

STOCKING STANDARDS
and
FOREST COVER REPORTING

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Stocking Standards

- Historically, openings were greater than two tree lengths wide, silviculture systems were applied in coastal BC creating large clear-cuts with open growing conditions for regeneration.
- Yield curve applied in TSR would maximize yield with no significant competition for resources from surrounding forest influence.
- Currently, retention silviculture systems are often the outcome, based on forest influence levels and by creating much smaller openings with less growing space for regeneration.
- CRIT has defined where even aged stocking standards are appropriate, on sites with less than an average of 5 m²/ha basal area within the NAR of a standard unit.

Stand Level Impacts and Forest Cover

- Forest influence will reduce growth and yield of regeneration over harvest areas.
- This influence has potential for downward AAC pressure in TSR 4.
- Need to inventory residual volumes retained for mid-term timber supply and also get credit under EBM. This is critical as the THLB changes over time.
- Reporting of the layer 1 (>12.5 cm dbh) inventory component within the NAR is required at both the regeneration delay and free growing milestone (*FPPR* s. 86).
- In some cases, this retention is standing waste which also needs to be reported under section s 86.

Type 1 Polygons: Even aged stocking standards, small (<1ha) or openings with 75-100% forest Influence, NO internal dispersed or groups, or standing waste

Planned Gross	Planned Net	Actual Gross	File	CP	Links		
0.3225	0.3200				Details	Results	Map View
1.4863	1.4900				Details	Results	Map View
0.9546	0.9500	—			Details	Results	Map View
0.1764	0.1800	—			Details	Results	Map View
0.0693	0.0700	—			Details	Results	Map View
0.2202	0.2200	—			Details	Results	Map View
0.4356	0.4400	—			Details	Results	Map View
0.9798	0.9800	—			Details	Results	Map View
0.6177	0.6200	—			Details	Results	Map View
0.0533	0.0500	—			Details	Results	Map View
0.5878	0.5900	—			Details	Results	Map View
1.3249	1.3200	—			Details	Results	Map View
2.5024	2.5000				Details	Results	Map View
0.5062	0.5100	—			Details	Results	Map View
6.1962	6.2000	42.2000			Details	Results	Map View
2.5636	2.5600				Details	Results	Map View
0.2802	0.2800	—			Details	Results	Map View
0.2565	0.2600	—			Details	Results	Map View
1.5294	1.5300	.			Details	Results	Map View
1.6980	1.7000				Details	Results	Map View
1.2369	1.2400				Details	Results	Map View
0.2580	0.2600	—			Details	Results	Map View
0.3741	0.3700	—			Details	Results	Map View
0.7591	0.7600	—			Details	Results	Map View
0.1186	0.1200	—			Details	Results	Map View
3.0367	3.0400				Details	Results	Map View
0.6642	0.6600	—			Details	Results	Map View
1.2441	1.2400				Details	Results	Map View
0.0950	0.1000	—			Details	Results	Map View



Type 2 Polygons: Even aged stocking standards with dispersed retention ignored or standing waste, 50 - 100% forest influence



These openings are reported as even aged management in RESULTS.

Question: Are even-aged stocking standards appropriate for this level of retention?

Type 3 Polygons: Even aged stocking standards with 50-100% forest influence where small group <0.25 ha are considered dispersed



This opening is reported as a clearcut. Is this opening growing like a clear cut?
Should the retained volume contribute to future timber supply?

Ecology

BGC Information										
<u>SU</u>	<u>Zone</u>	<u>Sub Zone</u>	<u>Variant</u>	<u>Phase</u>	<u>Site Series</u>	<u>Site Phase</u>	<u>Seral</u>	<u>NAR (ha)</u>	<u>Max Soil Disturbance</u>	<u>Comment</u>
1	CWH	vh	1		01			2.1	5.0%	Y

Free Growing Stocking Standards

		WSS / ha										Post Space		Add		Reg Obl	Regen Off : Due	Free Grow		Hght Rel To Comp
SU	L	Standard ID	Att Ind	NAR (ha)	Max Dist	Preferred Species	Acceptable Species	Basl Area	Max Den	Trgt	Min	Min Pref	Min Hor	Min	Max Amd	Std	Cmt	Early Off : Due	Late Off : Due	
1	?		N	2.1	5.0	CW(1.5) HW(2) YC(1.5)	BA(1.8) PLC(1.5) SS(3)	10,000	1,000	500	400	2.0	500	2,000	Y	N	Y	8 : 2009	11 : 2014 14 : 2017	150%

Type 4 Polygons: Even Aged Stocking Standards where aggregates are retained are greater than > 0.25 ha and mapped



Type 5 Polygons: Multi-layered stocking standards, or SEDRSS applied



Type 6 Polygons: Even Aged Stocking Standards



A field review revealed a mature stand, but in RESULTS this site had a clear-cut 5 years ago and had even aged standard applied to the 3+ ha SU. Need to update the forest cover to a reserve and map areas >0.25 ha, or before the regeneration delay amend or delete the un-harvested standard unit.

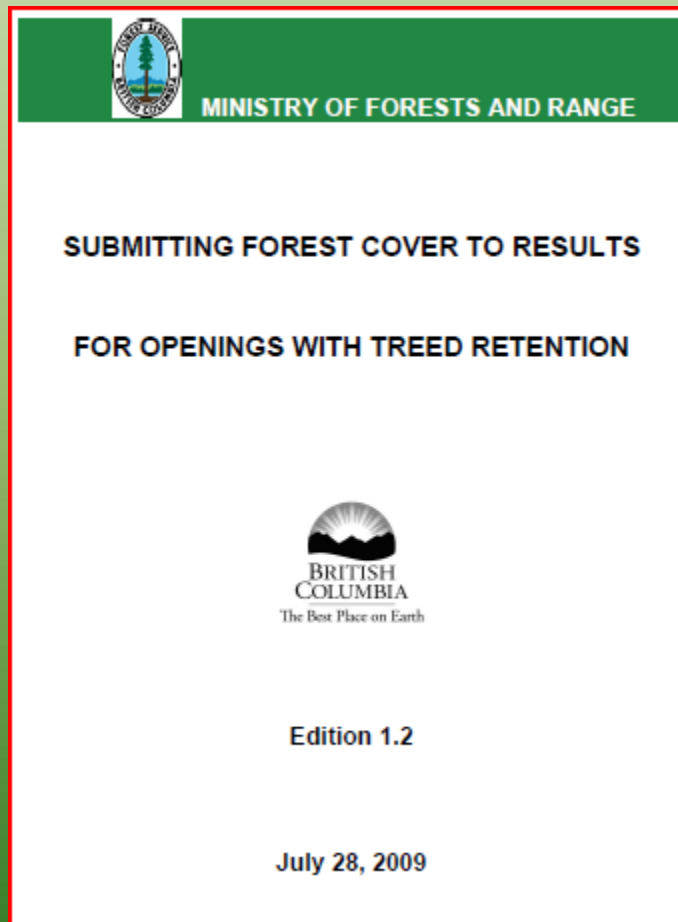
Summary of Block Attributes

Polygon Type	Forest influence	Silvicultural System based on Forest Influence	Stocking standards in RESULTS	Basal Area in NAR	Dispersed Retention and small groups <0.25 ha (unmapped)	Group Retention >0.25 ha (mapped)
1	75-100%	Retention	even-aged	None	No	No
2	100%	Retention	even-aged	>5m2/ha	Yes - dispersed	No
3	50+-100%	Retention	even-aged	>5m2/ha	Yes - groups	No
4	50+-100%	Retention	even-aged	None	No	Yes
5	50+-100%	Retention	SEDRSS	>5m2/ha	Yes	No
6	0-49%	Clear-cut	even-aged	None	No	No

The focus is whether the appropriate stocking standards accurately describe the resulting stand structure during forest cover reporting.

Are the resulting stands accurately described by Professionals when reported including the mature inventory component?

http://www.for.gov.bc.ca/his/results/Forest_Cover_Retention_Submissions.pdf



Still have to report retention regardless of stocking standard applied with the regeneration delay inventory component, section 86 FPPR

4.2.5. Unharvested Stems (may or may not contribute to stocking)

Merchantable (unreserved) stems and/or residual timber volumes that were left in excess of prescribed retention volumes are assessed as waste in accordance with the *Provincial Logging Residue and Waste Measurement Procedures Manual*⁴⁵. In RESULTS, these excess stems are reported as a dispersed reserve type with a timber management objective. They are tracked in RESULTS because they contribute to future timber supply estimates, as well as potentially impact growth and yield of the regenerating stand. These residuals could be made available for a subsequent harvest in the rotational cutting cycle but do not contribute to current stocking⁴⁶.

Example (Figure 9): A 5.5 ha cutblock, with a pre-harvest average BA of 100m²/ha, that was planned (in the FSP and site plan) to be harvested under a clear-cut silvicultural system, has instead been harvested leaving 20 m²/ha of merchantable residuals standing. The residuals are assessed as waste in accordance with the *Provincial Logging Residue and Waste Measurement Procedures Manual*.

Other Resources

- **RESULTS INFORMATION SUBMISSION SPECIFICATIONS, Form and Manner of Reporting, (Licensee Submissions):**
- http://www.for.gov.bc.ca/his/results/RISS_ls_3b_ed_Jan1.pdf
- **Forest Cover Stratification and Milestone Declarations:**
- http://www.for.gov.bc.ca/hfp/silviculture/Stratification%20and%20Milestone%20Regulation%20Examples_v1%204.pdf
- **CRIT Forest Cover Polygons:**
- <http://www.for.gov.bc.ca/rco/stewardship/CRIT/docs/RESULTS%20Retention%20Reporting%20Memo.pdf>
- **CRIT SEDRSS Implementation Guide:**
- <http://www.for.gov.bc.ca/rco/stewardship/CRIT/docs/FINAL%20SEDRSS%20Implementation%20Guide%20September%2014,%202011.pdf>