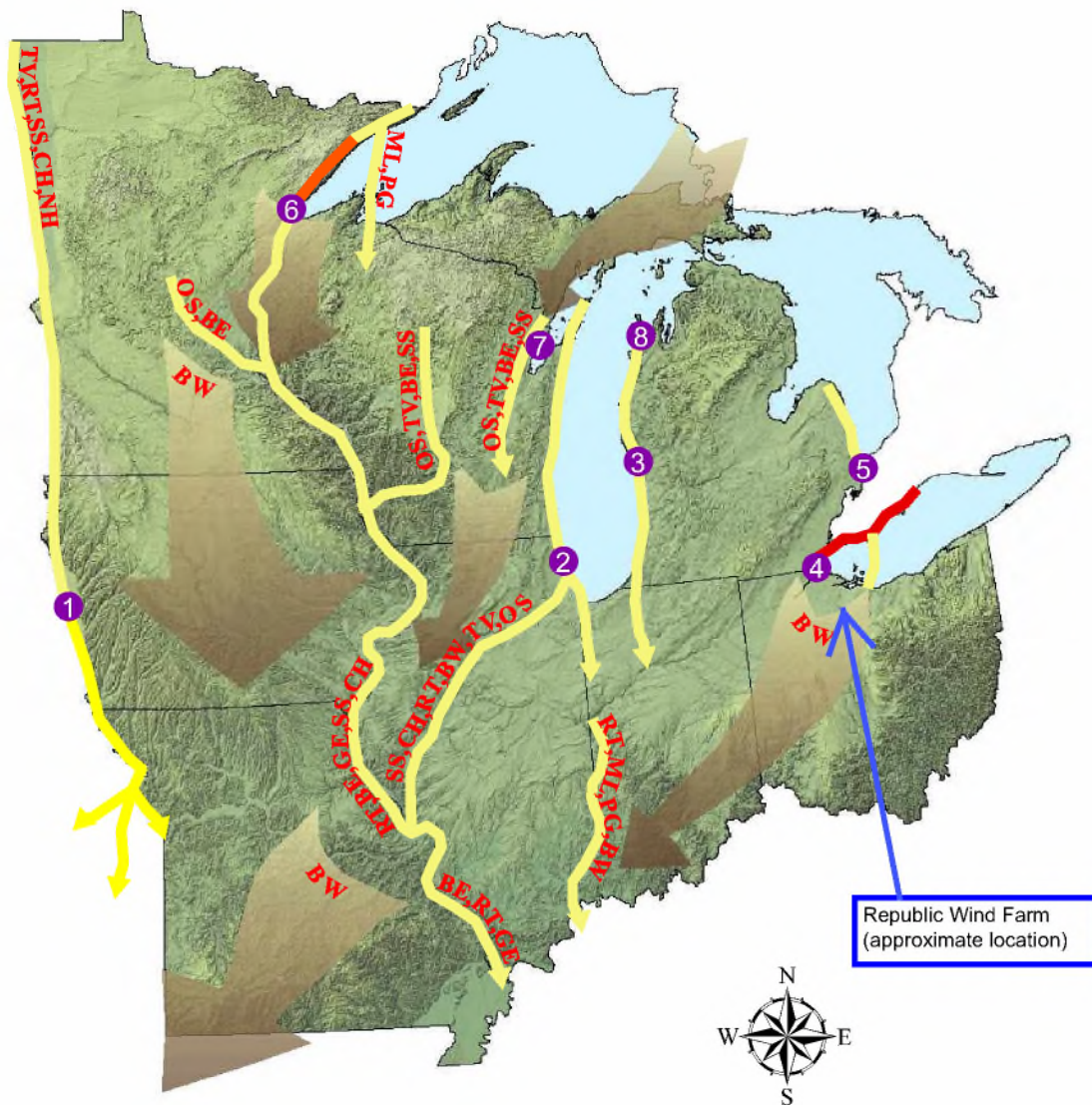
- 1 West Skyline Observatory, Duluth (TV,OS,BE,SS, BW,RT,RL,GE)
- 2 Chequamegon Bay, Ashland (TV,SS,BW,RT,GE,BE)
- 3 Apostle Islands (AK,ML,PG)
- 4 Manitou Island/Keewenaw Peninsula (OS,SS,RL, NH,BE,PE,ML)
- 5 Whitefish Point (TV,BE,NH,SS,RS,BW,RT,RL,GE, AK,ML,PG,NSWO,BO,LEO)
- 6 Straits of Mackinac (TV,BE,SS,CH,RS, RT,RL,BW,GE)
- 7 Port Huron (TV,SS,RS,RT,BW)
- 8 Lake Erie Islands (TV,SS,BE,NH,OS,ML,PG)
- 9 Indiana Dunes NL (OS,NH,SS,RS,BW,RT,AK)



Map Created for: Division of Migratory Birds
October, 2006
Fall Migratory Bird Information provided by
USFWS Migratory Bird Biologist Bob Russell



U.S. Fish & Wildlife Service
Region 3 NWRS
Division of Conservation Planning
Twin Cities, Minnesota 55111



FALL RAPTOR MIGRATION ROUTES

SYMBOL	COMMON NAME
AK	American Kestrel
BE	Bald Eagle
BO	Boreal Owl
BW	Broadwing
CH	Cooper's Hawk
GE	Golden Eagle
LEO	Long-eared Owl
ML	Merlin
NG	Northern Goshawk
NH	Northern Harrier
NSWO	Northern Saw-whet Owl
OS	Osprey
PG	Peregrine Falcon
RL	Rough-legged Hawk
RS	Red-shouldered Hawk
RT	Red-tailed Hawk
SEO	Short-eared Owl
SS	Sharp-shinned Hawk
TV	Turkey Vulture

Major Raptor Migration Observation Sites

- ① Hitchcock Nature Area (CH,RT,SS,TV,SW,NH)
- ② Illinois Dunes State Park (ML,NH,PG,SEO)
- ③ Muskegon State Park (SS,RL,RT)
- ④ Lake Erie Metropark (TV,OS,BE,NH,SS,CH,RT,RL,GE,AK,ME,PG)
- ⑤ Port Huron (PG,ML)
- ⑥ Hawk Ridge, Duluth (TV,OS,BE,NH,SS,BW,NG,RT,RL,AK,ML,PG,BO,NSWO,LEO)
- ⑦ Little Suemico (SS,BW,NSWO)
- ⑧ Sleeping Bear Dunes NL (RL,RT,SS)

Legend Number of Birds

- 2,500 - 25,000
- 25,000 - 50,000
- 50,000 - 100,000
- >100,000

Map Created for: Division of Migratory Birds
October, 2006
Fall Migratory Bird Information provided by
USFWS Migratory Bird Biologist Bob Russell

APPENDIX C

Photographs of Diurnal Bird/Raptor Migration Survey Locations



Photo 1. Point 1, facing east.

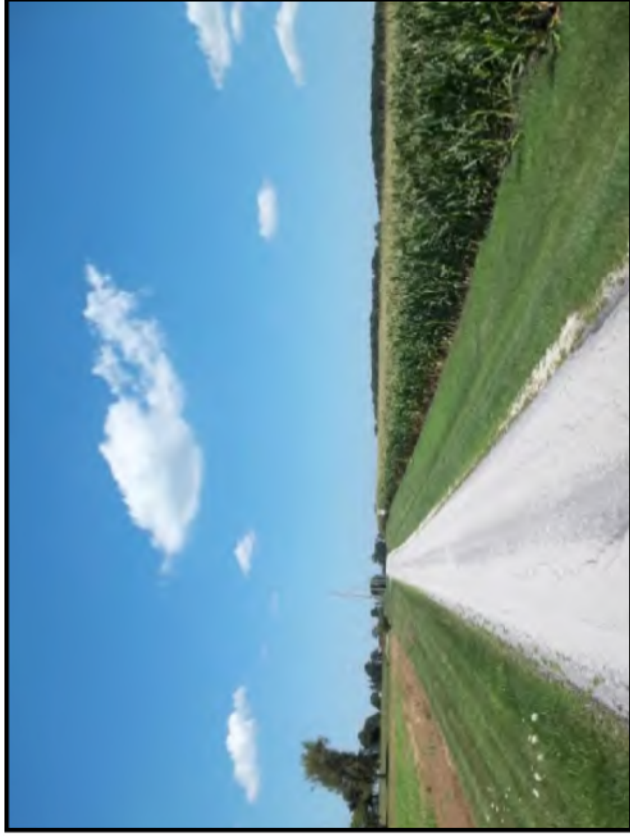


Photo 2. Point 1, facing north.

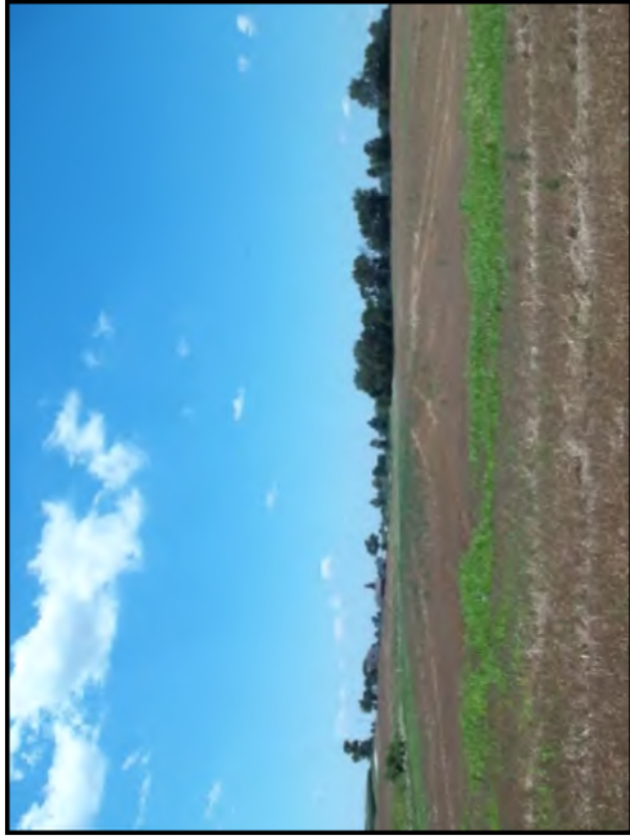


Photo 3. Point 1, facing west.



Photo 4. Point 2, facing east.



Photo 5. Point 2, facing north.



Photo 6. Point 2, facing south.



Photo 7. Point 3, facing east.



Photo 8. Point 3, facing south.



Photo 9. Point 3, facing west.

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Case No(s). 17-2295-EL-BGN

Summary: Application Exhibit K electronically filed by Teresa Orahod on behalf of Dylan F. Borchers