•loss of in-stream at	nd rinarian	aquatic habitats	affecting	oroductive	capacity of fish habitat.	
•1035 Of III Stituin al	in inpanan	aqualle mabilals	anceung	JIOuucuve	capacity of fish habitat.	

			estrial Invertebrate Overviev ler of Terrestrial Invertebrat	
Phylum	Class	Order	Common Name	Ecological Significance
Nematoda			Round worms, thread worms (some), whip worms, lung worms, hook worms, eel worms	Predators, decomposers, parasites
Annelida			Leeches, earthworms	Decomposers, parasites
Mollusca			slugs, land snails	Scavengers, decomposers, predators
Arthropoda	Malacostraca	Isopoda	Isopods, pillbugs, woodlice	Decomposers
I	Arachnida		Mites, ticks, spiders, scorpions	Parasites, predators
	Chilopoda		Centipedes	Predators
	Diplopoda		Millipedes	Decomposers, herbivores
	Entognatha	Collembola	Springtails	Decomposers, herbivores
	Insecta	Coleoptera	Beetles	Scavengers, predators, herbivores
		Dermaptera	Earwigs	Omnivores, decomposers
		Diptera	Mosquitoes, gnats, midges	Parasites, nectivores
		Hymenoptera	Wasps, ants, bees, sawflies	Predators, nectivores, herbivores
		Lepidoptera	Butterflies, moths	Nectivores
		Orthoptera	Grasshoppers, crickets, katydids, locusts	Herbivores
		Thysanura	Bristletails, silverfish	Decomposers, herbivores
Source: BIOSIS 2	Zoological Record (2	007)		

Table B3-2:Birds Potentially Using the Local Study Area								
	Observed in		Regulatory Status*					
Species	Study Area During 2004/2005 Surveys	Breeding or Migrating?	SARA (Schedule 1)	MBESA	COSEWIC			
Pacific Loon	$\checkmark$	Migrating						
Common Loon	$\checkmark$	Breeding						
Pied-billed Grebe		Breeding						
Horned Grebe		Breeding			Special Concern			
Red-necked Grebe	$\checkmark$	Breeding						
American White Pelican		Breeding						
Double-crested Cormorant	$\checkmark$	Breeding						
American Bittern		Breeding						
Great Blue Heron	$\checkmark$	Breeding						
Tundra Swan	$\checkmark$	Migrating						
Greater White-fronted Goose		Migrating						
Snow Goose		Migrating						
Ross's Goose		Migrating						
Canada Goose	$\checkmark$	Breeding						
Green-winged Teal	$\checkmark$	Breeding						
American Black Duck	$\checkmark$	Breeding						
Mallard	$\checkmark$	Breeding						
Northern Pintail	$\checkmark$	Breeding						
Blue-winged Teal	$\checkmark$	Breeding						
Northern Shoveller	$\checkmark$	Breeding						
Gadwall		Breeding						
American Wigeon	$\checkmark$	Breeding						
Canvasback		Breeding						
Redhead		Breeding						
Ring-necked Duck	$\checkmark$	Breeding						
Greater Scaup	$\checkmark$	Migrating						
Lesser Scaup	$\checkmark$	Breeding						
Common Eider		Migrating						
Black Scoter	$\checkmark$	Migrating						
Surf Scoter	$\checkmark$	Migrating						
White-winged Scoter	$\checkmark$	Breeding						
Common Goldeneye	$\checkmark$	Breeding						
Bufflehead	$\checkmark$	Breeding						
Hooded Merganser	$\checkmark$	Breeding						
Common Merganser	$\checkmark$	Breeding						
Red-breasted Merganser	$\checkmark$	Breeding						
Osprey	$\checkmark$	Breeding						
Bald Eagle	$\checkmark$	Breeding						
Northern Harrier	$\checkmark$	Breeding						
Sharp-shinned Hawk	$\checkmark$	Breeding						

Table B3-2: Birds Potentially Using the Local Study Area								
	Observed in		F	Regulatory Statu	1S*			
Species	Study Area During 2004/2005 Surveys	Breeding or Migrating?	SARA (Schedule 1)	MBESA	COSEWIC			
Northern Goshawk	$\checkmark$	Breeding						
Red-tailed Hawk	$\checkmark$	Breeding						
Rough-legged Hawk		Migrating						
Golden Eagle		Breeding						
American Kestrel		Breeding						
Merlin	$\checkmark$	Breeding						
Peregrine Falcon		Migrating	Threatened	Endangered	Special Concern			
Gyrfalcon		Migrating						
Spruce Grouse	$\checkmark$	Breeding						
Willow Ptarmigan		Breeding						
Ruffed Grouse	$\checkmark$	Breeding						
Sharp-tailed Grouse		Breeding	Special Concern		Special Concern			
Yellow Rail		Breeding						
Sora		Breeding						
American Coot		Breeding						
Sandhill Crane	$\checkmark$	Breeding						
Black-bellied plover		Migrating						
Lesser golden-Plover		Migrating						
Semipalmated Plover		Migrating						
Killdeer		Breeding						
Greater Yellowlegs	$\checkmark$	Breeding						
Lesser Yellowlegs	$\checkmark$	Breeding						
Solitary Sandpiper		Breeding						
Spotted Sandpiper	√	Breeding						
Hudsonian Godwit		Migrating						
RuddyTurnstone		Migrating						
Red Knot		Migrating						
Sanderling		Migrating						
Semipalmated Sandpiper		Migrating						
Least Sandpiper		Migrating						
White-rumped Sandpiper		Migrating						
Baird's Sandpiper		Migrating						
Pectoral Sandpiper		Migrating						
Dunlin		Migrating						
Short-billed Dowitcher		Breeding						
Wilson's Snipe	$\checkmark$	Breeding						
Red-necked Phalarope		Migrating						
Parasitic Jaeger		Breeding						
Bonaparte's Gull	$\checkmark$	Breeding						
Ring-billed Gull	$\checkmark$	Breeding						
Herring Gull	$\checkmark$	Breeding						

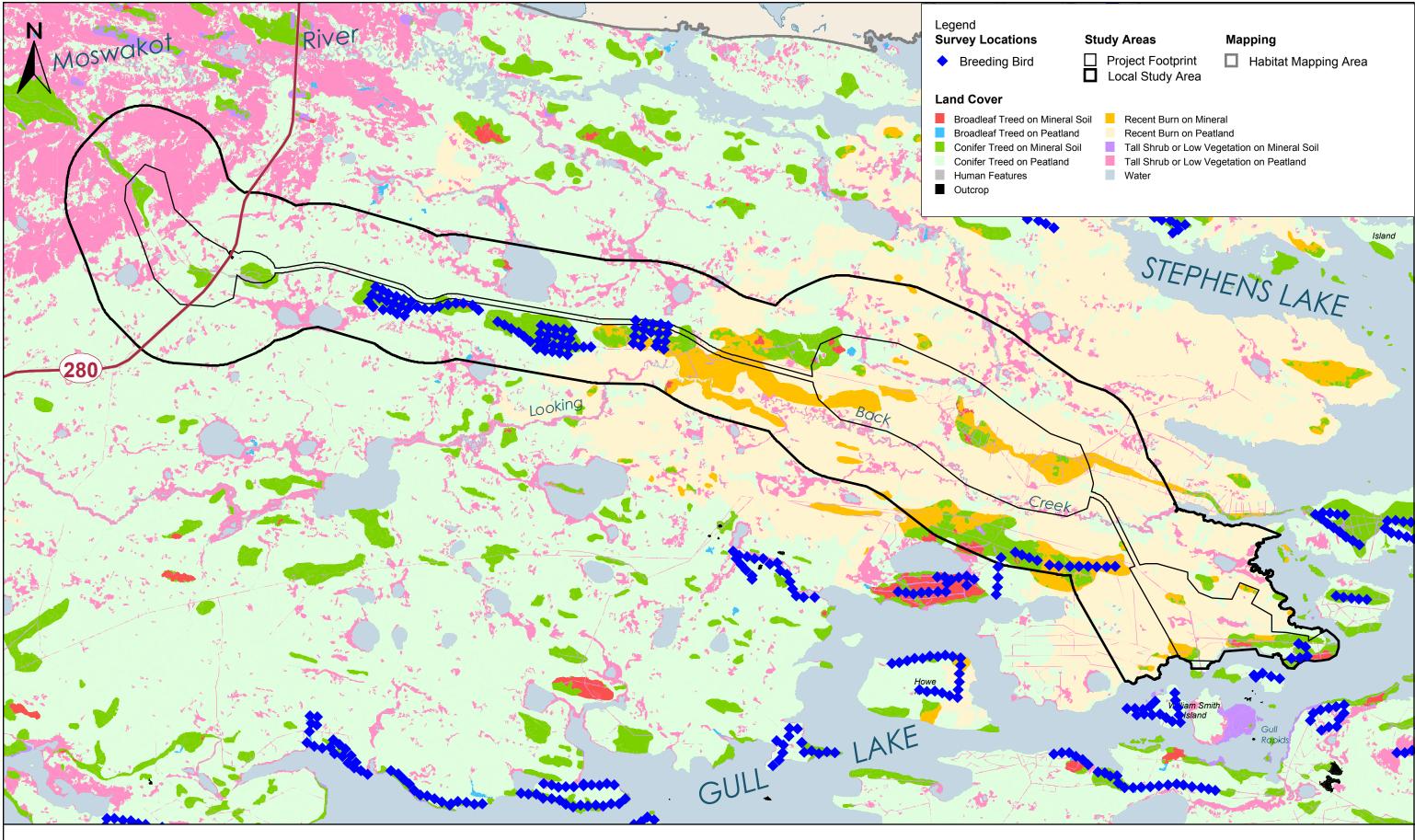
Table B3-2: Birds Potentially Using the Local Study Area								
	Observed in Regulatory Status*							
Species	Study Area During 2004/2005 Surveys	Breeding or Migrating?	SARA (Schedule 1)	MBESA	COSEWIC			
Caspian Tern	$\checkmark$	Breeding						
Common Tern	$\checkmark$	Breeding						
Arctic Tern		Migrating						
Black Tern		Breeding						
Great Horned Owl		Breeding						
Snowy Owl		Migrating						
Northern Hawk-Owl		Breeding						
Great Gray Owl		Breeding						
Long-eared Owl		Breeding						
Short-eared Owl		Breeding			Special Concern			
Boreal Owl		Breeding		e 1) MBESA COSEWIC				
Common Nighthawk		Breeding			Threatened			
Ruby-throated Hummingbird		Breeding						
Belted Kingfisher	$\checkmark$	Breeding						
Yellow-bellied Sapsucker		Breeding						
Downy Woodpecker		Breeding						
Hairy Woodpecker	$\checkmark$	Breeding						
Three-toed Woodpecker	$\checkmark$	Breeding						
Black-backed Woodpecker		Breeding						
Northern Flicker	$\checkmark$	Breeding						
Pileated Woodpecker		Breeding			Threatened			
Olive-sided Flycatcher	$\checkmark$	Breeding						
Yellow-bellied Flycatcher	$\checkmark$	Breeding						
Alder Flycatcher	$\checkmark$	Breeding						
Least Flycatcher	$\checkmark$	Breeding						
Eastern Phoebe		Breeding						
Eastern Kingbird		Breeding						
Horned Lark		Breeding						
Tree Swallow	$\checkmark$	Breeding						
Bank Swallow		Breeding						
Cliff Swallow	$\checkmark$	Breeding						
Barn Swallow		Breeding						
Gray Jay	$\checkmark$	Breeding						
American Crow	$\checkmark$	Breeding						
Common Raven	$\checkmark$	Breeding						
Boreal Chickadee	$\checkmark$	Breeding						
Red-breasted Nuthatch	$\checkmark$	Breeding						
Winter Wren	$\checkmark$	Breeding						
Golden-crowned Kinglet	$\checkmark$	Breeding						
Ruby-crowned Kinglet	$\checkmark$	Breeding						
Gray-cheeked Thrush	$\checkmark$	Migrating						
Swainson's Thrush	$\checkmark$	Breeding						

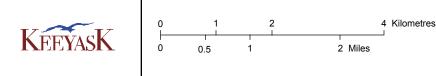
Table B3-2:Birds Potentially Using the Local Study Area								
	Observed in		Re	egulatory Statu	ıs*			
Species	Study Area During 2004/2005 Surveys	Breeding or Migrating?	SARA (Schedule 1)	MBESA	COSEWIC			
Hermit Thrush	$\checkmark$	Breeding						
American Robin	$\checkmark$	Breeding						
Water Pipit	$\checkmark$	Migrating						
Bohemian Waxwing		Breeding						
Cedar Waxwing	$\checkmark$	Breeding						
Northern Shrike		Migrating						
European Starling		Breeding						
Blue-headed Vireo	✓	Breeding						
Philadelphia Vireo		Breeding						
Red-eyed Vireo	√	Breeding						
Tennessee Warbler	$\checkmark$	Breeding						
Orange-crowned Warbler	$\checkmark$	Breeding						
Yellow Warbler	$\checkmark$	Breeding						
Magnolia Warbler	√	Breeding						
Cape May Warbler	$\checkmark$	Breeding						
Yellow-rumped Warbler	$\checkmark$	Breeding						
Blackburnian Warbler	√	Breeding						
Palm Warbler	 ✓	Breeding						
Bay-breasted Warbler	•	Breeding						
Blackpoll Warbler	✓	Breeding						
Black-and-white Warbler	•	Breeding						
Ovenbird	√	Breeding						
Northern Waterthrush	 ✓	Breeding						
Wilson's Warbler	 ✓	Breeding						
Rose-breasted Grosbeak	 ✓	Breeding						
	•	Breeding						
American Tree Sparrow	1	0						
Chipping Sparrow	$\checkmark$	Breeding						
Clay-colored Sparrow		Breeding						
Vesper Sparrow		Breeding						
Savannah Sparrow	✓	Breeding						
Le conte's Sparrow		Breeding						
Fox Sparrow	✓	Breeding						
Song Sparrow	✓	Breeding						
Lincoln's Sparrow	✓	Breeding						
Swamp Sparrow	✓	Breeding						
White-throated Sparrow	✓	Breeding						
White-crowned Sparrow		Breeding						
Harris's Sparrow		Migrating						
Dark-eyed Junco	✓	Breeding						
Lapland Longspur		Migrating						
Smith's Longspur		Migrating						
Snow Bunting	$\checkmark$	Migrating						

	Observed in		Re	egulatory Statu	18*
Species	Study Area During 2004/2005 Surveys	Breeding or Migrating?	SARA (Schedule 1)	MBESA	COSEWIC
Red-Winged Blackbird	√	Breeding			
Rusty Blackbird	$\checkmark$	Breeding	Special Concern		Special Concern
Common Grackle	$\checkmark$	Breeding			
Pine Grosbeak	$\checkmark$	Breeding			
Red Crossbill	$\checkmark$	Breeding			
White-winged Crossbill		Breeding			
Common Redpoll	$\checkmark$	Breeding			
Hoary Redpoll		Migrating			
Pine Siskin		Breeding			
House Sparrow		Breeding			
*SARA – Species at Risk Act, N Endangered Wildlife in Cana- inclusion under SARA); Blan	da (no 'regulatory sta	tus' per se, howev	,		

		1	Table B3-3:			pecies Obse Local Study		Habitat Gro	oups		
			Ranking <sup>a</sup> of t					at Groups Su	veyed (2001 to	2007) <sup>b</sup>	
Most Common Songbirds Observed	Population Trend in the Boreal Softwood Shield <sup>c</sup>	Black Spruce Forest	Black Spruce Woodland	Sparsely Treed Black Spruce or Black Spruce/ Tamarack Mixture	Spruce Mixture Forest	Spruce Mixture Woodland	Jack Pine Mixture Forest or Woodland	Jack Pine Forest or Woodland	Spruce Mixedwood Forest or Woodland	White Birch Mixedwood Forest or Woodland	Trembling Aspen Mixedwood Forest or Woodland
Ruby-crowned Kinglet	0.0	2	1	1	1	1	1	4	2	2	1
Yellow-rumped Warbler	0.4	1	2	2	2	2	3	2	1	1	2
Northern Waterthrush	0.2	4	3	3	4	5	4	4	-	-	-
Swainson's Thrush	0.2	5	4	-	5	4	-	1	3	5	-
White-throated Sparrow	-0.2	-	-	-	3	5	2	-	5	-	-
American Robin	0.7	3	-	4	-	-	4	-	4	-	4
Blue-headed Vireo	-2.8	-	-	-	-	-	-	-	-	3	3
Dark-eyed Junco	1.2	-	5	5	-	-	-	-	-	-	-
Magnolia Warbler	-2.3	-	-	-	-	-	-	3	-	-	-
Tennessee Warbler	-1.5	-	-	-	-	-	-	-	-	4	-
Winter Wren	0.9	-	-	-	-	-	-	4	-	-	-
Gray Jay	-1.4	-	-	-	-	-	4	-	-	-	-
Yellow Warbler a = Ranking: 1 = first	0.9	-	-	_	-	_	-	-	-	-	5

c = Data from 1968-2007. Source: CWS Bird Trends Database accessed at: http://www.cws-sce.ec.gc.ca/mgbc/trends. Trend = mean annual percentage change in bird population. None of the trends shown here are statistically significant P<0.05 or 0.05 <P<0.1





Projection: UTM NAD 83, Zone 15 Data Sources: Survey Locations - TetrES; Study Areas, Nelson River and Highway 280 - ECOSTEM Ltd.; Impact Areas- MB Hydro. Created by: ECOSTEM Ltd. Date Created: July 15, 2009

## Breeding Bird Survey Locations (2001-2007) and Land Cover Types in the Study Area