



MATERIAL SUPPORTING THE NOTICE, BUT NOT PART OF THE NOTICE.

**INFORMATION CONCERNING WILDLIFE HABITAT FOR THE WINTER
SURVIVAL OF UNGULATE SPECIES IN THE ATLIN SUPPLY BLOCK OF THE
CASSIAR TIMBER SUPPLY AREA**

This document is intended to provide background information and support to the legal framework of the notice of indicators of the amount, distribution and attributes of wildlife habitat required for the winter survival of ungulate species in the Atlin Supply Block of the Cassiar TSA. This document is not part of the legal notice. Its purpose is to provide additional information for consideration by delegated decision makers and by those persons required to prepare results and strategies consistent with section 7(1) of the Forest Planning and Practices Regulation or act in a manner consistent with section 9(3) of the *Woodlot Planning and Practices Regulation*.

Atlin Supply Block – Cassiar TSR2

Amount:

The amount (479,375 ha) included in the Notice is based on the area included within proposed ungulate winter range polygons (Roberts 2004) and area identified as suitable caribou winter range (Keim 2003).

The impact to the timber harvesting landbase is based on data from the Cassiar Timber Supply Review 2; 519 ha of impact allotted to ungulate winter range, specific to northern caribou as a result of a 2% landscape level reduction applied in TSR II.

Distribution:

Figures and spatial information (shapefiles) to support the amount and distribution statements are included in the folders titled “Figures” and “Spatial Data” on the following ftp site:

ftp://ribftp.env.gov.bc.ca/pub/outgoing/cdc_data/Approved_FRPR_sec7_WLPPR_sec9_Notices_and_Supporting_Info/Ungulate_Winter_Range/Timber_Supply_Areas/Cassiar_TSA_Atlin_supply_block/Supporting_Info/

Inclusion of draft and proposed Ungulate Winter Range boundaries in the supporting information does not prejudice the review and comment that may be ongoing around these Ungulate Winter Ranges. Where Ungulate Winter Ranges have not been through the full review and comment process, MWLAP will continue to work with affected parties to address the Ungulate Winter Range boundaries.

Figure 1 identifies the proposed caribou winter range polygons and class 1 and 2 suitability within the Atlin Supply Block of the Cassiar TSA. UWR polygons are based on work completed

by Roberts 2004, consistent with the 519 ha of THLB capital from TSR 2. Suitability polygons represent class 1 and 2 habitat as identified by Keim 2003.

Adequate protection of caribou habitat in the Cassiar TSA will require an additional UWR submission to ensure maintenance of key seasonal habitats across the identified distribution. Submission of a Type 3 UWR is anticipated.

Attributes:

Attributes have been defined according to best available scientific information on caribou habitat use, including extensive telemetry studies conducted on caribou herds in the Cassiar TSA (Diemert 2001, Keim 2003).

Based on the low average snow depths typical of the Atlin area (49.4 cm), high and low elevation habitats are included in preferred winter ranges for caribou (Maclean 2003).

70% of the winter diet of northern caribou is comprised of the terrestrial lichens *Cladonia* and *Cladina*; these lichen species are key indicators of suitable Class 1 and 2 caribou habitat in this area (Maclean 2003).

Additional considerations:

Winter range habitat is only one component of important seasonal habitats for caribou. Because caribou range widely depending on prevailing snow conditions and forage availability and predator distribution, large areas are required to sustain this species. Migration routes, calving areas, and seasonal foraging habitats are essential to sustain caribou populations (Maclean 2003, Roberts 2004).

Access management is also an important consideration to maintain caribou populations, because caribou are particularly vulnerable to human disturbance (Bradshaw et al. 1998, Duchense et al. 2000, Dyer et al 2001, Roberts 2004).

Literature Cited:

- Bradshaw, C.J.A., S. Boutin and D. Hebert, 1998. Energetic implications of disturbance caused by petroleum exploration to woodland caribou. *Canadian Journal of Zoology* 76: 1319 – 1324.
- Diemert, K. 2001. Annual Progress Report for the Tulsequah Chief Wildlife Studies. BC Ministry of Environment, Land and Parks, Smithers, BC.
- Duchense, M., S.D. Côté, and C. Barrette, 2000. Responses of woodland caribou to winter ecotourism in the Charlevoix Biosphere Reserve, Canada. *Biological Conservation* 96: 311 – 317.
- Dyer, S.J., J.P. O'Neill, S.M. Wasel, and S. Boutin, 2001. Avoidance of industrial development by woodland caribou. *Journal of Wildlife Management* 65(3): 531 - 542.

Keim, J. 2003. Atlin East Caribou Herd: Spatially Defining Caribou Winter Habitats Within Forested Stands in British Columbia. Prepared for: Ministry of Water, Land and Air Protection, Smithers, BC.

Maclean, N. 2003. Species Account and Wildlife Habitat Suitability Model Assumptions: Woodland Caribou, Teslin Plateau. Prepared for: Ministry of Water, Land and Air Protection, Smithers, BC.

Maclean, N. 2003. Wildlife Habitat Suitability Model Justifications: Woodland Caribou, Teslin Plateau. Prepared for: Ministry of Water, Land and Air Protection, Smithers, BC.

Roberts, A. 2004. Atlin East Northern Woodland Caribou Ungulate Winter Range Proposal Objectives. Prepared for: Ministry of Water, Land and Air Protection, Smithers, BC.