

**ORDER – Ungulate Winter Range**  
**# U-9-010**  
**Boreal Caribou – Fort Nelson Timber Supply Area**

This order is given under the authority of sections 9(2) of the *Government Actions Regulation* (B.C. Reg. 582/2004) (GAR).

1. The Deputy Minister of Natural Resource Operations, being satisfied that
  - i. the general wildlife measures (GWMs) described below are necessary to protect and conserve the habitat of Boreal Caribou (*Rangifer tarandus caribou*); and
  - ii. GAR or another enactment does not otherwise provide for that protection or conservation;orders that
  - a) the GWMs outlined in Schedule 1 are established for ungulate winter range (UWR) U-9-010;
  - b) the GWMs outlined in Schedule 1 apply to the areas shown in the Schedule A map titled “Ungulate Winter Range, UWR Plan Number U-9-010”, approved on July 27, 2010, and contained in the wildlife habitat areas (WHAs) spatial layer stored in the Geographic Warehouse (WHSE\_WILDLIFE\_MANAGEMENT; WCP\_UNGULATE\_WINTER\_RANGE\_SP) for UWR U-9-010 for Boreal Caribou.
  - c) pursuant to section 7(3) of the *Forest Planning and Practices Regulation* the person(s) required to prepare a forest stewardship plan are hereby exempted from the obligation to prepare results or strategies in relation to the objective set out in section 7(1) of the *Forest Planning and Practices Regulation* to the extent that ungulate winter range U-9-010 addresses the amount included for Boreal Caribou in the Notice for the Fort Nelson Timber Supply Area; and
  - d) the GWMs outlined in Schedule 1 do not apply for the purposes of exploration, development and production activities when these activities have been authorized for the purpose of subsurface resource exploration, development or production by the *Mineral Tenure Act*, the *Coal Act*, the *Mines Act*, the *Petroleum and Natural Gas Act*, the *Pipeline Act* or the *Geothermal Resources Act*.

## Definitions

Words and expressions not defined in this order have the meaning given to them in the *Forest and Range Practices Act* (FRPA) and the regulations made under it, unless context indicates otherwise.

**Coordinated planning:** coordinating access planning, development and deactivation schedules with other users operating within the UWR areas; use of existing linear corridors and shared access to minimize the creation of new access routes.

**Historic trail:** a trail given heritage designation under the Heritage Conservation Act.

**Key terrestrial lichen communities:** list of documented key lichen species utilized by boreal caribou in the muskeg bogs and peatlands of the Boreal White and Black Spruce (BWBSmw2, site series 02, 04, 06, 08, 09) biogeoclimatic zone (Bradshaw et al. 1995, Dunford et al. 2006) includes:

- *Cladina* spp.
- *Stereocaulon* spp.
- *Cetraria* spp.
- *Cladina mitis*
- *Cladina rangiferina*
- *Cladina stellaris*

**Linear corridor:** any anthropogenic removal of forest cover that results in the creation of linear access routes, including the construction of roads, motor-vehicle trails, transmission lines, and secondary roads.

**Low-impact roads:** low grade/standard roads that have minimal deactivation requirements since their construction involves minimal alteration of the surficial hydrology.

**Material adverse:** in the context of disturbance or impacts, “material” means that the disturbance must be real, substantive, or significant. “Adverse” means the disturbance must have negative consequences for the affected species.

**Secondary access routes:** spur roads from mainlines (excluding in-block roads); may be seasonal, but not all-season roads.

Schedule 1 – General Wildlife Measures

*Within UWR Units BCAR-001 to BCAR-058 (UWR Type A)*

**A) Management of Vehicular Access:**

1. Do not construct new roads, trails or linear corridors.

**B) Timber Harvesting and Silviculture:**

2. Do not conduct timber harvesting or silviculture activities.

**C) Recreation:**

3. Do not develop recreation sites and trails.
4. Establishment of existing sites or trails is permitted where:
  - a) the trail is designated a Historic trail; and
  - b) establishment of the site or trail does not have material adverse impact on the UWR.

*Within UWR Units BCAR-059 to BCAR-100(UWR Type B)*

**A) Management of Vehicular Access:**

5. Do not construct new permanent, all-weather high-grade roads.
6. Wherever practicable, road construction will result in secondary access routes as low impact roads.
7. Wherever practicable, layout and construction of secondary roads will result in utilizing existing linear corridors.
8. Wherever practicable, adequate visual screening will be provided along access corridors.
9. Primary forest activities will result in coordinated access planning to minimize disturbance to caribou.

**B) Timber Harvesting and Silviculture:**

10. Where practicable, timber harvesting and silviculture activities will not result in material adverse disturbance to the productivity of key terrestrial lichen communities.
11. Where practicable, timber harvesting and silviculture activities will result in blocks and access structures being clustered to produce large openings (approximately 100 ha or larger), with leave areas of at least equivalent size that are connected and comprised of appropriate forest stand types.
12. Timber harvesting and silviculture activities will be completed in as short a time frame as practicable.

**C) Recreation:**

13. Do not development recreation sites and trails.

14. Establishment of existing sites or trails is permitted where:

- a) The trail is designated a Historic trail; and
- b) Establishment of the site or trail does not have material adverse impact on the UWR.



Signed this 11 day of Jan., 2011  
Doug Konkin, Deputy Minister  
Ministry of Natural Resource Operations

## Appendix 1:

The following information is provided by the Ministry of Natural Resource Operations (MNRO) and the Ministry of Environment (MoE) as background information and support to the order establishing UWR U-9-010. This appendix is not part of the order.

1. **Activities to which the order does not apply:** Section 2(2) of the *Government Actions Regulation* states

An order under any of sections 5 to 15 does not apply in respect of

- (a) any of the following entered into before the order takes effect:
  - (i) a cutting permit;
  - (ii) a road permit;
  - (iii) a timber sale licence that does not provide for cutting permits;
  - (iv) a forestry licence to cut issued by a timber sales manager under section 47.6 (3) of the Forest Act;
  - (v) subject to subsection (3), a minor tenure,
- (b) a declared area,
- (c) areas described in section 196 (1) of the Act, and
- (d) areas referred to in section 110 of the Forest Planning and Practices Regulation.

2. Authority to consider an exemption from these GWMs is provided in section 92(1) of the FPPR. An exemption may be provided if the Minister's delegate is satisfied that the intent of the GWM will be achieved or that compliance with the provision is not practicable, given the circumstances or conditions applicable to a particular area.

An exemption application should be submitted to the Minister's delegate with a rationale describing the nature of the problem and options to integrate WHA conservation with proposed forest practices. This submission will assist in timely consideration of the matter, and will inform the conditions, if any, of the exemption that may be granted prior to commencement of activities. Upon receipt of a complete exemption application, a determination will normally be made within 14 days of arrival. Incomplete packages will be returned to the proponent for re-submission.

3. Regarding GWMs 1 and 2, an exemption should be submitted to access timber outside of the no harvest zone only if construction of any new roads, trails and linear corridors is conducted to the minimum extent necessary to access this area, and there is no other practicable option to access the area outside of the no harvest zone. An exemption to access isolated timber would normally be granted when (i) the cost associated to access isolated timber is significantly greater than compliance with the General Wildlife Measures of the Ungulate Winter Range; (ii) impacts on the ecosystem outside of the UWR would be intensified by compliance with the General Wildlife Measures, or (iii) established linear corridors are already present within the UWR, and thus additional road construction would not pose further threat to boreal caribou populations. Submissions for

an exemption to the GWMs should be submitted to the Minister's delegate, following the direction in #2, above.

4. Exemptions for salvage of dead timber (non-infectious) resulting from severe natural disturbance may only be considered if the proposal is a net benefit to the Ungulate Winter Range species being managed for, as opposed to taking no action.
5. An exemption is not required for any harvesting and/or road construction activities related to an approved cutblock (either meeting definition of Section 196.1 or Section 196.2 as of December 12, 2008).
6. When reviewing options on how to best implement the GWMs, licensees should consider adopting the principle of adaptive management and employing the most appropriate methods to reduce impacts to boreal caribou.
7. Note: The Ministry of Natural Resource Operations and the Ministry of Environment acknowledge that, due to improved inventory data, there was a significant increase in timber harvesting land base (THLB) between timber supply review (TSR) 2 and TSR3. Timber supply impacts for this order were assessed and found consistent with current government policy. If government's policy, with respect to timber supply impacts, is revised then it is recommended that this order be reviewed and amended as necessary to ensure it remains consistent with that new policy.

#### **Appendix 2 – Considerations for Selection of Practices:**

The following information is provided by the Ministry of Natural Resource Operations and the Ministry of Environment as background information and support to the order establishing UWR U-9-010. The following guidelines are intended to provide information to consider when implementing the general wildlife measures for U-9-010. Professionals preparing operational plans and carrying out practices have site-specific discretion and flexibility in prescribing methods to achieve the desired habitat condition. This appendix is not part of the order.

#### **Regarding GWMs 1 through 4:**

1. For any harvesting activities within an approved Section 196 (1) cutblock, or cutblock meeting definition of Section 196 (2) as of December 12, 2008, licensees should give consideration to:
  - a) Minimizing adverse impacts to lichen communities;
  - b) Timing harvesting activities during frozen ground conditions with sufficient snow cover to improve terrestrial lichen survival and regeneration;
  - c) Controlling slash build-up to improve lichen survival and regeneration;
  - d) Retaining Wildlife Tree Patches (WTPs) as island to serve as dispersal sources for lichen propagules;
  - e) Maintaining representative pre-harvest forest type as WTPs within harvest areas, according to Landscape Unit specific targets;

- f) Where practicable, expediting the regeneration of lichen-bearing coniferous stands within cutblocks, recognizing that cutblocks will be reforested to pre-harvest conditions (e.g., deciduous stands will be reforested to deciduous stands).
  - g) Promote regeneration of natural, pre-harvest ecosystems by avoiding artificial seeding of grass- and legume-based mixes. The use of herbicides may be used to promote natural regeneration.
2. When planning access development for approved Section 196 (1) cutblock, or cutblock meeting definition of Section 196 (2) as of December 12, 2008, licensees should consider:
- a) utilizing existing linear corridors or disturbance (e.g., seismic lines, roads, right-of-ways, etc.);
  - b) minimizing snow removal of access routes within and adjacent to caribou habitat to reduce predator use;
  - c) avoid altering surface hydrology and flow patterns;
  - d) promptly deactivating access corridors upon completion of activity; and
  - e) upon completion of silviculture obligations, permanently deactivating secondary and in-block roads to the highest standard possible.

**Regarding GWMs 5 through 12:**

3. When implementing access development under GWM 6, construction and use of low grade, low maintenance, temporary winter access routes under frozen ground conditions and/or on a substrate of packed snow is recommended to improve terrestrial lichen survival and regeneration. It is also recommended that the length of time that a winter road is active be minimized to reduce the risk of increased predation on caribou by wolves and other predators.
4. When implementing access development under GWM 7, licensees should consider utilizing existing linear corridors such as seismic lines, pipeline right-of-ways and access routes developed by or for other industries to the extent practicable to minimize the construction of new access and resultant habitat loss, alteration or degradation.
5. When implementing access development under GWM 8 adequate visual screening along secondary access corridors is required to aid in reducing the line of sight of predators. In general, an adequate visual screen is comprised of vegetative cover capable of hiding 90% of a standing adult caribou from view at a distance of 200 ft (60 m). Topographical features may minimize the amount of vegetative visual screening required along access routes. Licensees should also consider employing other techniques (e.g. doglegs) that reduce line of sight along access corridors.
6. When implementing access development under GWM 9, licensees should discuss and consider access planning, development and deactivation schedules with other users operating within the UWR areas.

7. When implementing timber harvesting/silviculture requirements under GWM 11, licensees should give consideration to maintaining appropriate forest stand types (leave areas) that are large and contiguous. Appropriate forest types should contain attributes required by boreal caribou for winter survival (i.e. terrestrial forage, adequate security cover). This would primarily include, but is not limited to, the wet, black spruce-leading, muskeg, and peatland areas of the BWBS biogeoclimatic zone. Boreal caribou, however, will also make use of small patches of mature pine or spruce forests during periods of heavy snow loads or extreme winter conditions. Where practicable, incorporating mature pine and spruce stands into large leave areas would provide additional habitat for boreal caribou. Using large openings/patches or clusters of blocks approximately 100 hectares (or larger) and at least equal sized leave areas is recommended. Where practicable, planners should arrange openings or clusters of blocks in a manner that does not fragment the UWR area (e.g. harvesting activities may progress sequentially across the landscape allowing for areas of intensive management and large leave areas in an unmanaged state). Large patches or clusters of blocks within a patch should accommodate connectivity for movement of caribou between the openings. Restricting access and adopting or constructing multiple-use roads through large leave areas is also recommended. Following these principles of cluster harvest is an important component of caribou habitat management, and results in fewer new linear corridors, more confined early seral habitats over space and time, and the maintenance of connected patches of mature forest cover and habitats suitable for boreal caribou.
8. When implementing timber harvesting/silviculture requirements under GWM 12, licensees should complete activities in the shortest timeframe that is reasonable to minimize impacts to wildlife and other values.

### **Appendix 3 – References Cited:**

- Bradshaw, C.J.A., D.M. Hebert, A.B. Rippin, and S. Boutin. 1995. Winter peatland habitat selection by woodland caribou in northeastern Alberta. *Canadian Journal of Zoology* 73: 1567-1574.
- Dunford, J.S., P.D. McLoughlin, F. Dalerum, and S. Boutin. 2006. Lichen abundance in the peatlands of northern Alberta: implications for boreal caribou. *EcoScience* 13: 469-474.