Appendix 11: Procedure for Selecting Sample Trees in Operational Cruising for Use in Site Index Calculations

Procedure for Selecting Sample Trees in Operational Cruising

for Use in Site Index Calculations

The cruiser must first determine the leading species in the plot based on <u>live</u> basal area. In variable radius (prism) plots this can easily be done by determining the species with the highest live stem count as each tree represents equal basal area. In fixed area plots leading species can be approximated by a live stem count in the field as well (has been shown to be accurate 90% of the time).

Once leading species has been determined, select the largest diameter, live, leading species tree within a 0.01 ha area (5.64m radius plot). This tree must be suitable to use as a height and age sample. If the selected tree is not suitable, use the 2nd largest diameter, live, leading species tree within the 0.01 ha area.

Examples of trees that are not suitable for height samples include:

- **broken top**
- **significant dead top**
- **fork or crook that significantly affects height growth**
- **abnormally high amount of scarring or other damage that may have affected height growth (small to moderate scarring is still suitable to use as a sample)**

Examples of trees that are not suitable for age samples include:

- **rotten cores**
- **residual trees (Mature veterans in an immature stand - please note these trees should still be recorded as TC 5's on the cruise card)**

In situations where there is a secondary coniferous species that contributes greater than or equal to 20% of the basal area in an individual plot, the above procedures should be repeated for the secondary coniferous species as well.

All sample tree information (both leading and secondary species information) must be keypunched into the Card Type 3 in the compilation program.

If there are no trees within the 5.64m radius plot, select the most suitable tree (following the standards listed above) within the cruise plot as the sample tree to determine the Maturity Class for

the plot for use in the appraisal cruise. <u>**Sample trees taken from outside the 5.64 m radius must not be keypunched**</u> **in the Card Type 3 in the compilation program.**