

# **Criteria and Ranking for Forest Inventory Replacement**

## **Background and Rationale**

### **January 24, 2008**

In the spring of 2007, a working group reporting to the Vegetation Inventory Advisory Council (VIAC) was formed with a goal to establish criteria to assess each Timber Supply Area (TSA) and Tree Farm Licence (TFL) with respect to the need for new or additional forest inventory data collection.

In the past, the process for determining which units in the province were to have new inventory activities completed (both photo interpretation and ground sampling) has been subjective. Local experts were often canvassed for their top priorities for conducting work, or licensees put forward activities for completion based on unit-specific needs. The result was that the original goal of 100% VRI coverage by 2006 was less than 50% achieved.

The working group has now established a set of criteria that can be evaluated against all TSAs and TFLs, to provincially rank and prioritize them for inventory completion by 2015. This will ensure resources are efficiently allocated and allow for adequate planning to take place.

A series of basic principles were considered to guide the development of the ranked list of all of the management units. As much as possible, criteria used in this process were objective in that the determination whether the criteria applied to the unit or not was supported by available documentation. Subjective assessments were avoided as much as possible. Each of the defined criteria could be applied to all units in the province but area specific forest management issues were considered. (For example, areas both within and outside of the MPB zone were evaluated, but activities inside of the zone may be completed using alternative funding and on a separate schedule.) Finally, achievement of the VIAC goal of completing the forest inventory of the entire province to VRI standards by 2015 was considered a high priority.

About 30 possible business and technical issues to consider for inclusion in this process was compiled based on feedback from a range of inventory users and practitioners. The working group reviewed the input, combined those submissions that were similar, and deleted those where objective data could not be acquired to address the issue, to come up with a draft set of criteria to apply to each TSA and TFL. It should be noted that the criteria were applied to all units but that data on some of the TSAs and TFLs was incomplete or not available which may have affected the results.

An evaluation system was selected where a relatively small number of criteria were included and weights were applied to each criteria to indicate relative importance. In this approach, criteria were evaluated against the unit and a yes-no response was given whether the criteria did or did not apply to that unit. Each of the criteria was further enhanced with an importance factor which made some criteria have a higher rating in comparison to other criteria.

The completion of inventory activities is in a transition period with the implementation of this criteria and ranking process. As it is not efficient to halt ongoing units, activities carried over

from previous years in a number of lower ranked units will be continued and units that may be higher ranked will not be actioned this year. As lower ranked projects are completed, higher ranked projects will be started so that within a few years, only higher ranked projects will be funded.

This system of ranking will be an iterative process requiring regular evaluation and revision. New rankings will be generated – possibly annually but at least every couple of years – that incorporate new or updated information.

Please contact Jon Vivian at Forest Analysis and Inventory Branch for further information.

This approach applies points to each of the criteria listed and indicates whether that criteria applies to each of the TSAs or TFLs. Note that this is a summary document; an expanded version with further details was used to generate this list of units.

Ranking	Total Points Achieved	Criteria	Vintage and format of existing inventory	Ground sampling not completed where new photo interp exists	Identified in the current AAC rationale as a requirement <sup>1</sup>	Impact on AAC of changes in volume	Stability of short- and long-term harvest levels	Other factors <sup>2</sup>
	Max = 17	Rationale and Description VRI = VRI format IP = photo interp in progress	Relates to age of photo interpreted inventory	Unknown quality of estimated attributes		AAC sensitivity to significant changes in volume	Harvest level drops significantly in the first 3 decades	
1	13	Kalum TSA	3	4	2	2	2	0
1	13	Okanagan TSA (IP) Okanagan Shuswap Dist.	6	4	2	0	0	1
3	12	TFL 25 (Part VRI)	6	4	0	0	2	0
3	12	TFL 47 (Part VRI)	6	4	2	0	0	0
5	11	100 Mile House TSA	6	0	2	2	0	1
5	11	Golden TSA (VRI) Columbia District	0	4	2	2	2	1
5	11	Kamloops TSA Kamloops District	6	0	2	0	2	1
5	11	Revelstoke TSA Columbia District	0	4	2	2	2	1
5	11	TFL 30 (VRI)	0	4	2	2	2	1
10	10	Arrowsmith TSA South Island District	6	0	2	0	2	0
10	10	Kispiox TSA Skeena Stikine District	3	0	2	2	2	1
10	10	Merritt TSA Cascades District	3	4	2	0	0	1
10	10	Quesnel TSA (IP)	3	0	2	2	2	1
10	10	Robson Valley TSA Headwaters District	3	0	2	2	2	1
10	10	TFL 38	6	0	2	0	2	0
10	10	TFL 10	6	0	2	2	0	0
17	9	Fort St. John TSA (VRI) Peace District	0	4	2	0	2	1
17	9	Kootenay Lake TSA (IP)	6	0	0	2	0	1
17	9	Mackenzie TSA (IP)	6	0	2	0	0	1
17	9	Queen Charlotte TSA	6	0	0	2	0	1
17	9	Williams Lake TSA	6	0	0	0	2	1

		Chilcotin District						
17	9	TFL 33	6	0	0	0	2	1
17	9	TFL 15 (VRI)	0	4	2	2	0	1
17	9	TFL 42 (VRI)	0	4	0	2	2	1
17	9	TFL 56 (VRI)	0	4	0	2	2	1
26	8	Bulkley TSA (IP) Skeena Stikine District	3	0	0	2	2	1
26	8	Cassiar TSA Skeena Stikine District	6	0	0	2	0	0
26	8	Cranbrook TSA Rocky Mtn. District	3	0	2	2	0	1
26	8	Fort Nelson TSA (IP)	6	0	2	0	0	0
26	8	TFL 14	6	0	0	0	2	0
26	8	TFL 18	3	0	2	0	2	1
26	8	TFL 44	6	0	0	0	2	0
26	8	TFL 23	3	4	0	0	0	1
34	7	Nass TSA	3	0	0	2	2	0
34	7	Soo TSA (IP) Squamish District	3	0	2	2	0	0
34	7	TFL 35	6	0	0	0	0	1
37	6	Dawson Creek TSA (IP) Peace District	3	0	2	0	0	1
37	6	Invermere TSA Rocky Mtn. District	3	0	0	2	0	1
37	6	Lakes TSA Nadina District	3	0	0	0	2	1
37	6	Morice TSA Nadina District	3	0	0	2	0	1
37	6	North Coast TSA	3	0	0	2	0	1
37	6	Strathcona TSA (VRI) Campbell River District	0	4	0	0	2	0
37	6	Williams Lake TSA Central Cariboo District	3	0	0	0	2	1
37	6	TFL 43	6	0	0	0	0	0
37	6	TFL 53	3	0	0	0	2	1
37	6	TFL 8	3	0	0	2	0	1
47	5	Kingcome TSA (VRI) North Island - Central Coast District	0	0	0	2	2	1
47	5	Prince George TSA (VRI) Prince George District	0	0	0	2	2	1
47	5	Prince George TSA (VRI)	0	0	0	2	2	1

		Vanderhoof District						
47	5	Sunshine Coast TSA (IP)	3	0	2	0	0	0
47	5	TFL 1	3	0	0	0	2	0
47	5	TFL 41	3	0	0	0	2	0
47	5	TFL 49 (VRI)	0	0	2	2	0	1
54	4	Boundary TSA Arrow Boundary District	3	0	0	0	0	1
54	4	Lillooet TSA Cascades District	3	0	0	0	0	1
54	4	Mid Coast TSA North Island - Central Coast District	3	0	0	0	0	1
54	4	TFL 6 (VRI)	0	0	0	2	2	0
54	4	TFL 45 (VRI)	0	0	0	2	2	0
54	4	TFL 54 (VRI)	0	4	0	0	0	0
54	4	TFL 57 (VRI)	0	4	0	0	0	0
61	3	Arrow TSA (VRI) Arrow Boundary District	0	0	0	2	0	1
61	3	Cranberry TSA Skeena Stikine Dist.	3	0	0	0	0	0
61	3	Prince George TSA (VRI) Fort St. James District	0	0	2	0	0	1
61	3	TFL 26	3	0	0	0	0	0
61	3	TFL 3 (VRI)	0	0	2	0	0	1
61	3	TFL 48 (VRI)	0	0	2	0	0	1
61	3	TFL 55 (VRI)	0	0	2	0	0	1
61	3	TFL 58	0	0	2	0	0	1
61	3	TFL 5 (VRI)	0	0	0	2	0	1
70	2	Fraser TSA (VRI) Chilliwack District	0	0	0	2	0	0
70	2	TFL 19 (VRI)	0	0	0	0	2	0
70	2	TFL 37 (VRI)	0	0	0	0	2	0
73	1	TFL 52 (VRI)	0	0	0	0	0	1
74	0	TFL 39 (Unknown)	0	0	0	0	0	0
74	0	TFL 46 (VRI)	0	0	0	0	0	0

1 - This could also include information from previous sampling, inventory audit results or a discussion with district staff or licensees.

2 - Other factors include mountain pine beetle, ecosystem based management and other forest health considerations