



## Hydro Transmission Corridors Manitoba Boreal Forest Impact Scenarios (Reduced Habitat Effectiveness)

		Impact Zone: 250m / side		Impact Zone: 500m / side		Impact Zone: 1km / side		Impact Zone: 2.5km / side		Impact Zone: 4km / side		Impact Zone: 5km / side	
	Corridors length (km)	Total Area of Impact (km <sup>2</sup> )	Total Area of Impact (hectares)	Total Area of Impact (km <sup>2</sup> )	Total Area of Impact (hectares)	Total Area of Impact (km <sup>2</sup> )	Total Area of Impact (hectares)	Total Area of Impact (km <sup>2</sup> )	Total Area of Impact (hectares)	Total Area of Impact (km <sup>2</sup> )	Total Area of Impact (hectares)	Total Area of Impact (km <sup>2</sup> )	Total Area of Impact (hectares)
Existing Hydro Transmission Corridors	11,390	5,695	569,500	11,390	1,139,000	19,500	1,950,000	45,040	4,504,000	68,000	6,800,000	82,474	8,247,400
Existing Hydro Transmission Corridors (Boreal Regions)	7,700	3,834	383,400	7,608	760,800	14,938	1,493,800	34,777	3,477,700	52,763	5,276,300	64,268	6,426,800
Potential Hydro Transmission Corridors	6,020	3,010	301,000	6,020	602,000	12,040	1,204,000	30,100	3,010,000	48,160	4,816,000	60,200	6,020,000
Potential Hydro Transmission Corridors (Boreal Regions)	5,800	2,900	290,000	5,800	580,000	11,600	1,160,000	29,000	2,900,000	46,400	4,640,000	58,000	5,800,000

### Notes:

Boreal Regions are defined as Manitoba Natural Regions 4a, 4b, 4c, 5a, 5b, 5c, 6 and 7 (Taiga not included)  
 Length of existing hydro transmission corridors = total length of all hydro transmission right-of-ways in Manitoba  
 Area of corridor interior right-of-way not included in calculations

### Sources:

*Existing Hydro Transmission Corridors:*

- GIS shapefile, Manitoba EcoNetwork (digitized from Manitoba Hydro mapping, Wuskwatim Environmental Impact Statement)

*Potential Hydro Transmission Corridors:*

- GIS shapefile, Manitoba Wildlands (digitized from 'Transmission Line Corridor Requirements to Protect Future Generation Relative to the Proposed Long Point National Park', Manitoba Hydro, June 2000)
- GIS shapefile, Manitoba Wildlands (digitized from 'Manitoba Hydro System Map - Work Copy under Review', Manitoba Hydro, June 1999)
- GIS shapefile, Manitoba Wildlands (digitized from 'The Clean Energy Transfer- Preliminary Assessment of Potential for a Clean Energy Transfer between Manitoba & Ontario', Manitoba Department of Energy, Science and Technology, September 2004 [http://www.gov.mb.ca/est/energy/pdf/clean\\_energy\\_transfer.pdf](http://www.gov.mb.ca/est/energy/pdf/clean_energy_transfer.pdf))

*Impact Zones:*



- Examples of disturbances avoided by caribou of anthropogenic infrastructure and developments, as reported in the literature (Schaefer, J. 2004. *Woodland Caribou and the Wuskwatim Hydroelectric Project*. Presentation material prepared for the Clean Environment Commission hearings for the Wuskwatim Generation and Transmission Projects. Winnipeg, Manitoba.) [http://www.energymanitoba.org/presentations/j\\_schaefer\\_presentation.pdf](http://www.energymanitoba.org/presentations/j_schaefer_presentation.pdf)
- Projected loss of caribou habitat under three scenarios of avoidance beyond the limits of the project (Schaefer, J. 2004. *Woodland Caribou and the Wuskwatim Hydroelectric Project*. Presentation material prepared for the Clean Environment Commission hearings for the Wuskwatim Generation and Transmission Projects. Winnipeg, Manitoba.) [http://www.energymanitoba.org/presentations/j\\_schaefer\\_presentation.pdf](http://www.energymanitoba.org/presentations/j_schaefer_presentation.pdf)
- Map obtained by Greg McIvor showing Manitoba Hydro proposed change in Wuskwatim transmission line and impact zone
- Dr. Erin Bayne, University of Alberta, presentation to Wuskwatim hearings, 2004