

# **APPENDIX H**

## **WILDLIFE SURVEY RESULTS**

### **(2004/2005 AND 2013)**



**GOLDBORO  
LNG**

TABLE H1  
GOLDBORO LNG STUDY – LIST OF MAMMALS NOTED IN STUDY AREAS DURING KELTIC LNG (2005-2006) AND GOLDBORO LNG PROJECT (20012-13) SURVEYS

COMMON NAME	Scientific Name	ML	GB	OL	NHR	S	OFF	Comments
Moose	<i>Alces alces americana</i>					X		Scat observed approximately 400 m west of the Goldboro project footprint, and track observed along Sable site road (April 2013). Old browse sign and tracks observed approximately 800 m to the northeast.
Coyote	<i>Canis latrans</i>	X	X	X	X	X		
Beaver	<i>Castor canadensis</i>	X	X	X	X	X		
Red-backed Vole	<i>Clethrionomys gapperi</i>	X						
Porcupine	<i>Erethizon dorsatum</i>	X	X	X	X	X		Frequently seen as road kill.
Grey Seal	<i>Haliohoerus grypus</i>					X?		Seals observed on rocks northeast of Red Head in 2006. Some question as to whether harbour seal, grey seal or both species were present.
Snowshoe Hare	<i>Lepus americanus</i>	X	X	X	X	X		
River Otter	<i>Lontra canadensis</i>				X			
Bobcat	<i>Lynx rufus</i>	X	X			X		
Woodchuck	<i>Marmota monax</i>					X		
Striped Skunk	<i>Mephitis mephitis</i>					X		
Meadow Vole	<i>Microtus pennsylvanicus</i>	X	X	X	X	X		
Ermine (Short-tailed Weasel)	<i>Mustela erminea</i>					X		
American Mink	<i>Mustela vison</i>				X			
White-tailed Deer	<i>Odocoileus virginiana</i>	X	X	X	X	X	X	
Muskrat	<i>Ondatra zibethica</i>	X	X		X	X		
Harbour Seal	<i>Phoca vitulina</i>					X		Single individual observed on rocks northeast of Red Head in 2013.
Raccoon	<i>Procyon lotor</i>					X		
Eastern Chipmunk	<i>Tamias strictus</i>		X					
Red Squirrel	<i>Tamiasciurus hudsonicus</i>	X	X	X	X	X		
American Black Bear	<i>Ursus americanus</i>					X		Reported from Upper New Harbour River, Observed at Beech Hill Road
Red Fox	<i>Vulpes vulpes</i>					X		

ML - Meadow Lake

GB - Goldbrook Lake

OL - Ocean Lake

NHR - Area attendant to New Harbour River up the estimated level of flooding resulting from a dam constructed in the area of Fox Island. As well, shorebirds and waterfowl observed below Fox Island to the mouth of the river were included.

S - Main site area including the terminal area.

OFF - offshore in Isaac's Harbour and the area of Harbour, Goose and Country Islands

TABLE H2 GOLDBORO LNG STUDY – LIST OF AMPHIBIANS NOTED IN STUDY AREAS DURING Keltic LNG (2005-2006) AND GOLDBORO LNG PROJECT (20012-13) SURVEYS								
COMMON NAME	<i>Scientific Name</i>	ML	GB	OL	NHR	S	OFF	Comments
American Toad	<i>Bufo americanus</i>					X		
Spring Peeper	<i>Pseudacris crucifer</i>					X		
Green Frog	<i>Rana clamitans</i>	X	X	X	X	X		
Pickerel Frog	<i>Rana palustris</i>			X	X			
Mink Frog	<i>Rana septentrionalis</i>	X						
Wood Frog	<i>Rana sylvatica</i>	X			X	X		

TABLE H3 GOLDBORO LNG STUDY – LIST OF REPTILES NOTED IN STUDY AREAS DURING Keltic LNG (2005-2006) AND GOLDBORO LNG PROJECT (20012-13) SURVEYS								
COMMON NAME	<i>Scientific Name</i>	ML	GB	OL	NHR	S	OFF	Comments
Eastern Smooth Green Snake	<i>Opheodrys vernalis</i>	X						
Red-bellied Snake	<i>Storeria occipitomaculata</i>					X		
Garter Snake	<i>Thamnophis sirtalis</i>		X			X		

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S - Main site area including the terminal area.

OFF - offshore in Isaac's Harbour and the area of Harbour, Goose and Country Islands

TABLE H4 GOLDBORO LNG STUDY – LIST OF BIRDS NOTED IN STUDY AREAS										
		2004-2005 Surveys						2013 Surveys		
COMMON NAME	Scientific Name	ML	GB	OL	NHR	S	OFF	Site	Pipeline	Comments
Sharp-shinned Hawk	<i>Accipiter gentilis</i>	X	X			X				
Spotted Sandpiper	<i>Actitis macularia</i>	B	X	B	B	B		B		
Boreal Owl	<i>Aegolius funereus</i>				B					R. Lauff ( <i>pers. comm.</i> ); green; S1B, extremely rare breeder. Presumably this is a breeding pair.
Green-winged Teal	<i>Anas crecca</i>					BB				Breeding in Gold Brook just N of the metering station
American Black Duck	<i>Anas rubripes</i>				X	BB	X			Breeding in Gold Brook near metering station
Water Pipit	<i>Anthus spinoletta</i>					X				Migrant
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	X								
Great Blue Heron	<i>Ardea herodias</i>		B		X	X				Heromy reported NE of Gold Brook Lake. Air and ground observation did not confirm.
Short-eared Owl	<i>Asio flammeus</i>					BB				
Long-eared Owl	<i>Asio otus</i>					B				
Ring-necked Duck	<i>Aythya collaris</i>	BB	BB							
Cedar Waxwing	<i>Bombicilla cedrorum</i>	X	X		X	X				
Ruffed Grouse	<i>Bonasa umbellus</i>	B				B				
Canada Goose	<i>Branta canadensis</i>				X	X				
Common Goldeneye	<i>Bucephala clangula</i>				X					Migrant
Red-tailed Hawk	<i>Buteo jamaicensis</i>	X	X	X						
Broad-winged Hawk	<i>Buteo lineatus</i>					X				
Sanderling	<i>Calidris alba</i>					X				Migrant
White-rumped Sandpiper	<i>Calidris fuscicallis</i>				X					Migrant
Least Sandpiper	<i>Calidris minutilla</i>				X	X				Probably migrant
Semipalmated Sandpiper	<i>Calidris pusillus</i>				X	X				Migrant
Purple Finch	<i>Carpodacus purpureus</i>	B	B		X	X		B	B	
Willet	<i>Catantrophorus semipalmatus</i>				X	BB				
Veery	<i>Catharus fuscescens</i>					X				
Hermit Thrush	<i>Catharus guttatus</i>	B	B	BB		B		B	B	
Swainson's Thrush	<i>Catharus ustulatus</i>				X	BB		B		
Black Guillemot	<i>Cepphus grylle</i>						X			
Brown Creeper	<i>Certhia americana</i>				B	BB				
Semipalmated Plover	<i>Charadrius semipalmatus</i>	X			X	X				Migrant.
Black-bellied Plover	<i>Charadrius vociferus</i>				X					Migrant
Killdeer	<i>Charadrius vociferus</i>							B		
Common Nighthawk	<i>Chordeiles minor</i>				X					Fly over
Northern Harrier	<i>Circus cyaneus</i>	X			X	X		B	BB	One pair in Gold Brook wetland adjacent to north edge of Keltic Site
Long-tailed Duck	<i>Clangula hyemalis</i>						X			Migrant
Northern Flicker	<i>Colaptes auratus</i>	X	X	X	B	X		B		Especially numerous at roadsides throughout.
Rock Pigeon	<i>Columba livia</i>		X							Roosts in mining buildings at Goldbrook Lake
Olive-sided Flycatcher	<i>Contopus cooperi</i>			B	B				B	
American Crow	<i>Corvus brachyrhynchos</i>	X	X	X	X	X		B		
Common Raven	<i>Corvus corax</i>	BB	X	X	X	X		X		
Blue Jay	<i>Cyanocitta cristata</i>	X	X		X	X		B	B	
Spruce Grouse	<i>Dendragapus canadensis</i>	B	X	X	BB	X				
Bay-breasted Warbler	<i>Dendroica castanea</i>	BB								
Yellow-rumped Warbler	<i>Dendroica coronata</i>	BB	BB	BB	BB	BB		BB		
Blackburnian Warbler	<i>Dendroica fusca</i>	BB								
Magnolia Warbler	<i>Dendroica magnolia</i>	BB	BB	BB	BB	BB		BB	B	
Palm Warbler	<i>Dendroica palmarum</i>	BB	BB	BB	BB	B			B	
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	BB	BB			BB			B	
Yellow Warbler	<i>Dendroica petechia</i>	BB	BB		BB	BB			B	
Blackpoll Warbler	<i>Dendroica striata</i>				B			BB		
Cape May Warbler	<i>Dendroica tigrina</i>	B						B		
Black-throated Green Warbler	<i>Dendroica virens</i>	BB	BB		BB	BB		B		
Alder Flycatcher	<i>Empidonax alnorum</i>	B	B	B	B	B		B	B	
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	B	B	B	B	B		B	B	
Least Flycatcher	<i>Empidonax minimus</i>	B	B		B			B	B	
Merlin	<i>Falco columbarius</i>		X		X	X				
American Kestrel	<i>Falco sparverius</i>					X				
Common Snipe	<i>Gallinago gallinago</i>	X	X							
Common Loon	<i>Gavia immer</i>	BB	BB	BB	X	X	X	B	X	
Common Yellowthroat	<i>Geothlypis trichas</i>	BB	BB	BB	BB	BB		B	B	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	B	X		BB	X	X	X		
Barn Swallow	<i>Hirundo rustica</i>				X	X				
Dark-eyed Junco	<i>Junco hyemalis</i>	BB	BB	BB	X	BB		B	B	
Herring Gull	<i>Larus argentatus</i>	X			X	X	BB	X		
Great Black-backed Gull	<i>Larus marinus</i>	X			X	X	B	X		
Short-billed Dowitcher	<i>Limnodromus friseus</i>				X					Migrant
Hooded Merganser	<i>Lophodytes cucullatus</i>				X					Probable Migrant
Red Crossbill	<i>Loxia curvirostra</i>					X				
White-winged Crossbill	<i>Loxia leucoptera</i>		X	X	X	X				
Belted Kingfisher	<i>Megasceryle alcyon</i>	X	X	X	X	X				
Surf Scoter	<i>Melanitta perspicillata</i>						X			Migrant
White-winged Scoter	<i>Melanitta deglandi</i>						X			Migrant
Common Scoter	<i>Melanitta nigra</i>						X			Migrant
Swamp Sparrow	<i>Melospiza georgiana</i>	B	B			B		B	B	
Lincoln's Sparrow	<i>Melospiza lincolni</i>					B				
Song Sparrow	<i>Melospiza melodia</i>	B	X		X	BB		B	B	
Common Merganser	<i>Mergus merganser</i>	BB			BB	X				
Red-breasted Merganser	<i>Mergus serrator</i>				X	BB		X		
Black-and-white Warbler	<i>Mniotilta varia</i>	BB	BB		BB	BB			B	

TABLE H4 GOLDBORO LNG STUDY – LIST OF BIRDS NOTED IN STUDY AREAS										
Brown-headed Cowbird	<i>Molothrus ater</i>					X				
Hudsonian Whimbrel	<i>Numenius phaeopus</i>					X				Migrant
Mourning Warbler	<i>Oporornis philadelphia</i>		X					B		
Tennessee Warbler	<i>Oreothlypis peregrina</i>					B		B		
Osprey	<i>Pandion haliaetus</i>	B	X		B	BB	X	B	B	
Northern Parula Warbler	<i>Parula americana</i>				X					
Black-capped Chickadee	<i>Parus atricapillus</i>	BB	X		X	BB		B	B	
Boreal Chickadee	<i>Parus hudsonicus</i>	BB	X		X	BB		B		
Savannah Sparrow	<i>Passerculus sandwichensis</i>					B				
Fox Sparrow	<i>Passerella iliaca</i>									B
Gray Jay	<i>Perisoreus canadensis</i>	B				BB		B		
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	X			X	X	BB	X		
Ring-necked Pheasant	<i>Phasianus colchicus</i>					X				
Black-backed Woodpecker	<i>Picoides arcticus</i>				X					
Downy Woodpecker	<i>Picoides pubescens</i>					X				
Hairy Woodpecker	<i>Picoides villosus</i>	B	X		BB	B		B	BB	
Pine Grosbeak	<i>Pinicola enucleator</i>				X	X				
Snow Bunting	<i>Plectrophenax rivalis</i>					X				Migrant
Red-necked Grebe	<i>Podiceps grisegena</i>					X	X			Migrant
Common Grackle	<i>Quiscalus quiscula</i>	B	B		X	B				
Ruby-crowned Kinglet	<i>Regulus calendula</i>	BB	BB	BB	X	BB		B	B	
Golden-crowned Kinglet	<i>Regulus satrapa</i>	BB	BB	BB	X	BB				
Bank Swallow	<i>Riparia riparia</i>				X					
American Redstart	<i>Setophaga ruticilla</i>	BB	BB	BB		BB		BB	B	
Red-breasted Nuthatch	<i>Sitta canadensis</i>		X		X	X				
Common Eider	<i>Somateria mollissima</i>					X	BB	X		
Pine Siskin	<i>Spinus pinus</i>		X			X				
American Goldfinch	<i>Spinus tristis</i>	BB	BB		B	BB		B		
Chipping Sparrow	<i>Spizella passerina</i>								B	
Roseate Tern	<i>Sterna dougallii</i>					X	BB			
Common Tern	<i>Sterna hirundo</i>				X	X	BB	X		
Arctic Tern	<i>Sterna paradisaea</i>					X	BB			
European Starling	<i>Sturnus vulgaris</i>	X				X				
Tree Swallow	<i>Tachycineta bicolor</i>	X	X	X	X	X				
Greater Yellowlegs	<i>Tringa melanoleuca</i>	BB			X	BB				Breeding behaviour at 1) south end of Dung Cove pond, 2) near Metering Station, and 3) north of meadow lake.
Solitary Sandpiper	<i>Tringa solitaria</i>	X	X							Migrant
Winter Wren	<i>Troglodytes troglodytes</i>		X			B		B		
American Robin	<i>Turdus migratorius</i>	B	BB	X	X	BB		B	B	
Nashville Warbler	<i>Vermivora ruficapilla</i>	X				X		B	B	
Red-eyed Vireo	<i>Vireo olivaceus</i>	X	X	X	X	X		B	B	
Blue-headed Vireo	<i>Vireo solitarius</i>	X	B	X	X	X		B	B	
Canada Warbler	<i>Wilsonia canadensis</i>			X						
Wilson's Warbler	<i>Wilsonia pusilla</i>							B	B	
Mourning Dove	<i>Zenaida macroura</i>					X				
White-throated Sparrow	<i>Zonotrichia albicollis</i>	X	B	B	X	BB		B	B	

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**TABLE H5**  
**GOLDBORO LNG STUDY – LIST OF BIRDS BY HABITAT IN KELTIC AND MEADOW LAKE STUDY AREAS (2004-2005)**

Species	Habitat (See note at end of table)																
	MCF	ICF	MMF	IMF	TS	LS	CST	CB	BF	MOW	FOW	MSL	FSL	OF	RO	FLO	
Keltic Site Study Area																	
Alder Flycatcher					8												
American Black Duck											1	14	4				
American Crow												3				10	
American Goldfinch		6	6	6													
American Kestrel						1											
American Redstart			4	4													
Arctic Tern										6							
Bald Eagle																1	
Barn Swallow																1	
Belted Kingfisher																1	
Black Guillemot										1							
Black-and-white Warbler		4	2														
Black-capped Chickadee			8		8												
Black-throated Green Warbler		8	8	12													
Blue Jay			4														
Boreal Chickadee	4		10	6													
Broad-winged Hawk																1	
Brown Creeper		2		1													
Brown-headed Cowbird														2			
Canada Goose											10						
Cedar Waxwing			2														
Chestnut-sided Warbler			6														
Common Eider										100		9					
Common Grackle						4								6			
Common Loon										20							
Common Merganser											2						
Common Raven												2		2		8	
Common Scoter										35							
Common Tern										6							
Common Yellowthroat	2		8	6	10												
Dark-eyed Junco	1			14	2	4											
Double-crested Cormorant										60						12	
Downy Woodpecker			1														
European Starling														8			
Golden-crowned Kinglet	8	6	8														
Gray Jay				2													
Great Black-backed Gull										6						3	
Great Blue Heron													1			1	
Greater Yellowlegs				1				4									
Green-winged Teal											15						
Hairy Woodpecker			2														
Hermit Thrush		10	2														
Herring Gull										80		35				30	
Least Sandpiper								9									
Magnolia Warbler		10		8	6												
Merlin																2	
Mourning Dove		2															
Nashville Warbler				2													
Northern Flicker			4		1								2		13		
Northern Harrier												1				2	
Long-tailed Duck										200							
Osprey																1	
Palm Warbler						8			2								
Pine Grosbeak			1														
Pine Siskin			8														
Purple Finch			6														
Red Crossbill	4																
Red-breasted Merganser											9						
Red-breasted Nuthatch			10	1													
Red-eyed Vireo		1	1														
Red-necked Grebe										6							
Ring-necked Pheasant															1		
American Robin			8	8										10	6		
Roseate Tern										1							

Ruby-crowned Kinglet			8													
Ruffed Grouse			1													
Sanderling								3								
Savannah Sparrow												1		1		
Semipalmated Plover								18								
Semipalmated Sandpiper								27								
Sharp-shinned hawk																2
Short-eared Owl					2											
Snow Bunting												100				
Solitary Vireo		1		4												
Song Sparrow				7		6			3			3		3		
Spotted Sandpiper												10				
Spruce Grouse															1	
Surf Scoter										100						
Swainson's Thrush	10		8													
Swamp Sparrow				2	2											
Tree Swallow																9
Veery						1										
Water Pipet												2				
Whimbrel																1
White-throated Sparrow				4	10	8										
White-winged Crossbill			4													
White-winged Scoter										25						
Willet													4			
Winter Wren			5													
Yellow Warbler					4											
Yellow-bellied Flycatcher		2			1											
Yellow-rumped Warbler		20	20	10	8											
Total	29	72	155	98	60	34	0	61	5	646	37	180	11	32	21	86
Meadow Lake Study Area																
Alder Flycatcher				4		10										
American Crow					4								6			10
American Goldfinch					4											
American Redstart				12	4				4							
Bald Eagle																2
Bay-breasted Warbler				1												
Belted Kingfisher																2
Black-and-white Warbler	8	6														
Blackburnian Warbler	2															
Black-capped Chickadee			4	15												
Black-throated Green Warbler	20	10	20													
Blue Jay				1												
Boreal Chickadee	4		2													
Cape May Warbler	1															
Cedar Waxwing			20													
Chestnut-sided Warbler			6													
Common Grackle															15	
Common Loon											2					
Common Merganser											12					
Common Raven																4
Common Snipe																1
Common Yellowthroat				20	2	2										
Dark-eyed Junco				20		10										
Double-crested Cormorant											6					
European Starling															6	
Golden-crowned Kinglet	8		10													
Gray Jay			2				2									
Great Black-backed Gull											2					
Greater Yellowlegs							1									
Hairy Woodpecker			2													
Hermit Thrush	20			2												
Herring Gull											16					
Least Flycatcher						2										
Magnolia Warbler		20	20	6												
Nashville Warbler				2												
Northern Flicker															8	
Northern Harrier						1										
Osprey																2
Palm Warbler						20	2									
Purple Finch	2															

Red-eyed Vireo			8	4													
Red-tailed Hawk											10						2
Ring-necked Duck																	
American Robin			6	20													
Ruby-crowned Kinglet			20	10	4												
Ruby-throated Hummingbird					1												
Ruffed Grouse																4	
Semipalmated Plover													20				
Sharp-shinned Hawk																	1
Solitary Sandpiper													1				
Solitary Vireo	4	8	8														
Song Sparrow				4													
Spotted Sandpiper													4				
Spruce Grouse		2															
Swamp Sparrow					6	2	2										
Tree Swallow																	6
White-throated Sparrow				8		6											
Yellow Warbler				2													
Yellow-bellied Flycatcher			3														
Yellow-rumped Warbler		20	20	20	20												
Total	69	66	121	151	12	53	7	0	4	0	48	0	31	0	33	30	

MCF = Mature Conifer Forest; ICF – Immature Conifer Forest; MMF = Mature Mixed Forest; IMF = Immature Mixed Forest; TS = Tall Shrub; LS = Low Shrub; CST = Conifer Swamp/Treed Bog; CB = Cobble/Gravel Beach; BF = Open Bog/Fen; MOW = Marine Open Water; FOW = Fresh Open Water; MSL = Marine Shoreline; FSL = Fresh water Shoreline; OF = Old Field; RO = Roadside; FLO = Fly-over



TABLE H6  
GOLDBORO LNG STUDY – MARITIMES BREEDING BIRD ATLAS (2013) RESULTS

Common Name	Latin Name	Maximum Breeding Evidence <sup>1</sup>	Breeding Status
Canada Goose	<i>Branta canadensis</i>	FY	Confirmed
American Black Duck	<i>Anas rubripes</i>	H	Possible
Common Eider	<i>Somateria mollissima</i>	FY	Confirmed
Common Merganser	<i>Mergus merganser</i>	P	Probable
Red-breasted Merganser	<i>Mergus serrator</i>	P	Probable
Ruffed Grouse	<i>Bonasa umbellus</i>	FY	Confirmed
Common Loon	<i>Gavia immer</i>	S	Possible
Osprey	<i>Pandion haliaetus</i>	P	Probable
Bald Eagle	<i>Haliaeetus leucocephalus</i>	P	Probable
Broad-winged Hawk	<i>Buteo platypterus</i>	H	Possible
Merlin	<i>Falco columbarius</i>	H	Possible
Spotted Sandpiper	<i>Actitis macularius</i>	T	Probable
Greater Yellowlegs	<i>Tringa melanoleuca</i>	H	Possible
American Woodcock	<i>Scolopax minor</i>	S	Possible
Mourning Dove	<i>Zenaida macroura</i>	FY	Confirmed
Long-eared Owl	<i>Asio otus</i>	S	Possible
Short-eared Owl	<i>Asio flammeus</i>	H	Possible
Common Nighthawk	<i>Chordeiles minor</i>	S	Possible
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	H	Possible
Belted Kingfisher	<i>Megaceryle alcyon</i>	H	Possible
Downy Woodpecker	<i>Picoides pubescens</i>	S	Possible
Hairy Woodpecker	<i>Picoides villosus</i>	P	Probable
Northern Flicker	<i>Colaptes auratus</i>	P	Probable
Olive-sided Flycatcher	<i>Contopus cooperi</i>	S	Possible
Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	S	Possible
Alder Flycatcher	<i>Empidonax alnorum</i>	CF	Confirmed
Least Flycatcher	<i>Empidonax minimus</i>	S	Possible
Blue-headed Vireo	<i>Vireo solitarius</i>	CF	Confirmed
Red-eyed Vireo	<i>Vireo olivaceus</i>	T	Probable
Blue Jay	<i>Cyanocitta cristata</i>	P	Probable
American Crow	<i>Corvus brachyrhynchos</i>	CF	Confirmed
Common Raven	<i>Corvus corax</i>	FY	Confirmed
Tree Swallow	<i>Tachycineta bicolor</i>	AE	Confirmed
Bank Swallow	<i>Riparia riparia</i>	AE	Confirmed
Barn Swallow	<i>Hirundo rustica</i>	H	Possible
Black-capped Chickadee	<i>Poecile atricapilla</i>	S	Possible
Boreal Chickadee	<i>Poecile hudsonica</i>	S	Possible
Red-breasted Nuthatch	<i>Sitta canadensis</i>	FY	Confirmed
Winter Wren	<i>Troglodytes troglodytes</i>	S	Possible
Golden-crowned Kinglet	<i>Regulus satrapa</i>	S	Possible
Ruby-crowned Kinglet	<i>Regulus calendula</i>	T	Probable
Veery	<i>Catharus fuscescens</i>	S	Possible
Swainson's Thrush	<i>Catharus ustulatus</i>	P	Probable
Hermit Thrush	<i>Catharus guttatus</i>	CF	Confirmed
American Robin	<i>Turdus migratorius</i>	CF	Confirmed

Gray Catbird	<i>Dumetella carolinensis</i>	S	Possible
European Starling	<i>Sturnus vulgaris</i>	CF	Confirmed
Cedar Waxwing	<i>Bombycilla cedrorum</i>	S	Possible
Tennessee Warbler	<i>Vermivora peregrina</i>	S	Possible
Nashville Warbler	<i>Vermivora ruficapilla</i>	S	Possible
Northern Parula	<i>Parula americana</i>	S	Possible
Yellow Warbler	<i>Dendroica petechia</i>	T	Probable
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>	S	Possible
Magnolia Warbler	<i>Dendroica magnolia</i>	S	Possible
Yellow-rumped Warbler	<i>Dendroica coronata</i>	CF	Confirmed
Black-throated Green Warbler	<i>Dendroica virens</i>	CF	Confirmed
Blackburnian Warbler	<i>Dendroica fusca</i>	S	Possible
Palm Warbler	<i>Dendroica palmarum</i>	S	Possible
Bay-breasted Warbler	<i>Dendroica castanea</i>	S	Possible
Blackpoll Warbler	<i>Dendroica striata</i>	FY	Confirmed
Black-and-white Warbler	<i>Mniotilta varia</i>	P	Probable
American Redstart	<i>Setophaga ruticilla</i>	T	Probable
Ovenbird	<i>Seiurus aurocapilla</i>	S	Possible
Northern Waterthrush	<i>Seiurus noveboracensis</i>	S	Possible
Mourning Warbler	<i>Oporornis philadelphia</i>	S	Possible
Common Yellowthroat	<i>Geothlypis trichas</i>	P	Probable
Wilson's Warbler	<i>Wilsonia pusilla</i>	S	Possible
Canada Warbler	<i>Wilsonia canadensis</i>	S	Possible
Chipping Sparrow	<i>Spizella passerina</i>	S	Possible
Savannah Sparrow	<i>Passerculus sandwichensis</i>	S	Possible
Fox Sparrow	<i>Passerella iliaca</i>	S	Possible
Song Sparrow	<i>Melospiza melodia</i>	CF	Confirmed
Lincoln's Sparrow	<i>Melospiza lincolni</i>	S	Possible
Swamp Sparrow	<i>Melospiza georgiana</i>	S	Possible
White-throated Sparrow	<i>Zonotrichia albicollis</i>	FY	Confirmed
Dark-eyed Junco	<i>Junco hyemalis</i>	CF	Confirmed
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	S	Possible
Common Grackle	<i>Quiscalus quiscula</i>	CF	Confirmed
Purple Finch	<i>Carpodacus purpureus</i>	S	Possible
American Goldfinch	<i>Carduelis tristis</i>	P	Probable
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	H	Possible

Notes:

1. Maximum breeding evidence observed. Breeding evidence codes are as follows:

- X** No breeding evidence; species observed outside of potential breeding habitat.
- S** Singing; heard on one occasion only.
- H** Species observed in suitable breeding habitat during the breeding season.
- P** Pair observed in suitable breeding habitat.
- A** Agitated behaviour of an adult in breeding habitat.
- T** Territorial behaviour; adult singing twice at same location, a week or more apart.
- CF** Adult carrying food.
- FY** Fledged young.
- NB** Nest building behaviour.
- AE** Adult entering a nest cavity.
- NY** Nest with young.

TABLE H7  
GOLDBORO LNG STUDY – SPECIES REPORTED IN SHEET HARBOUR CHRISTMAS BIRD COUNT

Common Name	Scientific Name	Number of Counts In Which Species Was Observed	Number of Individuals Observed		
			Average	Min	Max
Snow Goose	<i>Chen caerulescens</i>	1	1	1	1
Canada Goose	<i>Branta canadensis</i>	2	14	cw	28
American Black Duck	<i>Anas rubripes</i>	3	84	84	85
Greater Scaup	<i>Aythya marila</i>	1	16	16	16
Common Eider	<i>Somateria mollissima</i>	3	62	34	104
Harlequin Duck	<i>Histrionicus histrionicus pop. 1</i>	3	38	26	44
Surf Scoter	<i>Melanitta perspicillata</i>	3	10	6	16
White-winged Scoter	<i>Melanitta fusca</i>	3	27	10	39
Black Scoter	<i>Melanitta nigra</i>	2	4	3	6
Unidentified scoter	<i>Melanitta sp.</i>	2	10	7	12
Long-tailed Duck	<i>Clangula hyemalis</i>	3	305	220	451
Bufflehead	<i>Bucephala albeola</i>	2	10	2	19
Common Goldeneye	<i>Bucephala clangula</i>	3	60	24	109
Hooded Merganser	<i>Lophodytes cucullatus</i>	3	17	10	23
Common Merganser	<i>Mergus merganser</i>	3	6	4	8
Red-breasted Merganser	<i>Mergus serrator</i>	3	124	106	149
Unidentified duck		1	1	1	1
Ring-necked Pheasant	<i>Phasianus colchicus</i>	3	22	5	38
Ruffed Grouse	<i>Bonasa umbellus</i>	3	3	1	7
Spruce Grouse	<i>Dendragapus canadensis</i>	1	2	2	2
Common Loon	<i>Gavia immer</i>	3	43	29	69
Horned Grebe	<i>Podiceps auritus</i>	3	28	14	51
Red-necked Grebe	<i>Podiceps grisegena</i>	3	3	2	4
Northern Gannet	<i>Morus bassanus</i>	2	2	1	4
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	1	2	2	2
Great Cormorant	<i>Phalacrocorax carbo</i>	3	12	9	16
Bald Eagle	<i>Haliaeetus leucocephalus</i>	3	6	2	8
Red-tailed Hawk	<i>Buteo jamaicensis</i>	2	1	1	1
Merlin	<i>Falco columbarius</i>	1	2	2	2
Killdeer	<i>Charadrius vociferus</i>	1	14	14	14
Spotted Sandpiper	<i>Actitis macularia</i>	1	1	1	1
Purple Sandpiper	<i>Calidris maritima</i>	3	30	cw	47
Ring-billed Gull	<i>Larus delawarensis</i>	2	2	cw	5
Herring Gull	<i>Larus argentatus</i>	3	266	177	379
Glaucous Gull	<i>Larus hyperboreus</i>	1	2	2	2
Great Black-backed Gull	<i>Larus marinus</i>	2	6	4	9
Unidentified gull		3	12	7	22
Dovekie	<i>Alle alle</i>	1	1	1	1
Black Guillemot	<i>Cephus grylle</i>	3	32	22	52
Rock Pigeon	<i>Columba livia</i>	3	56	52	62
Mourning Dove	<i>Zenaida macroura</i>	3	45	22	81
Downy Woodpecker	<i>Picoides pubescens</i>	3	2	1	5
Hairy Woodpecker	<i>Picoides villosus</i>	3	4	3	6
Black-backed Woodpecker	<i>Picoides arcticus</i>	3	2	cw	4
Northern Flicker	<i>Colaptes auratus</i>	1	1	1	1
Pileated Woodpecker	<i>Dryocopus pileatus</i>	2	2	2	3
Gray Jay	<i>Perisoreus canadensis</i>	2	6	4	9

Blue Jay	<i>Cyanocitta cristata</i>	3	55	42	61
American Crow	<i>Corvus brachyrhynchos</i>	3	159	138	192
Common Raven	<i>Corvus corax</i>	3	23	15	34
Black-capped Chickadee	<i>Poecile atricapilla</i>	3	247	170	365
Boreal Chickadee	<i>Poecile hudsonica</i>	3	35	28	44
Red-breasted Nuthatch	<i>Sitta canadensis</i>	3	12	8	16
Brown Creeper	<i>Certhia americana</i>	3	2	2	3
Winter Wren	<i>Troglodytes troglodytes</i>	1	1	1	1
Golden-crowned Kinglet	<i>Regulus satrapa</i>	3	54	39	63
Hermit Thrush	<i>Catharus guttatus</i>	1	1	1	1
American Robin	<i>Turdus migratorius</i>	2	11	1	22
European Starling	<i>Sturnus vulgaris</i>	3	206	86	403
American Pipit	<i>Anthus rubescens</i>	2	2	1	3
Yellow-breasted Chat	<i>Icteria virens</i>	1	cw		
American Tree Sparrow	<i>Spizella arborea</i>	2	8	4	12
Song Sparrow	<i>Melospiza melodia</i>	3	12	4	26
Swamp Sparrow	<i>Melospiza georgiana</i>	1	2	2	2
White-throated Sparrow	<i>Zonotrichia albicollis</i>	3	11	2	28
Unidentified sparrow		3	1	1	2
Dark-eyed Junco	<i>Junco hyemalis</i>	3	23	3	59
Snow Bunting	<i>Plectrophenax nivalis</i>	1	1	1	1
Common Grackle	<i>Quiscalus quiscula</i>	2	6	5	6
Baltimore Oriole	<i>Icterus galbula</i>	1	1	1	1
Pine Grosbeak	<i>Pinicola enucleator</i>	1	8	8	8
White-winged Crossbill	<i>Loxia leucoptera</i>	3	12	1	30
Common Redpoll	<i>Acanthis flammea</i>	2	4	3	6
Pine Siskin	<i>Carduelis pinus</i>	1	11	11	11
American Goldfinch	<i>Carduelis tristis</i>	3	250	175	381
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	1	16	16	16
House Sparrow	<i>Passer domesticus</i>	1	1	1	1

Note: 1. Out of a total of 3 CBCs conducted in the area. "CW" denotes that a species was observed during the week of the count, but not on the count day itself. Number of individuals is not recorded for Count Week species.