



Draft FREP Partial Cut Timber Protocol Summary Form (v 2.4)

District _____ Location _____

Block = _____ Stratum = _____ BEC Variant / site series = _____

High Value Species = _____

Additional Ecol Suitable Species = _____

Stratification group¹ (underline / %)

A – Unharvested.

B – High retention of dispersed overstory (minimum 20 m²/ha avg).

C – Significant overstory but not high retention (often clumpy).

D – Clearcut (note D is not to be sampled usign this form of the protocol).

Overall Ratings (circle – add qualifier if necessary)

Indicator A Site Occupancy Do well-spaced, unimpeded, crop trees of ecologically suitable species occupy the growing space?	Indicator B Species Composition Is the stand maintaining or increasing in value due to the species composition?	Indicator C Non-Directed Species In cublocks where harvesting is directed at a particular species, is the proportion of non-directed species below the minimum target?
Yes	Yes	NA
No	No	Yes
Perhaps	Perhaps	No

If the achieved rating does not reflect your assessment of the degree to which the area is maintaining or enhancing an economically valuable supply of commercial timber, please comment.

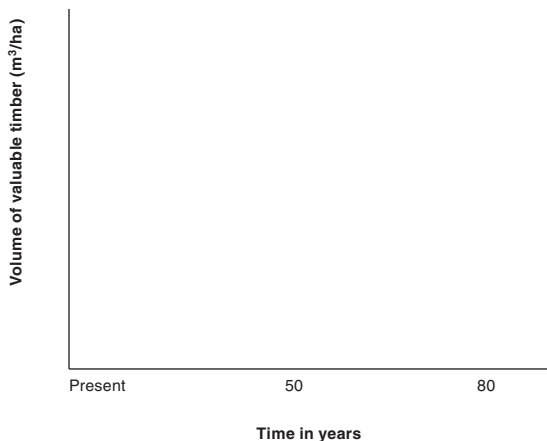
Comment

¹ Identify the proportion of the unit in each category – ideally a stratum will be dominated by one of the categories.



OPTIONAL

Description of timber trajectory – draw a diagram of expected overstory and understory growth over the next 50 (80) years estimating growth of valuable timber. Start with estimate of volume preharvest, show reduction then future trajectory. This is an approximation and is meant to ID basic trajectories, up flat or down.



For Overstory use a solid line, dashed for understory.

Notes



Performance Summary – MAJOR INDICATORS

Indicator A – Do well-spaced, unimpeded, ecologically suited crop trees occupy the growing space?

DATA SUMMARY	DFP Value ²	DFP Class	
DFP Averages			
SITE OCCUPANCY (using DFP) % plots by class	O	P	S
(e.g., Open (O) 20%, Partial (P) 60%, Stocked (S) 20%) =			
PERFORMANCE SUMMARY	Reported Performance		
<p>A. SITE OCCUPANCY – Growing space is well-occupied by well-spaced, unimpeded, crop trees of ecologically suitable species.</p> <p>Thresholds For stands < 60 cm average DBH</p> <p>Yes If the average DFP is stocked – S (DFP ≤ 0.15) AND ≥ 60% of plots are stocked (S) or partially stocked (P).</p> <p>Yes+ Where the average DFP ≤ 0.05 AND ≥ 80% of plots are S.</p> <p>Perhaps (or somewhat) Where DFP average is in the partially stocked class – P (DFP 0.15 – .040) AND more than 50% of the plots are in the S or P classes.</p> <p>No Where none of the above are achieved.</p> <p>Refinements:</p> <p>Ingress input – Change NO to Perhaps if ingress of high value seedlings is ≥ 500</p> <p>Poor Overstory Modifier</p> <ul style="list-style-type: none"> • For "Yes" or "Perhaps" scenarios – Add a minus (-) to either condition if the average basal area of poor trees is > 20 m²/ha and understory stocking is required to achieve the stocking class. A "Yes-" or "Perhaps-" will indicate that growth of understory trees may be significantly impacted by poor trees in the overstory. • For "No" scenarios – Add a minus (-) if the average basal area of poor trees is > 20 m²/ha. This situation indicates that not only is growing space not adequately stocked with suitable trees, but it is dominated by poor trees. 	<p>Circle the category chosen at left</p> <p>Add modifier if appropriate. (e.g., Yes-)</p>		
<p>Thresholds For stands ≥ 60 cm average DBH</p> <p>Yes If the average DFP is stocked – S (DFP average is ≥ 2.5) AND ≥ 60% of plots are stocked (S) or partially stocked (P).</p> <p>Yes+ Where the average DFP ≥ 2.8 AND ≥ 80% of plots are S.</p> <p>Perhaps (or somewhat) Where DFP average is in the partially stocked class – P (DFP 1.5 – 2.5) AND more than 50% of the plots are in the S or P classes.</p> <p>No Where none of the above are achieved.</p> <p>Refinements: See above</p>			

Yes – no concerns **Yes+** – beyond expectations **Perhaps** – potential situation of concern
No – situation of concern³

² Note for stands ≥ 60 cm avg DBH use 1, 2, 3 values for DFP, (eg., 3 – S).

³ Note that these categories are meant to focus attention for further analysis where objectives and total area affected are considered.



Indicator B – Is the stand maintaining or increasing in value due to the species composition?

OVERSTORY DATA SUMMARY – Determine the proportion of high value stems left after harvesting.	
W. RBA of high value stems post harvest: Average BA for high value C (crop) and CR (crop-riskers)	
X. RBA of Post-harvest Total Basal Area: Average BA for all C, CR, P, PR	
Y. Calculate the preharvest level of high value crop basal area: Add the stump tally average BA of high value crop trees to W.	
Z. Calculate the total BA preharvest – Add the total stump tally average BA to X.	
OVERSTORY PERFORMANCE SUMMARY	
<p>Overstory is well occupied by acceptable trees of <u>high value species</u> NA where RBA is < 15 m²/ha – go to Understory Performance Summary below. Yes if the proportion of <i>Post Harvest High Value Crop</i> RBA is ≥ the proportion of <i>Preharvest High Value Crop Basal Area</i>. W/X ≥ 0.9*Y/Z Yes+ if the proportion of <i>Post Harvest High Value Crop</i> RBA is ≥ 120% of the proportion of <i>Preharvest High Value Crop Basal Area</i>. W/X ≥ 1.2 (Y/Z) Perhaps if the proportion of <i>Post Harvest High Value Crop</i> RBA is < 100% but ≥ 50% of the proportion of <i>Preharvest High Value Crop Basal Area</i>. W/X < 0.9 but ≥ 0.5 (Y/Z) No if none of the above are achieved</p>	<p>Reported Performance⁴</p> <p>Total RBA = W/X = Y/Z =</p> <p>RATIO W/X / Y/Z =</p>

UNDERSTORY DATA SUMMARY	Average SPH of High Value UWS =
UNDERSTORY PERFORMANCE SUMMARY	
<p>Understory is occupied by a minimum level of unimpeded, well-spaced suitable crop trees of high value species. Yes if the SPH of High Value UWS ≥ the understory SPH required to be in the “stocked” class from DFP table, considering the overstory RBA stocking of suitable crop trees OR 500 SPH – whichever is less. Yes + if the average stems per ha of UWS Valuable species ≥ of the 80% of the TSS (even aged) Perhaps – Change No to Perhaps if ingress of high value seedlings is ≥ 500 No if the SPH of High Value UWS ≤ of the understory SPH required to be in the “stocked” class from DFP table, considering the acceptable overstory stocking. NA where the Average total SPH in the understory = 0</p>	<p>Reported Performance</p> <p>ID sph to meet fully stocked based on Crop Tree BA from DFP table.</p>

Answer Yes if either are Yes, No if both No or NA if both are NA

⁴ Circle the indicator used for the determination.
Provide value and threshold for verification of result.



Indicator C – In cutblocks where harvesting is directed at a particular species, is the proportion of non-directed species below the minimum target?

DATA SUMMARY (If no directed species = NA)	Reported Performance
A. Average BA of stumps of all non directed species =	A =
B. Average BA preharvest (C+CR+P+PR+St) (value Z from previous page)	B =
Ratio of A/B x 100 = % of harvest in non directed species.	A/B * 100 =

PERFORMANCE SUMMARY (If no directed species = NA)	Reported Performance
<p>Directed proportion is _____ ,</p> <p>Use the average RBA of stumps of all non directed species divided by the Average Preharvest BA for all standing stems and stumps.</p> <p>Yes if below the minimum directed proportion. _____ ,</p> <p>No if not</p>	<p>Compare A/B * 100 to minimum directed proportion</p> <p>Circle</p> <p>< = or ></p>

Other Questions

<p>POTENTIAL SALVAGE</p> <p>Average DISPERSED basal area of acceptable windthrow plus dead =</p> <p>No threshold, simply a measure of potentially available volume and provide at right</p>	
<p>Estimated area equivalent of CONCENTRATED WINDTHROW =</p>	
<p>FOREST HEALTH Circle category – (Describe agent and issue)</p>	L M H
<p>SPECIES DIVERSITY change relative to prior stand <u>increase</u> (↑), <u>decrease</u> (↓) or <u>none</u> =</p>	



OPTIONAL ADDITIONAL INFORMATION – This section is provided to allow commentary on the stand conditions as it relates to the prescription. Use only if you have the information and knowledge (and expertise) to comment.

In your opinion, did the approach meet the objectives identified in the prescription?

- ID the prescribed management objectives and indicate if the objectives were valid as a rationale for the resulting stand structure (e.g., VQO, MPB, Cultural heritage – Other).

- Is a second pass planned (yes, no, don't know)

- Is a second pass feasible based on the value remaining and current logging costs? Would it benefit the timber objective?

- Were there any policy directives or site and stand conditions and limitations that promoted the approach taken?

General comments – are there future options available?

Opportunity to improve the results

Identify and comment on alternative approaches that could be undertaken (or could have been undertaken) that would improve the results.



Block = _____ Stratatum = _____ BEC Variant/ site series = _____ High Value Spp. (Preferred) = _____

Additional Ecol Suitable Spp = _____ Overstory Tally¹ (C=crop, CR=crop-riskier P=poor PR=poor risker St=stump) _____ Directed Spp. _____ or NA

Plot #	Species and condition class																			
	High Value Spp.					Add Ecol Suit Spp.					Directed Spp.					Summary				
	C	CR	P	PR	St	C	CR	P	PR	St	C	CR	P	PR	St	RBA C	RBA C+C R (W)	Tot C,CR, P,Pr (X)	Stumps Hw/Tot for (Y & Z)	
Avg BA																				

Notes _____

Understory Tally and DFP Compilation:

Plot	Overstory ≥ 17.5 DBH BA of C trees	Total/Ingress HVS ²	Understory: > 15 cm tall and < 17.5 cm DBH – by species										DFP	SPH UWS HVS	SPH UWS not HVS		
			Species (list HVS first then Additional/Ecol Suitable)														
			UWS	UWS	UWS	UWS	UWS	UWS	UWS	UWS	UWS	UWS	UWS	No.	Class		
Avg																	

BA of Crop trees:
Transfer the total basal area of C trees from overstory table. This is used for the determination of DFP.

Regeneration classes:
UWS = unimpeded well spaced ecologically suitable trees.
INGRESS = high value trees 15 cm tall including germinants.

DFP classes:
O = open
P = partially stocked
S = stocked

Notes

¹ Use a dot to tally, use "w" if windthrow and circle the dot if dead.
² Ingress is < 15 cm, count up to a maximum of 10 per plot.