

# STAND-LEVEL BIODIVERSITY MONITORING IN 44 LARGE CUTBLOCKS IN THE CENTRAL INTERIOR OF BRITISH COLUMBIA

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### *Prepared by*

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This report presents monitoring results for 44 large cutblocks (> 100 ha) harvested between 1995 and 2005. In December 2005, British Columbia's Chief Forester issued guidance on biodiversity management pertinent to large cutblocks. Therefore, the results reported here represent a pre-guidance baseline of stand-level biodiversity on large cutblocks.

Cutblock retention ranged from 3 to 65% and average retention was 15.9%. This average compares favourably with the calculated target (based on the December 2005 guidance) of 15.3%. The lower amount of internal patch retention (completely surrounded by harvesting) observed compared to the amount of edge patch retention is a concern for biodiversity. Of the total retention observed in the 44 sampled cutblocks, 73.4% of the area came from edge patches, 20.5% came from internal patches, and 6.1% came from external patches (i.e., external to the harvest area). External patches do not provide direct biodiversity value to the cutblock.

To assess the quality of stand structure retention, several indicators in the 44 sampled cutblocks were compared to the same indicators derived from timber cruise data in similar unharvested timber types. These comparisons showed that the sampled retention:

- has similar numbers of tree species present – a good trend for biodiversity
- has greater density of large trees (> 50 cm diameter breast height) – a good trend for biodiversity



- has a higher density of large snags (> 30 cm diameter breast height and > 10 m high) – potentially a good trend for biodiversity, although this needs further study

Coarse woody debris (CWD) indicators found in the harvested area were compared to the same indicators for CWD found in the retention patches. These comparisons showed that the sampled harvested areas:

- had similar volumes of CWD compared to CWD in patch retention – a good trend for biodiversity; but
- had lower density of long (> 10 m) CWD pieces compared to CWD in patch retention – a concern for biodiversity

Continued monitoring of large cutblocks will occur, although assessments of blocks harvested after issuance of the Chief Forester's guidance will not likely occur until the 2008 field season.

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