

Spring 2012 Avian Report for the Dogtown, Minonk, and Sugar Creek Wind Facilities in Illinois and Indiana

Prepared for

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June 29, 2012

1 Introduction

AKUO Energy (AKUO) is currently conducting preconstruction monitoring on three prospective wind farm sites near Dogtown, Illinois, Minonk, Illinois, and Sugar Creek, Indiana. Surveys were conducted previously in the spring and fall of 2010, and the fall of 2011. AKUO requested that surveys continue for an additional fall and spring period, which corresponded to the fall of 2011 and spring 2012. Both fall 2011 and spring 2012 avian surveys have been completed, and this report is a summary of the birds observed during the spring 2012 surveys; fall 2011 survey results were provided in a previous report titled *Fall 2011 Avian Report for the Dogtown, Minonk, and Sugar Creek Wind Facilities in Illinois and Indiana*.

This report should be treated as an addendum to previous site-specific reports submitted to AKUO. While those reports were site-specific, this report describes the avifauna at all three sites collectively, although it presents separate results for each site. Additional points were added to account for modified boundaries that resulted in site expansion since the previous surveys were done.

2 Methods

To supplement the information from existing data sources, Normandeau conducted point count surveys during spring 2012 at the proposed Dogtown, Minonk, and Sugar Creek wind project sites. These data are meant to provide site-specific information about the avifauna as opposed to the county-level data available from other sources. Point locations at each site were surveyed six times from March to June 2012 (Table 2–1). Each point count was conducted for 20 minutes, and all birds seen or heard within an 800-m radius from the center were recorded (Figure 2–1, Figure 2–2, and Figure 2–3). Surveys were conducted from 30 minutes before sunrise until all point counts at each site were completed. Surveys were performed by John Hartzler, an experienced field ornithologist and local resident of the area.

Table 2–1. Sampling Dates for Spring 2012 Avian Point Count Surveys at the Proposed Dogtown, Minonk, and Sugar Creek Wind Project Sites.

Location	Survey Dates	Location	Survey Dates	Location	Survey Dates
Dogtown	3/27/2012	Minonk	3/28/2012	Sugar Creek	3/29/2012
	4/12/2012		4/11/2012		4/10/2012
	4/26/2012		4/25/2012		4/24/2012
	5/10/2012		5/9/2012		5/8/2012
	5/24/2012		5/23/2012		5/22/2012
	6/7/2012		6/6/2012		6/5/2012

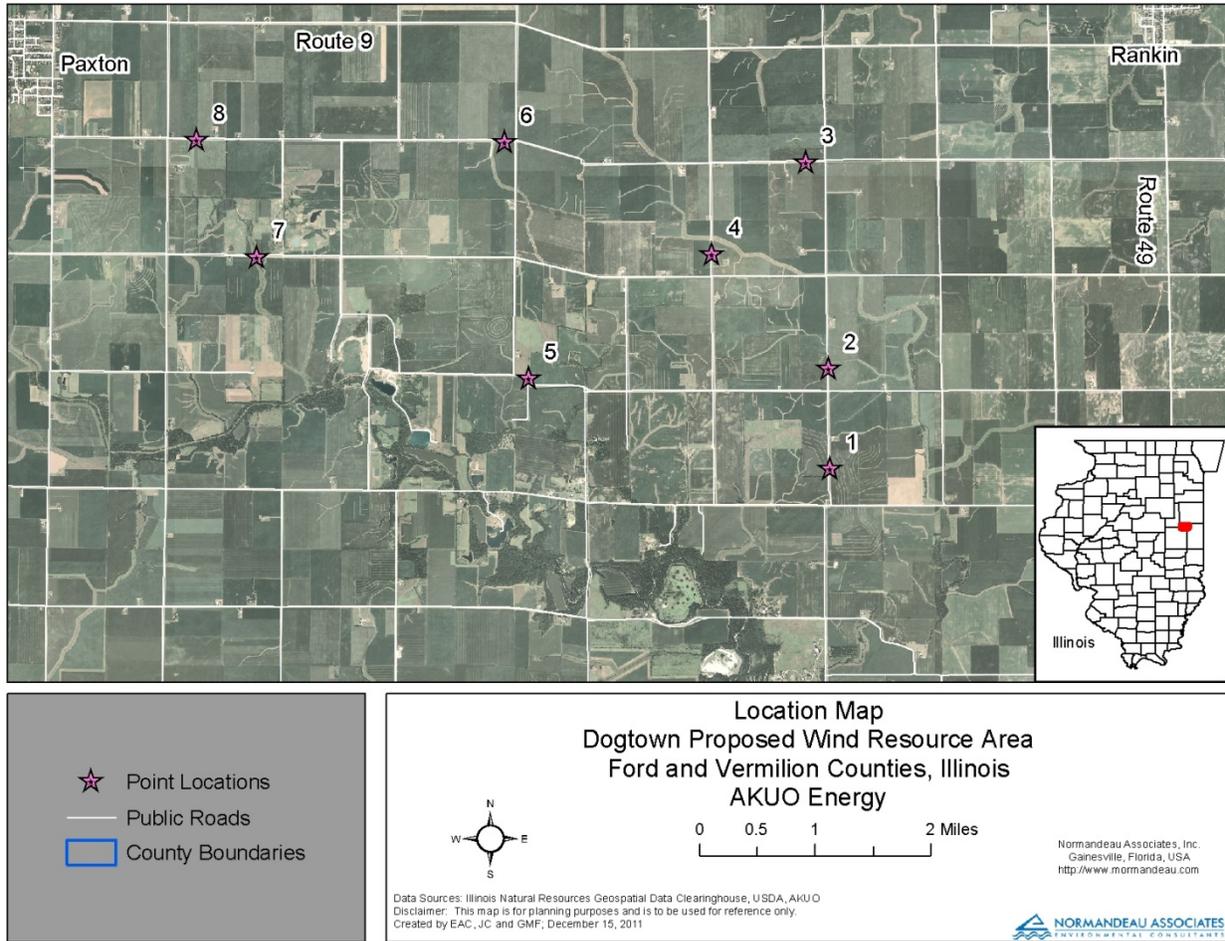


Figure 2–1. Distribution of point count locations at the proposed Dogtown Wind Project Area.

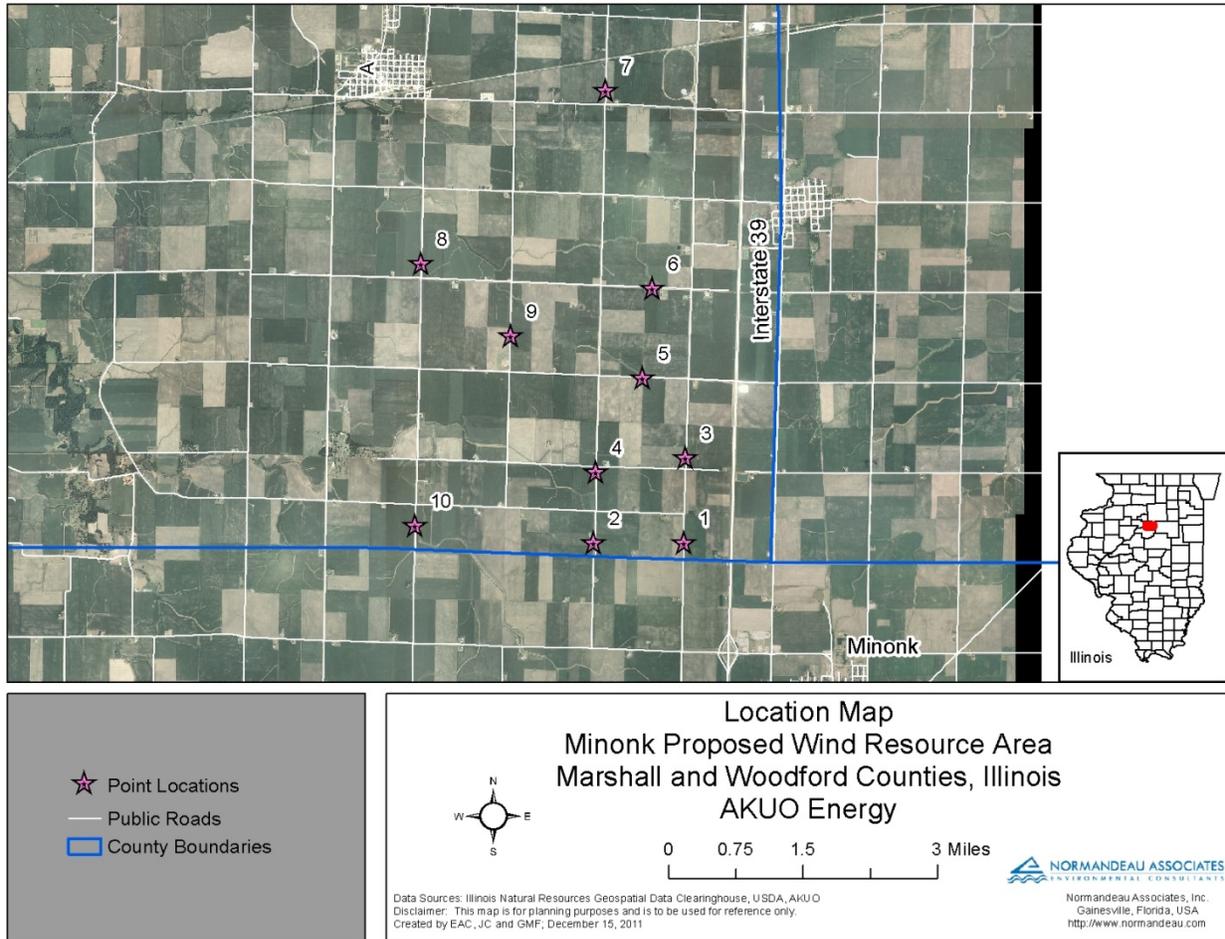


Figure 2–2. Distribution of point count locations at the proposed Minonk Wind Project Area.

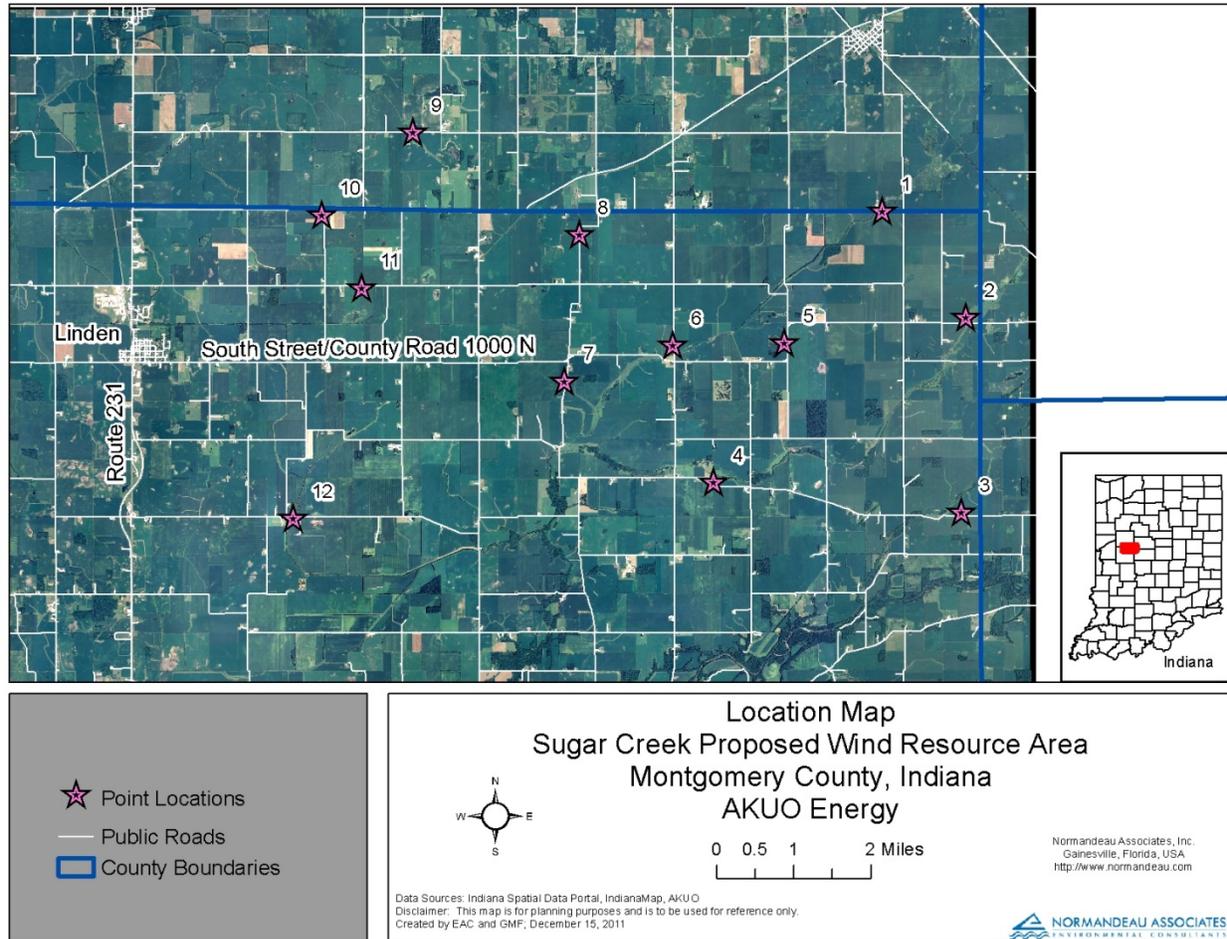


Figure 2-3. Distribution of point count locations at the proposed Sugar Creek Wind Project Area.

Targeted avian surveys for Sandhill Cranes were also conducted during their migration (March 5th to 7th and 12th to 14th), which corresponds to the peak spring Sandhill Crane migration times through the area. Surveys were conducted from dawn to dusk at a centrally located position within each project site. During each survey, an observer watched the sky for migrating Sandhill Cranes and recorded numbers of birds, flight paths, and estimated flight heights. Flight paths were estimated using an aerial map of the area and nearby landmarks, and then drawn on maps and entered into a GIS.

Point count summaries provide a relative measure of abundance for each species at each site, and should not be interpreted as a census of the total birds population. Point count data were summarized for each season across all points at each of the three sites. Count totals were summed across each season separately for each species. Listed status (federal- or state-threatened or endangered species) was reported for each species recorded. Total numbers of each species were recorded across the season, and flying birds were classified in relation to the rotor swept zone (RSZ). Flight heights were estimated visually. Because of uncertainty about the final turbine heights at the beginning of the project, the height classifications used to measure flight heights and the final turbine height classifications differ slightly. We used the following height

classifications to characterize flight heights of birds: below the RSZ (0 to 40 m), within the RSZ (40 to 120 m), and above the RSZ (> 120 m). Final turbine height classifications will be the following: below the RSZ (0 to 50 m), within the RSZ (50 to 150 m), and above the RSZ (> 150 m). Although these height classifications differ slightly, the classifications are similar enough that conclusions about bird exposure would be the nearly identical regardless of the classification used.

3 Results and Discussion

A total of 8,380 birds of 90 species were seen across the three sites with 61 species seen in at the Dogtown site, 55 seen at the Minonk site, and 72 seen at the Sugar Creek site. The number of birds observed during the spring survey is much smaller than the number observed during the previous fall survey; however, the diversity of species observed was greater than during fall. Of all the birds observed during the spring 2012 surveys across the three sites, 46.54% were observed flying below the RSZ, 0.13% above the RSZ, 10.50% within the RSZ, and 42.83% were observed perched (

Table 3–1). Of the birds observed within RSZ, 34.20% were American Golden-Plover, 26.47% were Canada Goose, 11.02% were Common Grackle, and 8.75% were Blue Jay.

At the Dogtown site 2,059 birds were observed: 48.71% were flying below the RSZ, 0.15% above the RSZ, 8.89% within the RSZ, and 42.25% were observed perched. At the Minonk site 2,864 birds were observed: 49.86% were flying below the RSZ, 0.10% above the RSZ, 11% within the RSZ, and 39.04% were observed perched. At Sugar Creek 3,457 birds were observed: 42.49% were flying below the RSZ, 0.14% above the RSZ, 11.05% within the RSZ, and 46.31% were observed perched (

Table 3-1).

Table 3–1. Species, Behaviors, and Flight Heights of Birds Observed at the Proposed Dogtown, Minonk, and Sugar Creek Wind Project Sites.

Common Name	Scientific Name	Number of Birds Observed				Total Number Observed
		Below RSZ	Above RSZ	Within RSZ	Perched	
Proposed Dogtown Wind Project Area						
American Crow	<i>Corvus brachyrhynchos</i>	7	0	0	28	35
American Golden-Plover	<i>Pluvialis dominica</i>	26	0	0	0	26
American Goldfinch	<i>Spinus tristis</i>	39	0	0	2	41
American Kestrel	<i>Falco sparverius</i>	0	0	0	6	6
American Pipit	<i>Anthus rubescens</i>	1	0	0	0	1
American Redstart	<i>Setophaga ruticilla</i>	0	0	0	1	1
American Robin	<i>Turdus migratorius</i>	65	0	10	116	191
Baltimore Oriole	<i>Icterus galbula</i>	0	0	0	3	3
Barn Swallow	<i>Hirundo rustica</i>	38	0	0	0	38
Blue Jay	<i>Cyanocitta cristata</i>	11	0	58	5	74
Brown Thrasher	<i>Toxostoma rufum</i>	0	0	0	16	16
Brown-headed Cowbird	<i>Molothrus ater</i>	112	0	1	37	150
Canada Goose	<i>Branta canadensis</i>	57	0	76	17	150
Chimney Swift	<i>Chaetura pelagica</i>	5	0	2	0	7
Chipping Sparrow	<i>Spizella passerina</i>	0	0	0	8	8
Common Grackle	<i>Quiscalus quiscula</i>	277	0	0	38	315
Common Yellowthroat	<i>Geothlypis trichas</i>	0	0	0	4	4
Cooper's Hawk	<i>Accipiter cooperii</i>	1	0	0	0	1
Dickcissel	<i>Spiza americana</i>	3	0	0	26	29
Eastern Bluebird	<i>Sialia sialis</i>	0	0	0	1	1
Eastern Kingbird	<i>Tyrannus tyrannus</i>	1	0	0	1	2
Eastern Meadowlark	<i>Sturnella magna</i>	21	0	0	52	73
Eastern Phoebe	<i>Sayornis phoebe</i>	2	0	0	9	11

Common Name	Scientific Name	Number of Birds Observed				Total Number Observed
		Below RSZ	Above RSZ	Within RSZ	Perched	
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	0	0	0	1	1
European Starling	<i>Sturnus vulgaris</i>	97	0	0	67	164
Field Sparrow	<i>Spizella pusilla</i>	4	0	0	6	10
Gray Catbird	<i>Dumetella carolinensis</i>	0	0	0	3	3
Great Blue Heron	<i>Ardea herodias</i>	1	0	4	1	6
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	0	0	0	1	1
Horned Lark	<i>Eremophila alpestris</i>	11	0	0	13	24
House Sparrow	<i>Passer domesticus</i>	1	0	0	7	8
House Wren	<i>Troglodytes aedon</i>	0	0	0	5	5
Indigo Bunting	<i>Passerina cyanea</i>	1	0	0	4	5
Killdeer	<i>Charadrius vociferus</i>	20	0	1	30	51
Least Flycatcher	<i>Empidonax minimus</i>	0	0	0	1	1
Lesser Yellowlegs	<i>Tringa flavipes</i>	0	0	2	0	2
Mallard	<i>Anas platyrhynchos</i>	5	0	2	0	7
Mourning Dove	<i>Zenaida macroura</i>	21	0	0	47	68
Northern Bobwhite	<i>Colinus virginianus</i>	0	0	0	1	1
Northern Cardinal	<i>Cardinalis cardinalis</i>	0	0	0	11	11
Northern Flicker	<i>Colaptes auratus</i>	1	0	0	3	4
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	6	0	0	0	6
Palm Warbler	<i>Dendroica palmarum</i>	0	0	0	2	2
Purple Martin	<i>Progne subis</i>	0	0	12	0	12
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	0	0	0	1	1
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	0	0	0	1	1
Red-tailed Hawk	<i>Buteo jamaicensis</i>	1	3	2	2	8
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	143	0	1	197	341
Ring-necked Pheasant	<i>Phasianus colchicus</i>	0	0	0	35	35

Common Name	Scientific Name	Number of Birds Observed				Total Number Observed
		Below RSZ	Above RSZ	Within RSZ	Perched	
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	1	0	0	3	4
Savannah Sparrow	<i>Passerculus sandwichensis</i>	6	0	0	2	8
Song Sparrow	<i>Melospiza melodia</i>	2	0	0	32	34
Swamp Sparrow	<i>Melospiza georgiana</i>	0	0	0	2	2
Tree Swallow	<i>Tachycineta bicolor</i>	4	0	6	0	10
Turkey Vulture	<i>Cathartes aura</i>	3	0	6	0	9
Vesper Sparrow	<i>Pooecetes gramineus</i>	9	0	0	13	22
Warbling Vireo	<i>Vireo gilvus</i>	0	0	0	2	2
Wild Turkey	<i>Meleagris gallopavo</i>	0	0	0	1	1
Wood Duck	<i>Aix sponsa</i>	0	0	0	2	2
Yellow Warbler	<i>Dendroica petechia</i>	0	0	0	2	2
Yellow-rumped Warbler	<i>Dendroica coronata</i>	0	0	0	2	2
Dogtown Totals		1,003	3	183	870	2,059
Proposed Minonk Wind Project Area						
American Crow	<i>Corvus brachyrhynchos</i>	3	0	6	3	12
American Golden-Plover	<i>Pluvialis dominica</i>	3	0	22	52	77
American Goldfinch	<i>Spinus tristis</i>	28	0	1	0	29
American Robin	<i>Turdus migratorius</i>	70	0	0	189	259
Bald Eagle	<i>Haliaeetus leucocephalus</i>	0	2	0	0	2
Barn Swallow	<i>Hirundo rustica</i>	40	0	0	2	42
Blue Jay	<i>Cyanocitta cristata</i>	1	0	0	0	1
Blue-winged Teal	<i>Anas discors</i>	2	0	0	0	2
Brown Thrasher	<i>Toxostoma rufum</i>	0	0	0	3	3
Brown-headed Cowbird	<i>Molothrus ater</i>	133	0	4	40	177
Canada Goose	<i>Branta canadensis</i>	34	0	154	1	189
Chimney Swift	<i>Chaetura pelagica</i>	1	0	0	0	1

Common Name	Scientific Name	Number of Birds Observed				Total Number Observed
		Below RSZ	Above RSZ	Within RSZ	Perched	
Chipping Sparrow	<i>Spizella passerina</i>	0	0	0	9	9
Common Grackle	<i>Quiscalus quiscula</i>	454	0	71	144	669
Common Yellowthroat	<i>Geothlypis trichas</i>	0	0	0	1	1
Cooper's Hawk	<i>Accipiter cooperii</i>	0	0	1	0	1
Dickcissel	<i>Spiza americana</i>	1	0	0	6	7
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	0	0	18	0	18
Eastern Bluebird	<i>Sialia sialis</i>	1	0	0	1	2
Eastern Kingbird	<i>Tyrannus tyrannus</i>	2	0	0	2	4
Eastern Meadowlark	<i>Sturnella magna</i>	14	0	0	72	86
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	0	0	0	1	1
Eurasian Collared-Dove	<i>Streptopelia decaocto</i>	2	0	0	0	2
European Starling	<i>Sturnus vulgaris</i>	89	0	0	60	149
Great Blue Heron	<i>Ardea herodias</i>	3	0	1	1	5
Horned Lark	<i>Eremophila alpestris</i>	10	0	0	20	30
House Finch	<i>Carpodacus mexicanus</i>	6	0	0	0	6
House Sparrow	<i>Passer domesticus</i>	3	0	0	21	24
Indigo Bunting	<i>Passerina cyanea</i>	1	0	0	1	2
Killdeer	<i>Charadrius vociferus</i>	33	0	0	35	68
Lapland Longspur	<i>Calcarius lapponicus</i>	0	0	16	0	16
Least Sandpiper	<i>Calidris minutilla</i>	0	0	0	31	31
Lesser Yellowlegs	<i>Tringa flavipes</i>	0	0	0	3	3
Mallard	<i>Anas platyrhynchos</i>	6	0	4	0	10
Mourning Dove	<i>Zenaida macroura</i>	13	0	0	26	39
Northern Cardinal	<i>Cardinalis cardinalis</i>	1	0	0	5	6
Northern Flicker	<i>Colaptes auratus</i>	0	0	0	1	1
Northern Harrier	<i>Circus cyaneus</i>	4	0	0	0	4

Common Name	Scientific Name	Number of Birds Observed				Total Number Observed
		Below RSZ	Above RSZ	Within RSZ	Perched	
Northern Mockingbird	<i>Mimus polyglottos</i>	1	0	0	0	1
Pectoral Sandpiper	<i>Calidris melanotos</i>	18	0	0	0	18
Purple Martin	<i>Progne subis</i>	0	0	1	0	1
Red-tailed Hawk	<i>Buteo jamaicensis</i>	1	1	5	5	12
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	378	0	4	284	666
Ring-billed Gull	<i>Larus delawarensis</i>	45	0	0	0	45
Ring-necked Pheasant	<i>Phasianus colchicus</i>	1	0	0	20	21
Rock Pigeon	<i>Columba livia</i>	5	0	2	0	7
Savannah Sparrow	<i>Passerculus sandwichensis</i>	3	0	0	8	11
Solitary Sandpiper	<i>Tringa solitaria</i>	0	0	0	2	2
Song Sparrow	<i>Melospiza melodia</i>	3	0	0	15	18
Spotted Sandpiper	<i>Actitis macularius</i>	0	0	0	4	4
Tree Swallow	<i>Tachycineta bicolor</i>	5	0	5	0	10
Turkey Vulture	<i>Cathartes aura</i>	1	0	0	0	1
Vesper Sparrow	<i>Pooecetes gramineus</i>	6	0	0	46	52
Western Meadowlark	<i>Sturnella neglecta</i>	0	0	0	3	3
Wilson's Snipe	<i>Gallinago delicata</i>	3	0	0	1	4
Minonk Totals		1,428	3	315	1,118	2,864
Proposed Sugar Creek Wind Project Area						
American Crow	<i>Corvus brachyrhynchos</i>	11	0	3	22	36
American Golden-Plover	<i>Pluvialis dominica</i>	11	0	279	372	662
American Goldfinch	<i>Spinus tristis</i>	45	0	0	9	54
American Kestrel	<i>Falco sparverius</i>	0	0	0	9	9
American Pipit	<i>Anthus rubescens</i>	66	0	0	2	68
American Robin	<i>Turdus migratorius</i>	140	0	3	197	340
American Woodcock	<i>Scolopax minor</i>	1	0	0	0	1

Common Name	Scientific Name	Number of Birds Observed				Total Number Observed
		Below RSZ	Above RSZ	Within RSZ	Perched	
Baltimore Oriole	<i>Icterus galbula</i>	7	0	0	5	12
Barn Swallow	<i>Hirundo rustica</i>	33	0	0	10	43
Blue Jay	<i>Cyanocitta cristata</i>	3	0	19	10	32
Bobolink	<i>Dolichonyx oryzivorus</i>	3	0	0	0	3
Brown Thrasher	<i>Toxostoma rufum</i>	4	0	0	9	13
Brown-headed Cowbird	<i>Molothrus ater</i>	139	0	1	72	212
Canada Goose	<i>Branta canadensis</i>	11	0	3	7	21
Carolina Chickadee	<i>Poecile carolinensis</i>	0	0	0	1	1
Cedar Waxwing	<i>Bombycilla cedrorum</i>	0	0	0	2	2
Chimney Swift	<i>Chaetura pelagica</i>	8	0	0	0	8
Chipping Sparrow	<i>Spizella passerina</i>	3	0	0	10	13
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	115	0	0	14	129
Common Grackle	<i>Quiscalus quiscula</i>	298	0	26	55	379
Common Yellowthroat	<i>Geothlypis trichas</i>	0	0	0	9	9
Cooper's Hawk	<i>Accipiter cooperii</i>	2	0	1	0	3
Dickcissel	<i>Spiza americana</i>	0	0	0	10	10
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	0	0	4	0	4
Eastern Bluebird	<i>Sialia sialis</i>	2	0	0	5	7
Eastern Kingbird	<i>Tyrannus tyrannus</i>	2	0	0	5	7
Eastern Meadowlark	<i>Sturnella magna</i>	15	0	0	46	61
Eastern Phoebe	<i>Sayornis phoebe</i>	0	0	0	10	10
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	0	0	0	1	1
Eastern Wood-Pewee	<i>Contopus virens</i>	0	0	0	2	2
European Starling	<i>Sturnus vulgaris</i>	178	0	5	95	278
Gray Catbird	<i>Dumetella carolinensis</i>	3	0	0	7	10
Great Blue Heron	<i>Ardea herodias</i>	6	0	5	2	13

Common Name	Scientific Name	Number of Birds Observed				Total Number Observed
		Below RSZ	Above RSZ	Within RSZ	Perched	
Great Crested Flycatcher	<i>Myiarchus crinitus</i>	0	0	0	3	3
Hairy Woodpecker	<i>Picoides villosus</i>	0	0	0	1	1
Hooded Merganser	<i>Lophodytes cucullatus</i>	0	0	0	2	2
Horned Lark	<i>Eremophila alpestris</i>	13	0	0	30	43
House Sparrow	<i>Passer domesticus</i>	28	0	0	43	71
House Wren	<i>Troglodytes aedon</i>	0	0	0	12	12
Indigo Bunting	<i>Passerina cyanea</i>	7	0	0	10	17
Killdeer	<i>Charadrius vociferus</i>	26	0	0	49	75
Mallard	<i>Anas platyrhynchos</i>	16	0	0	0	16
Mourning Dove	<i>Zenaida macroura</i>	40	0	1	59	100
Northern Bobwhite	<i>Colinus virginianus</i>	0	0	0	8	8
Northern Cardinal	<i>Cardinalis cardinalis</i>	3	0	0	29	32
Northern Flicker	<i>Colaptes auratus</i>	2	0	0	7	9
Northern Harrier	<i>Circus cyaneus</i>	1	0	0	0	1
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	4	0	0	0	4
Orchard Oriole	<i>Icterus spurius</i>	1	0	0	0	1
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	0	0	0	2	2
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	1	0	0	0	1
Red-tailed Hawk	<i>Buteo jamaicensis</i>	0	1	2	7	10
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	171	0	1	168	340
Ring-necked Pheasant	<i>Phasianus colchicus</i>	1	0	0	18	19
Rock Pigeon	<i>Columba livia</i>	21	0	0	2	23
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	0	0	0	7	7
Savannah Sparrow	<i>Passerculus sandwichensis</i>	2	0	0	2	4
Solitary Sandpiper	<i>Tringa solitaria</i>	0	0	0	2	2
Song Sparrow	<i>Melospiza melodia</i>	2	0	0	63	65

Common Name	Scientific Name	Number of Birds Observed				Total Number Observed
		Below RSZ	Above RSZ	Within RSZ	Perched	
Swamp Sparrow	<i>Melospiza georgiana</i>	0	0	0	1	1
Tree Swallow	<i>Tachycineta bicolor</i>	1	0	0	0	1
Tufted Titmouse	<i>Baeolophus bicolor</i>	0	0	0	4	4
Turkey Vulture	<i>Cathartes aura</i>	11	4	29	2	46
Upland Sandpiper	<i>Bartramia longicauda</i>	0	0	0	7	7
Vesper Sparrow	<i>Pooecetes gramineus</i>	4	0	0	29	33
Warbling Vireo	<i>Vireo gilvus</i>	2	0	0	14	16
White-breasted Nuthatch	<i>Sitta carolinensis</i>	1	0	0	3	4
Wild Turkey	<i>Meleagris gallopavo</i>	0	0	0	1	1
Willow Flycatcher	<i>Empidonax traillii</i>	0	0	0	11	11
Wood Duck	<i>Aix sponsa</i>	4	0	0	0	4
Yellow Warbler	<i>Dendroica petechia</i>	0	0	0	7	7
Yellow-rumped Warbler	<i>Dendroica coronata</i>	1	0	0	0	1
Sugar Creek Totals		1,469	5	382	1,601	3,457
Grand Total		3,900	11	880	3,589	8,380

No federally-listed species were observed during the point counts at any of the three sites. Although Sandhill Cranes were not observed during the general point count surveys at any of the three sites, 50 were observed flying above the RSZ at the Sugar Creek site during targeted Sandhill Crane surveys. While not observed at the other two sites, Sandhill Cranes still have the potential to occur at the Dogtown and Minonk sites because the sites occur within the broad area where Sandhill Cranes migrate.

Using the eBird dataset, we reviewed historical information about Sandhill Crane sightings in the proposed project area counties (Ford, Vermilion, Marshall, and Woodford Counties in Illinois, and Montgomery County in Indiana). At the three sites, spring and fall Sandhill Crane migration typically peaks during March and November, respectively. This timeframe represents a narrow period of time when Sandhill Cranes are likely to pass through in abundance. Within the Dogtown and Minonk site vicinities, Sandhill Cranes are rarely seen outside the March and November migration time periods except for a few historical sightings during April and May. No sightings have been reported during the summer or winter months. Within the Sugar Creek site vicinity, Sandhill Cranes have been reported from December through February in addition to their peak abundance during March and November; however, few observations have been reported during the summer months. In summary, although Sandhill Cranes can occur at the three project sites outside the peak migration times of March and November, the likelihood of occurrence is much less. Therefore, they are less likely to be exposed to turbines outside the migration timeframe. In addition—to our current knowledge—there have been no recorded Sandhill Crane mortalities at wind farms. In addition, all Sandhill Cranes observed during the spring 2012 targeted survey at Sugar Creek were flying above the RSZ, **which further indicates that this species has low susceptibility to collisions even during the peak migration times.**

Two Bald Eagles were observed flying above the RSZ at the Minonk site. **Bald Eagles have not been shown to be highly susceptible to wind turbine collisions and this fact combined with low numbers observed in the RSZ suggests low risk to this species.** Although Bald Eagles are not a federally-listed species, Bald Eagles are a high-profile species and are protected by the Bald and Golden Eagle Protection Act.

Similarly, although American Golden-Plover is not listed, it is a species of concern. American Golden-Plover was observed at all three sites, and was the most abundant species observed flying within the RSZ at Sugar Creek, with 279 individuals observed in the RSZ. Using the eBird dataset, we reviewed historical information about American Golden-Plover sightings within the counties of the proposed areas. **There was no peak fall migration of American Golden-Plover at any of the sites, and spring migration showed peaks during March through May at all three sites.** This suggests that American Golden-Plover collision risk would be higher during this time than at other times, and this elevated risk should be considered during post-construction mortality monitoring.

Based on the findings from these and previous years' surveys, our qualitative conclusions about risk remain unchanged from the previous report *Fall 2011 Avian Report for the Dogtown, Minonk, and Sugar Creek Wind Facilities in Illinois and Indiana*. The Sandhill Crane observations during the spring 2012 targeted surveys confirm our previous hypothesis that this species likely occurs at the sites during their spring migration; however, this indicates that in the

proposed wind resource areas this species has a narrow time window of peak abundance. Therefore, exposure to turbines should be minimal outside the migration timeframe. The abundance of American Golden-Plover observed during the spring survey along with flight occurring in the RSZ indicate some risk associated with this species of concern; however, **this species also has a very narrow time window of peak abundance (i.e., March through May) at the sites suggesting minimal risk of exposure to turbines outside spring peak migration timeframe.** Also, the shorebirds taxa have shown low susceptibility to collisions, which may minimize the risk of collisions to American Golden-Plover. Regardless, American Golden-Plover should be monitored during post-construction surveys to look for incidents of mortality and altered behavior due to the wind turbines.

Although many species and some species of concern were observed at the three sites, there were no fatal flaws that suggest that the projects should not be developed. We reassert our findings from our previous site-specific reports that the risk for species at the sites ranges from low to moderate, with the vast majority of species and taxa predicted to have low risk of collisions with wind turbines.