

**Stantec**

**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**  
NATURAL HERITAGE ASSESSMENT & ENVIRONMENTAL IMPACT STUDY

---

# **Appendix D**

## **Wildlife List**



**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**

2011 Incidental Wildlife List (Stan&Golder)

COMMON NAME	SCIENTIFIC NAME	ONTARIO STATUS	GLOBAL STATUS	Stantec Observation	Golder Observation	COMMENTS	Area Sensitive Reference
<b>AMPHIBIANS</b>							
Tetraploid Gray Treefrog	<i>Hyla versicolor</i>	S5	G5		x	Anuran Call Survey (Golder)	
Western Chorus Frog (carolinian)	<i>Pseudacris triseriata</i>	S4	G5	x			
Northern Green Frog	<i>Lithobates clamitans</i>	S5	G5		x	Anuran Call Survey (Golder)	
<b>BIRDS</b>							
Canada Goose	<i>Branta canadensis</i>	S5	G5		x	Anuran Incidentals (Golder)	
Tundra Swan	<i>Cygnus columbianus</i>	S4	G5	x		25 flew overhead; above blade height; migration; November 10, 2011	
Mallard	<i>Anas platyrhynchos</i>	S5	G5		x	Anuran Incidentals (Golder)	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	S2B,S4N	G4			Flew over farm field associated with Turbine 1 (Feature 26); 27-Oct-2011	
Northern Harrier	<i>Circus cyaneus</i>	S4B	G5			Flew over farm field associated with Feature 13	Sandilands 2005
Red-tailed Hawk	<i>Buteo jamaicensis</i>	S5	G5	x	x	Winter Raptor Survey (Golder)	
Rough-legged Hawk	<i>Buteo lagopus</i>	S1B, S4N	G5		x	Winter Raptor Survey (Golder)	
Golden Eagle	<i>Aquila chrysaetos</i>	S2B	G5	x		Migrating observation 11/8/2011	
Rock Pigeon	<i>Columba livia</i>	SNA	G5		x	Winter Raptor Survey (Golder)	
Mourning Dove	<i>Zenaidura macroura</i>	S5	G5	x	x	Winter Raptor Survey (Golder)	
Great Horned Owl	<i>Bubo virginianus</i>	S5	G5		x	Winter Raptor Survey (Golder)	
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	S5B	G5		x	Winter Raptor Survey (Golder)	
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	S4	G5	x	x	Winter Raptor Survey (Golder)	
Downy Woodpecker	<i>Picoides pubescens</i>	S5	G5	x	x	Winter Raptor Survey (Golder)	
Hairy Woodpecker	<i>Picoides villosus</i>	S5	G5	x			
Northern Flicker	<i>Colaptes auratus</i>	S4B	G5	x			
Pileated Woodpecker	<i>Dryocopus pileatus</i>	S5	G5	x			Naylor et al., 1996
Eastern Kingbird	<i>Tyrannus tyrannus</i>	S4B	G5		x	Anuran Incidentals (Golder)	
Blue Jay	<i>Cyanocitta cristata</i>	S5	G5	x	x	Winter Raptor Survey (Golder)	
American Crow	<i>Corvus brachyrhynchos</i>	S5B	G5		x	Winter Raptor Survey	
Horned Lark	<i>Eremophila alpestris</i>	S5B	G5	x			
Black-capped Chickadee	<i>Poecile atricapillus</i>	S5	G5	x	x		
Tufted Titmouse	<i>Baeolophus bicolor</i>	S4	G5		x	Winter Raptor Survey (Golder)	
White-breasted Nuthatch	<i>Sitta carolinensis</i>	S5	G5		x	Winter Raptor Survey (Golder)	
Brown Creeper	<i>Certhia americana</i>	S5B	G5		x	Winter Raptor Survey (Golder)	

**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**

2011 Incidental Wildlife List (Stan&Golder)

COMMON NAME	SCIENTIFIC NAME	ONTARIO STATUS	GLOBAL STATUS	Stantec Observation	Golder Observation	COMMENTS	Area Sensitive Reference
Golden-crowned Kinglet	<i>Regulus satrapa</i>	S5B	G5	x			
Veery	<i>Catharus fuscescens</i>	S4B	G5	x			
American Robin	<i>Turdus migratorius</i>	S5B	G5	x			
European Starling	<i>Sturnus vulgaris</i>	SNA	G5	x	x	Winter Raptor Survey (Golder)	
Song Sparrow	<i>Melospiza melodia</i>	S5B	G5		x	Winter Raptor Survey	
White-throated Sparrow	<i>Zonotrichia albicollis</i>	S5B	G5	x	x	Winter Raptor Survey (Golder)	
Dark-eyed Junco	<i>Junco hyemalis</i>	S5B	G5	x	x	Winter Raptor Survey (Golder)	
Northern Cardinal	<i>Cardinalis cardinalis</i>	S5	G5	x	x	Winter Raptor Survey (Golder)	
Bobolink	<i>Dolichonyx oryzivorus</i>	S4B	G5		x	Anuran Incidentals (Golder)	
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	S5	G5		x	Anuran Incidentals (Golder)	
Rusty Blackbird	<i>Euphagus carolinus</i>	S4B	G5	x		During migration; 1-Nov-2011	
American Goldfinch	<i>Carduelis tristis</i>	S5B	G5	x	x	Winter Raptor Survey (Golder)	

**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**

2011 Incidental Wildlife List (Stan&Golder)

**MAMMALS**

Grey Squirrel	<i>Sciurus carolinensis</i>	S5	G5	x		
Beaver	<i>Castor canadensis</i>	S5	G5	x		Lodge with fresh sticks
Raccoon	<i>Procyon lotor</i>	S5	G5		x	Anuran Incidentals (Golder)
White-tailed Deer	<i>Odocoileus virginianus</i>	S5	G5	x	x	Deer bed observed; Anuran Incidentals (Golder)

**SUMMARY**

Total Amphibians: 3  
 Total Reptiles: 0  
 Total Birds: 37  
 Total Breeding Birds: Unknown  
 Total Mammals: 4

**SIGNIFICANT SPECIES**

Global:  
 National:  
 Provincial:  
 Regional:  
 Local:

**Explanation of Status and Acronyms**

COSSARO: Committee on the Status of Species at Risk in Ontario  
 COSEWIC: Committee on the Status of Endangered Wildlife in Canada  
 REGION: Rare in a Site Region  
 S1: Critically Imperiled—Critically imperiled in the province (often 5 or fewer occurrences)  
 S2: Imperiled—Imperiled in the province, very few populations (often 20 or fewer),  
 S3: Vulnerable—Vulnerable in the province, relatively few populations (often 80 or fewer)  
 S4: Apparently Secure—Uncommon but not rare  
 S5: Secure—Common, widespread, and abundant in the province  
 SX: Presumed extirpated  
 SH: Possibly Extirpated (Historical)  
 SNR: Unranked  
 SU: Unrankable—Currently unrankable due to lack of information

## Stantec

### SUNCOR ENERGY ADELAIDE WIND POWER PROJECT

#### 2011 Incidental Wildlife List (Stan&Golder)

SNA: Not applicable—A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

S#S#: Range Rank—A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species

S#B- Breeding status rank

S#N- Non Breeding status rank

?: Indicates uncertainty in the assigned rank

G1: Extremely rare globally; usually fewer than 5 occurrences in the overall range

G1G2: Extremely rare to very rare globally

G2: Very rare globally; usually between 5-10 occurrences in the overall range

G2G3: Very rare to uncommon globally

G3: Rare to uncommon globally; usually between 20-100 occurrences

G3G4: Rare to common globally

G4: Common globally; usually more than 100 occurrences in the overall range

G4G5: Common to very common globally

G5: Very common globally; demonstrably secure

T: Denotes that the rank applies to a subspecies or variety

Q: Denotes that the taxonomic status of the species, subspecies, or variety is **questionable**.

END: Endangered

THR: Threatened

SC: Special Concern

2, 3 or NS after a COSEWIC ranking indicates the species is either on Schedule 2, Schedule 3 or No Schedule of the Species At Risk Act (SARA)

NAR: Not At Risk

IND: Indeterminant, insufficient information to assign status

DD: Data Deficient

6: Rare in Site Region 6

7: Rare in Site Region 7

Area: Minimum patch size for area-sensitive species (ha)

H- highly significant in Hamilton Region (i.e. rare)

m- moderately significant in Hamilton Region (i.e. uncommon)

L1- extremely rare locally (Toronto Region)

L2- very rare locally (Toronto Region)

L3- rare to uncommon locally (Toronto Region)

HR- rare in Halton Region, highly significant

HU- uncommon in Halton Region, moderately significant

\* The Pileated Woodpecker will incorporate smaller woodlots into its homerange, therefore it may not be a true area-sensitive species (Naylor et al. 1996)

#### LATEST STATUS UPDATE

Butterflies: December 2011

Amphibians: March 2012

**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**

2011 Incidental Wildlife List (Stan&Golder)

Reptiles: December 2011

Birds: March 2012

Mammals: March 2012

S and G ranks and explanations: December 2011

**NOTE**

All rankings for birds refer to breeding birds unless the ranking is followed by N

**REFERENCES**

**COSSARO Status**

Endangered Species Act, 2007 (Bill 184). Schedules 1- 5. June 30 2008.

**COSEWIC Status**

COSEWIC. 2007. Canadian Species at Risk. Committee on the Status of Endangered Wildlife in Canada. September 11, 2007 with updates from COSEWIC Assessments to November 2010

**Local Status**

Dwyer, Jill K. 2003. Nature Counts Project Hamilton Natural Areas Inventory 2003. Species Checklists. Hamilton Naturalists Club.

Halton Natural Areas Inventory 2006: Volume 2 Species Checklists (ISBN 0-9732488-7-4)

Ontario Partners in Flight. 2006. Ontario Landbird Conservation Plan: Lower Great Lakes/St. Lawrence Plain (North American Bird Conservation Region 13), Priorities, Objectives and Recommended Actions.

Environment Canada and Ontario Ministry of Natural Resources. Draft, February 2006.

Region of Waterloo. 1996. Regionally Significant Breeding Birds.

TRCA. 2003. Revised Fauna Scores and Ranks, February 2003. Toronto Region Conservation Authority.

**Area-sensitive information**

Austen, M.J.W., M.D. Cadman, and R.D. James. 1994. Ontario birds at risk: status and conservation needs. Toronto and Port Rowan, ON: Federation of Ontario Naturalists and Long Point Bird Observatory. 165 pp.

Dunn, Erica H. and David J. Agro. 1995. Black Tern (*Chlidonias niger*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/147>

Herkert, J.R. 1991. An ecological study of the breeding birds of grassland habitats within Illinois. Ph.D. dissertation. University of Illinois, Urbana, IL. 112 pp.

Hejl, S.J., J.A. Holmes, and D.E. Kroodsma. 2002. Winter Wren (*Troglodytes troglodytes*). In Poole, A., and F. Gill, eds. The birds of North America, No. 623. Philadelphia, PA: The Birds of North America, Inc. 31 pp.

Naylor, B. J., J. A. Baker, D. M. Hogg, J. G. McNicol and W. R. Watt. 1996. Forest Management Guidelines for the Provision of Pileated Woodpecker Habitat. Ontario Ministry of Natural Resources, Forest Management Branch, Sault Ste. Marie, Ontario. 26 pp.

Page, A.M., and M.D. Cadman. 1994. Status report on the Acadian Flycatcher *Empidonax virescens* in Canada. Prepared for the Committee on the Status of Endangered Wildlife in Canada. 27 pp

Robbins, C.S. 1979. Effect of forest fragmentation on bird populations. Pp. 198-212 in DeGraaf, R.M., and K.E. Evans, eds. Management of northcentral and northeastern forests for nongame birds.

United States Department of Agriculture, Forest Service General Technical Report NC-51. 268 pp.

Sandilands, A. 2005. Birds of Ontario. Habitat Requirements, Limiting Factors and Status. UBC Press.





Stantec

## SUNCOR ENERGY ADELAIDE WIND POWER PROJECT

## 2011 Incidental Wildlife List

COMMON NAME	SCIENTIFIC NAME	ONTARIO STATUS	GLOBAL STATUS	COSSARO	COSEWIC	AREA SENSITIVITY (ha)	ECO REGION (OWES)	Local Status PIF Priority Species (BCR 13)	COMMENTS	Area Sensitive Reference	Feature 1	Feature 7	Feature 9	Feature 11	Feature 14	Feature 20	Feature 23	Feature 25	
									All observations were made during ELC surveys in November, 2011										
<b>AMPHIBIANS</b>																			
Western Chorus Frog (carolinian)	<i>Pseudacris triseriata</i>	S4	G5	NAR	NAR									X					X
											X								X
<b>BIRDS</b>																			
											X								X
Tundra Swan	<i>Cygnus colombianus</i>	S4	G5						25 flew overhead; above blade height; migration; November 10, 2011										
Bald Eagle	<i>Haliaeetus leucocephalus</i>	S2B,S4N	G4	SC	NAR			X	Flew over farm field associated with Turbine 1 (Feature 7); 27-Oct-2011										
Northern Harrier	<i>Circus cyaneus</i>	S4B	G5	NAR	NAR	55		X	Flew over farm field associated with Feature 13	Sandlands 2005									
Red-tailed Hawk	<i>Buteo jamaicensis</i>	S5	G5	NAR	NAR									X					
Golden Eagle	<i>Aquila chrysaetos</i>	S2B	G5	END	NAR				Migrating observation 11/8/2011					X					
Mourning Dove	<i>Zenaidura macroura</i>	S5	G5											X					
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	S4	G5								X			X			X	X	
Downy Woodpecker	<i>Picoides pubescens</i>	S5	G5											X					X
Hairy Woodpecker	<i>Picoides villosus</i>	S5	G5			10													X
Northern Flicker	<i>Colaptes auratus</i>	S4B	G5					X					X						X
Pileated Woodpecker	<i>Dryocopus pileatus</i>	S5	G5			30-50*				Naylor et al., 1996	X								
Blue Jay	<i>Cyanocitta cristata</i>	S5	G5													X	X		
Horned Lark	<i>Eremophila alpestris</i>	S5B	G5																
Black-capped Chickadee	<i>Poecile atricapillus</i>	S5	G5																X
Golden-crowned Kinglet	<i>Regulus satrapa</i>	S5B	G5			0	7												X
Veery	<i>Catharus fuscescens</i>	S4B	G5			10-20													X
American Robin	<i>Turdus migratorius</i>	S5B	G5											X					
European Starling	<i>Sturnus vulgaris</i>	SNA	G5											X					
White-throated Sparrow	<i>Zonotrichia albicollis</i>	S5B	G5			20								X	X				
Dark-eyed Junco	<i>Junco hyemalis</i>	S5B	G5				7				X			X					
Northern Cardinal	<i>Cardinalis cardinalis</i>	S5	G5								X								
Rusty Blackbird	<i>Euphagus carolinus</i>	S4B	G5		SC		6		Feature 23: during migration; 1-Nov-2011									X	
American Goldfinch	<i>Carduelis tristis</i>	S5B	G5								X			X					
																			X
<b>MAMMALS</b>																			
Grey Squirrel	<i>Sciurus carolinensis</i>	S5	G5																X



**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**

2011 Incidental Wildlife List

COMMON NAME	SCIENTIFIC NAME	ONTARIO STATUS	GLOBAL STATUS	COSSARO	COSEWIC	AREA SENSITIVITY (ha)	ECO REGION (OWES)	Local Status PIF Priority Species (BCR 13)	COMMENTS	Area Sensitive Reference	Feature 1	Feature 7	Feature 9	Feature 11	Feature 14	Feature 20	Feature 23	Feature 25	
Beaver	<i>Castor canadensis</i>	S5	G5						Lodge with fresh sticks					X					
White-tailed Deer	<i>Odocoileus virginianus</i>	S5	G5						Deer bed observed						X				
<b>SUMMARY</b>																			

Total Butterflies: 0  
 Total Amphibians: 1  
 Total Reptiles: 0  
 Total Birds: 23  
 Total Breeding Birds: Unknown  
 Total Mammals: 4

**SIGNIFICANT SPECIES**

Global: 0  
 National: 1  
 Provincial: 2  
 Regional: 0  
 Local: 0

**Explanation of Status and Acronyms**

COSSARO: Committee on the Status of Species at Risk in Ontario  
 COSEWIC: Committee on the Status of Endangered Wildlife in Canada  
 REGION: Rare in a Site Region  
 S1: Critically Imperiled—Critically imperiled in the province (often 5 or fewer occurrences)  
 S2: Imperiled—Imperiled in the province, very few populations (often 20 or fewer),  
 S3: Vulnerable—Vulnerable in the province, relatively few populations (often 80 or fewer)  
 S4: Apparently Secure—Uncommon but not rare  
 S5: Secure—Common, widespread, and abundant in the province  
 SX: Presumed extirpated  
 SH: Possibly Extirpated (Historical)  
 SNR: Unranked  
 SU: Unrankable—Currently unrankable due to lack of information  
 SNA: Not applicable—A conservation status rank is not applicable because the species is not a suitable target for conservation activities.  
 S#S#: Range Rank—A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species  
 S#B: Breeding status rank  
 S#N: Non Breeding status rank

**Stantec**

**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**

2011 Incidental Wildlife List

?: Indicates uncertainty in the assigned rank

G1: Extremely rare globally; usually fewer than 5 occurrences in the overall range

G1G2: Extremely rare to very rare globally

G2: Very rare globally; usually between 5-10 occurrences in the overall range

G2G3: Very rare to uncommon globally

G3: Rare to uncommon globally; usually between 20-100 occurrences

G3G4: Rare to common globally

G4: Common globally; usually more than 100 occurrences in the overall range

G4G5: Common to very common globally

G5: Very common globally; demonstrably secure

GU: Status uncertain, often because of low search effort or cryptic nature of the species; more data needed.

T: Denotes that the rank applies to a subspecies or variety

Q: Denotes that the taxonomic status of the species, subspecies, or variety is **questionable**.

END: Endangered

THR: Threatened

SC: Special Concern

2, 3 or NS after a COSEMIC ranking indicates the species is either on Schedule 2, Schedule 3 or No Schedule of the Species At Risk Act (SARA)

NAR: Not At Risk

IND: Indeterminant, insufficient information to assign status

DD: Data Deficient

6: Rare in Site Region 6

7: Rare in Site Region 7

Area: Minimum patch size for area-sensitive species (ha)

H- highly significant in Hamilton Region (i.e. rare)

m- moderately significant in Hamilton Region (i.e. uncommon)

L1- extremely rare locally (Toronto Region)

L2- very rare locally (Toronto Region)

L3- rare to uncommon locally (Toronto Region)

HR- rare in Halton Region, highly significant

HU- uncommon in Halton Region, moderately significant

\* The Pileated Woodpecker will incorporate smaller woodlots into its homerange, therefore it may not be a true area-sensitive species (Naylor et al. 1996)

**LATEST STATUS UPDATE**

Butterflies: December 2011

Amphibians: December 2011

Reptiles: December 2011

Birds: December 2011

Mammals: December 2011

S and G ranks and explanations: December 2011

**NOTE**

All rankings for birds refer to breeding birds unless the ranking is followed by N

**REFERENCES**

**COSSARO Status**

Endangered Species Act, 2007 (Bill 184). Schedules 1- 5. June 30 2008.

**Stantec**

**SUNCOR ENERGY ADELAIDE WIND POWER PROJECT**

2011 Incidental Wildlife List

**COSEWIC Status**

COSEWIC. 2007. Canadian Species at Risk. Committee on the Status of Endangered Wildlife in Canada. September 11, 2007 with updates from COSEWIC Assessments to November 2010

**Local Status**

Dwyer, Jill K. 2003. Nature Counts Project Hamilton Natural Areas Inventory 2003. Species Checklists. Hamilton Naturalists Club.

Halton Natural Areas Inventory 2006: Volume 2 Species Checklists (ISBN 0-9732488-7-4)

Ontario Partners in Flight. 2006. Ontario Landbird Conservation Plan: Lower Great Lakes/St. Lawrence Plain (North American Bird Conservation Region 13), Priorities, Objectives and Recommended Actions.

Environment Canada and Ontario Ministry of Natural Resources. Draft, February 2006.

Region of Waterloo. 1996. Regionally Significant Breeding Birds.

TRCA. 2003. Revised Fauna Scores and Ranks, February 2003. Toronto Region Conservation Authority.

**Area-sensitive information**

Austen, M.J.W., M.D. Cadman, and R.D. James. 1994. Ontario birds at risk: status and conservation needs. Toronto and Port Rowan, ON: Federation of Ontario Naturalists and Long Point Bird Observatory. 165 pp.

Dunn, Erica H. and David J. Agro. 1995. Black Tern (*Chlidonias niger*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/147>

Herkert, J.R. 1991. An ecological study of the breeding birds of grassland habitats within Illinois. Ph.D. dissertation. University of Illinois, Urbana, IL. 112 pp.

Hejl, S.J., J.A. Holmes, and D.E. Kroodsma. 2002. Winter Wren (*Troglodytes troglodytes*). In Poole, A., and F. Gill, eds. The birds of North America, No. 623. Philadelphia, PA: The Birds of North America, Inc. 31 pp.

Naylor, B. J., J. A. Baker, D. M. Hogg, J. G. McNicol and W. R. Watt. 1996. Forest Management Guidelines for the Provision of Pileated Woodpecker Habitat. Ontario Ministry of Natural Resources, Forest Management Branch, Sault Ste. Marie, Ontario. 26 pp.

Page, A.M., and M.D. Cadman. 1994. Status report on the Acadian Flycatcher *Empidonax vireoscens* in Canada. Prepared for the Committee on the Status of Endangered Wildlife in Canada. 27 pp

Robbins, C.S. 1979. Effect of forest fragmentation on bird populations. Pp. 198-212 in DeGraaf, R.M., and K.E. Evans, eds. Management of northcentral and northeastern forests for nongame birds.

United States Department of Agriculture, Forest Service General Technical Report NC-51. 268 pp.

Sandilands, A. 2005. Birds of Ontario. Habitat Requirements, Limiting Factors and Status. UBC Press.