



ORDER – UNGULATE WINTER RANGE #U-9-001

This order is given under the authority of sections 9(2) and 12(1) of the *Government Actions Regulation* (B.C. Reg. 582/2004).

The Deputy Minister of Environment orders that:

1. the ungulate winter range shown in the map and table set out in the attached Schedule A (#U-9-001) is established;
2. the ungulate winter range in the attached Schedule A is established for Rocky Mountain Elk (*Cervus elaphus*), Mule Deer (*Odocoileus hemionus hemionus*) and Moose (*Alces alces*) in the Dawson Creek Timber Supply Area;
3. the general wildlife measures outlined in Schedule 1 are established for the ungulate winter range in the attached Schedule A;
4. where there is any discrepancy between the ungulate winter range boundaries as shown in the attached Schedules A and the GIS file *tuwra_bc*, the boundaries as detailed in the GIS file will take precedent. The centre point of the line on the map denoting the ungulate winter range is what establishes the boundary;
5. 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* for the winter survival of Elk and Mule deer in the Dawson Creek Timber Supply Area; and
6. the general wildlife measures 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.

Schedule 1. General Wildlife Measures

1. Forest practices will result in retention of forest cover such that not less than 20% of an Ungulate Winter Range polygon is in mature/old coniferous-leading forest with a canopy closure of at least 40%.

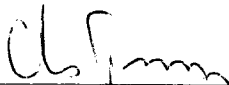
Note: for this measure the age definition for mature/old forest is greater than 100 years if BWBS, and greater than 120 years if ESSF.

Note: for this measure coniferous-leading means > 50% coniferous composition.

2. Where less than 20% of an ungulate winter range polygon is comprised of coniferous-leading stands meeting the age and canopy closure definition, the forest cover requirements set out in 1 above may be met by (a) recruiting younger coniferous-leading stands to meet the requirements of 1 over time or (b) by deciduous stands older than 20 years of age where provisions of 2 (a) cannot be met.
3. Forest practices will not result in construction of permanent mainline/secondary roads within an ungulate winter range polygon.
4. Forest practices will result in deactivation of all roads on cut blocks within an ungulate winter range polygon.
5. Where feasible, forest practices will not result in disturbance to wintering ungulates during the critical winter months of November through April.
6. Forest practices will result in forest openings that emulate the characteristics of natural disturbance such that the distance to forest cover, a Wildlife Tree Patch, or other patch of retained timber is not more than 200m from any point in the opening.
7. Vegetation management treatments will not result in a material adverse impact on production of forage for elk.

Note: key forage species are listed in Table 1

8. Mechanical site preparation within an ungulate winter range polygon will be minimized.
9. Wildlife Tree Patches will be designed and located in a manner such that risk of burning during range enhancement activities is low.


Signed this 24 day of November, 2005
Chris Trumpy, Deputy Minister
Ministry of Environment

Appendix 1.0 : General Information.

1. Authority to consider an exemption from the requirement to comply with these General Wildlife Measures is provided in section 92(1) of the *Forest Planning and Practices Regulation*. Where there is no practicable means of complying with these General Wildlife Measures, a person may choose to apply to the Minister's delegate for an exemption that may be granted with conditions.

In instances where forest retention requirements are in deficit, and as a result of this deficit the forest cover retention requirement cannot be achieved, a person conducting forestry activities should consider seeking an exemption from the requirement to comply with the applicable General Wildlife Measures. In these cases, a spatially explicit recruitment strategy, which may include younger coniferous-leading stands, should be submitted to the Minister's delegate with the exemption application. This strategy will assist in timely consideration of the exemption application, and will inform the conditions, if any, of the exemption that may be granted.

2. Separate objectives for mule deer and moose are not proposed as these winter range units are primarily managed for elk. The winter habitat requirements of mule deer significantly overlap that of elk in the South Peace, and moose are captured by default due to the inclusion of riparian habitat and prescribed burn areas within the UWR units.

3. When considering cover requirements under GWM 1 and 2(a) priority should be given to forest stands greater than 4 ha in size.

4. When considering cover requirements under GWM 2 (b), priority should be given to structurally complex deciduous stands that contribute to security cover of elk (i.e. vegetative cover capable of hiding 90% of a standing adult elk from view at a distance of 200 feet). Structurally complex deciduous-leading stands may occur in young to old forest where understory herbaceous/shrub cover is vigorous.

5. Government may consider proposals for prescribed wildlife range burns as appropriate to improve interspersed high suitability foraging habitat to security/snow interception cover. Consideration should be given to limiting fire suppression where it does not pose an unacceptable risk to adjacent forest stands, private land, or adjacent communities. These General Wildlife Measures should be integrated with Ministry of Forests District Fire Management Plans and the Ministry of Water, Land and Air Protection's Prescribed Burn Plans.

Appendix 2.0: Desired Future Conditions.

These parameters are provided to support effective evaluations. Evaluations will be carried out to ascertain whether forest practices applied in compliance with the statute and regulation are achieving management intent.

- Within all the UWR units identified on Map 1 maintain elk winter ranges to provide high suitability foraging opportunities. Desired habitat attributes include:
- warm aspect slopes (105° to 284°) dominated by early seral vegetation communities and open range (known as foraging habitat).
 - Early seral is defined as generally being less than 20 years old for deciduous-leading stands (within the BWBS biogeoclimatic zone), which are common on warm aspect slopes in the Peace Region (FPC of BC Biodiversity Guidebook 1995).
 - Early seral coniferous-leading stands are defined as less than 40 years old within the BWBS and ESSF biogeoclimatic zones which occur within the UWR units.
- Maintaining foraging habitat (early seral and open range), cover, and undefined habitat¹ (e.g. forage to mature timber) in a ratio of 60:20:20 in each UWR unit. Cover is defined as follows:
 - Security cover should be comprised of structurally complex forested stands (coniferous or deciduous leading) with well-developed understories.
 - Structurally complex coniferous-leading forested stands meet security cover definition if stand is more than 40 years of age and less than 100 years (BWBS) or less than 120 years (ESSF) of age.
 - Structurally complex deciduous-leading forested stands meet security cover definition if stand is more than 20 years of age.
 - Thermal cover consists of mature coniferous-leading stands more than 100 years of age in BWBS and more than 120 years in ESSF biogeoclimatic zones with canopy closure greater than 40%.
 - The minimum stand size considered appropriate for thermal cover is 4 ha. The optimum stand size is 12-24 ha.
 - Coniferous-leading stands are often located within UWR units in riparian areas, gullies or on environmentally sensitive soils [within or adjacent to UWR polygons (e.g. on cool aspects)].

¹ Note: the provision of an undefined portion (20% by area within each UWR unit) is to provide flexibility for both licensees and Government, as both parties may be executing treatments within these UWR units.

Table 1 Key Forage Species for Elk

Trees and Shrubs	Graminoids	Forbs	Horsetails, Mosses and Lichens
<i>Acer glabrum</i>	<i>Agropyron spp.</i>	<i>Astragalus spp.</i>	<i>Equisetum spp.</i>
<i>Amelanchier spp.</i>	<i>Elymus spp.</i>	<i>Delphinium spp.</i>	<i>Lycopodium spp.</i>
<i>Artemisia spp.</i>	<i>Agrostis scabra</i>	<i>Draba spp.</i>	<i>Selaginella spp.</i>
<i>Betula papyrifera</i>	<i>Bouteloua spp.</i>	<i>Epilobium spp.</i>	
<i>Ceanothus spp.</i>	<i>Bromus spp.</i>	<i>Galium spp.</i>	
<i>Cornus stolonifera</i>	<i>Carex spp.</i>	<i>Geranium spp.</i>	
<i>Juniperus spp.</i>	<i>Cyperaceae</i>	<i>Geum spp.</i>	
<i>Pinus spp.</i>	<i>Danthonia spp.</i>	<i>Hedysarum spp.</i>	
<i>Picea spp.</i>	<i>Deschampsia spp.</i>	<i>Lupinus spp.</i>	
<i>Populus spp.</i>	<i>Eleocharis spp.</i>	<i>Medicago sativa</i>	
<i>Prunus virginiana</i>	<i>Festuca spp.</i>	<i>Mertenesia spp.</i>	
<i>Purshia tridentata</i>	<i>Juncus spp.</i>	<i>Penstemon spp.</i>	
<i>Pseudotsuga spp.</i>	<i>Koeleria</i>	<i>Petasites spp.</i>	
<i>Rubus spp.</i>	<i>macranthacristata</i>	<i>Potentilla spp.</i>	
<i>Salix spp.</i>	<i>Poa spp.</i>	<i>Saxifraga spp.</i>	
<i>Sambucus spp.</i>	<i>Schizachne</i>	<i>Senecio triangularis</i>	
<i>Shepherdia</i>	<i>purpurascens</i>	<i>Smilacina racemosa</i>	
<i>canadensis</i>	<i>Stipa spp.</i>	<i>Stellaria spp.</i>	
<i>Symphocarpos</i>		<i>Taraxacum spp.</i>	
<i>albus</i>		<i>Trifolium spp.</i>	
<i>Elaeagnus</i>		<i>Valeriana sitchensis</i>	
<i>commutata</i>		<i>Vicia spp.</i>	
<i>Vaccinium spp.</i>			

from Berg (1983), Blower (1982), Kufeld (1973), Morgantini and Hudson (1983), Morgantini and Russell (1983), Morgantini and Olson (1983), and Salter and Hudson (1980) cited in Resources Inventory Committee 1999.

