



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

INFORMATION CONCERNING WILDLIFE HABITAT FOR THE WINTER SURVIVAL OF UNGULATE SPECIES WITHIN OKANAGAN-SHUSWAP FOREST DISTRICT WOODLOTS.

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 within Okanagan-Shuswap Forest District woodlots. 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 plans consistent with section 9(2) of the Woodlot Licence Planning and Practices Regulation.

The Okanagan-Shuswap LRMP (OSLRMP) provides management direction related to forest practices within mule deer winter range. However, explicit direction within the OSLRMP exempts woodlot areas from that direction until additional works are completed. As this work is not yet complete, the Okanagan Timber Supply Area Integrated Resource Management Timber Harvesting Guidelines, 1992 (OKG) provide an approved source of management direction. Utilizing this direction will ensure that woodlot licence holders are not unduly impacted relative to timber supply. All woodlot licence holders have reviewed, and agreed to, OSLRMP mule deer winter range maps, which are a refined (based on more accurate modeling techniques) version of the maps from the OKG. As such, Figure 1 defines the current information related to mule deer winter range within the Okanagan-Shuswap Forest District.

Note: It is expected that woodlots will only have to address the indicators in the Notice to the extent that their woodlot contains ungulate winter range as identified in the maps referenced in the appendix below.

Okanagan-Shuswap Forest District Woodlots

Amount:

The amount included in this Notice is based on the total area of woodlots within mule deer winter range (MDWR) polygons identified in the OSLRMP (2001). Significant revisions to MDWR boundaries have occurred in since the OKG have been place. However, the total area has increased by approximately 10%, or 1631 ha (Table 1). The amount of MDWR has increased on some woodlots (primarily in the dry-belt Douglas-fir types) and decreased on others (primarily in the wet-belt Douglas-fir types). Given that woodlot licence holders have reviewed, and agreed in principle to, winter range boundaries within their woodlots, the OSLRMP MDWR was used to determine forest

cover rates. Table 1 depicts the area difference between the OKG and OSLRMP regarding winter ranges for both Crown and private land portions of the woodlots.

Table 1: Woodlot Winter Range Area Comparison for OKG and OSLRMP

Management Direction	Private Land (ha)	Crown Land (ha)	Unspecified (ha)	Total Area (ha)
Okanagan Guidelines	450	14,148	660	15,258
Okanagan-Shuswap LRMP	5789	9860	1239	16,889

In order to factor the difference in forest cover retention, as directed through OKG, between the ponderosa pine and all other BEC units (i.e. 20% vs. 40%) it was estimated that 10% of the total MDWR area within the woodlots would be in the lower category of retention (i.e. 20%). This estimate was used to determine the total area 6418 ha of forest cover required within woodlots to be consistent with the OKG direction (Table 2).

Table 2: Forest Cover Requirements Using OSLRMP Area and OKG Retention

BEC Unit	Forested Area	Retention Rate (%)	Retention Area (ha)
PP	1,689	20	338
IDF, ICH, MS	15,200	40	6080
Total	16,889		6418

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/Okanagan TSA/Supporting Info/](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/Okanagan_TSA/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.

Government agencies and stakeholders with an interest in mule deer management have met since the OSLRMP was approved. The focus of these meetings was to determine planning cell boundaries and further refine mule deer winter range boundaries. Planning cells are spatially explicit administrative units developed specifically to address the spatial distribution of forest attributes (cover and forage) within mule deer winter range. For the most part woodlot license holders have agreed that the portion of the woodlot

containing mule deer winter range should be the planning cell boundary. As such, the area of overlap between the woodlot boundary and the planning cell would be appropriate for the distribution of both winter range forage and cover.

Attributes:

1. Cover – the OKG have described forest cover as “thermal cover units”. The description of associated attributes (i.e. stands of at least 19.5 meters, with a high canopy closure) closely resembles the more widely accepted definition of snow interception cover. Snow interception cover is generally defined as tree crown attributes that have the capability to intercept snow, and thereby reduce snow accumulations on the ground. As snow interception potential is variable dependent upon tree species, stand density, and crown shape and size, it is important to retain stems that will function in an optimum manner. Mature and intermediate aged Douglas-fir in clumps are best suited to meet this need. Larger clumps or patches with a high canopy closure are most appropriate in areas of higher snow falls.
2. Foraging habitat can be met by areas of high shrub productivity and/or stands that provide arboreal litter-fall, such as lichens and Douglas-fir needles and twigs. The former is provided in wetter sites, as well as, where early seral coniferous forests have not matured to the state as to where they out-compete shrubs for sunlight. The latter is provided in older aged coniferous stands. Mature, and older, Douglas-fir needles and twigs provide greater nutritional value litter-fall than other coniferous types (species and age). A variety of foraging habitats well distributed throughout the winter range best meets the needs of over-wintering ungulates.