

- 1. Article 4 “Recce Ground Survey”.** Our process is as follows and will revise portions of Article 4 relating to the general intent of the Overview Recce vs the Survey Plot Data Capture. Specifics in Article 4 relating to plot data capture will remain in Article 4, but will be applied in Phase 3 during the Survey Plot Data Capture and not at the Overview Recce Phase (which we have called Phase 2 of our survey procedures).

The essence of this revision to Article 4 is to allow for Pre-screening of Candidate Units at a high level (which is not currently described or allowed for in the FFT Survey Standard) and to focus the “Overview Recce” on the gathering of recce information and not on collection of plot data. Plot data collection is focused in Survey Phase 3.

Phase 1: Candidate Selection Pre-Screening

No where in the standard is there reference to a screening phase which provides a coarse filter on what should and should not be “Recce’d” or surveyed. In Phase 1, Candidates are screened via the following methods: office, heli, drive by. The criteria for screening out candidates at this level are:

- non-productive ground
- undisturbed (nil or limited beetle or wildfire impacts)
- inoperable/non-harvestable (ie. slopes >80%)
- isolated units <5ha in size
- isolated units with no access within 500m of main road (this may not apply to large tracts of Treatable Area which could support the cost of road works through the ROI test)
- Licensee cutblock, either recently logged or laid out

The deliverables for this Phase are:

- a Pre-Screening Spreadsheet with a listing by Candidate Unit and rationale for removal from the survey program;
- 1:30,000 scale Access Map showing the Candidate Units referenced in the spreadsheet noted above.

Phase 2: Recce Ground Survey

This Recce will align with the Recce in Article 4 of the Survey Standard, however, no plots will be established at this time. This Recce is used to recommend the next course of action for the stand and covers the majority of the opening. The Recce will serve to stratify the area into Treatment/No Treatment areas, as well as stratification for normal surveying purposes down to 5ha (differences in leading species, differences in planned treatments, differences in stocking standards, differences in forest health impacts, etc). The Recce will also serve to gather overview information and specify the required plot intensity for the surveyors.

If, during the Overview Recce, the Senior Surveyor/RPF discovers an obviously stocked Stratum (which may have followed some form of recent disturbance or not), **they have the opportunity to gather the Overview Recce information based on their walkthrough, without any plot establishment (by themselves or by surveyors).** This will include full Inventory Labels, which will be submitted to RESULTS. These obviously stocked areas may or may not require follow-up surveys to be scheduled in RESULTS to confirm that the stocking status has been maintained in years to come. These follow-up surveys will be scheduled as required in RESULTS.

If the stand is felt to be marginally stocked, the Senior Surveyor/RPF will schedule the area for a full survey (Phase 3).

Phase 3: Survey

The Survey Phase will include the establishment of plots at the intensity as specified through the Overview Recce. The surveyors will complete a thorough walkthrough prior to plot establishment to confirm Stratum boundaries, further stratify down to 1ha in the proposed Treatment Areas and familiarize themselves with the site. Plots will be established in a non-biased systematic manner at UTM grid intersections.

Phase 4: Treatment Prescription

All areas which are proposed for Treatment and which pass the ROI test will have Treatment Prescriptions generated. This may or may not require a second field visit by the RPF to confirm Treatment types, stream information, Treatment/Stratum boundaries, etc.

2. **Article 3.5 (d)** The date of the survey and bearing and distance to the next plot will not be recorded on the plot ribbons considering we will be using handheld GPS units. The date of the survey is recorded on the cards and at the POC.
3. **Article 3.9 (f)** FG sph will not be shown if a Stocking survey was undertaken and WSsph will not be shown if a FG survey was undertaken. This information will be available in the Survey Summary as attached to the Survey Map.
4. **Article 4.1, 4.2, 4.4, 4.5, 4.10** References in these sections to plot establishment will be undertaken at the survey stage not at the Overview Recce stage.
5. **Article 4.5 (h) and Article 4.11² (I)** We will not make special notations of veg cover for hares, or small mammal populations or habitat. Competing vegetation will be tallied as required and BGC Classification will be a rough guide to indicate what vegetation exists on site. Mammal damage will however be noted in the survey whenever it is a concern and will be tallied through the Forest Health Assessment where it impacts crop tree

acceptability.

6. **Article 4.5 (i) and (j)** We will not be tallying well spaced during the Overview Recce. This information will be gathered during the survey.
7. **Article 4.5 (k)** Photographs will be taken during the survey Phase.
8. **Article 4.10, 4.11¹ and 4.11²** Apply to the survey Phase, not the Overview Recce Phase.
9. **Article 4.11²** We will not be using the FS748 Pre-Stand Tending Card, we will be using a modified FS658 Silv Survey Plot Card, which better captures the information we need to provide the deliverables as required.
10. **Article 4.11² (a) and (b)** Trees tallies will be by Layer (1, 2, 3, and 4) not by dbh classes.
11. **Article 4.11² (a), (f), (g) and Article 8.3** is asking for a separate tally by "Understorey" and "Overstorey". Since we are tallying trees by layer, we can provide this information as a roll-up from the office, but we will not be completing a separate tally by Understorey/Overstorey in the field.
L1+L2=Overstorey. L3+L4=Understorey.
12. **Article 4.11² (i) and Article 5.9** We will do a prism (basal area) sweep on Layer 1 trees only (>12.5cm dbh). This information is mainly to determine commercial viability of the stand for Major Licensees, and therefore this is what they would be interested in. We will not be including Layer 2 trees in the Basal Area sweep (7.5-12.5cm dbh).
13. **Article 4.11² (j)** A Danger Tree Assessment is required prior to all Planting Treatments on all sites.
14. **Article 4.11² (k)** Record the percentage cover, species and height of understorey vegetation (herbaceous and shrubs); this will be documented for the purpose of confirming BGC Classification down to the site series.
15. **Article 5.4** A Silviculture Survey will be completed on all Stratum which are proposed for Treatment or which are marginally stocked, as determined through the Overview Recce. Plot intensity will be determined by the Project Manager/Sr Surveyor at the time of the Overview Recce. A minimum of 5 plots/Stratum and 1 plot/10ha (or portion thereof) are required to be established in all survey stratum. As per revised Article 4, Phase 2: *"If, during the Overview Recce, the Senior Surveyor/RPF discovers an obviously stocked Stratum (which may have followed some form of recent disturbance or not), they have the opportunity to gather the Overview Recce information based on their walkthrough, without any plot establishment (by themselves or*

by surveyors). This will include full Inventory Labels, which will be submitted to RESULTS."

- 16. Article 5.4** Matrix Assessing whether a stand is stocked or not will be based upon the applicable stocking standards for that site. As the vast majority of our sites will be assessed based on single layer stocking standards, the total well spaced or free growing on site will be compared to the MSS for that site. If the stand exceeds the MSS, irrespective of which layers comprise the stocking, then the stand will be considered stocked. 700sph will not be applied as the MSS on all sites, only where applicable based on the respective BGC Site Series.
- 17. Article 5.5** Access description and required access improvements will be summarized on a separate form, not on the FS657.
- 18. Article 5.8** Layer 4 $\leq 1.3\text{m}$ in height and includes stems 0-10cm in height. This relates only to the assessment and tallying of Total Trees, not Well Spaced trees. Well Spaced trees are defined in Article 5.11 of the FFT Survey Standard.
- 19. Article 5.17 (1)** The current standard reads that "Surveyors should tally site index for the current dominant species and co-dominant species". This suggests that separate SI information will be gathered for the dominant species and for the co-dominant species. This varies from the Growth Intercept methodology and is replaced with the following:
"Growth intercept will be gathered, where possible, on the dom/co-doms of the leading species in the stand. If a leading species growth intercept cannot be collected, a secondary species will be collected (if possible), again from doms/co-doms, and converted for the leading species site index."
- 19. Article 5.17 (a)** SI for Inventory labels as submitted to RESULTS (pre-treatment) will be derived via SIBEC rollover most current approximation (currently it is the 2008 Approximation). If SI is unavailable in the SIBEC 2008 approximation for the selected BGC Site Series and species, the previous approximation will be used.
- 20. Article 5.17 (b)** SI for ROI purposes will be derived first by Growth intercept on the stand in question, secondly from growth intercept on an adjacent representative stand, and thirdly from SIBEC 2008 approximation then previous approximations.
- 21. Article 6.8** GPS Traverses will not be aerial photo tied or ground tied to a mapable unit. This standard was put in place for tight chain traversing and is not relevant for GPS traversing.
- 22. Article 8.2 (c)** "Infected Pli will be tallied separately by layer". Although we will be tallying IBM incidence by Layer, this information will be submitted to

RESULTS on a single layer basis as RESULTS does not allow Pest submissions by Layer associated with a single layer stand.

23. Article 10.7 Due to the small # of plots established in many of our survey units, the Inspector will inspect a minimum of 5 plots/stratum.

¹ This is the first article 4.11 in the FFT Survey Standard.

² This is the second article 4.11 in the FFT Survey Standard.