

2.8 Biodiversity Indicator 7. Stand Structure

2.8.1 Background:

Maintaining stand structure involves providing structural diversity within managed stands, by retaining attributes of old growth forest including coarse woody debris (CWD), standing dead, standing live, connectivity, and riparian structure. Attributes of old growth forest are retained at the block level within wildlife tree patches (WTP's), riparian reserves, temporary reserves, and to some extent by individual residual stems.

2.8.2 Measure:

Comparison of actual WTP area against WTP targets established in Bulkley Landscape Unit Plans.

2.8.3 Results and Discussion:

Table 5 and Figure 12 compare actual wildlife tree patch (WTP) and reserve percent (as tracked in the MOF's "Integrated Silviculture Inventory System" - ISIS) against WTP targets established in Bulkley's Landscape Unit Plans (LUP's). Because WTP targets differ by landscape unit, area-weighted targets are provided to facilitate comparisons at the biogeoclimatic ecosystem classification (BEC) variant level.

[WTP/Reserve %] figures from Table 5 are based on [total area in WTP and reserve] over [total harvest area], summed to the BEC variant level.

Table 5 – Actual Area in WTP and Reserves Versus Landscape Unit Plan WTP Targets

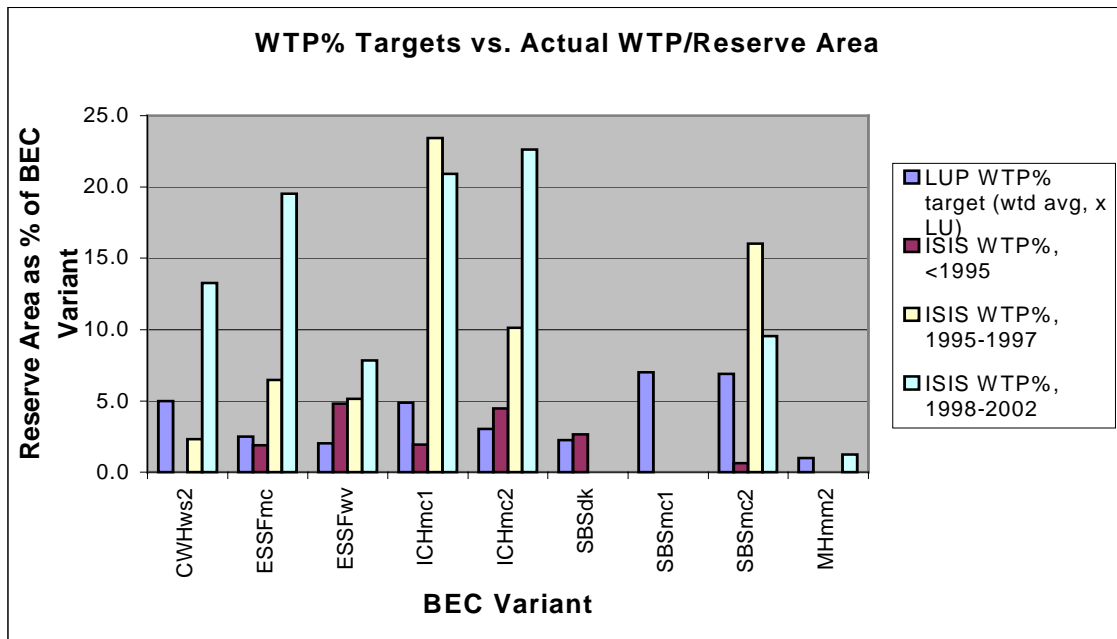
| BEC variant | LUP WTP% target (wtd avg, x LU) | WTP/Reserve % <1995* | WTP/Reserve % 1995-1997 | WTP/Reserve % > 1998** |
|-------------|---------------------------------|----------------------|-------------------------|------------------------|
| CWHws2 | 5.0 | 0.0 | 2.3 | 13.3 |
| ESSFmc | 2.5 | 1.9 | 6.5 | 19.5 |
| ESSFwv | 2.0 | 4.8 | 5.2 | 7.8 |
| ICHmc1 | 4.9 | 1.9 | 23.4 | 20.9 |
| ICHmc2 | 3.0 | 4.5 | 10.1 | 22.6 |
| SBSdk | 2.3 | 2.7 | No harvest^ | No harvest^ |
| SBSmc1 | 7.0 | 0.0 | 0.0 | No harvest^ |
| SBSmc2 | 6.9 | 0.6 | 16.0 | 9.5 |
| MHmm2 | 1.0 | 0.0 | No harvest^ | 1.2 |

* Prior to implementation of Forest Practices Code

** After establishment of Bulkley LUP's

^ ISIS records indicate no harvest in BEC variant during period of interest

Figure 12 – Actual Area in WTP and Reserves Versus Landscape Unit Plan WTP Targets



The table and figure reflect a general trend towards increased area in permanent (i.e. WTP, riparian reserve) and temporary reserve by BEC variant over the three periods considered. These trends are attributable to the new culture of managing to WTP targets from LUP's, and the trend to larger aggregate block designs with a high proportion of temporary reserves.

Figure 12 appears to indicate that WTP targets are being overachieved in recent years. However, it must be emphasised that "temporary reserves" are indeed temporary in duration. While permanent reserves are meant to persist to the end of the rotation period (i.e. until the next harvest of mature timber from the same area), temporary reserves are designated for harvest at an earlier point in the rotation.

2.8.4 Recommendations

It is permanent reserve area that should be compared against the WTP target. Unfortunately, ISIS does not allow permanent reserve (i.e. WTP and riparian reserve) to be differentiated from temporary reserve, which hampers proper interpretation of results. This problem has been noted, and identified as an MOF District priority to rectify by the time the next State of Forest Report is prepared.

2.8.5 Data sources:

Ministry of Forests Integrated Silviculture Information System (ISIS)

BECdb (a provincial database enabling conversion of BEC codes from all previous versions to current version)