Appendix L Nova Scotia Museum Letter



Tourism, Culture & Heritage

Heritage Division

1747 Summer Street Halifax, Nova Scotia B3H 3A6

Tel: (902) 424-6475 Fax: (902) 424-0560



July 9, 2004

Dr. Stephen Davis
Davis Archaeological Consultants Limited
6519 Oak Street
Halifax, NS B3L 1H6

Dear Dr. Davis

RE: Heritage Research Permit
A2004NS53 - Canso Wind Farm

Staff have reviewed your report for Heritage Research Permit A2004NS53, an Archaeological Resource Impact Assessment for the Canso Wind Farm. This archaeological impact assessment covers a larger area than that will be used for wind generators, as the initial impact areas are quite restricted. The assessment focussed on the initial impact areas but included other parts of the property as well.

Several historic period features or feature complexes were located and recorded and a series of recommendations provided. We note that the third recommendation on the Burns Site states that the site is slated for wind turbine placement and that a telephone call from you indicated that this information is in error - the wind turbine is not at this location.

We agree with all of the recommendations will send a copy of this letter to Scott Sangster of AMEC Earth and Environmental Limited stating our concurrence with the recommendations

If you have any questions as you proceed, please let me know.

Sincerely,

Robert Ogilvie

Special Places Program

Scott Sangster, AMEC Earth and Environmental Limited

Nova Scotia Government Web Site http://www.gov.ns.ca

Appendix M

Result Tables
Supplementary Breeding Bird Survey, July 2005

Table M-1	Site by Site Comparison of the Number of Individuals Recorded								
Species		Spe	cies and N	umber of Ir	ndividuals F	ound on E	ach Survey	Site	
	Site 1d	Site 2d	Site 3d	Site 4d	Site 5d	Site 9d	Site 10d	Site 11d	Site 12d
Birds of Prey									
Long-eared Owl							1		
Sharp-shinned Hawk						1			
Osprey					1				
Game Birds									
Ruffed Grouse					1	1			
Spruce Grouse					1				
Non Aligned Species									
Mourning Dove	1								
Ruby-throated Hummingbird					1				
Hairy Woodpecker					1				
Downy Woodpecker					1				
Northern Flicker									1
Red-breasted Nuthatch		1		2	4			1	
Alder Flycatcher	8					2	1	3	1
Yellow-bellied Flycatcher		1			4	2		1	1
Olive-sided Flycatcher						2		2	
Passerines									
American Crow	4	2				4	2	1	2
Common Raven							4		
Blue Jay					2				
Gray Jay					1				
Black-capped Chickadee		2			4		1	1	
Boreal Chickadee					5				1

Table M-1	Site b	y Site Co	mparison	of the Nu	ımber of	Individual	s Record	ed	
Species		Species and Number of Individuals Found on Each Survey Site							
Golden-crowned Kinglet		1	1	4	8				
Ruby-crowned Kinglet	1		2		2	1			
Winter Wren					1				
Cedar Waxwing	2								
American Robin	3	1			1	1	1		
Hermit Thrush	4	3			3	6	11	4	3
Swainson's Thrush		2			1	1	3		
Veery					1				
Blue-headed Vireo	1	1		1	2	1			1
Red-eyed Vireo	2	1	1		1	1			1
Nashville Warbler	2	2		3	1		1	1	2
Yellow Warbler	6								
Magnolia Warbler	4	6		4	5	15	5	4	9
Yellow-rumped Warbler		1		2	3	1	2	1	2
Black-and-white Warbler	1	3			2		1		
Common Yellowthroat	3				1	4	1	3	7
Chestnut-sided Warbler	2					1	1	5	4
Black-throated Green Warbler					2				
Palm Warbler						8	1		1
Blackpoll Warbler									1
American Redstart	7	3			1	5	1	1	9
Tennessee Warbler	2	2				4	1		2
Ovenbird				1	1				
Mourning Warbler							1		
Wilson's Warbler	1								
Northern Parula									1

Table M-1	Site b	y Site Co	mparison	of the Nu	ımber of l	ndividua	s Record	ed	
Species		Spe	ecies and N	umber of Ir	ndividuals F	ound on E	ach Survey	Site	
Common Grackle	4	3				2	2	4	4
Song Sparrow	6								
Lincoln's Sparrow						7			
White-throated Sparrow	6	4	2	2	1	10	3	5	3
Fox Sparrow								1	
Dark-eyed Junco	1			2	4	2	2	2	2
Purple Finch	3	1	1	3	3	2	1	1	1
Pine Siskin	1					1			
Evening Grosbeak	2								
American Goldfinch	12					5	2	1	2
Number of Species Detected	26	19	5	10	32	26	23	19	23

Table M-2 Status and	Relative Abundance of Species Recorded During the 2005 Breeding Bird Site Surveys.
Species	Status and Relative Abundance
Birds of Prey	Birds of Prey
Long-eared Owl	Uncommon Breeder. One heard calling on Site 10d during Breeding bird surveys and is definitely breeding somewhere close to Site 10d.
Sharp-shinned Hawk	Common to Uncommon Breeder. One observed flying over Site 9d at a height of 75 meters carrying food on due north.
Osprey	Common Breeder. One extremely agitated adult present on Site 5d. Nest located adjacent to Site 5d on the other end of Spinney Hill.
Game Birds	Game Birds
Ruffed Grouse	Common Breeder and Year Round Resident. Single individuals found on Sites 5d and 9d.
Spruce Grouse	Locally Common Breeder and Year Round Resident. One observed on Site 5d.
Non Aligned Species	Non Aligned Species
Mourning Dove	Widespread Common Breeder. One individual heard calling on Site 1d.
Ruby-throated Hummingbird	Widespread Common Breeder. Single individual observed on Sites 5d.
Hairy Woodpecker	Common to Uncommon Widespread Breeder. Single individual observed on Sites 5d.
Downy Woodpecker	Widespread Common Breeder. Single individual observed on Sites 5d.
Northern Flicker	Uncommon Breeder. Single individual observed on Sites 12d.
Red-breasted Nuthatch	Widespread Common Breeder. Family group of 4 on Site 5d, 2 heard calling on Site 4d and 1d each, attending young on Sites 2d and 11d.
Alder Flycatcher	Widespread Common Breeder. Confirmed as breeding on Sites 1d, 9d, 10d, 11d and 12d.
Yellow-bellied Flycatcher	Widespread Common Breeder. Confirmed as breeding on Sites 2d, 5d, 9d, 11d and 12d.
Olive-sided Flycatcher	Uncommon Breeder. Pairs observed on Sites 9d and 11d.
Passerines	Passerines
American Crow	Widespread Common Breeder. Adults feeding young on Sites 1d and 9d. Also present on Sites 2d, 10d, 11d and 12d.
Common Raven	Widespread Common Breeder. Family group encountered on Site 10d.
Blue Jay	Widespread Common Breeder. Pair observed on Site 5d.
Gray Jay	Common to Uncommon Breeder. One heard on Site 5d.
Black-capped Chickadee	Widespread Common Breeder. Observed carrying food to young on Sites 2d, 5d, 10d and 11d.
Boreal Chickadee	Widespread Common Breeder. Family group encountered on Site 5d and 1d adult heard on Site 12d.
Golden-crowned Kinglet	Widespread Common Breeder. Family groups present on Sites 4d and 5d. Also encountered on Sites 2d & 3d.
Ruby-crowned Kinglet	Widespread Common Breeder. Observed carrying food to young on Sites 1d, 3d, 5d and 9d.

Table M-2 Status an	d Relative Abundance of Species Recorded During the 2005 Breeding Bird Site Surveys.
Species	Status and Relative Abundance
Winter Wren	Uncommon Breeder. One singing bird on Site 5d. During this 2004 breeding surveys this species was only found at one other location.
Cedar Waxwing	Widespread Common Breeder. A pair present on Site 1d.
American Robin	Widespread Common Breeder. Confirmed as breeding on Sites 1d, 2d, 5d, 9d, and 10d.
Hermit Thrush	Widespread Common Breeder, found on or very near most sites. Breeding status confirmed by observing adults attending young.
Swainson's Thrush	Widespread Common Breeder. Heard and/or seen on Sites 2d, 5d, 9d, & 10d. Nest with eggs found within 100 meters of Site 9d.
Veery	Uncommon Breeder. One individual observed on Site 5d. This species was not found anywhere else in the immediate area during the more extensive 2004 breeding bird surveys.
Blue-headed Vireo	Widespread Common Breeder found on or very near most sites. Several adults observed carrying food to young.
Red-eyed Vireo	Widespread Common Breeder found on or very near most sites. Several adults observed carrying food to young.
Nashville Warbler	Widespread Common Breeder found on or very near most sites. Adults carrying food to young was an easily made observation from just about any location.
Yellow Warbler	Widespread Common Breeder but surprisingly only confirmed as breeding on Site 1d.
Magnolia Warbler	Widespread Common Breeder found on or very near most sites. Several adults observed carrying food to young.
Yellow-rumped Warbler	Widespread Common Breeder found on or very near most sites. Several adults observed carrying food to young.
Black-and-white Warbler	Uncommon to Common Breeder. Confirmed breeding on Sites 1d, 2d and 5d.
Common Yellowthroat	Widespread Common Breeder, found on or very near most sites. Adults carrying food to young was an easily made observation from just about any location.
Chestnut-sided Warbler	Widespread Common Breeder. Breeding Status confirmed on Sites 1d, 9d, 10d, 11d and 12d.
Black-throated Green Warbler	Uncommon Breeder observed attending young only on Site 5d. In previous surveys breeding Black-throated Green Warblers could only be found in one other location near the proposed project site at the original location for Site 4d.
Palm Warbler	Found breeding on Site 9d. Also present on Sites 10d and 12d. In addition this species is a fairly common breeder inside Chapel Gully Park.
Blackpoll Warbler	Recorded only on Site 12d. A localized breeder that is present in small numbers in exposed coastal areas of stunted evergreens near Canso.
American Redstart	Widespread Common Breeder found on or very near most sites. Several adults observed carrying food to young.
Tennessee Warbler	This species is declining in some areas of North America and Nova Scotia but in the Canso area it is still a common breeder confirmed as breeding on Sites 1d, 2d, 9d, 10d, and 12d.

Table M-2 Status and Relative Abundance of Species Recorded During the 2005 Breeding Bird Site Surveys.				
Species	Status and Relative Abundance			
Ovenbird	Uncommon Breeder. Observed only on Sites 4d and 5d, attending young. This species was not found anywhere else in the immediate vicinity during the more extensive 2004 breeding bird surveys.			
Mourning Warbler	Uncommon Breeder. Recorded only on Site 12d but appropriate habitat for breeding is protected inside Chapel Gully Park.			
Wilson's Warbler	Uncommon Breeder. Recorded only on Site 1d but appropriate habitat for breeding is protected inside Chapel Gully Park.			
Northern Parula	Uncommon Breeder. Recorded only on Site 12d but breeds in small numbers along the coastal areas near Canso in places where Old Man's Beard Lichen is present.			
Common Grackle	Widespread Common Breeder found on or very near most sites. Several adults observed carrying food to young.			
Song Sparrow	Widespread Common Breeder. Only recorded on Site 1d during 2005 surveys but also breeding within 200-300 meters of Sites 6d, 7d, and 8d.			
Lincoln's Sparrow	Uncommon Breeder. Only found on Site 9d but this species a nice section of breeding territory inside Chapel Gully Park where several pairs can be found breeding.			
White-throated Sparrow	Widespread Common Breeder. Confirmed as breeding on all sites.			
Fox Sparrow	Uncommon localized breeder. During the 2005 extremely low numbers of Fox Sparrows were present in the Canso area and as a result this species was found only on Site 11d. During the 2004 breeding season however this species was found in low numbers at several locations.			
Dark-eyed Junco	Widespread Common Breeder confirmed as breeding on or very near most sites.			
Purple Finch	Widespread Common Breeder confirmed as breeding on or very near most sites.			
Pine Siskin	An irruptive species that is often a common breeder in the Canso area. Confirmed as breeding on Sites 1d and 9d.			
Evening Grosbeak	Uncommon to Common Breeder. A pair observed on Site 1d but few additional pairs were common visitors to in town feeders.			
American Goldfinch	Widespread Common Breeder confirmed as breeding on or very near most sites.			

Appendix N

Result Tables
Main Spring Migration Survey, July 2005

TABLE N-1 Status and Relative Abundance of Species Known to Use the Canso Area During the Month of May.				
Species	Status			
Waterfowl	Waterfowl			
Red-throated Loon	Primarily an Early Spring Migrant but migrate through the area in small numbers during May.			
Common Loon	Early Spring Migrant still present as a breeder in the month of May.			
Pied-billed Grebe	Early Spring Migrant still present as a breeder in the month of May.			
Horned Grebe	Primarily an Early Spring Migrant but migrate through the area in small numbers during May.			
Red Necked Grebe	Primarily an Early Spring Migrant but migrate through the area in small numbers during May.			
Double-crested Cormorant	Early Spring Migrant still present as a breeder in the month of May.			
Great Cormorant	Early Spring Migrant still present as a breeder in the month of May.			
Red-breasted Merganser	Early Spring Migrant still present as a breeder in the month of May.			
Canada Goose	Early Spring Migrant still present as a breeder in the month of May.			
Wood Duck	Early Spring Migrant still present as a breeder in the month of May.			
Black Scoter	Primarily an Early Spring Migrant but small flocks of most non-breeding or late migrating present in the month of May.			
White-winged Scoter	Primarily an Early Spring Migrant but small flocks of most non-breeding or late migrating present in the month of May.			
Surf Scoter	Primarily an Early Spring Migrant but small flocks of most non-breeding or late migrating present in the month of May.			
American Black Duck	Early Spring Migrant still present as a breeder in the month of May.			
Common Eider	Early Spring Migrant still present as a breeder in the month of May.			
Mallard	Early Spring Migrant still present as a breeder in the month of May.			
Ring-necked Duck	Early Spring Migrant still present as a breeder in the month of May.			
American Wigeon	Early Spring Migrant still present as a breeder in the month of May.			
Blue Winged Teal	Early Spring Migrant still present as a breeder in the month of May.			
Green Winged Teal	Early Spring Migrant still present as a breeder in the month of May.			
Common Merganser	Early Spring Migrant still present as a breeder in the month of May.			
Red-breasted Merganser	Primarily an Early Spring Migrant but present in the month of May.			
Redhead	Rarity, one May record.			
Aerialists & Seabirds	Aerialists & Seabirds			
Great Black-backed Gull	Non-Migratory, Year Round Resident.			
Lesser Black Back Gull	Occasional individuals present in May as non-breeders.			
Herring Gull	Non-Migratory, Year Round Resident.			
Ring Billed Gull	Early Spring Migrant still present in May but breeding status is unknown.			
Laughing Gull	Occasional individuals present in May as non-breeders.			
Franklins Gull	Occasional individuals present in May as non-breeders.			
Glaucous Gull	Occasional individuals present in May as non breeding immatures.			

TABLE N-1 Status and Relative Abundance of Species Known to Use the Canso Area During the Month of May.				
Species	Status			
Iceland Gull	Occasional individuals present in May as non breeding immatures.			
Black legged Kittiwake	Occasionally seen feeding in open ocean areas far outside the chain of barrier islands surrounding Canso during the month of May.			
Arctic Tern	Uncommon and declining migrant, that passes through the Canso area in May and returns to the Canso area each May to breed.			
Common Tern	Uncommon and declining migrant, that passes through the Canso area in May and returns to the Canso area each May to breed.			
Roseate Tern	Uncommon and declining migrant, that passes through the Canso area in May and returns to the Canso area each May to breed in very small numbers.			
Caspian Tern	Rarity present most Mays as an edge of breeding range stray likely from small numbers from a disjunct breeding population on Prince Edward Island.			
Little Tern	Rarity present in May as extreme stray, one record.			
Leach's Storm Petrel	Commonly seen feeding in open ocean areas far outside the chain of barrier islands surrounding Canso during the month of May, sometimes in large numbers. A few individuals are found dead, injured or exhausted on town properties just after May storms.			
Atlantic Puffin	Commonly seen feeding in open ocean areas far outside the chain of barrier islands surrounding Canso during the month of May.			
Black Guillemot	Early Spring Migrant still present as a breeder in the month of May.			
Northern Gannet	Commonly seen feeding in open ocean areas just outside or well inside the chain of barrier islands surrounding Canso during the month of May.			
Shorebirds & Waders	Shorebirds & Waders			
Great Blue Heron	Early Spring Migrant still present as a breeder in the month of May.			
American Bittern	Early Spring Migrant still present as a breeder in the month of May.			
Little Blue Heron	Rarity present in May as a stray. Just a few records.			
Tri-Colored Heron	Rarity present in May as a stray. One or two older records.			
Reddish Egret	Extreme Rarity present in May as a stray 1 recent and 1 old record.			
Great Egret	Rarity present most years in May as a stray.			
Snowy Egret	Rarity present most years in May as a stray.			
Cattle Egret	Rarity present most years in May as a stray.			
Black Crowned Night Heron	Rarity present in May as a stray. Just a few records.			
Green Heron	Rarity present in May as a stray. Just a few records.			
Glossy Ibis	Rarity present in May as a stray. Just a few records.			
Sandhill Crane	Rarity present in May as a stray. Possible breeding incident.			
Virginia Rail	Rarity present in May as a stray. One sighting is made most springs.			
Sora	Rarity present in May as a stray. An average of one sighting every two years.			
Spotted Sandpiper	Early Spring Migrant still present as a breeder in the month of May.			
Willet	Early Spring Migrant still present as a breeder in the month of May.			

Species	Status
American Woodcock	Early Spring Migrant still present as a breeder in the month of May.
Common Snipe	Early Spring Migrant still present as a breeder in the month of May.
Birds of Prey	Birds of Prey
Bald Eagle	Year Round Resident.
Osprey	Early Spring Migrant still present as a breeder in the month of May.
Northern Harrier	Early Spring Migrant still present as a breeder in the month of May.
Sharp-shinned Hawk	Non-Migratory, Year Round Resident.
Northern Goshawk	Non-Migratory, Year Round Resident.
Red-tailed Hawk	Present in May, status unknown.
Broad Winged Hawk	Small numbers annually, during spring migration in the month of May.
Merlin	Non-Migratory, Year Round Resident.
American Kestrel	Typically an Early Spring Migrant , present in May as a breeder.
Great Horned Owl	Non-Migratory, Year Round Resident.
Long Eared Owl	Early Spring Migrant still present as a breeder in the month of May.
Barred Owl	Non-Migratory, Year Round Resident.
Saw Whet Owl	Early Spring Migrant still present as a breeder in the month of May.
Turkey Vulture	Rarity, present in May as a stray. Just a few records. Three present at one time in May 2004.
Game Birds	Game Birds
Ruffed Grouse	Non-Migratory, Year Round Resident.
Spruce Grouse	Non-Migratory, Year Round Resident.
Non Aligned Species	Non Aligned Species
Rock Pigeon	Non-Migratory, Year Round Resident.
Mourning Dove	Non-Migratory, Year Round Resident.
Black Billed Cuckoo	Rarity occasionally present in May as a stray. Might stay on breed in some years but no records.
Common Nighthawk	Occasionally present in May, status unknown.
Chuck-wills-widow	Extreme Rarity, 1 record.
Belted Kingfisher	Widespread, common May migrant.
Ruby-throated Hummingbird	Widespread, common May migrant.
Downy Woodpecker	Non-Migratory, Year Round Resident.
Black-backed Woodpecker	Non-Migratory, Year Round Resident.
Pileated Woodpecker	Non-Migratory, Year Round Resident.
Hairy Woodpecker	Non-Migratory, Year Round Resident.
Northern Flicker	Early Spring Migrant still present as a breeder in the month of May.
Red-breasted Nuthatch	Year Round Resident with spring influxes in local populations.
White-breasted Nuthatch	Uncommon to rare spring migrant.

TABLE N-1 Status and Relative Abundance of Species Known to Use the Canso Area During the Month of May.	
Species	Status
Three-toed Woodpecker	Non-Migratory, Year Round Resident.
Eastern Phoebe	Occasional individuals present during spring migration.
Alder Flycatcher	Widespread, common May migrant.
Eastern Kingbird	Small numbers present annually during the May migration.
Olive-sided Flycatcher	Occasional individuals present during May migration.
Yellow-bellied Flycatcher	Small numbers present annually during the May migration.
Least Flycatcher	Small numbers present annually during the May migration.
Cliff Swallow	Rarity, occasionally present in May as a stray.
Tree Swallow	Early spring migrant, widespread common breeder in May.
Barn Swallow	Small numbers present annually during the May migration.
Bank Swallow	Uncommon and declining May migrant.
Chimney Swift	Historically present in May but no records for the past 10 years.
Passerines	Passerines
American Crow	Non-Migratory, Year Round Resident.
Common Raven	Non-Migratory, Year Round Resident.
Blue Jay	Non-Migratory, Year Round Resident.
Gray Jay	Non-Migratory, Year Round Resident.
Black-capped Chickadee	Widespread common migrant and breeder in May.
Boreal Chickadee	Non-Migratory, Year Round Resident.
Golden-crowned Kinglet	Non-Migratory, Year Round Resident.
Ruby-crowned Kinglet	Early Spring Migrant still present mainly as a breeder in the month of May with evidence of migration of a few individuals.
Blue Gray Gnatcatcher	Spring Rarity, 1 Record, May 2004.
Winter Wren	Early Spring Migrant still present in May in small numbers perhaps as breeders.
European Starling	Non-Migratory, Year Round Resident.
Cedar Waxwing	Widespread, common migrant in late May.
American Robin	Widespread common breeder in the month of May.
Hermit Thrush	Early Spring Migrant, present as a breeder in the month of May.
Swainson's Thrush	Widespread, common May migrant.
Veery	Uncommon but annual, May migrant.
Eastern Bluebird	Uncommon to rare spring migrant.
Northern Mockingbird	1-3 pairs present most years in May as breeders. Timing of migration is unknown.
Gray Catbird	Small numbers present annually during the May migration.
Brown Thrasher	Rarity present in May as a stray. One record.
Blue-headed Vireo	Uncommon to common migrant in May.

TABLE N-1 Status and Relative Abundance of Species Known to Use the Canso Area During the Month of May.	
Species	Status
Red-eyed Vireo	Uncommon to common migrant in May.
Philadelphia Vireo	Rarity present in May as a stray. Just a few records.
Northern Parula	Common migrant during the month of May.
Nashville Warbler	Common migrant during the month of May.
Yellow Warbler	Widespread common migrant during the month of May.
Blue-winged Warbler	Extreme Rarity, 1 record, May 2001.
Magnolia Warbler	Widespread common migrant during the month of May.
Yellow-rumped Warbler	Widespread common migrant during the month of May.
Black-and-white Warbler	Uncommon to common migrant during the month of May.
Common Yellowthroat	Widespread common migrant during the month of May.
Chestnut-sided Warbler	Widespread common migrant during the month of May.
Black-throated Green Warbler	Uncommon to common migrant during the month of May.
Black Throated Blue Warbler	Uncommon to rare migrant during the month of May.
Bay-breasted Warbler	Uncommon but regular migrant during the month of May.
Canada Warbler	Uncommon but regular migrant during the month of May.
Cape May Warbler	Uncommon but regular migrant during the month of May.
Blackburnian Warbler	Uncommon but regular migrant during the month of May.
Palm Warbler	Widespread common migrant during the month of May.
Blackpoll Warbler	Widespread common migrant during the month of May.
American Redstart	Uncommon to common migrant during the month of May.
Wilson's Warbler	Uncommon to common migrant during the month of May.
Tennessee Warbler	Uncommon to common migrant during the month of May.
Northern Waterthrush	Uncommon to rare migrant during the month of May.
Ovenbird	Uncommon to common migrant during the month of May.
Red-winged Blackbird	Early Spring Migrant still present as a breeder in the month of May.
Common Grackle	Early Spring Migrant still present as a breeder in the month of May.
Bobolink	Uncommon and declining spring migrant.
Rusty Blackbird	Early Spring Migrant still present as a breeder in the month of May.
Brown-headed Cowbird	Widespread common migrant during the month of May.
Baltimore Oriole	Rare but regular spring migrant see in small numbers most years in May.
Bullocks Oriole	Extreme rarity present in May as a stray. Only 1 record.
Orchard Oriole	Extreme rarity in May as a stray. Only 1 record.
Scarlet Tanager	Rarity present in May as a stray. Only a few records.
Summer Tanager	Rarity present in May as a stray. Only a few records.
Western Tanager	Extreme rarity in May as a stray. One record of two individuals in Spring 2001.

TABLE N-1 Status and Relative Abundance of Species Known to Use the Canso Area During the Month of May.	
Species	Status
Savannah Sparrow	Early Spring Migrant still present as a breeder in the month of May.
Song Sparrow	Early Spring Migrant still present as a breeder in the month of May.
Chipping Sparrow	Widespread common migrant during the month of May.
Swamp Sparrow	Early Spring Migrant still present as a breeder in the month of May.
Fox Sparrow	Early Spring Migrant still present as a breeder in the month of May.
Lincoln's Sparrow	Widespread common migrant during the month of May.
White-crowned Sparrow	Rarity present in May as a stray.
White-throated Sparrow	Early Spring Migrant still present as a breeder in the month of May.
Nelsons Sharp-tailed Sparrow	Uncommon migrant in late May and early June.
Dark-eyed Junco	Early Spring Migrant still present as a breeder in the month of May.
Red Crossbill	Irruptive species sometimes present in May in large numbers.
White-winged Crossbill	Irruptive species sometimes present in May in large numbers.
Purple Finch	Early Spring Migrant still present mainly as a breeder in the month of May with evidence of migration of a few individuals.
Pine Siskin	Irruptive species sometimes present in May in large numbers.
Rose-breasted Grosbeak	Rare but regular spring migrant see in small numbers most years in May.
Blue Grosbeak	Rare but regular spring migrant with an average of one individual seen each May.
Indigo Bunting	Rare but regular spring migrant see in small numbers most years in May.
Northern Cardinal	Rarity present in May as a stray. Only 1 record, May 2004 but others may of gone unrecorded.
Eastern Towhee	Rarity present in May as a stray. Only a few records.
Evening Grosbeak	Widespread and common during the month of May.
Pine Grosbeak	Occasionally seen in May, status unknown.
American Goldfinch	Widespread and common during the month of May.
House Sparrow	Non-Migratory, Year Round Resident.

TABLE N-2 Relative Abundance of Species Detected during the May 2005 Spring Migration	
Relative Abundance	
Waterfowl	
Present in small numbers along the coast during the May Surveys.	
Present as a breeder in small numbers in freshwater areas during May Surveys.	
Present during May Surveys most likely as an uncommon breeder.	

TABLE N-2 Rela	tive Abundance of Species Detected during the May 2005 Spring Migration
Species	Relative Abundance
Horned Grebe	Present in small numbers along the coast during the May Surveys.
Red Necked Grebe	Present in small numbers along the coast during the May Surveys.
Double-crested Cormorant	Common breeder along the coast during May Surveys.
Great Cormorant	Common breeder along the coast during May Surveys.
Red-breasted Merganser	Present in small numbers along the coast during the May Surveys.
Canada Goose	Present as a breeder in small numbers in freshwater areas during May Surveys.
Black Scoter	Present in small numbers along the coast during the May Surveys.
White-winged Scoter	Present in small numbers along the coast during the May Surveys as non-breeders or late migrants.
Surf Scoter	Present in small numbers along the coast during the May Surveys as non-breeders or late migrants.
American Black Duck	Commonly present during May survey, most likely breeding in area.
Common Eider	Common breeder along the coast during May Surveys.
Mallard	Commonly present during May survey, most likely breeding in area.
Ring-necked Duck	Commonly present during May survey, most likely breeding in area.
American Wigeon	Present during May surveys, most likely as an uncommon breeder.
Blue-winged Teal	Present during May surveys, most likely as an uncommon breeder.
Green-winged Teal	Commonly present during May survey, most likely breeding in area.
Common Merganser	Present during May surveys, most likely as an uncommon breeder.
Red-breasted Merganser	Scattered individuals present along the coast during the May Surveys as non-breeders or late migrants.
Redhead	Rarity, one record, first recorded in the Canso area in May 2005 as a stray.
Aerialists & Seabirds	Aerialists & Seabirds
Great Black-backed Gull	Abundant, Year Round Resident present as a breeder during May surveys.
Lesser Black-backed Gull	One individual discovered during May surveys, present as a non-breeding stray.
Herring Gull	Abundant, Year Round Resident present as a breeder during May surveys.
Ring-billed Gull	Uncommonly present during May surveys but provincially status is unknown.
Glaucous Gull	One individual discovered during May surveys, present as a non-breeding immature.
Arctic Tern	Uncommon to common May migrant and breeder but numbers rapidly declining.
Common Tern	Uncommon to common May migrant and breeder but numbers rapidly declining.
Roseate Tern	Uncommon and declining May migrant, none were encountered during the May 2005 surveys and only one individual was sighted this May by locals.
Caspian Tern	One individual discovered during May surveys, most likely present as a non-breeder stray from disjunct population on Price Edward Island.

TABLE N-2 Relative Abundance of Species Detected during the May 2005 Spring Migration	
Species	Relative Abundance
Little Tern	Rarity, one recent record, first known discovery for the Canso area made in May 2005.
Black Guillemot	Present during May surveys, most likely as an uncommon breeder.
Northern Gannet	Commonly seen feeding in open ocean areas just outside or well inside the chain of barrier islands surrounding Canso during the May surveys
Shorebirds & Waders	Shorebirds & Waders
Great Blue Heron	Commonly present during May survey, most likely breeding in area.
American Bittern	Present during May surveys, most likely as an uncommon breeder.
Black Crowned Night Heron	Rarity, present in May as a stray. Just a few records. One encountered in May 2005.
Glossy Ibis	Rarity, present in May as a stray. Five to seven individuals were present in May 2005.
Sandhill Crane	Rarity, present in May as a stray. Possible breeding incident. One seen in spring of 2003, a pair spent the summer of 2004 on a private farm in Canso with one bird returning again to the same location in May of 2005.
Virginia Rail	Rarity, present in May as a stray. One sighting is made most springs. One observed in May 2005.
Spotted Sandpiper	Commonly present during May survey, most likely breeding in area.
Willet	Commonly present during May survey, most likely breeding in area.
American Woodcock	Present during May surveys, most likely as an uncommon breeder.
Common Snipe	Present during May surveys, most likely as an uncommon breeder.
Birds of Prey	Birds of Prey
Bald Eagle	Commonly present during May survey, most likely breeding in area.
Osprey	Typically an Early Spring Migrant but had not returned to traditional nesting sites in April 2004. Present in May 2004 but did not arrive at nesting sites until late May.
Northern Harrier	Present during May surveys, most likely as an uncommon breeder.
Sharp-shinned Hawk	Non-Migratory, Year Round Resident.
Northern Goshawk	Non-Migratory, Year Round Resident.
Red-tailed Hawk	Present in May, status unknown.
Broad-winged Hawk	Present during May surveys, most likely as an uncommon breeder.
Merlin	Non-Migratory, Year Round Resident.
American Kestrel	Typically an Early Spring Migrant but still evidence of migrating individuals during May survey.
Long Eared Owl	Present during May surveys as an uncommon breeder.
Barred Owl	Non-Migratory, Year Round Resident.
Game Birds	Game Birds
Ruffed Grouse	Non-Migratory, Year Round Resident.
Spruce Grouse	Non-Migratory, Year Round Resident.

TABLE N-2 Relative Abundance of Species Detected during the May 2005 Spring Migration	
Species	Relative Abundance
Non Aligned Species	Non Aligned Species
Rock Pigeon	Commonly present during May survey, most likely breeding in area.
Mourning Dove	Commonly present during May survey, most likely breeding in area.
Black-billed Cuckoo	Rarity occasionally present in May as a stray. Might stay on to breed in some years but no records. Two individuals present in May 2005.
Chuck-wills-widow	Extreme Rarity, 1 record, Spring 2005.
Belted Kingfisher	Commonly present during May survey, most likely breeding in area.
Ruby-throated Hummingbird	Commonly present during May survey, most likely breeding in area.
Downy Woodpecker	Non-Migratory, Year Round Resident.
Black-backed Woodpecker	Non-Migratory, Year Round Resident.
Pileated Woodpecker	Non-Migratory, Year Round Resident.
Hairy Woodpecker	Non-Migratory, Year Round Resident.
Northern Flicker	Present during May surveys, most likely as an uncommon breeder.
Red-breasted Nuthatch	Year Round Resident with spring influxes in local populations. Numbers at about average during May surveys, making them commonly present.
Alder Flycatcher	Widespread, common May migrant.
Eastern Kingbird	Small numbers present annually during the May migration. Numbers appeared to be up this May as about 30 individuals were encountered during surveys.
Yellow-bellied Flycatcher	Small numbers present annually during the May migration. During the May surveys a dozen individuals were recorded.
Least Flycatcher	Small numbers present annually during the May migration. During the May surveys four individuals were recorded.
Tree Swallow	Early spring migrant, widespread common breeder in May.
Barn Swallow	Small numbers present annually during the May migration. During the May surveys 10 individuals were recorded.
Passerines	Passerines
American Crow	Non-Migratory, Year Round Resident.
Common Raven	Non-Migratory, Year Round Resident.
Blue Jay	Non-Migratory, Year Round Resident.
Gray Jay	Non-Migratory, Year Round Resident.
Black-capped Chickadee	Widespread common migrant and breeder in May.
Boreal Chickadee	Non-Migratory, Year Round Resident.
Golden-crowned Kinglet	Non-Migratory, Year Round Resident.
Ruby-crowned Kinglet	Early Spring Migrant still present mainly as a breeder during May surveys with evidence of migration of a few individuals.
Winter Wren	Early Spring Migrant still present in May in small numbers most likely as breeders.

TABLE N-2 Relative Abundance of Species Detected during the May 2005 Spring Migration	
Species	Relative Abundance
European Starling	Non-Migratory, Year Round Resident.
Cedar Waxwing	Widespread, common migrant in late May.
American Robin	Widespread common breeder in the month of May.
Hermit Thrush	Early Spring Migrant still present mainly as a breeder during May surveys with evidence of migration of a few individuals.
Swainson's Thrush	Widespread, common May migrant.
Veery	Uncommon but annual, May migrant. During the May surveys 4 individuals were recorded.
Northern Mockingbird	1-3 pairs present most years in May as breeders. Timing of migration is unknown. This May only one individual could be found.
Gray Catbird	Small numbers present annually during the May migration. During the May surveys 7 individuals were recorded.
Blue-headed Vireo	Uncommon to common migrant in May. During the May surveys 2 individuals were recorded.
Red-eyed Vireo	Uncommon to common migrant in May. This May numbers may of been higher than previous years in the Canso area. During the May surveys 30 individuals were recorded.
Northern Parula	Common migrant during the month of May. During the May surveys 20 individuals were recorded.
Nashville Warbler	Common migrant during the month of May. During the May surveys 25 individuals were recorded.
Yellow Warbler	Widespread common migrant during the month of May.
Magnolia Warbler	Widespread common migrant during the month of May.
Yellow-rumped Warbler	Widespread common migrant during the month of May.
Black-and-white Warbler	Uncommon to common migrant during the month of May. During the May surveys 10 individuals were recorded.
Common Yellowthroat	Widespread common migrant during the month of May.
Chestnut-sided Warbler	Widespread common migrant during the month of May.
Black-throated Green Warbler	Uncommon to common migrant during the month of May. During the May surveys 14 individuals were recorded.
Palm Warbler	Widespread common migrant during the month of May.
Blackpoll Warbler	Widespread common migrant during the month of May.
American Redstart	Uncommon to common migrant during the month of May. During the May surveys 32 individuals were recorded, indicating that numbers may of been higher than previous years in the Canso area.
Wilson's Warbler	Uncommon to common migrant during the month of May. During the May surveys 4 individuals were recorded.
Tennessee Warbler	Uncommon to common migrant during the month of May. During the May surveys 8 individuals were recorded, indicating that numbers may of been higher than previous years in the Canso area
Northern Waterthrush	Uncommon to rare migrant during the month of May. During the May surveys

TABLE N-2	Relative Abundance of Species Detected during the May 2005 Spring Migration
Species	Relative Abundance
	1 individual was recorded.
Ovenbird	Uncommon to common migrant during the month of May. During the May surveys 2 individuals were recorded.
Red-winged Blackbird	Present during May surveys, most likely as an uncommon breeder. During the May surveys 6 individuals were recorded.
Common Grackle	Present during May surveys, most likely as an widespread common breeder.
Bobolink	Uncommon and declining spring migrant. During the May surveys a flock of fast moving 8 individuals were recorded.
Rusty Blackbird	Present during May surveys, most likely as an uncommon breeder. During the May surveys 2 individuals were recorded.
Brown-headed Cowbird	Widespread common migrant during the month of May.
Baltimore Oriole	Rare but regular spring migrant see in small numbers most years in May. This May numbers were down from the typical 10 to 15 individuals to just one lone bird.
Savannah Sparrow	Present during May surveys, most likely as an uncommon breeder. During the May surveys 16 individuals were recorded.
Song Sparrow	Present during May surveys, most likely as an common breeder. During the May surveys 36 individuals were recorded.
Chipping Sparrow	Widespread common migrant during the month of May. During the May surveys 4 individuals were recorded.
Swamp Sparrow	Present during May surveys, most likely as an uncommon breeder. During the May surveys 3 individuals were recorded.
Fox Sparrow	Present during May surveys, most likely as an locally common breeder. A dramatic drop in numbers were noted this year in the Canso area. Elsewhere in the province numbers of Fox Sparrow sightings were up. So it is likely that during the peak of their migration in early spring conditions such as prevailing winds were unfavorable for birds trying to reach the Canso area. During the May surveys only 1 individual was recorded.
Lincoln's Sparrow	Widespread common migrant during the month of May.
White-crowned Sparrow	Rarity, present in May as a stray. 1 Record for May 2005.
White-throated Sparrow	Present during May surveys, most likely as a widespread common breeder.
Dark-eyed Junco	Present during May surveys, most likely as a widespread common breeder.
Purple Finch	Early Spring Migrant still present mainly as a breeder during May surveys with evidence of migration of a few individuals.
Pine Siskin	Irruptive species sometimes present in May in large numbers. Numbers up this year in May but down from last fall. During the May surveys about 300 individuals were recorded.
Rose-breasted Grosbeal	Rare but regular spring migrant see in small numbers most years in May. During the May surveys 2 individuals were recorded.
Indigo Bunting	Rare but regular spring migrant see in small numbers most years in May. During the May surveys 7 individuals were recorded.
Evening Grosbeak	Widespread and common during the month of May.

TABLE N-2 Re	Relative Abundance of Species Detected during the May 2005 Spring Migration	
Species	Relative Abundance	
American Goldfinch	Widespread and common during the month of May.	
House Sparrow	Non-Migratory, Year Round Resident.	

TABLE N-3 Species Recorded On or Near Proposed Turbine Sites	
Species	Relative Abundance
Waterfowl	Waterfowl
American Black Duck	Present daily in May in small numbers in Chapel Gully near the mouth of Winter Creek.
Green-winged Teal	Present daily in May in small numbers in Chapel Gully near the mouth of Winter Creek.
Aerialists & Seabirds	Aerialists & Seabirds
Herring Gull	Present daily in May in small numbers in Chapel Gully near the mouth of Winter Creek.
Shorebirds & Waders	Shorebirds & Waders
Black Crowned Night Heron	One individual encountered during May surveys near the mouth of Winter Creek.
Virginia Rail	One individual encountered during May surveys near the mouth of Winter Creek.
Spotted Sandpiper	Small numbers encountered near Sites 6d, 7d, 8d.
Willet	Two pairs present daily near the mouth of Winter Creek.
American Woodcock	One individual encountered during May surveys near the mouth of Winter Creek.
Common Snipe	One individual encountered during May surveys near the mouth of Winter Creek.
Birds of Prey	Birds of Prey
Osprey	One individual encountered during May surveys near Site 5d where Ospreys have nested in previous years. No evidence of active nesting was found but this site will be rechecked during June 2005 Breeding Bird Survey.
Northern Harrier	One individual observed flying at a height of 300 meters over Sites 2d and 9d in a southeasterly direction.
Sharp-shinned Hawk	One individual observed flying at a height of 75 meters over Sites 3d in a northerly direction.
Long Eared Owl	One individual heard near Sites 10d, 11d and 12d.
Game Birds	Game Birds
Ruffed Grouse	Common year-round resident found during May surveys on or near all proposed sites.
Spruce Grouse	Common year round resident, found during May surveys near Sites 2d, 5d

TABLE N-3 Speci	ies Recorded On or Near Proposed Turbine Sites			
Species	Relative Abundance			
	and 10d.			
Non Aligned Species	Non Aligned Species			
Mourning Dove	Common to very common spring time species recorded on or within 100 meters of all sites.			
Black-billed Cuckoo	May rarity two individuals found during May surveys near Site 1d.			
Chuck-wills-widow	May rarity one individual found during May survey near Site 1d.			
Belted Kingfisher	One individual encountered daily in during May surveys near the mouth of Winter Creek and near Sites 7d, 8d.			
Ruby-throated Hummingbird	Common spring time species found during May surveys near Sites 1d and 3d.			
Downy Woodpecker	Common year-round resident found during May surveys on or near all proposed sites.			
Northern Flicker	Common to uncommon spring time species found during May surveys on or near Sites 5d and 8d.			
Red-breasted Nuthatch	Common year-round resident found during May surveys on or near all proposed sites.			
Alder Flycatcher	Common to very common spring time species recorded on or within 100 meters of all sites.			
Eastern Kingbird	Common to uncommon spring time species found during May surveys near Sites 8d.			
Passerines	Passerines			
American Crow	Common year-round resident found during May surveys on or near all proposed sites.			
Common Raven	Common year-round resident recorded on 6d sites but could easily show up on any of the sites.			
Blue Jay	Common year-round resident found during May surveys on or near all proposed sites.			
Black-capped Chickadee				
Black-capped Chickadee Boreal Chickadee	proposed sites. Common year-round resident found during May surveys on or near all			
	proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common year-round resident found during May surveys on or near all			
Boreal Chickadee	proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common year-round resident found during May surveys on or near all			
Boreal Chickadee Golden-crowned Kinglet	proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common to very common spring time species recorded on or within 100			
Boreal Chickadee Golden-crowned Kinglet Ruby-crowned Kinglet	proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common to very common spring time species recorded on or within 100 meters of all sites. Uncommon spring time species found during May surveys on or near Sites			
Boreal Chickadee Golden-crowned Kinglet Ruby-crowned Kinglet Winter Wren	proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common year-round resident found during May surveys on or near all proposed sites. Common to very common spring time species recorded on or within 100 meters of all sites. Uncommon spring time species found during May surveys on or near Sites 3d, 4d and 5d. Common to very common spring time species recorded on or within 100			

TABLE N-3 Species Recorded On or Near Proposed Turbine Sites				
Species	Relative Abundance			
Swainson's Thrush	Common to very common spring time species recorded on or within 100 meters of all sites.			
Veery	Uncommon spring time species found during May surveys on Site 5d.			
Gray Catbird	Uncommon spring time species found during May surveys on or near Site			
Blue-headed Vireo	Uncommon spring time species found during May surveys on Site 5d.			
Red-eyed Vireo	Uncommon to common spring time species found during May surveys on or near Sites 3d, 4d, 5d and 9d.			
Northern Parula	Common to very common spring time species recorded on or within 100 meters of all sites.			
Nashville Warbler	Common to very common spring time species recorded on or within 100 meters of all sites.			
Yellow Warbler	Common to very common spring time species recorded on or within 100 meters of all sites.			
Magnolia Warbler	Common to very common spring time species recorded on or within 100 meters of all sites.			
Yellow-rumped Warbler	Common to very common spring time species recorded on or within 100 meters of all sites.			
Black-and-white Warbler	Uncommon to common spring time species found during May surveys on near Sites 3d, 5d, 9d and 12d.			
Common Yellowthroat	Common to very common spring time species recorded on or within 100 meters of all sites.			
Chestnut-sided Warbler	Common to very common spring time species recorded on or within 100 meters of all sites.			
Black-throated Green Warbler	Uncommon spring time species found during May surveys on Site 5d.			
Palm Warbler	Common to very common spring time species recorded on or within 100 meters of all sites.			
Blackpoll Warbler	Common to very common spring time species recorded on or within 100 meters of all sites.			
American Redstart	Common to very common spring time species recorded on or within 100 meters of all sites.			
Tennessee Warbler	Uncommon to common spring time species found during May surveys on or near Sites 1d and 2d.			
Ovenbird	Uncommon spring time species found during May surveys on Site 5d.			
Common Grackle	Common to very common spring time species recorded on or within 100 meters of all sites.			
Brown-headed Cowbird	Common to very common spring time species recorded on or within 100 meters of most sites.			
Savannah Sparrow	Uncommon to common spring time species found during May surveys near Sites 6d, 7d.			
Song Sparrow	Common spring time species found during May surveys near Sites 1d, 2d, 6d, 7d, 8d, 10d.			
Lincoln's Sparrow	Common spring time species found during May surveys near Site 9d.			

TABLE N-3 Species Recorded On or Near Proposed Turbine Sites				
Species	Relative Abundance			
White-throated Sparrow	Common year-round resident found during May surveys on or near all proposed sites.			
Dark-eyed Junco	Common year-round resident found during May surveys on or near all proposed sites.			
Purple Finch	Common year-round resident found during May surveys on or near all proposed sites.			
Pine Siskin	Common year-round resident found during May surveys on or near all proposed sites.			
American Goldfinch	Common year-round resident found during May surveys on or near all proposed sites.			