

Appendix 23: Government Comments



SFMP# 3 Government Review Comments

Submitted by Elizabeth Hunt, RPF November 24, 2015

SFMP Page #	Government Comment	Participant Response
71	Section 23.1 of the FSJPPR requires a reforestation declaration, however this section of the SFMP notes that once the plan is approved this will no longer be done prior to harvest but at the time RESULTS is updated. This doesn't meet the requirements of Section 23.1, where the DM has the opportunity to reject the reforestation declaration if they deem it incorrect/inappropriate. If it is only when RESULTS is updated, this could be up to a year later, and effectively too late to deny.	Proposal of Reforestation declaration submission via RESULTS deleted and moved to section 8.3 Recommendations to revise sections of the FSJPPR.
93	Second paragraph, under Strategy and Implementation, there is still mention of identifying spatial rotating old forest reserves, however direction from FLNRO for SFMP 2 was to move to delineating OGMA's spatially.	Deleted the reference to rotating old forest reserves. Identified commitment to work with government to identify spatially explicit old forest reserves during the term of SFMP# 3.
99	Forecasting to 2016; should the date be when this SFMP expires?	SFMP statement is correct. A new forecast will be completed through to the end on FOS # 3. The new forecast will be described in FOS# 3 and the 2016 annual report.
101	Refer to the 2014/2015 Annual Report?	Reference revised to cite the 2014/2015 SFM annual report.
107	Reference to Prescribing Foresters, as opposed to Forest Professional?	Reference to Prescribing Foresters, revised to Forest Professionals.
114	Referencing the 2013/2014 Annual Report?	Reference revised to the 2014/15 SFM annual report.
125	Date November 15, 2001 to March 31; is this correct?	Yes. Data presented is from Nov 15,



		2001 to March 31, 2015.
148	Notes the FSJ TSR to be released mid 2015 (update)	Reference to TSR revised to note 2016 as estimated completion date.
186	Under Current Status, is there some wording missing? It starts with “illustrates the . . . “	Sentence modified to read as “The following table illustrates...”
206	Notes the FSJ TSR to be released mid 2015 (update)	Reference to TSR revised to note 2016 as estimated completion date
256	Under Strategy and Implementation Schedule, the last paragraph notes RESOURCES ITS; what is ITS?	The acronym has been written out ITS - Incident Tracking System.
267	Under Strategy and Implementation, need to update dates (notes FOS 2010 instead of when this SFMP is approved).	Revised reference to specify FOS# 3.
280	Third bullet is truncated (bracket at end of sentence with nothing afterward).	Title of Indicator # 35 added in to bullet.
297	Under Acceptable Variance, it has – 10%? I think the ‘-’ is a typo.	The ‘-’ was a typo and has been removed.
338	Confirming that the Reforestation Strategy for deciduous is being back dated to November 15, 2001?	Yes this is correct.
341	Under the Rationale for the CWD levels, the plot information collected will be from December 1, 2008 and November 30, 2016?	Data collection period revised to reflect “collected between December 1st, 2016 and November 30th, 2022”.
342	Under Riparian Reserve Strategy, is it only RPF’s prescribing harvest in riparian reserves; under the Equivalent Protection section there is the wording ‘qualified professional’.	Reference has been revised to specify “qualified registered professional”.
343	Under the Visual Quality Strategy, change the Ministry of Forests and Range to FLNRO. Consistently refer to ‘forester’ as opposed to ‘qualified professional’.	References have been revised to specify “qualified professional” and to “MFLNRO”.
344	Changes to Section 81(1)(j)(ii) to delete the	This section referencing FSJPPR



	requirement for reforestation declarations goes against legislation and cannot be changed in the SFMP/FOS (legislation change is required).	Section 81(1)(j)(ii) proposing to delete the requirement for reforestation declarations has been deleted from the SFMP.
346	Section 8.3; will you suggest removing the requirement to provide a reforestation declaration as required in Section 23.1 of the FSJPPR?	Proposal for Reforestation declaration submission via RESULTS moved to section 8.3 "Recommendations to revise sections of the FSJPPR".
348	Is this intentionally left blank or is anything missing?	Blank page has been deleted.
399	Silviculture Note ?? Does this have a number assigned yet?	We are not aware that a number has been assigned to this Silviculture Note. We have revised the reference to "Silviculture Note".



Government comments on the draft SFMP# 2 that was provided for public review were received from the MFLNRO and MOE. Following is a summary of all Government comments on SFMP# 2 and the response of the FSJPP participant's to the Government comments.

Fort St John Pilot Project

Collation of technical input received for the draft SFMP# 2 and Participant Responses

The following is a complete list of the comments received by the Fort St. John Pilot Project Participants in response to their draft SFMP from Ministry of Forests and Range and Ministry of Environment staff members. The comments and responses to each comment have been grouped by landscape level strategy and responses from the Participants have been highlighted in **YELLOW**. Where a comment may not pertain to a Legal Landscape Level Strategy it has been grouped where appropriate under either "Section 8 – Changes in Requirements" or Non-Legal or Indicators not linked to a Landscape Level Strategy"

The participants would like to thank the reviewers for their comments and questions and trust that the responses contained in the following document adequately address the comments or concerns noted by the reviewers.

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1. Timber Harvesting Strategy

Comments from: Joelle Scheck, Ecosystems Section Head, MOE

Dated: April 21, 2010

Please find attached comments from my review of SFMP#2. Please note that I did not review each and every section of the SFMP, but focused on sections that seemed relevant to the MOE Environmental Stewardship mandate. Thank-you again for forwarding the technical review comments of the MOFR staff experts, who have taken the time to review the plan in detail.

Overall I do not have significant concerns with respect to the SFMP#2. As you know, over the course of the last year and a half or so, I have participated as a government advisor in Working Group meetings as well as at Code Pilot Public Advisory Meetings. During the course of those meetings my comments and advice was provided to the Code Pilot Participants and the Participants made accordingly or I accepted the rationale given by the Participants for not making changes. The vast majority of revisions in this second plan were made to clarify wording and not to change intent.

Having said that, I have a number of comments, questions or suggestions of a more minor nature that are outlined in the attached table.

<p>Sec. 4.1.1 Graham River IRM Plan – page 50</p>	<ul style="list-style-type: none"> • With respect to pre-development of road ROW's to facilitate entry to other clusters while harvesting is occurring in a cluster, suggest that if this occurs that the Participants commit to implementing appropriate mitigation (e.g. operating within least-risk timing windows, and implementing operational mitigations such as minimizing snow-plowing, etc. to minimize negative impacts to wildlife) • Negative impacts could be direct or indirect such as displacement from preferred habitat, increased metabolic stress, increased risk of predation, etc.) • Was this concession part of the original GRIRMP or is it an adaptation? <p>Participants response</p> <p>Action We will add a statement in the SFMP wrt to minimizing impact on wildlife.</p> <p>We assume the species of concern is caribou? – please clarify/confirm the species in question.</p>
<p>Sec. 4.1.3 MKMA Strategy – page 52</p>	<p>Note: consistency with other approved MKMA Plans, such as the recently approved MKMA Wildlife Plan, may be required in addition to consistency with legal</p>



	<p>Objectives under the Act.</p> <p>Comment noted. Action Participants will add a statement to Ind 21 wrt to ensuring operations in MKMA are consistent with approved MKMA plans prepared by Govt.</p>
Sec. 6.21 MKMA Harvest – page 159	<p>Same comment as for Sec. 4.1.3 MKMA Strategy</p> <p>Comment noted.</p>
Sec. 6.16 UWR, WHA, MKMA – page 141	<ul style="list-style-type: none"> • WHAs – suggest replacing the word “mapped” with “spatially defined” • Suggest removing reference to “or are remaining examples of identified plant communities” • Replace “MWLAP” with “MOE” • All “Identified Wildlife” are Species at Risk (provincially red or blue listed species). Currently “Regionally Important” wildlife (yellow listed species) are not considered “Identified Wildlife” although this may change within the term of this new plan. <p>Comment noted. Action Will revise SFMP text accordingly.</p>



2. Road Access Management Strategy

Comments from: Sandy Currie, Technical Advisor, Timber Harvesting Practices FPB (retired)

Dated: March 11, 2010

Please find attached my comments and suggestions regarding the FSJ SFMP #2 (Feb 8/2010 version). The strategies that I will be commenting on are the:

1. Soils Management Strategy (Section 4.8); and,
2. Road Access Management Strategy (Section 4.2).

I have divided my comments and suggestions into two parts:

- General overall comments regarding each of these strategies (these will be included as text in this email itself); and,
- Specific suggestions for change where I feel there is a need to change the strategy to better express our expectations (these will be attached to the email as pdfs showing suggested changes to specific pages of the document).

Road Access Management Strategy (Section 4.2)

1. General Overall Comments

- 4.2 Road Access Management Strategy – page 55-56 – this is an excellent section. There is a clear identification of collaboration with other industrial users of the land base (see the first pdf – under specific suggestions for change below – to view specific examples of this collaboration);
- 4.21 Permanent Access Strategy – page 56 – I have a question for the Participants regarding the choice of using a 3 year rolling average to determine the Permanent Access Structure (PAS) % (this question is illustrated in the second pdf – under specific suggestions for change below); and, (The question was “Is there a specific reason why a 3 year rolling average was chosen rather than say, a 5 yr rolling average for the PAS? MFR uses a 5 yr rolling average for use in its internal Performance Mangement System.”)
- Yes, the Participants chose a 3 year rolling average due to the timeframe of the plan, as this target must be achieved by the end of the SFMP (6 years) a 3 year rolling average is more reactive and gives the Participants a more reasonable timeframe to adjust their practices and still conform to the targets if they find they are exceeding PAS targets.
- No revisions to be made to SFMP.
- 4.2.3 Strategy to Coordinate Road Development with Other Industries – page 57 – this area identifies one of the centrepieces of this SFMP. There is a clear illustration of coordinating road development presented in the second pdf – under specific suggestions for change below.

2. Specific Suggestions for Change



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Sandy Currie, M.F., R.P.F.

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Leading Learning Organizations Practitioner

Sustainable Forest Management Plan 

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3. Riparian Management Strategy

Comments from: Dave Maloney, Technical advisor, watershed science, Forest Practices Branch (FPB)

Dated: March 5, 2010

Thank you for forwarding the materials.

I will review the materials as requested – comments will follow. I've had a quick look at several section, ie. the peak flow / riparian management / water quality concern (p.195) components – all contain references and recommendations (?) that are out of date and need to be revised/updated. For example, the water quality section refers to the SCQI procedure which has been superseded by the FREP water quality effectiveness evaluation (WQEE) which is FIA fundable. The document does not identify which procedure SCQI or WQEE will be followed. Also where is Appendix D? Note also, there is a new procedure for assessing fish passage and for culvert replacement that needs to be updated in the document.

- The reference to SCQI is historical and relevant. In fact the WQEE procedures were developed based on the SCQI procedures. Since 2007 the Participants have been following the WQEE procedures and this is referenced in the SFMP. The Participants will refer provide clarity to the fact that the WQEE procedures are used in the description of Indicator # 35.
- The Participants are following only the tasks and procedures of the WQEE that are tailored to meet the reporting needs for indicator #35.
- Indicator # 35 deals with water quality by assessing the potential for sediment delivery to streams at road crossings, it is not meant to assess fish passage at road crossings. We assume the reference in the comment above to "Appendix D" is actually to **Schedule D** of the *FSJPPR*, as indicated in section 4.3.1 and 6.7 of SFMP #2.
- As mentioned Indicator #35 is not meant to deal with fish passage. The participants have recently completed fish passage analysis in the Upper Halfway River watershed utilizing FIA funds. Completion of fish passage assessments and rehabilitation of existing crossings is not an obligation under the SFMP. Appendix 12 of SFMP #2 – Stream Crossing and Seasonal Bridge Installation and Removal Procedures provide guidance when developing stream crossings. These guidelines were developed with input from MOE and were part of the approved SFMP #1.
- No revisions to be made to SFMP.

Comments from: Dave Maloney, Technical advisor, watershed science, Forest Practices Branch (FPB)

Dated: March 31, 2010

Regarding the Fort St. John Pilot – I have 2 concerns.



- 1) It wasn't obvious to me which road erosion monitor methodology Canfor was intending to use – is it SCQI or WQEE?
 - See above comments
- 2) It wasn't obvious what Canfor was planning to do in the riparian areas of small streams – is it to leave 10 stems/100 metres of stream – if so, Rex's & DFO's research shows this strategy to be ineffective for several riparian functions.
 - The SFMP does not specify any one particular management strategy or retention level for riparian areas of small streams. As discussed in the write up for indicator #36, measures to protect stream banks and riparian values are included in Site Level Plans, and are prescribed by a qualified registered professional after consideration of the site-specific factors present.

•
No revisions to be made to SFMP.

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Comments from: John Rex, Regional Hydrologist, NIR

Dated: April 20, 2010

Thanks for the opportunity to provide comment on the SFMP report. I know from the size of the document you must be busy managing it and collating the comments you receive. I am cc'ing Dave as some comments complement his and I may have missed some others. I will brief and only highlight issues I see with the SFMP, some are similar to the comments for last year's report:

4.3.1. Riparian Reserve Strategy (S1-S3 streams) – I assume the Schedule D minimum widths are the same as the FPPR/FPC widths but am not sure as Appendix D was not provided. I am making the assumption here that the reserves in App.D are the same as legislated reserves.

- See above comment. Yes, Schedule D offers equivalent protection as FPC/ FPPR (note somewhat different formatting). The Fort St. John Pilot Project Regulation was not appended to the SFMP.

With respect to the indicator in section 6.7, I am confused by the final paragraph on page 111 as it does not appear to address maintenance of reserves but instead access to them. The paragraph states that where there is a topographic break that prevents harvesting, reserves will be higher than legislated reserves. When access is easier, reserves may be less than legislated because the riparian can be



harvested more easily. Is this appropriate? I would suggest that minimums are in fact minimums and should not be reduced in an easy access sites because riparian harvesting was limited upstream because of a topographic break.

- Please note that the target for indicator 6.7 is “No non-compliances to riparian reserve zone standards”. The cases in which reserve zone widths may end up being less than those in Schedule D of the FSJPPR are specified in the Acceptable Variance statement, and relate solely to forest health issues (rationale required by prescribing forester). Minimums are indeed minimums, unless serious forest health issues are present.

Further, more retention is required where there is some concern about windthrow to buffer reserves rather than less as implied.

- The SFMP does not specify any one particular management strategy or retention level for riparian areas of streams. As discussed in the write up for indicator #36, measures to protect stream banks and riparian values (from hazards including windthrow) are included in Site Level Plans, and are prescribed by a qualified registered professional after consideration of the site-specific factors present.

4.3.2 Strategy to Address Riparian Management on Small Streams – Indicator in section 6.36 – small point numbers in paragraph 3 p. 209 add to 101 rather than 100.

- Acknowledged. Participants will correct in final version.

As stated, the objective of the indicator is to protect the stream bank, channel stability and riparian veg for S4-S6 streams. However, the indicator does not provide a strategy to meet this objective. Instead, this indicator focuses on the verification that a site plan is followed. Although it is important to verify site plans, there is no measure or indicator to verify that the site plans followed protect the stream bank, channel stability or riparian vegetation for S4-S6 streams. This indicator should be re-visited and revised so that it addresses its objective.

- The indicator is structured using the CSA guidelines to be SMART (specific, measurable, achievable, realistic, and time bound) to facilitate efficient measuring and reporting. While there is no specific indicator to verify post harvest that the measures identified in the site plans were sufficient to protect stream bank channel stability or riparian vegetation for S4-S6 streams, the participants are subject to 3rd party audits under their certification system, inspections and monitoring by MoFR C&E staff, FREP monitoring, Forest Practices Board audits etc. and must be able to prove due diligence should the prescribed measures prove to be insufficient, therefore the participants do not feel that a separate indicator to demonstrate the effectiveness of their prescribed retention requirements is warranted at this time.

4.3.3 Major River Corridor Strategy – Indicator 6.22 why do natural features such as a slope break provide a rationale for harvesting more than the allowable 1ha? Why is 10% failure rate allowed?

- The variance is in place because in some cases it may be appropriate to follow natural features and avoid such things as excessive windthrow or isolation of merchantable timber. The 10% value (not a “failure rate”) is to accommodate this concept, and considered to be a very conservative level.

4.3.4 Strategy to Manage Excessive Runoff Impacts to Riparian Habitats – indicator 6.34



Harvesting levels in the identified watersheds will remain below ECA levels identified by a professional hydrologist (range 37-62 ECA). UP to 10% will be allowed to exceed these thresholds when a **hydrologist** deems it is okay to have more harvesting than the initial limits set by the first professional hydrologist. I understand this is general practice but am not sure how this is a strategy to manage excess runoff impacts? Why substitute one professional's opinion for another?

- There are two levels of assessment involved with indicator #34. The first is a 'coarse' filter (landscape level, with all watersheds in DFA) done with 6 years worth of proposed blocks in mind, based on the most current inventory and land use data available. Any watersheds with PFI values above baseline target require a finer-filter, more detailed, assessment (could be done by the same hydrologist). Recommendations made by hydrologist are incorporated into operational plans. Note that this indicator takes into consideration all land in watersheds, not just that affected by forest management (eg. Private land, burned over areas, etc.)

Page 197, bullet 1 of watershed review refers to the Prince George DM Policy minimum retention for small streams. Our research found this amount of retention to be insufficient to maintain health of small streams we are suggesting retention is increased to 10m. Hence the strategy they propose here may not meet FRPA objectives.

- This is a historical example quoted from a watershed review completed prior to harvesting, and not intended to represent a standard practice. It is expected that any future detailed watershed reviews would incorporate the latest accepted standards and information.
- Please note that FRPA objectives do not apply to The SFMP for the Fort St. John Pilot Project.

Water Quality Concern Rating – Indicator 6.35

Allowing up to 35% of all streams to be in the high range translates to stating 35% of crossings can contribute significant levels of sediment to streams, some of which may be fish streams. Can MFR approve/be part of such a program? How does allowing 35% high risk crossings protect water quality? The report states where high WQCR in excess of targets (i.e. 35%) is reached recommendations will be developed about road and crossing management as well as deactivation... but what is done about the crossings themselves are they fixed? Does the decrease in Figure 13 (title seems off as it mixes of PFI and WQCR) reflect the fact that previous high ranking crossing were fixed or that new areas surveyed have fewer crossing problems, detail would help here.

- Please note, this indicator is not associated with a legal landscape level strategy, and as such is not a legally-approved indicator (referred to as a 'CSA' indicator). While the participants strive to do a very good job of managing stream crossings, we recognize that some level of erosion and sediment delivery is inevitable. Working within the CSA framework requires designing SMART indicators (see above), with some measureable target. 30% (with a 5%) variance is the target agreed to by the participants and the PAG and considers the nature of the operations and physical characteristics of the DFA (predominantly fine-textured soils).



- If the target is not achieved, then yes, among other things “high” crossings may receive remediation work. Such work has been done on crossings in the DFA, and has been largely focussed on fish-bearing streams.
- **Action** Yes, the Fig 13 title is mixed. Has been corrected.
- **Action** – SFMP will be revised to specify that the WQEE survey procedures will be implemented and add more detail regarding the decline in “high” WQCR through time (it is most likely a combination of remediation work and improved practices through education) to current status section.

Indicator 6.37 – Spills entering waterbodies – looks good- zero spills.

Comments from: Ian Miller, Manager Integrated Resources Section, FPB

Dated: August 12, 2009

Re: Riparian, Range and Soils



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Hi Anna.....I've been reading the attached strategies, and have just a few comments/suggestions:

For RIPARIAN:

1. The proposed riparian strategy #2 now reads: "Site-specific management practices will be incorporated into SLP's to protect streambanks, stream channel stability, and riparian vegetation to protect water quality and other riparian values." I found the double usage of the term "...to protect..." in this sentence to be confusing. I think the same concepts could be more clearly and accurately stated as follows:
"Site-specific management practices will be incorporated into SLP's to protect streambanks, stream channel stability, riparian vegetation, water quality and other riparian values."

2. In proposed riparian strategy #3: What is a "major" river? Is this term defined somewhere, or left to individual interpretation? If the later, how is this enforced?

3. In current riparian strategy #4: (just in case this strategy is retained) I think the term should be "practicable", not "practical" as in the current version. See FPC General Bulletin #30 For more on the difference between the two terms:
<http://www.for.gov.bc.ca/hen/bulletins/general.htm>

Also, what is a "river corridor area"? Is this defined, and if not, how are the practices enforced?

4. In the newly proposed strategy #4: this one now reads "Excessive runoff at the watershed level, which can disturb stream channel integrity and adjacent habitats, will be managed by limiting the extent of harvesting within watersheds, as determined through peak flow index analyses." This seems like a very ambiguous strategy.....it doesn't seem to commit to any specific limit to harvesting, just commits to doing peak flow index analyses. Is this intended to work this way? How does this play out on the ground?

Action – revise SFMP wording as per Point #1.

Major rivers refers to major river corridors identified in the FSJ SFMP and these are spatially defined and noted in the SFMP section 1.3.1. – description of landscape units.

WRT to point #3 – the 2004 SFMP riparian strategy #4 has been dropped.



WRT to point #4 – refer to indicator #34 for more information regarding actions to be taken when PFI levels exceed threshold values.

Comments from: Dave Maloney, Technical advisor, watershed science, Forest Practices Branch (FPB)

Dated: August 12, 2009

Re: Riparian management



20100412165312.pdf

Anna,
 I've reviewed the proposed riparian management SFMP landscape level strategies and have no comments to provide as the document does not identify strategies that can be measured or verified. Some tightening of the wording in a couple of the strategies might be possible, for example:
 Strategy #2 identifies "qualified personnel" and "assessments" but does not identify the type of qualified personnel ("qualified hydrologists"?) or type of assessments and how these assessments would fit/become site-specific management practices.
 Strategy #4 - the wording sounds a bit off. The current wording sounds like an admission that excessive runoff will occur due to logging and that it will be managed somehow by through peak flow analyses - question - how? (peak flow analyses - which one, what type?). I think what they are trying to say is that peak flow analyses (might not need to identify type or procedure) will be used to limit harvesting to prevent excessive runoff.
 All in all, I understand that the riparian management strategies are scaled for landscape level application and therefore cannot be too specific. Consequently, no concerns at this time.

Participants response

WRT strategy # 2 – comment noted, qualified personnel is meant to refer to anyone skilled in conducting a riparian classification assessment – adequate training, education and experience. Qualified personnel is defined in FRPA and professional reliance guidance statements provided by the ABCFP. No revisions will be made to the SFMP.

WRT strategy # 4 – please refer to Indicator #34 for a description of how PFI is used to limit the effects of harvesting on limiting excessive runoff. No revisions will be made to the SFMP.

Comments from: Joelle Scheck, Ecosystems Section Head, MOE

Dated: April 21, 2010

Section/page no.	Comment
Sec. 4.3 Riparian Management Strategy – page 58	Suggest defining “Qualified Personnell” Participants response – qualified personnel is defined in FRPA and professional reliance guidance statements provided by the ABCFP. No revisions to the SFMP will be made.
Sec. 6.36 Protection of ... Small Streams – page 214	<ul style="list-style-type: none"> Assume classification defaults to fish bearing unless otherwise proven (as per past practices) Participants response – classification does default to fish bearing unless proven otherwise by various



	<p>methods. In absence of fish presence data, the participants use the fish presence assessment procedure developed by Vince Poulin for the Peace and Fort Nelson Forest Districts. The MOE has accepted this procedure.</p>
<p>Sec. 6.22 Major River Corridors Strategy – page 59</p>	<ul style="list-style-type: none"> • What is a “high level of forest retention”? Is there a range or target of what is considered high retention? • Unsure of the meaning of “applies separately to the harvesting plans of each managing participant”. Does this mean that each participant could harvest within the same corridor, each with a high level of forest retention, but the cumulative effect of the harvesting would not be accounted for? <p>Response – the high level of retention is provided by virtue of the fact that harvest openings are limited in size to 1 ha or less. This is managed on a block by block basis, cumulative impact of harvesting within major river corridors is not assessed within this plan. This strategy is a measure to minimize the cumulative impact to the major river corridors. Very little harvesting has been completed to date within the major river corridors and very little is planned to occur in major river corridors in the new FOS.</p>
<p>Sec. 6.22 River Corridors – page 162</p>	<p>In addition to comments above (page 59), who determines “relative habitat values”? What are they relative to (surrounding riparian areas? Upland areas, etc.)?</p> <p>Response – the prescribing forester reviews the site conditions and values present when choosing an appropriate silviculture system.</p>
<p>Sec. 6.22 River Corridors Monitoring Procedure – page 163</p>	<p>Suggest it may be important to report out on areas > 1ha in size for areas harvested for forest health/salvage reasons within the digital corridor coverage area. As an advisor, I’d like to know if this type of harvesting is widespread/prevalent within major river corridors and how other values are still being maintained. Large diameter standing dead trees can have high value to many different ecological functions.</p>



	<p>Response Conformance to this indicator will be determined by overlaying the digital corridor coverage over areas harvested during an annual reporting period. The associated silviculture system employed on those harvested areas within the coverage area will be identified. Where clearcut type openings occur, the number of openings one hectare or less, and the number greater than one hectare in size (excluding areas identified for forest health or salvage harvesting) will be recorded and used to calculate conformance to the indicator target. This information will be made available upon request and in the SFMP annual report.</p>
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Comments from: Tony Hun, C&E Officer, Peace Forest District

Dated: May 17, 2010

Although this is a lot longer that I had hoped for, I am not sure how else to provide comments on the SFMP.

Riparian Reserve Strategy:

Harvesting will be allowed to address serious forest health concerns. This strategy does not list any further instances where harvesting may occur (i.e. harvesting in a reserve to eliminate a safety hazard would not be consistent with the SFMP). It appears that FH may give carte blanche to harvest within a reserve.

Participants response - comments noted.

ACTION - THE VARIANCE FOR INDICATOR # 7 HAS BEEN REVISED TO NOTE THAT HARVESTING WILL OCCUR FOR SALVAGE OR SANITATION OF FOREST HEALTH CONCERNS. THE VARIANCE WILL BE REVISED TO ALLOW HARVESTING IN RRZ FOR SAFETY AND OTHER CONSIDERATIONS IDENTIFIED IN THE FPPR.



4. Range and Forage Management Strategy

Comments from: Dale Gross, Range Officer, Peace Forest District

Dated: August 10, 2009

To: Blonski, Laura J FOR:EX

Subject: RE: Action Required (Deadline August 28): Fort St. John Pilot Project SFM Plan - review of landscape level strategies

Hi Laura,

It looks good to me. I like the part where the logging companies must restore damaged fencelines to satisfaction of range holder. That's a pretty contentious issue up here. Most fences are in disrepair, but act as effective barriers if surrounded by dense trees. The loggers figure these crappy fences are not worth replacing. But a crappy fence in dense bush is often as good as a good fence in open prairie.

Dale Gross, M. Sc., P. Ag.

Range Officer

Peace Forest District

9000 17th St. Dawson Creek, BC

Tel: 250-784-1264

Fax: 250-784-0143

- The participants would like to point out that the indicator is specific to range improvements damaged by participants' activities. This is slightly, but significantly, different than restoring damaged fence lines (that may be in disrepair). It is also important to note that this indicator does not account for natural range barrier mechanisms.
- Repair of damaged range improvements is to "substantially the pre-impact condition". Any *alternatives* must be to "the satisfaction of affected Range tenure holders".

Comments from: Laura Blonski, Range Ecology Specialist, Range Branch

Dated: August 25, 2010

Hi Dale,

Sorry for the delay in getting back to you - but I am basically in full agreement with your comments/perspective.

Nothing really stood out to me in the pilot documentation (relative to the Range and Forage Management Component) as being erroneous or irrelevant.



Further comments from Dale Gross

Dated: April 23, 2010

I just had a few comments on the recent draft of the Fort St. John pilot draft sustainable forest management plan for 2010-2016:

1. Section 6.6 Coarse woody debris
 - I would like to see a variance for the amount of coarse woody debris within range tenures
 - Large amounts of coarse woody debris can limit access of livestock to forage in cutblocks

Participants response – CWD retention is managed at a landscape level. This provides the Participants the opportunity to reduce CWD retention where desired, to manage for other values. This is noted in the Indicator strategy and implementation write-up. No revision to the variance is required.
2. I like the wording in Sections 6.41 & 6.42 that links the indicators to the LRMP: *Maintain livestock grazing opportunities on existing grazing tenures. Maintain or enhance opportunities for livestock grazing.*
 - This has been a serious issue in the Peace area due to the loss of carrying capacity for livestock from aspen logging and subsequent aspen regeneration. I intend to hold the signatories of this SFMP to these objectives.

Participants response – the strategy and associated indicator and target are legally enforceable. The linkages to the LRMP are for reference only. Participants intent is to minimize short term negative impacts from harvesting on existing range tenures.

Comments from: Joelle Scheck, Ecosystems Section Head, MOE

Dated: April 21, 2010

Section/page no.	Comment
Sec. 4.4.2 Noxious Weed Management Strategy	Is “Noxious” weed correct or should this simply be entitle “Invasive Plant” Management Strategy Participants response – the title of the strategy and indicator have been revised to Noxious Weed and Invasive Plant Management Strategy.
Sec. 6.10 Noxious Weed Content – page 124	<ul style="list-style-type: none"> • This comment may be at a level of detail not necessarily warranted at the SFMP level, but I would like to see some operational consideration by the Participants to utilizing unpalatable seed mixes along road sides to avoid increased ungulate/wildlife mortality due to vehicle collisions.



	<p>Participant response – road side seeding is done primarily on secondary bush roads. The amount of road side seeding is quite small in relation to the total amount of seeding conducted. The majority of seeding is done on deactivated road surfaces to prevent erosion. To the Participants’ knowledge, there is no data available to substantiate the amount of mortality actually incurred on the Participants’ bush roads.</p> <ul style="list-style-type: none"> • Unsure whether seeding with uncertified mixes is part of SOP’s elsewhere where urgent conditions warrant it, but suggest Participants only consider this after other appropriate “urgent” erosion control methods have been considered (e.g. straw mats,etc.) <p>Participant response – comment is well taken. In the past 6 years we have not experience3d a situation where uncertified seed has not been available.</p> <p>Action – Revise Indicator 10 implementation strategy to reflect that in situations where certified seed is not available, Participants will consider using other erosion control measures where practicable and appropriate.</p>
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Comments from: Ian Miller, Manager Integrated Resources Section, FPB

Dated: August 12, 2009

Re: Riparian, Range and Soils

FOR RANGE/FORAGE:
 5. I think the wording "The participants will endeavour to create and implement mutually agreed-upon action plans (T.R.A.P.s)....." results in a very wishy-washy strategy that doesn't give much certainty. Also, the acronym "TRAP" doesn't relate to the wording....i.e. what do the "I" and the "R" stand for? Also, why have the "range-related associations" been removed from the process?

FOR SOILS:
 6. I find both strategies pretty loosely-worded, especially #2.....anyone could say they had "limited" their permanent access structures.....for example, a PAS of 15% could be said to have been "limited" if the original plan was for 25%....I think the strategy needs a specific limit.

Thanks for the opportunity to throw in my \$0.02 worth....



Participants response – WRT to comment #5 please see indicator 41 for a full description of implementation of the strategy. Provides clarification of the strategy. TRAP acronym stands for Timber Range Action Plans – mutually agreed upon by participants and range tenure holder.

Participants response – WRT to comment #6 – please see indicator # 24 for a full description of the strategy – note that the PAS limit has been set at 5% - which is less than the PAS limit specified in the FSJPPR.



5. Patch Size, Seral Stage Distribution and Adjacency Strategy

Comments from: Nancy Densmore, Biodiversity Specialist, FPB

Dated: April 16, 2010

Hi Anna – as discussed, this is a summary of the stand-level biodiversity FREP data collected in the Peace district. This represents harvesting from about 1998 through 2006. The numbers quoted in my previous e-mail were the sum total of BWBS data collected by FREP which would include area from Fort Nelson district. The above summary is likely more specific to the IFPA.

My comments remain the same. Patch retention being achieved is close to 10% on average – a fair bit higher than the minimum averages in the SFMP. I do not have the history of HLPs from the area or what the old numbers from the Landscape Unit Planning Guide might be – but do note that the FRPA default at 7% minimum average is higher than the SFMP's patch retention targets. Dispersed retention being achieved is close to 2% (basal area equivalent – i.e. stating as equivalent to patch area) on average.

CWD volumes being found are higher than the minimum average of 46 m³/ha being targeted in the SFMP (both CWD found on the ground in retention patches and on the ground in NAR) – however, 46 is probably a reasonable number considering their stated objective of maintaining at least 50% of natural levels. As I've mentioned before, it is the quality of the CWD in terms of density of large pieces that is the concern at the moment, rather than volume – and that isn't mentioned in the SFMP as far as I can see.

It may be clearly stated, but I wasn't sure if the target of 6sph >23 cm dbh is a target for dispersed retention within the net area to be reforested. If so that sounds reasonable.

Thanks Anna!

Nancy Densmore
Forest Practices Branch
Victoria BC
250 356-5890



**DPC DRAFT SLB
Report Jan 2010**

Participants' response – the SFMP indicates that retention of larger pieces of CWD is preferable to smaller pieces. Also, the target for retention of stems/stubs > 23 cm dbh is for dispersed retention within the NAR. WTP retention targets are based on relative contribution in the NHLB, forest management intensity levels and retention levels experienced in natural disturbance. Please see indicator 9 for a full description of the factors considered in developing the WTP retention targets.

Comments from: Nancy Densmore, Biodiversity Specialist, FPB

Dated: April 13, 2010

Hi Anna – if you would like to discuss some of the Fort St. John indicators in relation to what FREP has been finding in the BWBSmw and mk – please give me a call.

On second look at the SFMP – it is not clear if the average of 6 sph >23 cm dbh live or dead is to come from non-patch retention only – or a sum of all the retention on the block. If it is non-patch only – then my calculations below do not apply. Average of 6 largish dispersed stems per hectare of NAR would be good. If it is all retention (patch plus dispersed) – then the 6 sph is very low.

- Non-patch retention only. Excerpt from draft SFMP:
This strategy is designed to encourage the retention of some snags or live trees capable of providing cavity sites, within the harvested portion of the timber harvesting landbase. The strategy is intended to supplement the retention of this habitat element found in wildlife tree patches, unsalvaged burns, and the approximately 50% of the DFA (2002 Timber Supply Review) that is not in the timber harvesting landbase.

For patch retention only – we have found an average of 9.9% retention in the BWBS FREP sampled blocks. For dispersed retention only it is an average of 0.7% retention (basal area equivalency).

(first message here)

Well, they are not tying themselves to very much.

Looking at the FREP BWBSmw/mk data (83 blocks) there is an average of 11% wildlife tree retention. The SFMP calls for minimum average of 3-7%.

- LU targets in the SFMP are 3-8%. Actual retention values vary by LU from 6.9-13.6% (2001-2009). Factors that the targets are based on are outlined in plan (sec 6.9), and are relative and relevant to the DFA .

FREP data shows an average of 125m³/ha of CWD within patch retention and 107 on the harvest area. The SFMP is calling for minimum average of 46 m³/ha. They are calling for ½ of the natural amount – so not too far off (a little low) if you call the amount on the ground in retention areas natural.

- Please note that the participants also manage the deciduous landbase, which generally has lower levels of CWD. The indicator target is a combination of conifer, deciduous, and mixedwood areas.

FREP has found the density of large pieces the issue for CWD retention – the SFMP is silent on that.



- Please see section 6.6 (pg. 108-109) for reference to large pieces. The participants understand the importance of large CWD pieces and try to incorporate into operational plans where practicable.
- FREP has found an average of 32 stems ≥ 30 cm dbh (live or dead) left on average per hectare of gross block size. The SFMP is calling for a minimum average of 6 sph of >23 cm dbh.
- See above comments. Target is based on managed stands (i.e. net area, not gross).

Craig DeLong (April 21, 2010)

Update reference TR059-2010 - contact Craig for details.

Comments from: Joelle Scheck, Ecosystems Section Head, MOE

Dated: April 21, 2010

Section/page no.	Comment
<p>Sec. 6.2 Seral Stages – page 87</p>	<ul style="list-style-type: none"> • If deciduous stands comprise a much lower (insignificant) amount of the TSA outside the Boreal Plains NDU (approx. 3% overall and 1.5% THLB) then doesn't it make them more unique/uncommon, therefore heightening the importance of maintaining a high proportion within these other NDU's in a late seral stage? Or is this being done operationally, but simply not identified with a retention target? <p>Participants' response - See indicator 17 – acknowledges the importance of less common stand types (leading species) in NDUs outside the Boreal Plains. The old growth retention targets are based on C. Delongs NDU work and advice from ILMB. The Participants' have not historically targeted deciduous stands for harvest in the non boreal plains NDUs. The Participants developed the Boreal plains seral targets in conjunction with advice from the FSJPPR Technical advisors (MFR, MOE and ILMB).</p> <ul style="list-style-type: none"> • Suggest that the Participants review/re-examine the need for a mixedwood late seral target with the Boreal Plains NDU upon preparation of a SFMP#3 if/when



	<p>more mixedwood stands become part of the THLB.</p> <p>Participants' response - Comment is noted and will be considered in development of SFMP #3.</p>
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6. Forest Health Management Strategy

Complete e-mail string consisting of: review by FPB staff and response by Darrell. I have left it as is so it can be followed in order the comments were made.

From: Regimbald, Darrell [mailto:Darrell.Regimbald@canfor.com]

Sent: Thursday, November 5, 2009 3:27 PM

To: Winter, Ralph FOR:EX

Cc: Van Tassel, Mark A FOR:EX; Farwell, Brian FOR:EX; Griffin, Dawn FOR:IN; Rosen, Don; Tyrrell, Andrew FOR:IN; Fister, Walter C FOR:EX; Backmeyer, Rod ILMB:EX; Hunt, Elizabeth A FOR:EX; Scheck, Joelle ENV:EX; St Jean, Roger OGC:EX

Subject: RE: Forest Health strategy in SFMP for the pilot project

Ralph,

Thank you for sending along the comments from Jennifer, I would like to respond on behalf of Canfor and BCTS and offer the following.

To put things in context of the thinking at the time of the development of the existing SFMP, as you recall in 2003/2004 the government policy direction was to have industry become largely responsible for forest health management in TSA's, through the DFAM process. Consequently forest health was incorporated as a mandatory strategy in the FSJ Pilot Project regulation. The provincial policy direction subsequently reverted back to having the MOFR retain the lead responsibility for forest health management outside of licensee silviculture obligation areas. This is recognized in the revised forest health strategy to be incorporated in the new SFMP.

In keeping with this shift in policy, the Peace Forest District has developed a Forest Health Plan which is to be updated annually at the Dawson Creek MFR office. The plan also includes the Fort St. John TSA., this plan is considered as an addition to the forest health strategy in the SFMP, and we therefore feel that some of the urgency for the FSJPPR SFMP to deal with broad Forest Health issues has diminished over time by the change in policy direction and development of the Peace District Forest Health plan.

Of course it must also be recognized that the unexpected major occurrences of significant large fire events, and the much more rapid spread of MPB than the experts had predicted (2011 was the projected date for MPB to arrive in the TSA) basically overwhelmed all the other minor forest health issues and became our main focus.

**Regarding Jennifer's Point #1:**

re: Table 28 on page 150, the 'Severity Class Breakpoints' to differentiate between Low, Medium and High were set for each Pest Damage Agent in the table. Jeff Beale differentiated between those pests where a forest health expert (Mr. Reich) provided the information for the break points, and those pests for which no external expert guidance was available (all the 'e.g.'s). The levels for those pests where no external info was available were set by the best available information, which was primarily the working group's local experiences on the impacts these pests had in the FSJ TSA, as there was little or no local research to assist in the delineation of severity class breakpoints. The terminology used in the table stating 'e.g. prefix denotes classification is under development' reflects Jeff's view that forest health experts are most qualified to set limits. It likely should have stated 'classifications will be updated as new information becomes available', as it has been a very low priority to further define specific limits on L-M-H classifications , since most of the pests are unlikely to be to the extent they require management effort in FSJ.

The main point of the forest health strategy in the existing SFMP was that the participants needed to be cognizant of forest health issues, and, since the participants spend a great deal of time on the landbase, and are potentially impacted more than most by forest health problems, the participants should track 'significant' issues, and make a conscious decision to either act or not act on a forest health issue . The decision would be made depending on the risk posed to the overall forest, or to the achievement of other targets (e.g. reforestation success, etc), weighed against the cost of doing the treatment. This will remain as key component of the forest health strategy inn the new SFMP.

Page 149 of the SFMP discusses what would be considered 'significant' forest health issues, which was the real key to determine if management action was needed.

Forest health treatment plans developed for the beetle have been quite simple, early on we decided to focus our efforts (fall and burn and sanitation logging) on the leading edge of the beetle front. Where funding has been available, and of late no funding has been available, we have conducted aerial detection flights followed up by ground probing in accessible areas and fall and burn in accessible areas on the leading edge of the beetle advance. Salvage harvesting has also occurred in the wake of the beetles advance and will continue, in addition to our efforts to sanitation log and remove green mature stands in an attempt to slow the beetle's advance.

Point # 2:

The risk management classification system was completed and submitted to the MoFR. Please see attached documents.



Point 3:

Training on MPB was done, specialized contractors have been used for MPB aerial surveys, probing and fall and burn. Also, consultants/contractors used for silv. surveys must be certified and therefore have received the training needed to identify forest health problems. When there have been unidentifiable forest health issues, they have been forwarded to forest health specialists for identification (e.g. the participants involved forest health experts in attempting to identify spruce regen dieback issues in some western blocks in the TSA).

Point 4:

With regards to the MPB, the most common treatments utilized have been salvage/sanitation logging, or trap/fall and burn, or fall and burn (no traps) and no treatment. Treatment plans are largely driven by prioritization of problems, and available funding. Non lethal lindgren funnel traps have been used in the mill yard to monitor beetle activity.

We feel that one of the reasons the FSJ TSA is less effected than many other TSA's by forest health issues is the variability inherent in complex landscapes (plains, foothills, mountains, wetlands) with a great mix of conifer and deciduous stands and lots of mixedwoods. The participants have recognized this and have incorporated mixing of species (eg Sw and PI, as well as Aspen) in plantations. Going forward the next SFMP will recognize the change in management policy and that the Peace District Forest Health Plan has been developed and consequently the strategy will continue to focus on plantation pests and significant pest infestations at a landscape level that can be managed through harvesting activities - the primary tool at our disposal.

I hope that the foregoing has helped to answer Jennifer's questions. I wish to recognize the valuable input provided by Dave Menzies, Andrew Tyrell, Walter Fister and Mark van Tassel in developing this email response.

Cheers!

Darrell Regimbald, RPF

Planning Coordinator - North - East

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-----Original Message-----

From: Winter, Ralph FOR:EX [mailto:Ralph.Winter@gov.bc.ca]

Sent: October 15, 2009 1:23 PM

To: Hunt, Elizabeth A FOR:EX; Currie, Sandy A FOR:EX; Regimbald, Darrell

Cc: Farwell, Brian FOR:EX; Bedford, Lorne FOR:EX

Subject: Forest Health strategy in SFMP for the pilot project

Hi folks...

Do you know if the new SFMP will be addressing some of these issues?

-----Original Message-----

From: Burleigh, Jennifer FOR:EX

Sent: Tuesday, August 18, 2009 9:15 AM

To: Winter, Ralph FOR:EX; Hays-Byl, Winn FOR:EX

Cc: Britneff, Anthony FOR:EX; Ebata, Tim FOR:EX; Baumber, Stephen FOR:EX

Subject: RE: Ft St John multiblock stocking standards review February 17th from 8:30 to 1:00 pm

Hello Winn,

Ralph had asked Anthony to comment on the FH component of the plan, which was passed down to us. Seeing as Ralph is away for two weeks, I thought I would include you on my response in case it gets buried in Ralph's in box during his absence.



I reviewed the FH section of the 2004 Plan, which was set up a good start. It committed to several action items, which from what I can tell from my review of the 2005/06 and 06/07 annual reports, have not been completed. They may be in the next version of the plan, but I have not seen a copy of that.

Specifically, here are the items that were committed to and are not in any of the annual reports that I saw:

1. Table 28, page 150 of the 2004 plan states that "e.g." means the classification is still under development. The entire table except for 3 factors were under development. Has this classification system been finalized? Along those lines, how are they determining what is low, mid and high severity classes? What references are they using and what criteria were used to determine severity?
2. Item 2 on page 151 states the participants will establish and maintain a risk management classification system, which was to be completed by April 1, 2005. I have not found this in either subsequent report.
3. Item 3.c on page 151 states they will ensure appropriate forest workers, consultants and industry staff are competent at identifying specific forest health concerns within the pilot project area. How was this achieved or determined?
4. Item 5 on page 151 states treatment plans will be developed using forest health specialists as needed. I am assuming a treatment plan for mountain pine beetle was developed. Are they available for review? Are they simply salvage plans or what content is in a treatment plan?? Also, there is a bulleted point under item 5 that states lethal trap tree programs will be used in mill yards - what are they using for the lethal trap tree? MSMA is no longer registered for use, and the only other option I know of (but not aware of anyone actually using it) is to spray carbaryl (A broad spectrum insecticide) on standing trees - used mostly for tree protection in urban areas. So I would like clarification on what they are using as a lethal trap tree.

If this information is in a report that is not available off the website (<http://fsjpilotproject.com/annualreports.html>), if you can send me the documents I will review them for their content and revise my review accordingly.

So an overall review from my perspective is that they say a lot of good things, but there is no evidence any of it has been carried through on, based on the annual reports. I really liked their



discussion on patch size, species mixes and seral stages, but I would like to see a broader tie in with a landscape management strategy. Not just maintaining what is there now, but how to manage the forest going forward such that it will be more "resilient" to changes in forest health as a result of pests and climate change. The approach is still quite reactive (as is the case most of the time), so it would be nice to see some more thought into the landscape level planning that takes in forest health considerations (wish list!!).

Jennifer Burleigh, RPBio., RPF.

Provincial Forest Entomologist

BC Ministry of Forests

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Victoria, BC V8W 9C2

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Comments from: Robert Hodgkinson, Forest Entomologist, Northern Interior Region(NIR)

Dated: March 9, 2010

I reviewed the forest health sections in the attached. Overall, it looks good and I offer the following brief comments:

- Sect. 4.6.1 (pg. 64) and 4.6.3 (pg. 66) refer to “catastrophic” forest health events/agents. Not just potentially catastrophic FH agents require attention. Many forest pests cause significant yet sub-catastrophic losses. Suggest changing “catastrophic” to “significant”.

- Participants will consider this wording. The intention with “catastrophic” is to focus effort on the highest risk.
- One of the bullets in Sect. 4.6.1 should include a commitment to being “proactive.”
- The participants will consider adding wording to this effect. They consider indicators #25 and 49 as having “proactive” characteristics.
- I couldn’t help but notice that “Salvage” (sect. 6.26 on pg. 168) only refers to fire-damaged stands. What about blowdown?
- The indicator is specific to fire-damaged stands as the participants can obtain reasonable reliable information related to these stands in a timely manner. The same cannot be said for blow down areas. Therefore, the participants have chosen to focus the indicator on fire-



damaged areas. However, they have and will continue to salvage timber from blow-down areas when feasible.

Robert Hodgkinson

Forest Entomologist

Northern Interior Forest Region

Phone: (250) 565-6122

Fax: (250) 565-6671

E-mail: Robert.Hodgkinson@gov.bc.ca

Comments from: Richard Reich, Forest Pathologist, NIR

Dated: March 9, 2010

In my opinion, having spent considerable time there in the past, the FS John SFMP area is generally very low risk to most forest pathogens. The exception is Tomentosus root rot in the <700m elevation band, which becomes high risk. It is well known and documented in this plan. Until there is evidence to the contrary, this area of the province concerns me the least.

Ralph, I would be very interested to see a RESULTS summary of FH factors for this area. I presume it would rank among other districts that have the absolute lowest occurrence of pests in the province. Could you tell me what would be involved in creating a district level summary of pest occurrence for the province so that we could make a science based objective evaluation?

Richard Reich, R.P.F., M.Sc.

Regional Forest Pathologist

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7. Soil Management Strategy

Comments from: Richard Kabzems, Research Silviculturist, NIR

Dated: January 26, 2010 (Pre-February 1, 2010 version)

6.4 Soil Disturbance

The draft SFMP identifies winter decking on roadsides for summer loading and hauling as a strategy to minimize site disturbance. This practice has been clearly identified as detrimental for aspen regeneration (Renkema et al. 2009. Aspen regeneration on log decking areas as influenced by season and duration of log storage. New Forests 38: 323-225). This strategy is contrary to the following LRMP objectives: 1) minimize losses to the timber harvesting land base, and 2) maintain functioning and healthy ecosystems.

- Acknowledged, however the soil disturbance strategy is intended to minimize overall soil disturbance on the harvest area (rutting, scalping and compaction). Reduction of deciduous stocking on site specific basis can be countered through provisions in the landscape level silviculture strategy and site productivity is addressed in the SFMP through indicator #32, while balancing the economic objectives of the participants (Indicator #48 – Summer and Fall Volume Deliveries). A reduction in the THLB will not take place in this instance as, even if the area were to be NSR to aspen it could be reforested with conifer and substitute areas for deciduous would be identified.

Comments from: Sandy Currie, Technical Advisor, Timber Harvesting Practices FPB (retired)

Dated: March 11, 2010

Soils Management Strategy (Section 4.8)

1. General Overall Comments

- 4.8.1 Soil Disturbance Strategy - page 72 –this is a good piece – particularly the point (in red) that addresses the inherent sensitivity of a site to soil degrading processes; and,
- Operational Practices and Field Monitoring – page 100 – in general this whole section is extremely good – expressing appropriate points and accountabilities (the only exception to this is identified in the first pdf (under specific suggestions for change below). *(The comment states "Suggestion for expanding & clarifying the level of expertise required for conducting the "Boot Survey" is the following: This assessment will be conducted by an experience person (for example a person who, if they are not an accredited soil disturbance surveyor has related experience")*)

2. Specific Suggestions for Change



ND10E311114632.pdf



ND10E311115904.pdf



ND10E311110638.pdf



2010E311110621.pdf

Comments in document #2 are related to indicator #6.4 – Soil Disturbance (p.99) and states: *“Suggest adding wording to account for potentially required changes to standards unit (NDU) delineation. For example they may determine that an NDU located in the foothills has a large enough component of fine textured that the 5% dispersed disturbance limit should be applied to it”*

Participants’ response – this direction is captured in the description of Indicator #4.

Comments in document #3 & 4 are related to the Ministry of Forests Vision and Mission (p.300) and states: *“Suggest change to reflect the “actual” name of the ministry” (Ministry of Forests and Range)*

Participants’ response – Completed revision suggested.

Comments from: Shannon Berch, Research Scientist, Research Branch

Dated: August 17, 2009

I'm not all that familiar with the FSJ pilot project so my comments may reflect my unfamiliarity. The two statements wrt soils seem pretty basic and open to interpretation. I don't see anything in them that addresses the use of 'environmental management and forest certification systems as surrogates for existing administrative process'; I assume these details are available elsewhere. I would think that the pilot project participants would want to outperform wrt existing soil conservation regs and outcomes. What indicators will be used? Is organic matter being conserved (forest floor and deadwood)? Will the harvested areas within the pilot project be subjected to FREP or third party monitoring? If so, how have they done thus far?

Shannon Berch, phone # 250-952-4122

- A Sustainable Forest Management Plan is a mandatory requirement of the Fort St. John Pilot Project Regulation specifically Canadian Standards Association.



- Details on soil disturbance indicators are available in Indicator #4 in section 6.4 (Soil Disturbance)
- Conservation of organic matter is addressed in indicator #6 (Coarse Woody Debris).
- The SFMP is subject to third party certification and auditing as well as FREP monitoring, Forest Practices Board audits, and C&E inspections & monitoring.
- Details on the historic performance of the Participants against the SFMP and applicable legislation is available in the Annual Reports posted to the Fort St. John Pilot Project Website.

Comments from: Stephane Dube, , Regional Soil Specialist, NIR

Dated: August 13, 2009

Name: Stephane Dube 250-565-4363 august 13

How did the pilot go in your opinion?

Sorry, I can not really speak to this other than what I read in the annual reports and information from other sources. I did not get involved during implementation. I recall vaguely having made comments on the soil objectives in the original management plan. However, I believe Sandy Currie knows more about it.

Some information is available.

Results from 2004-2005, 2005-2006 and 2006-2007 annual reports show that PAS activities were consistent with targets set in the Plan.

I am aware that the FPB conducted an audit on BCTS operations within the Pilot in 2006 and as a result, did not find any significant issues in terms of soil conservation (though it was not an soil audit per se). Was soil resources evaluated and if so, were forest practices conserving them?

As part of a pilot project on water monitoring in 2004, water diversion and surface erosion were identified as common problems along roads. This may have major implications for natural drainage patterns and loss of soil productivity. Has it been addressed?

What would you like changed?

Not having been involved in operations, I don't know the results on the ground. I have never been called in to assist staff on any soil issues . Richard Kabzems is closer so he should be contacted.



Engage other industries e.g. oil & gas to coordinate landscape level target for PAS. What's the point of having a target of 5% for forestry if oil & gas industry got green lights to build roads and drill holes anywhere they want?!

I would like to see reporting done on cutblocks that may contain large soil disturbance areas (also known as areas of potentially inordinate soil disturbance) that contribute significantly to loss of site productivity but often ignored by forest practitioners. This is an important concern raised by the FPB and FREP staff.

What would you like to see improved if it goes forward?

I can only comment on what I know. If the Pilot is to meet obligations at least equivalent to what is found in FRPA and associated regulations, in my opinion the landscape soil objectives being proposed are not sufficient. Let me explain. In FRPA, the objectives set by government for soils is to CONSERVE the productivity and the hydrologic function of soils. The proponent quotes: "...will sustain those forest lands... by LIMITING THE AMOUNT OF LOSSES of productive land in the timber harvesting landbase from permanent access structures within cut blocks (Soil Management Strategy #2)" is not the same as conserving or maintaining. You can't pretend to sustain forest lands if losses or depletion of productive land occur from PAS or other activities. This is unless you restore site productivity to what it was or replace those landings and roads with incremental silviculture to maintain productivity at the landscape level.

What governance changes would you like to see?

All FSJPP regulations must be enforced (e.g., monitoring done by government, Part 5 sec 52)

Are there any outstanding soil landscape issues?

See above.

Participant response – these comments are from the Pilot Project review process and were dealt with previously. These comments do not apply the draft SFMP and therefore no response is provided here.



8. Reforestation Strategy

Comments from: Gordon Nigh, Superviosr, analysis group, Research Branch

Dated: March 8, 2010

I reviewed the document titled “A Silviculture Survey Methodology for Boreal Mixedwoods in Northeastern BC” and have the following comments. I am coming into this at a late stage so my comments may have been brought up before and taken into consideration. Also, I’ve only reviewed the document. Other supported documentation may answer some of my questions.

1. The sample population is not well defined. Is it a cut-block or all cut-blocks harvested in one year? The plots are quite small and any statistics generated at the cut-block level may have a large variance. I don’t know what area a typical cut-block is, but it is not hard to imagine that smaller cut-blocks will have very few plots, especially of the enhanced type. The enhanced plots are established at a rate of 1 every 4 ha, so a cut-block that is 10 ha may only have 2 enhanced plots.

The intent of Craig Farnden’s approach is to assess cutblocks on an individual basis.

2. Section 2.2, bullet 6, section 2.5.4: How is site series determined? Does the surveyor do a full ecosystem assessment or just a quick glance around? The latter technique may not be good enough, especially on young sites where the vegetation may not be indicative of the site. Is the age that is recorded total age or breast height age?

Site series have already been assessed when the site level plan was originally developed. The surveyor will be responsible for confirming that the site series is correct (usually completed in a very quick fashion)

The age recorded is total age.

3. Section 2.4.3: This process for avoiding linear features affecting stocking introduces bias as well. Avoiding linear features is probably not necessary unless they occur at the same frequency as the survey lines (e.g., every 100 m).

This section of the report was added in by Craig Farnden on the basis of hearing the concerns from the participants regarding their experiences with the MSQ surveys for conifer. With a significant portion of the landbase taken up by linear features such as pipelines, and seismic lines, the participants made it known to Craig that there were large numbers of plots being taken out as null. Craig’s attempt in the report was to devise some alternative strategies to mitigate this issue without intentionally introducing bias

4. Section 2.5.2: A walk-through will have to be pretty intense to meet the objectives of the walk-through. It’s hard to imagine a surveyor doing a walk-through on a 100 ha block that is brushed in. That might take the surveyor a full day alone to do a thorough job.

The intensity of this walkthrough was never intended to be any more or less difficult for the surveyor than what is expected from another survey.

5. Section 2.5.2, Note: It’s not clear why post-stratification is so taboo. Seems to me that post-stratification is a reasonable way to stratify the blocks. Maybe I am missing something.

The intent of Craig’s statement was to discourage post-stratification, however in practice the participants will include it as a process when necessary.

6. Section 2.5.3, middle of page 6: Why not just have the surveyor count the trees. The plots are not that big so counting trees shouldn’t be that onerous.



Due to the fact that the participants have not field tested the process, it is not fully understood what impact counting or estimating the total number of trees will have.

7. Section 2.5.3, middle of page 6: The minimum trees heights are fairly small. Projecting volumes on 30 cm tall trees seems to me to be dicey at best. Maybe it doesn't matter when everything is all rolled up, though, but I can't tell.

The process is to survey the block at 15 year post harvest. The likelihood that the selection of 30 cm tree is going to occur at that time is remote.

8. Section 2.5.4: it could turn out that few conifer trees have enough growth above breast height to estimate site index with growth intercept models, resulting in more reliance on less preferable methods of estimating site index.

This discrepancy is as likely to occur with other surveys that wish to calculate site index in this fashion. Should there be insufficient trees above breast height for selection, there is no alternative but to use other methods.

9. Section 3.2: It should state "If the PMV exceeds the TMV" instead of the other way around. Correct, we agree that it should read that "predicted mean volume exceeds the target mean volume..."

10. Section 3.3.3: I wonder how these results compare with TASS.

The participants are not aware that Craig made any comparison to TASS modelling.

11. Section 3.3.5: Seems like an arbitrary process.

Comment from Craig Farnden The 10% value is somewhat arbitrary, given that there are no published relationships upon which this value could be based. The value of 10% is therefore "expert opinion", based on my own extensive field experience and consultations with peers both in the research and operational community. It is a crude estimate of the "real" value

12. Section 3.3.7: Again, this procedure seems arbitrary and I cannot understand why it is done.

Craig stated in his report that his basis for setting the theoretical and target volumes was tied to the already established values set in the SFMP for the Pilot Project.

After reading the survey procedures, I was left wondering if the procedures will actually get the information that is desired with the necessary accuracy. Field testing would be a good idea at this point.

Note from the participants: There is no question that this is a new process and there are some questions and issues that still need to be examined. However part of the Pilot Project process is about identifying new ideas and concepts and the commitment from the participants is to field test Craig's survey methodology over the term of this SFMP and beyond.

No changes proposed to the SFMP in response to these comments.

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Comment from May 17, 2010. Here are my quick comments after reading the Farnden Oct 27th, 2010 document entitled: *A Silviculture Survey Methodology for Boreal Mixedwoods*.

- The author fails to address “Why this survey method?” The various different surveys proposed for deciduous / mixed-woods / conifers may add un-necessary complexity and cost?
- The author does not sufficiently address the objectives given (2.1). What is “theoretical maximum achievable volume”, “predicted mean volume”?
- There is insufficient information provided on key components, models and linkages. The result is a lot of unknowns, confusion and complexity which makes it difficult to understand.
- How will it work and what will be the impact on the Crown risk and liability cannot be presently answered.
- The dependency on model output (MGM?) and empirical models that are poorly presented creates a “black box” scenario. A lot more detail is required to clarify how these functions apply to real world examples. What are the underlying modelling assumptions? Have the models been validated and to what dataset? Where should these models not be used?
- % cover is as a model parameter (3.3.3 model fitting – species composition): this is a subjective measure which may have high variation. It is not a measure to use if there is a need to legally confirm or challenge results & thresholds (C&E).



- I cannot confirm or support whether this is a positive survey method for boreal mixed-woods and any policy which may evolve from it.

I look forward to reviewing and continuing to participate on this project.

Cheers,

George Harper P.Ag., R.P.F.

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Note from the participants: There is no question that this is a new process and there are some questions and issues that still need to be examined. However part of the Pilot Project process is about identifying new ideas and concepts and the commitment from the participants is to field test Craig's survey methodology over the term of this SFMP and beyond. This survey methodology is new to the second SFMP and will be field tested and further implementation will be done with Government input.

No changes proposed to the SFMP in response to these comments.

Comments from: Richard Kabzems, Research Silviculturist, NIR

Dated: January 26, 2010 (Pre-February 1, 2010 version)

Review Fort St. John SFMP, Pre February 1 2010 version

I have limited my review of this document to the reforestation assessment, the reforestation strategy stocking standards and a related portion of the soil disturbance assessment.

Deciduous reforestation



6.29 Reforestation Assessment refers to “the MOFR’s Draft stocking guidelines for hardwoods in the BWBS”. With no other information provided in the draft SFMP, I have been unable to find this document.

The minimum number of trees identified in Table C of Appendix 6 the draft SFMP is lower than any previous or existing deciduous standard used by the MoFR that I am aware of. The minimum aspen height of 2 m has been used in British Columbia aspen regeneration guidelines since 1997 if not before. Using a minimum height of 1.5 m for aspen regeneration assessments increases the risk to the Crown of accepting aspen areas while they are still vulnerable to a number of damaging agents (particularly browse), and before other problematic conditions may have been fully expressed.

The draft MOFR stocking guidelines for hardwoods were not included due to the fact that the development of the deciduous compiler is to occur in the future. As the measurement components of the deciduous landscape strategy are finalized the stocking guidelines will be appended to the SFMP.

The minimum height for deciduous was approved in Appendix F of the Fort St. John Pilot Project Regulation. There has not been a deviation from that height in Table C.

With the combination of low aspen numbers and low minimum height, an area could ‘pass’ the proposed deciduous reforestation assessment even with a reduction in site productivity.

Coniferous reforestation

6.29 Crop tree requirements and Vegetation Competition

Part E “While A to D above will normally define a well growing crop tree, despite these criteria, an individual crop tree may be accepted as well growing if the surveyor believes the vegetation clearly does not impede the growth of the crop tree, and is not expected to impede the future growth of the tree. These well growing trees must be clearly identified on the plot cards to facilitate field checking, if required for verification purposes.”

I see no defensible reason to include ‘Surveyor belief’ in a regeneration assessment. Criteria A to D are based on the best available scientific knowledge. All criteria used in the SFMP should meet this standard.

Criteria E is not an addition to the selection criteria, as it was included in the original SFMP for crop tree requirements. Despite the absence of available scientific background to make this selection defensible should not discredit the professional accountability of the surveyor to rationalize a well growing crop tree decision.

Appendix 6 1.4.3 Stocking guidelines for Mixedwoods in the BWBS

The draft SFMP uses the June 2006 Peace District Stocking Guidelines for mixedwoods in the BWBS and the Boreal Mixedwood Survey procedures (Silviculture Survey Procedures Manual April 2009) to define quantifiable guidelines for intimate and successional mixtures of broadleaf and conifer mixedwoods. These summarize the best available current scientific information for this topic.



Subject: Additional information for Code Pilot Review

Hi Elizabeth: I have done a few simple examples to demonstrate that the proposed deciduous regeneration standards are not appropriate for maintaining productive stands in the Code Pilot area.

This could be added on, or inserted into my earlier review comments (I can do that if you would like a clean copy).



“Additional information for FSJ Code Pilot proposed deciduous stocking standards

1) Height of regeneration assessment

The proposed height of 1.5 m for assessing deciduous regeneration is very low. Using the attached table of aspen site index and regeneration, even an aspen SI of 10 would reach 1.5 m at year 7. The height for regeneration assessment should be clearly based on site index values found in merchantable aspen stands using the most recent TSR analysis.

2) Minimum stocking for deciduous assessment

The table below summarizes a series of MGM 2009 simulations for aspen regeneration in British Columbia. Site index 16, assessment at year 10, average stand height 2.5 m, minimum merchantable diameter of 12.5 cm, Operational Adjustment Factor (OAF) of 20%, and 20% decay and breakage were the assumptions used for these simulations.

A stocking level of 4,000 st/ha total stems in these simulations would not reach a minimum merchantable volume of 140 m³/ha. With 10,000 st/ha, this would be achieved at 90 years, and at 20,000 stem/ha before year 70.

The Code Pilot SFM should be providing regeneration assessments which are consistent with current TSR analysis (e.g. 140 m³/ha minimum merchantable stand), and are supported by modelling tools which are currently available. “

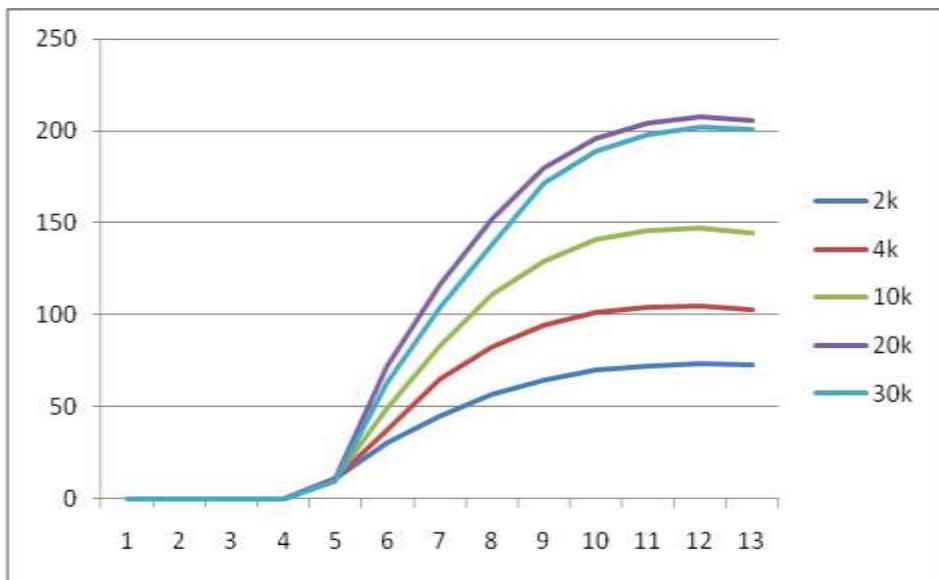
- **The Timber Supply Analysis report for Fort St. John (June 2002) used >120 m³/ha as the minimum criteria for aspen stands (Table A-15), and OAF 1 / OAF 2 values of 15% and 5% respectively for assumptions in managed stands.**

Age	2k	4k	10k	20k	30k
10	0	0	0	0	0
15	0	0	0	0	0
20	0	0	0	0	0
30	0	0	0	0	0

Sustainable Forest Management Plan



40	10.926365	11.105683	11.197674	10.997811	9.7237614
50	30.528543	37.468664	49.100725	71.895896	63.30738
60	44.888939	65.316399	83.403302	116.69567	103.94274
70	56.674545	82.73183	111.07594	151.99768	137.91772
80	64.684045	94.63374	129.21619	179.52746	171.58854
90	69.758959	101.40325	140.75757	195.72504	188.61326
100	72.329058	104.38455	146.1288	204.43181	198.10503
110	73.188141	104.65275	146.8635	207.62766	201.83548
120	72.818843	102.83577	144.32357	205.31364	200.46733



SiteTools Version 3.3

Research Branch, British Columbia Ministry of Forests

Date: 2010-01-26 8:41:33 AM

Species: At - Trembling aspen

Site index equation: Nigh, Krestov, and Klinka 2002

Table of height by total age and site index



Total	Site index (m)							
age	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0

	Height (m)							
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
2.0	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.8
3.0	0.4	0.6	0.6	1.0	1.0	1.0	1.0	1.5
4.0	0.7	1.0	1.0	1.4	1.5	1.5	1.5	2.1
5.0	1.1	1.4	1.4	1.7	1.8	1.9	2.0	2.8
6.0	1.4	1.6	1.7	2.1	2.2	2.4	2.6	3.4
7.0	1.5	1.8	1.9	2.5	2.7	2.9	3.2	4.1
8.0	1.7	2.1	2.2	2.8	3.1	3.4	3.7	4.8
9.0	1.9	2.3	2.5	3.2	3.6	3.9	4.3	5.4
10.0	2.1	2.5	2.9	3.6	4.0	4.4	4.9	6.1
11.0	2.3	2.8	3.2	3.9	4.4	5.0	5.5	6.7
12.0	2.5	3.1	3.5	4.3	4.9	5.5	6.1	7.4
13.0	2.6	3.3	3.8	4.7	5.3	6.0	6.6	8.0
14.0	2.8	3.6	4.1	5.1	5.7	6.5	7.2	8.6
15.0	3.0	3.8	4.4	5.4	6.2	6.9	7.8	9.2
16.0	3.2	4.1	4.7	5.8	6.6	7.4	8.3	9.8
17.0	3.4	4.3	5.0	6.2	7.0	7.9	8.8	10.4
18.0	3.6	4.6	5.3	6.5	7.4	8.4	9.4	10.9
19.0	3.8	4.8	5.6	6.9	7.8	8.8	9.9	11.5
20.0	4.0	5.1	5.9	7.2	8.2	9.3	10.4	12.0

Y2BH 5.5 4.5 4.5 3.5 3.5 3.5 3.5 2.5

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Further comments received form Richard Kabzems April 21, 2010

Review of “Mixedwood Management Guidelines”, Fort St. John Pilot Project, January 7, 2010

The Fort St. John Pilot Project still lacks a coherent approach to boreal mixedwoods at the stand and landscape level. In his review of the 2002 draft SFMP, Scientific and Technical Advisory Committee member Dr. Vic Lieffers identified that “*the mixedwood component is more or less ignored*” (Appendix 15, p 371 in the 2003 SFMP). In the 2010 SFMP the Pilot Project partners still have



not presented a coherent vision for boreal mixedwoods based on the best available science. Development of a scientifically defensible mixedwood strategy has again been postponed to an indefinite future.

Specific points in the document:

- 1) These guidelines will produce fine scale pure stands as noted on pages 3 and 8. The guidelines are designed to create a landscape composed of mosaics of small single-species stands, which is only a portion of the mixedwood landscape spectrum (MacDonald 1995).
- 2) The language of the document creates confusion by ambiguous use of the term ‘mixedwood’ with a variety of terms: “cutblock”, “area”, ‘forest types’, “Standards Unit” and “landscape”. This could be addressed by using clear definitions similar to those provided in MacDonald (1995). A **boreal mixedwood site** is an area with climatic, topographic and edaphic conditions that favour the production of closed canopies dominated by aspen in early successional stages, and white spruce in mid successional stages – the successional pattern is a key component of the definition. A **boreal mixedwood stand** is a tree community on a boreal mixedwood site in which no single species exceeds 80% of the basal area. A **boreal mixedwood forest** is the aggregate of all boreal mixedwood sites in any distinct area. (From Macdonald, B.G. 1996. The emergence of boreal mixedwood management in Ontario: background and prospects. pp 11-20 IN: Advancing Boreal Mixedwood Management in Ontario: Proceedings of a Workshop. C.R. Smith and G.W. Crook compilers. Natural Resources Canada and the Ontario Ministry of Natural Resources, Sault Ste. Marie, Ontario, 1996.)
- 3) The proposed Ledger system only addresses species composition in harvested volumes, and does not address the variation in spatial arrangement, vertical structure and successional change which are fundamental to boreal mixedwoods stands, summarized in Table 1. Without addressing these fundamental concepts, the document title phrase “Mixedwood Guidelines” does not match the content.

The tracking system is the participants internal tool to assist them with tracking the forest type areas over time. However, the participant’s are attempting in their operational trials to produce stands with variability in spatial arrangement, vertical structure and successional change.

- 4)The statement “Current policies, practices and information bases in BC do not effectively support mixedwood management using intimate mixtures” combined with only two citations demonstrate the lack of existing scientific knowledge found in the document. There is a large body of relevant information available. Joining the Western Boreal Growth and Yield Association and the Alberta Mixedwood Management Association would provide the Pilot Project partners with very large and applicable source of relevant information which could be applied to regenerate boreal mixedwood stands, and develop suitable guidelines.

See SFMP revised May 7, 2010 Mixedwood Management Guidelines (Appendix 10) which is attempting to address items 1,2, and 4.

Below is an incomplete list of scientific literature relevant to the topic of intimate mixtures of aspen and conifers published between 2007 and 2010.

Bokalo, M., P.G. Comeau and S.J. Titus. 2007. Early development of tended mixtures of aspen and spruce in western Canadian boreal forests. For. Ecol. Manage. 242: 175-184

Filipescu, C.N. and P.G. Comeau. 2007. Competitive interactions between aspen and white spruce vary with stand age in boreal mixedwoods. For. Ecol. Manage. 247:175-184



Man, C.D., P.G. Comeau, and D.G. Pitt. 2008. Competitive effects of woody and herbaceous vegetation in a young boreal mixedwood stand. *Can. J. For. Res.* 38: 1817-1828

Pitt, D.G., P.G. Comeau, W.C. Parker, D. MacIsaac, S. McPherson, M. K. Hoeping, A. Stinson, and M. Mihajlovich. 2010. Early vegetation control for the regeneration of a single-cohort, intimate mixture of white spruce and trembling aspen on upland boreal sites. *Can. J. For. Res.* 40: 549-564

Cortini, F., and P.G. Comeau. 2007. Evaluation of competitive effects of green alder, willow and other tall shrubs on white spruce and lodgepole pine in Northern Alberta. *For. Ecol. Manage.* 255:82-91

Filipescu, C.N. and P.G. Comeau. 2007. Aspen competition affects light and white spruce growth across several boreal sites in western Canada. *Can. J. For. Res.* 37: 1701-1713

Gradowski, T., D. Sidders, T. Keddy, V.J. Lieffers, and S.M. Landhausser. 2008. Effects of overstory retention and site preparation on growth of planted white spruce seedlings in deciduous and coniferous dominated boreal plains mixedwoods. *For. Ecol. Manage.* 255: 3744-3749

Kabzems, R., A.L. Nemeč, and C. Farnden. 2007. Growing trembling aspen and white spruce intimate mixtures: Early results (13-17 years) and future projections. *B.C. Jour. Ecosystem. Man.* 8(1):1-15

Harper, G., M. O'Neill, P. Fielder, T. Newsome, and C. DeLong. 2009. Lodgepole pine growth as a function of competition and canopy light environment within aspen dominated mixedwoods of central interior British Columbia. *For. Eco. Manage.* 257:1829-1838

Comeau, P.G., Filipescu, C.N., Kabzems, R. And DeLong, C. 2009. Growth of white spruce underplanted beneath spaced and unspaced aspen stands in northeastern B.C. – 10 year results. *For. Ecol. Manage.* 257: 1087-1094

Please contact me if I can provide any additional information.

Richard Kabzems, MSc. P. Ag., R.P.F.
Research Silviculturist
Research and Knowledge Management Branch

- Thank you for the references!!!

Comments from: Allan Powelson, Forest Establishment Initiatives officer
phone: 250-812-5954

Dated: March 11, 2010

The following are my comments on Appendix 10 – Mixedwood management guidelines

- 1) Section III (B) – page 5 bullets 3 and 4: if mixedwood stands are to be divided into pure species patches for reforestation at what size does a pure species reforested patch not become a mixedwood stand anymore. For example, if a macro or meso-patch strategy is pursued on a 50 ha



block and to be considered mixedwood (say conifer leading) one could have patches of up to 26 ha of pure conifer and 24 ha of pure deciduous. Does this reforestation strategy actually result in the maintenance of a mixedwood across the landscape. The entire 50 ha would be classified as a mixedwood but in reality it is function as separate coniferous and broadleaf forests. My suggestion would be to put in place maximum size limits to ensure that the functional reality of these patches matches the mixedwood classification.

The participants are basing the maximum size limits not on area, but on a percentage of the net area to be reforested. Local experience has shown that as succession occurs the species composition is likely to progress towards a mixedwood stand irregardless.

- 2) Section III(C) – page 5 last paragraph running into first paragraph of page 6: Balancing should not occur between landscape units or across the TSA. Concern here is focused on the fact that one can achieve compliance by just changing the scale of view. If the goal is to truly balance and achieve landscape level targets balancing should be restricted to the landscape unit in question.

Harvesting levels vary between landscape units over time. To not unduly limit the participants' ability to balance among other landscapes is the reasoning behind this statement.

- 3) Section IV – page 8 paragraph 5: document states that policy does not effectively support mixedwood management using intimate mixture. I would argue that it is this section of the SFMP that should outline the guidelines for intimate mixtures. Unfortunately beyond a definition of intimate mixtures this document gives no guidance on what the proponent believes should be appropriate parameters for achieving intimate mixtures.

Definition of a intimate mixture has been addressed within the revised Mixedwood Management Guidelines

- 4) General comments:

- a. Format and structure should be consistent with the FSJPP SFMP. Each section should have direct linkages to the specific indicators and targets outlined in the SFMP.

This was intended to be a guideline for the participants and was not meant to be written in the same format as the SFMP

- b. Beyond initial classification of sites, and a description of procedures for macro and meso patch mixedwoods this document does not include any guidance for intimate or successional mixedwoods.

Has been dealt with in the revised Mixedwood Management Guidelines

- c. Does not outline what happens if targets are not met, what strategies would be undertaken if target not met, and what potential penalties might apply

This was intended to be a guideline for the participants and was not meant to be written in the same format as the SFMP.

No further revisions made to the SFMP in relation to these comments.

Comments from: Tony Hunt, C&E Officer, Peace Forest District



Dated: April 19 and 20, 2010

Since the participants have to meet a volume target at year 15, I am unsure how the ledger system proposal of “The population of standards units to be balanced should be within a defined period of time, using the harvesting commencement dates, and preferably within the same landscape unit” will meet this target or commits to anything concrete. It seems to leave this open to interpretation, lack of commitments, and the potential inability to enforce anything if this strategy is not met. I am unsure how wording such as “... preferably across LU and over a defined period of time.” can actually be enforced. This document also implies that exchanges can occur across the entire landscape within the first 14 years. Does this pose a risk to the Ministry?

In the C&E world, I think that it would be very difficult to enforce guidelines, or references to a defined period of time that is not specified. The way that this strategy is written is that exchanges can occur up to year 14 which is a long period of time. I am also unsure what the following sentence really means “Once standards units are declared well growing, they will not be eligible for exchange, but will remain in the population for intimate mixedwood percentage calculations.” Is it referring only to areas that have been declared well growing?

The ledger system was designed for the purpose of tracking the participants’s forest type commitments over time. The guidelines and the ledger were designed to assist the participants in managing business functions. Participant’s understanding is that Enforcement’s role would be directed towards legal indicators and whether those targets have been achieved.

Hi Anna, I just noticed that the January 7, 2010 Mixedwood Management Guidelines document specifies that pure coniferous stands are >75% conifer and that pure deciduous stands are >75% deciduous, these values and the leading mixedwood ones are different than those specified in Section 1 of the Fort St. John Pilot Project Regulation.

According to the FSJPPR:

"coniferous stand" means an area in which, at rotation age, the coniferous trees, collectively, represent a minimum of 80% of the net merchantable volume of timber on the area;

"deciduous stand" means an area in which, at rotation age, the deciduous trees, collectively, represent a minimum of 80% of the net merchantable volume of timber on the area;

"mixedwood stand" means an area in which, at rotation age,

- (a) the coniferous trees, collectively, and
- (b) the deciduous trees, collectively,

each represent a minimum of 20% of the net merchantable volume of timber on the area;

Action – Despite the definition of a mixedwood stand as identified in the FSJPPR the Participants intend to use the mixedwood percentage breakdowns as identified in the landscape level silviculture strategy



(75/25 gross volume) as we believe that it is a better surrogate for basal area under VRI. This diversion from the FSJPPR definition will be reflected within the plan and will be submitted by the participants as a potential amendment to the FSJPPR.

Tony Hunt, R.P.F.
C&E Officer
Peace Sub Region

Resource Management Coordination Division

Ministry of Forests and Range
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Dawson Creek, BC
V1G 4A4
Ph: 250-784-1274, Fax 250-784-0143
[MailTo:Tony.Hunt@gov.bc.ca](mailto:Tony.Hunt@gov.bc.ca)

Comments from: Leslie McAuley, Decision Support Officer, Tree Improvement Branch
phone # 250-356-6208

Dated: March 30, 2010

Thanks for the opportunity to comment on the seed use components of the FSJPP#2. The following review comments pertaining to the Legal Indicator for seed use, s.6.13 and s.6.14 are provided below (see also TIB Review Comments Mar 2010, attachments).

RE: General comments:

See all attachments, including:

FSJPP#2_Legal_Indicator_Seed_Use_TIB_Review_&_Comment_Mar_2010.docx, and

FSJPP#2_Legal_Indicator_Seed_Use_TIB_Review_&_Comment_Mar_2010 (with tracked changes).docx



FSJPP#2_Legal_Indicator_Seed_U **FSJPP#2_Legal_Indicator_Seed_U**

Add clarity to address the following:

1. References to 'this Standard'; consider explicitly defining as an 'Applicable Performance Standard' for Seed Use, or clarify that the CF Standards for Seed Use are in place of an 'applicable performance standard' within the text of the Legal Indicator section - see Section 4.7, Reforestation Strategy, s.4

Reforestation Performance Indicators, a) Legal Indicators p. 71. Also, make explicit reference to the Chief Foresters Standards for Seed Use amendments (e.g. "as amended from time to time" or "and its amendments").

2. Scope of the 'Standard' as identified in the FSJPP#2; see 'seed use standards' as defined in the Chief Foresters Standards for Seed Use publication (i.e. includes: registration (collection), storage and testing, selection and use, transfer limits).

3. Acceptable Variance - only applies to transfer limits; consider broadening to include seed selection.

4. Record keeping (stated in s.99 of FSJPR) and annual reporting requirements (not explicitly stated in FSJPR, but should be as per s.86 of FPPR) for seed used.

5. Innovation. Ability to consider 'alternatives' to the Chief Forester's Standards for Seed Use (similar to those allowances specified in s.43 of FPPR).

RE: 6.13 Seed Use

See attachment - FSJPP_2_TIB_Review_&_Comment_6-13_Seed_Use.docx



FSJPP_2_TIB_Review_&_Comment_6_

RE: FSJPP #2 (Feb 2010) – TIB Review and Comment

s. 6.13 Seed Use

Review comments are as follows:

Applicable Performance Standard - **NEW**

Consider, for clarity the development of an 'Applicable Performance Standard for Seed Use' in addition to the Legal Indicator.

The applicable performance standard for Seed Use (referred to as **the Standard**) is as follows:

The minimum legal requirements for seed use required to be met are defined by: 1) the Chief Forester's Standards for Seed Use (Nov 24, 2004) as amended from time to time; 2) the requirement to keep records of registered seedlots used and a map of the location of where the seed is planted; and 3) the requirement to report on an annual basis the registration numbers of seed used, and the number of trees planted, area treated and number of trees planted beyond transfer limits for each seedlot.

Question: For licensees with silviculture obligations that must follow FPPR seed use regulations (see s. 43 seed use), the Chief Forester can approve alternatives to the standards if consistent with achieving the intent of the standard. Should this provision also be included within the



FSJPP #2? Note: The standard that the acceptable variance (specified below) is based on (95% compliance) was intended for the purposes of operational flexibility, and only applies to transfer beyond the limits.

Action – update seed use indicator variance to include alternatives to standards. Approval from the Chief Forester will be sought for alternatives to the direction provided in the Chief Foresters Seed Use Standard.

Indicator Statement

- Replace “the percentage of seeds and vegetative material collected and planted in accordance with...” with “the percentage of seedlings and vegetative material used and planted in accordance with **the Standard.**”

Target Statement

- Replace “100% of seeds and vegetative material will be collected and planted in accordance with...” with “100% of seedlings and vegetative material will be used and planted in accordance with **the Standard.**”

SFM Objectives

- Consider replacing with “Conserve genetic diversity of tree genetic resources used and planted for reforestation purposes.”

Linkage to FSJPPR

- Revise, by inserting ...” For the purposes of Section 42 of the FSJPPR **this Standard**, indicator statement, target statement and acceptable variance will be used to determine...”
- Revise, by inserting...”For the purposes of Section 35(6) **this Standard**, indicator statement, target statement and acceptable variance will replace the...”
- Add...”For the purposes of Section 32 of the FSJPPR **this Standard** will be used to determine applicable performance standards for seed use.”

Acceptable Variance

- Replace “As per the Chief Forester’s Standards for Seed Use, no less than 95% of...will comply with the transfer requirements outlined in Appendix 3 (Seedlots and Vegetative Lots from Natural Stands) of that standard. As the standard is updated, the...update.” with “As per **Section 8 Transfer Limits** of **the Standard**, no less than 95% of the combined total of the number of seedlings and vegetative material planted during each fiscal year within the DFA will comply with the transfer requirements of **sections 8.2 through 8.7**. As the standards are amended from time to time, the allowable variance will change consistent with any amendment.”

Consider broadening acceptable variance to also include **seed selection - see requirements specified in **Section 7 Selection and Use of the Standard.****

Note: s. 8.8 was repealed and replaced with ” See : Amendments to the Standards (Chief Forester’s Standards for Seed Use), June 2008 at <http://www.for.gov.bc.ca/code/cfstandards/amendments.htm>

What is this indicator and why is it important?

- Replace references to ‘guidelines’ with **‘the Standard’** or ‘standards’



- Consider broadening concept of genetic diversity. “This indicator measures... adherence to standards to ensure the identity, adaptability, diversity and productivity of the Province’s tree genetic resources and reforestation efforts in the DFA.
- Consider replacing explicit references to detailed seed use standards (which may be amended over time) with broader overarching rationale – such as:

“Genetic diversity, a fundamental component of biological diversity, is required for adaptation and evolution.” Genetic diversity is genetic variation within individual organisms, within populations and among populations of a species. Genetic diversity plays an important role in the survival, adaptability, and productivity of species and populations. Maintenance of natural genetic diversity within ecosystems is important to survival and adaptation. Reforestation using a range of genetically adapted seed sources is a forest management strategy to produce healthy, productive, diverse and resilient forests.

- see text in Indicator 6 Genetic Diversity and Indicator 14 Silviculture (14-3 and 14-4) State of the Forest Report for consideration and/or reference. <http://www.for.gov.bc.ca/hfp/sof/>. Note: An update (SoF 2010 Report) has been completed – publication (and pdf posting online) is anticipated in Spring 2010 (if you are interested, contact me for a copy of the draft GD indicator at Leslie.Mcauley@gov.bc.ca).
- Replace “are able to withstand **any** biotic...and abiotic.... or climate change event” with something like “...contain sufficient genetic diversity to adequately respond and adapt to....abiotic and biotic natural disturbance events and potential climate change impacts for future generations over the longer term.”

Current Status:

- Replace “The one cone collection...was collected and registered in the Seed Planning and Registry System,...” with “...was collected and registered in accordance with the Standard (or more specifically with Section 5 and Appendix 1 of the Chief Forester’s Standards for Seed Use, Nov 24, 2004, as amended from time to time). Information on the registered seed is stored on the Seed Planning and Registry (SPAR) system.

Forecasting Assumptions and Analytical Methods

- Genetic gain assumptions are incorporated into timber supply modelling based on actual seed use (seedlot Genetic Worth values weighted by quantity of seed used). **Is this assumption correct?**
See reference: Extension Note 1, [Incorporating Genetic Gain in Timber Supply Analysis](#), March 2001 (Adobe Acrobat PDF, 760 Kb).

Strategy and Implementation Schedule

- Use genetically adapted seed sources of high genetic value. Use select (orchard and natural stand superior provenances) seed sources over non-select (natural stand non-superior provenance) seed uses, where available. **Note: Interior spruce orchards for the 'Peace River' seed planning zone are beginning to produce seed for use in Crown land reforestation. See SPAR for information on current seed inventories.**



- Seek opportunities for the consideration and use of genetic resource management (GRM) strategies, actions and plans through consultation with forest genetic research and technical specialists.
- Seek opportunities for consideration and use of climate change adaptation strategies, actions and plans associated with GRM and seed use, including the introduction of genetic variation at multiple scales (e.g. plant a range of seed (seedlots) and vegetative lots over spatio-temporal scales).

Monitoring Procedure

- Consider adding, “Monitoring of GRM and seed use will be conducted through field-based silviculture surveys (regeneration, species composition).

Linkages to Operational Plans

- Replace, with “**the Standard** or add “as amended from time to time.”

Linkages to LRMP

- Consider replacing with, “used in reforestation is adapted to the site, and able to grow healthy, productive and resilient forests, now and in the future,...”

Footnotes

15 “Changed due to applicability of seed use standards as per Chief Foresters Standards for Seed Use.” **Note: not due to deciduous as this is covered in separate section 6.14?**
Some revisions have been made to the SFMP incorporating some of the comments. Seed Use Legal indicator already has an applicable performance standard.

RE: 6.14 Deciduous Regeneration

See attachment - FSJPP_2_TIB_Review_&_Comment_6-14_Deciduous_Regeneration.docx



**FSJPP_2_TIB_Review
&_Comment_6.**

RE: FSJPP #2 (Feb 2010) – TIB Review and Comment

s.6.14 Deciduous Regeneration
Review comments are as follows:

Acceptable Variance:

Revise as follows: “A maximum of 10% of the area prescribed for deciduous regeneration may be restocked with deciduous propagules or seedlings (e.g. 90% minimum natural regeneration of deciduous) in accordance with the Chief Foresters Standards for Seed Use, as amended from time to time.” In such cases, records must be kept of vegetative lots used and locations of where vegetative lots are planted.

What is this indicator and why is it important?



Replace highlighted text in yellow, “This indicator identifies the percentage of reforested deciduous areas that will be from natural sources, and therefore genetically appropriate for the site.” with “...from locally adapted wild seed sources.”

Further comments received from Leslie McAuley May 7, 2010

Not knowing what revisions were made (based on TIB review and input, sent on March.30/2010) makes this task somewhat difficult. Section 99 Use of Seed specified a number of requirements, some of which are now covered by the CF standards for Seed use, but not all (i.e. record and map keeping).

I noted this need for record and map keeping in the recommended revisions that I sent previously on Mar. 30. I also suggested that the FSJPP SFMP#2 may wish to add a reference to allow them to apply for alternatives to the CF Standards for Seed Use.

Some revisions have been made to the SFMP incorporating some of the comments. Seed Use Legal indicator already has an applicable performance standard.

Anna, let me know how we should proceed in making recommendations to ensure that the FSJPP and SFMP#2 captures requirements not included in the CF Standards. Thanks.

FSJPP REG, Section 99:

- A. s.99 (a) to (e) – requirements covered by CF Standards for Seed use.
- B. s.99 (f) – “keep a record of the registration numbers of the seedlots or vegetative lots used and the locations in which they are planted.” Note: A reference should also be added to keep...a ‘map’ of the locations in which they are planted.

The legislated requirement as per ‘alternatives’ and ‘record and map keeping in ’B’ above are stated in the FPPR under s.43 Use of Seed: **Use of seed**

- 43 (1) In this section, transfer means the process by which seed is selected and used, based on the origin of the seed and its genetic suitability for the site on which trees grown from the seed are to be planted.



(2) The chief forester may make standards for matters referred to in section 169 (1) (a) (i) to (v) [chief forester standards for forest practices] of the Act if the chief forester considers such standards to be necessary or appropriate for the purpose of regulating the use, registration, storage, selection or transfer of seed to be used in the establishment of free growing stands.

(3) The chief forester may authorize a person to exercise a discretion of the chief forester described in subsection (5), (6) or (7).

(4) Unless an alternative is approved under subsection (6), a person who plants trees while establishing a free growing stand must use only seed registered, stored, selected and transferred in accordance with the standards, if any, established by the chief forester.

(5) A person referred to in subsection (4) may submit to the chief forester for approval an alternative to any standard established by the chief forester under subsection (2).

(6) The chief forester may approve an alternative submitted under subsection (5) if the chief forester considers that the alternative is consistent with achieving the intent of the standard.

(7) If the chief forester approves an alternative submitted under subsection (5), the person who submitted the alternative

(a) is exempt from the requirement of subsection (4) for which the alternative has been approved, and

(b) must comply with the alternative.

(8) A person who is required to establish a free growing stand must keep a record of the registration numbers of the seed that is used, if any, and a map of the location where the trees grown from the seed are planted.

Information is tracked in RESOURCES database and maps can be generated. Some revisions have been made to the SFMP incorporating some of the comments. Seed Use Legal indicator already has an applicable performance standard.

Comments from: Davis Weaver, Silviculture Survey Specialist, FPB

Dated: March 10, 2010

I have been asked to comment formally on the document - *A Survey Methodology for Boreal Mixedwoods in Northeastern BC*, proposed by the FSJ Pilot SFMP

The following are my comments and recommendations:

1) Survey Outcome - Appropriate Inventory Label Generated

Section 4.0 of the procedure outlines the detail that is needed for an adequate inventory label. Provisions have been included in the data collection at Enhanced Plots (section 2.5.4).

However, there is one omission in the list of data generated for the label in section 4.0 – damage agent and pest incidence. This is a mandatory requirement as stated in the legal document – *RESULTS Information Submission Specifications* – signed by the Chief Forester Oct. 2008. The collection of the data – for pest incidence – is recorded at each quadrat plot as stated in section 2.5.3 Quadrats. Therefore it appears this is just an apparent oversight that it was not included in the text in section 4.0.

RECOMMENDATION:

Include damage agent and pest incidence to the list of survey outcomes in section 4.0 on page 12.

2) Competitive Impacts on Well Growing Conifers and Spatial Distribution of Well Growing Conifers / Deciduous Trees

These two factors are commonly addressed in other survey systems at the plot level.

However, under this system they are NOT addressed at the plot level, and are instead determined and/or addressed by model simulations and model fittings using the field data as a basis for the analysis. The models appear to address conifer success in growth relative to competition and at the same time models the spatial distribution into the competition impacts. Having stated these points, I have articulated the maximum I am capable of understanding the model process presented. I personally find the process a grey box of implied trust in the models and the outcomes. I have no scientific rationale to assess or verify the validity of these models and their ability to address these two fundamental aspects of survey systems used elsewhere.

The result is a level of uncertainty in this proposed system, until complete comparisons have been performed to verify a level of confidence and risk acceptable to the province - that sufficient stands and volume are the outcome.

RECOMMENDATION:

- 1) That this proposed survey system - *A Survey Methodology for Boreal Mixedwoods in Northeastern BC* – be implemented during the next FSJ Pilot SFMP period, but that an established comparison study be completed during its term, to document the level of accuracy of the survey outcomes in addressing the two factors mentioned above - Competitive Impacts on Well Growing Conifers and Spatial Distribution of Well Growing Conifers / Deciduous Trees. The form, scope and manner of this study is to be determined.

Note from the participants: There is no question that this is a new process and there are some questions and issues that still need to be examined. However part of the Pilot Project process is about identifying



new ideas and concepts and the commitment from the participants is to field test Craig's survey methodology over the term of this SFMP and beyond.

Dave Weaver RPF

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Silviculture Surveys Website: http://www.for.gov.bc.ca/hfp/silviculture/Silviculture_Surveys.html

Provincial Silviculture Call SharePoint Site: https://sharepoint.forests.gov.bc.ca/HFP_PSCC/default.aspx

Comments from: Pat Martin, FIA Stand Development Specialist, FPB

Dated: March 19, 2010

From: Martin, Pat J FOR:EX
Sent: Friday, March 19, 2010 5:02 PM
To: Winter, Ralph FOR:EX
Subject: RE: Fort St. John Pilot Project SFMP # 2

Yes it's possible under their system – the target is below the maximum that the yield predictions can reach – so they can get above 100%.

I really dislike that aspect of how the participants have set up the system.

From: Winter, Ralph FOR:EX
Sent: Tuesday, April 13, 2010 9:01 AM
To: Martin, Pat J FOR:EX
Cc: Monetta, Anna FOR:EX; Bedford, Lorne FOR:EX
Subject: FW: Fort St. John Pilot Project SFMP # 2

Pat

Should we ask CANFOR to modify procedures so that PMV should not be able to be 104% above the target and that the max should be only 100%

Further comments – April 14, 2010



It would make more sense to me. Getting over 100% seems weird to me. However, as i recall they wanted 100% to reflect their target level – not the biological max.

That is correct, Participant's will continue to report as per the current system.

From: Hunt, Tony L FOR:EX

Sent: Monday, May 17, 2010 2:47 PM

To: Hunt, Elizabeth A FOR:EX; McAmmond, Shaun N FOR:EX

Subject: RE: Further review required of the Fort St John Code pilot SFMP #2

Appendix 6:

1.2 (E) Discussed on the call. Subjective language regarding when competition may not be deleterious to crop establishment. Who makes that determination? Is it a forest professional, or “just” a surveyor? The criteria presented is not enforceable.

Criteria E is not an addition to the selection criteria, as it was included in the original SFMP for crop tree requirements. Despite the absence of available scientific background to make this selection defensible should not discredit the professional accountability of the surveyor to rationalize a well growing crop tree decision.

Well Growing Guidelines for mixedwood (pg 342 of draft SFMP – Appendix 6):

Beneath the Well Growing Guidelines table, there is a bullet that states....”For this assessment At & Ac requirements are one or more per quadrant” – What does this mean? Is this independent of conifers, or is it inclusive?

Reference to June 2, 2006 Stocking Guidelines for Mixedwoods in the BWBS in the Peace Forest District letter from D.L.Way, District Manager.

APPENDIX 6

Section 1.1 Introduction

Why is there wording about disapplying sections 32(3), (4), (5), (6), (8) of the *Fort St. John Pilot Project Regulation* (FSJPPR) in the Sustainable Forest Management Plan (SFMP)? Shouldn't



this be dealt with through a change in legislation? Otherwise, there is an increased risk of conflicting wording between the FSJPPR and the SFMP.

Section 35 (1) states participants must prepare landscape level strategy, and SFMP can disapply the regulation without having to amend regulation.

Why is there also a reference to deciduous areas logged after November 15, 2001?

E) While A to D above will normally define a well growing crop tree, despite these criteria, an individual crop tree may be accepted as well growing if the surveyor believes the vegetation clearly does not impede the growth of the crop tree, and is not expected to impede the future growth of the tree. These well growing trees must be clearly identified on the plot cards to facilitate field checking, if required, for verification purposes.

Criteria E is not an addition to the selection criteria, as it was included in the original SFMP for crop tree requirements. Despite the absence of available scientific background to make this selection defensible should not discredit the professional accountability of the surveyor to rationalize a well growing crop tree decision.

Wording such as "... may be accepted as well growing if the surveyor believes the vegetation clearly does not impede the growth of the crop tree, and is not expected to impede the future growth of the tree" is very subjective and needs to be changed.

Any vegetation assessment for final reforestation assessments cannot be completed until at least one growing season following chemical brushing, and three growing seasons following manual brushing.

What is the risk to the Crown of reducing the brush recovery period to one year for chemical brushing? According to Section 32(6)(c) of the Fort St. John Pilot Project Regulation, this is a two year period?

This is more restrictive than FRPA, tied to professional accountability.

Why is the following wording referring to "criteria that will be developed"? How verifiable and measureable is "...crop trees must be healthy enough that they can reasonably be expected to reach maturity."?

Both conifer and deciduous crop trees must be healthy enough that they can reasonably be expected to reach maturity. Forestry professionals will be responsible for establishing and updating crop tree health criteria to use for reforestation assessments. The criteria will be developed using the best information available, (e.g. the "Free- Growing Damage Criteria" found in the "Establishment to Free Growing Guidebook") and in consultation with forest health professionals and /or the MFR. Participants agree with this statement.



Section 1.3 Minimum Inter-Tree Distance

Coniferous Areas: The minimum inter tree spacing (MITD) at establishment will be 1.5 metres for coniferous areas. Reductions to a 1.0 metre minimum will be allowed where conditions warrant (e.g. plantable spots are limited), as noted in a foresters rationale, which will be documented and retained by the Participant.⁴² MITD does not apply at the final reforestation assessment survey under the landscape level strategy. **Deciduous Areas:** The minimum inter tree spacing (MITD) at establishment, and for areas assessed prior to full implementation of the LLS, will be 0.5 metres⁴³ for standard well spaced surveys. MITD will not apply for MSQ surveys at either the establishment phase or at the final reforestation assessment survey under the landscape level strategy. **Mixedwood Areas:** Mixedwoods will be assessed using MSQ surveys using the standards specified in Section 1.4.3 of this Appendix, consequently there will be no specific MITD for mixedwoods.

Wording such as “as noted in a foresters rationale” is very subjective and needs to be changed. According to Wendy Bergerud’s report entitled *The Effect of the Silviculture Survey Parameters on the Free-Growing Decision Probabilities and Projected Volume at Rotation*, Land Management Handbook 50, a reduction in MITD can greatly increase the risk of incorrectly classifying an area as free growing, or in this case, well-growing. Since the MITD for most coniferous blocks is 2, reductions of the MITD to 1.5 or 1.0 will likely reduce stocking standards that already have low Minimum Stocking Standards.

1.5 metres is the value for MITD already established in the FSJPPR for coniferous. Reductions to 1.0 minimum will be under special condition to be rationalized by professional as noted in SFMP.

Section 1.4.1 Stocking Standards for Coniferous Areas

Wording such as “The participants, may at their own discretion, choose to use...” is very subjective and needs to be changed.

Unless the Participants are actually harvesting and utilizing subalpine fir, black spruce, and larch, these species should not be considered to be “Countable Species” for meeting silviculture obligations.

Professional accountability and reliance is key to implementation of the SFMP. Species growing on site should be utilized in stocking standards for biodiversity.

Section 1.4.2 Stocking Standards for Deciduous Areas

Why approve something that is incomplete and currently unknown?



Table C provides the applicable performance standard for stocking requirements to assess the establishment during the reforestation period of a well growing stand of crop trees on deciduous areas that are declared prior to the completion of the deciduous compiler, after which time the legal deciduous reforestation assessment will be assessed based on the criteria included in Indicator # 29, in Section 6.29 (Reforestation Assessment).

Why was the height requirement for aspen reduced from 2.0 to 1.5 m. and how will browsing further impact this lower height requirement. Unless birch is actually being harvested and used by the Participants, it should not be considered to be a “Countable Species” for meeting silviculture obligations.

No change from original regulation.

Section 1.4.3 Stocking Guidelines for Mixedwoods in the BWBS

Why use a minimum of 3 acceptable At or Ac over 1 m at Establishment Delay and 1 or more at Well Growing?

Reference to June 2, 2006 Stocking Guidelines for Mixedwoods in the BWBS in the Peace Forest District letter from D.L. Way, District Manager.

Section 1.4.4 Modifying Stocking Standard Requirements

Wording such as “The forestry professional may modify target and minimum stocking requirements...” is very subjective and needs to be changed.

Why does the SFMP contain “acceptable variances” that further reduce the target values that need to be met. This is likely not in any other legislation.

Acceptable variances are in place to accommodate variations in data or fieldwork that could be the result of natural features or events. Based on CSA standards 6.1(d) states “Each target shall set acceptable levels of variance”. Variance are built in to legislation e.g. the DM may vary a performance standard. The Pilot Project was meant to explore administrative efficiencies, variances are a prime example.

Section 8 Changes in Requirements

Section 32 and Schedule ‘F’ to identify a reforestation standard be submitted to government as follows:

For the purposes of Section 32 and Schedule ‘F’, the applicable reforestation stocking standards (coniferous, deciduous, or intimate mixedwood standard) that apply to each area within cutblocks will be tied to stocking standard ID’s , which correspond to conifer,



deciduous, or mixedwood stocking standards (i.e. declarations). These ID's are submitted into the MFR tracking system (i.e. RESULTS). Changes to stocking standard designations within cutblocks may occur prior to final assessment, and will be revised in RESULTS. This will eliminate the need to submit redundant written declarations.

The reference above to “Changes to stocking standard designations within cutblocks may occur prior to final assessment, and will be revised in RESULTS.” implies that stocking standards can be changed without approval at any time.

Stocking standards should not be rewritten.

Yes that is correct. Submitting them in RESULTS gives transparency to Participants' activities. The Participants are reassigning SU designation, not re-writing stocking standards. The ability to revise SU designation provides the flexibility for the landscape level reforestation strategy.

The Chief Forester's Standards for Seed Use are not applicable to the Participants of the FSJPPR.

With the rewrite of the SFMP see Indicator 13, we have elected to follow the Chief Forester's standards for seed use.



9. Visual Quality

Comments from: Paul Picard, Survey Specialist, Visual Landscape Inventory Specialist, FPB and Luc Roberge, Visual Resource specialist, NIR

(I have included a series of e-mail strings for clarity and completeness)

Dated: August 13, 2009 and March 10, 2010

From: Picard, Paul FOR:EX

Sent: Thursday, August 13, 2009 9:11 AM

To: Roberge, Luc FOR:EX

Cc: Bedford, Lorne FOR:EX; Winter, Ralph FOR:EX; Marc, Jacques FOR:EX; Monetta, Anna FOR:EX; Hunt, Elizabeth A FOR:EX

Subject: RE: Visuals in Fort St-John Pilot, how good are they?

Thanks Luc,

From your note below, “The SMP wording is very similar to the Woodlot MP model where there is no requirement to present Results or Strategies like in FSPs, which are often ambiguous and non measurable. The SFMP strategy is simply a commitment to meeting established VQOs, which is clear, verifiable, and measurable”.

That actually sounds like a big improvement to me. Under FRPA, licensees could (in theory of course) write obscure/convoluted strategies and weasel themselves out of VQOs where as it seems they can't do that under that woodlot/FSJ Pilot model. Am I missing something?

From: Roberge, Luc FOR:EX

Sent: Thursday, August 13, 2009 9:05 AM

To: Picard, Paul FOR:EX

Cc: Bedford, Lorne FOR:EX; Winter, Ralph FOR:EX; Marc, Jacques FOR:EX; Monetta, Anna FOR:EX; Hunt, Elizabeth A FOR:EX

Subject: RE: Visuals in Fort St-John Pilot, how good are they?

From a visuals perspective, there is no major differences between the Pilot and FRPA. The scenic areas and established VQOs are all the same and everybody is bound to meeting the VQOs from either regimes. I've attached the current SFMP visual quality management strategy and what is proposed for the next plan that Anna sent me for comment. The current strategy is to the point and the fact that the Working Group is proposing the status quo is fine with me. The SMP wording is very similar to the Woodlot MP model where there is no requirement to present Results or Strategies like in FSPs, which are often ambiguous and non measurable. The SFMP strategy is simply a commitment to meeting established VQOs, which is clear, verifiable, and measurable. The second part of the strategy commits to do design to minimize visual impact in scenic areas without established VQOs which is ok but irrelevant in the Fort



St. John TSA. Currently, all the known scenic areas have established VQOs in place. There are a few new polygons that have no established VQOs but these are not known scenic areas. The district will have to go through the GAR process to enact them.

- Thank you for noting this, Participants have revised the indicator to remove the irrelevant reference.

Besides the above, I don't really have too much to add especially if you're after more specific information on how the Pilot Project Regulation works on the ground compared to FRPA. District staff are in better position to provide that kind of input and you may want to start with Elizabeth Hunt, Stewardship Officer.

From: Roberge, Luc FOR:EX
Sent: Friday, April 9, 2010 9:17 AM
To: Picard, Paul FOR:EX
Cc: Marc, Jacques FOR:EX
Subject: RE: Comments on Visuals on Fort St-John pilot

Salut Paul:

You may or may not have seen the note I sent to Jacques about this in early March (see attachment). The Variance and the Strategy and Implementation schedule sections are indeed very troublesome and should not be approved as such. A licensee cannot dictate where and when it will achieve a VQO or change a VQO at will.

There is also a statement on p. 232 that is an absolute joke. Basically it says that they will carry-out pre-harvest VIAs and landscape design processes only when deemed necessary to assist in block design and the meeting of VQOs. In other words, carrying-out VIAs and design will be an exception more than a rule, which goes against the due diligence test. I guess they will rely on pure luck to meet VQOs.

In summary, this plan requires a major re-write when it comes to the Variance and Implementation sections and the Current Status section needs to be updated.



**RE: Fort St. John
Pilot Project**

~~~~~  
Luc Roberge, R.P.F., M.Sc.  
**Visual Resource Specialist**  
**B.C. Forest Service**  
**Northern Interior Forest Region**  
• Tel.: 250- 565- 6142  
• Fax: 250- 565- 6671  
eMail: HYPERLINK <mailto:Luc.Roberge@gov.bc.ca>



- The participants are exploring administrative efficiencies and further implementing the principles of professional reliance with the proposed variance and have identified the bounds to which the variance would apply.
- The participants are committed to achieving the identified result (established VQO's). Whether or not a formal VIA is completed in a given situation, it is the participants responsibility to ensure due diligence in achieving the established objective. This is in keeping with the tenets of professional reliance and results based management

**Comments from: Paul Picard, Survey Specialist, Visual Landscape Inventory Specialist, FPB and Luc Roberge, Visual Resource specialist, NIR**

(I have included a series of e-mail strings for clarity and completeness)

Dated: March 8, 2010 and March 9, 2010

Hi:

A few months ago, I was asked by a regional rep to provide input into an earlier version of the plan and I was happy with it. Like the previous version, it contained a commitment to meet the VQOs, practice good design and carry out VIAs. The newer version still makes these commitments but now I see that they have a much different and much more elaborated Variance section (S. 6.44 on p. 229). It contains an option of changing a VQO based on some pre-defined conditions and on top of that, they wrote that they do not need to get approval from the DM for future VQO variances. This is new to me and obviously unacceptable from a FRPA perspective and as far as I know, the FSJPPReg must still be consistent with FRPA Act and regulations.

- The Reg states that the SFMP must be "*Consistent with the Pre-ambble to the Code*" which is obviously out of date as the FSJPPR has been moved under FRPA. The FSJPPR acts in place of the FPPR in the Fort St John DFA.
- Please see above comments re: administrative efficiencies

Something else I noticed in the "Current Status" section is that it stills refers to the 1997 DM letter making known scenic areas with EVQOs and also making known scenic areas with RVQCs only. These RVQCs were grandparented under GAR 17 in 2004 and the changes have been on the LRDW since 2008. I took some time to compare Figure 18 on p. 231 with the LRDW data and they match. The map on figure 18, which it says was updated in 2009, comes from the LRDW except that they took the time to cut off the private ownership from the data so some VQO polygons are chopped off. The GAR 17 EVQOs from the LRDW file are showing correctly as established VQOs on Figure 18 so all there is to do is to update the text accordingly.

- Figure 18 was created using data from the LRDW, the Participants have reviewed the wording in the section noted above and have made appropriate changes as necessary in the final submission copy of the SFMP.

The same section also provides the old VQO definitions. These should be replaced with a reference to FPPR 1.1 or if they really want to spell out the definitions in the plan, they should simply copy and paste the definitions from the regulation to make sure it is a perfect match with the legal definitions.

- Thank you for the suggestion, the references have been checked and updated in the final version of the plan.

~~~~~  
Luc Roberge, R.P.F., M.Sc.

Visual Resource Specialist
B.C. Forest Service
Northern Interior Forest Region

Tel.: 250-565-6142
Fax: 250-565-6671
eMail: Luc.Roberge@gov.bc.ca
VRM Web Site: <http://www.for.gov.bc.ca/hfp/values/visual/index.htm>

From: Marc, Jacques FOR:EX
Sent: Tuesday, March 9, 2010 10:39 AM
To: Roberge, Luc FOR:EX
Subject: FW: Fort St. John Pilot Project SFMP # 2

Hello Luc,

Have you seen the attached SFMP for the Fort St. John Pilot area?
How well do you know the regulation?

It looks like the same strategy as elsewhere.
Lets exempt our self from meeting the VQO when conditions are not favourable.

Jacques Marc RFT
Visual Resource Officer
Forest Practices Branch
Ph: (250) 387-8481
Fx: (250) 387-2136
<http://www.for.gov.bc.ca/hfp/values/visual/index.htm>

Comments from Luc Roberge, Visual Resource Specialist, NIR

Received May 13, 2010

Section 8.1.6 of draft SFMP #2 refers to Indicator #44 discussed in section 6.44 “Visual Quality Objectives”, for which you have already received a number of comments on. Jacques and I have



discussed this again and we want to reiterate that the strategy presented in section 8.1.6, like section 6.44, is not only unacceptable, but legally unfeasible. GAR 7 (2) makes it very clear that the only person who can establish, vary, or cancel VQOs is the Minister, who has delegated this authority to district managers. The Ministry of Forests and Range has received legal advice recently that it is not appropriate to use plans for self-exemptions or circumvent the exemption process established in the legislation. Government has to go through a rigorous process to establish objectives (GAR process) so any changes to an objective should also be done with the same rigour. This rigour may seem onerous at times but until the legislation provides us with better tools, we have to live by it. There is also the very salient point that forest licensees are one tenure holder on the land and their decision of what is appropriate may run contrary to other tenure holders (e.g. a tenured tourism operator) so the need for a due process to make changes to established objectives.

Consequently, the current law does not allow for or enable licensee field foresters to start making their own judgement calls as to where and when a VQO should be achieved, even under “exceptional occasions”. The debate could go on and on as to what these “occasions” might be, which in itself, would make it very difficult for C&E staff to enforce instances where VQOs are not met. Should a field forester encounter a situation where a change to the VQO is necessary, the licensee should identify this issue to the DDM. Where all parties agree that a change is in the best interest of all stakeholders, a GAR order can then be introduced by the DDM to make the change.

Jacques and I both share this view so please consider this as a combined submission from the NIFR and Branch. Jacques will not send you a separate reply. Thank you.

~~~~~

*Luc Roberge, R.P.F., M.Sc.*

Visual Resource Specialist  
B.C. Forest Service  
Northern Interior Forest Region

- Tel.: 250-565-6142
- Fax: 250-565-6671
- eMail: [Luc.Roberge@gov.bc.ca](mailto:Luc.Roberge@gov.bc.ca)

### Participant response

With all due respect, GAR section 7 (2) does not specify that only the Minister can vary or alter VQOs. To wit: the FSJPPR section 25(1) specifies that the District Manager may vary a performance requirement of the regulation such as 28(1) (c) – established VQOs. So in this case the DM may vary the requirement to be consistent with the established VQOs, if satisfied that implementing the variance will adequately manage and conserve the forest resources on the area affected by the variance request.

Further, Section 35 (6) of the FSJPPR gives the Pilot participants the authority to specify any applicable performance standards that are to be used for the purposes of Part 3 Division 5 (Field Performance



Requirements) and the associated Schedules of the FSJPPR. This gives the participants the authority to vary the field performance standards within the FSJPPR, which includes FSJPPR Section 28(1) (c) - established VQOs .

In this instance the FSJPPR provides the participants with the ability to seek a variance to not be consistent with established VQOs.

Following is an excerpt from Section 8 of the draft SFMP that describes the variance we are proposing to implement in only specific circumstances:

#### 8.1.6 Visual Quality Strategy

The Visual Quality Strategy and the related indicator # 44 (**see Section 6.44 Visual Quality Objectives**) is consistent with the requirements of the *FSJPPR*, but does allow foresters the option , in exceptional circumstances, to prescribe harvesting that may not be consistent with established visual quality objectives subject to the conditions outlined in the acceptable variance. Under those specific conditions, the provision effectively eliminates the requirement to get variances from the District Manager to exceed visual quality objectives when other high value resources are at risk, although the District Manager still is responsible for authorizing a harvest authority. The Participants will notify the Ministry of Forests and Range regarding proposed variances at the time of harvest authorization.

**For the purposes of Section 35(5), Section 28(1) (c) of the *FSJPPR* may therefore be affected by the application of this Visual Quality Strategy, specifically the acceptable variance for this indicator.**

#### **Equivalent Protection**

This strategy provides equivalent protection to the *FSJPPR* APS and Field Performance Requirements for the following reasons:

The variance, which may allow a forester to prescribe harvesting that may not be consistent with a visual quality objective, is restricted to extraordinary situations where other resource values may be at risk, and still requires a rationale by a professional to identify why some harvesting is proposed, and how the visual impacts are to be mitigated to the extent practicable.

#### **Consistency with the Preamble to the Code**

The development of a CSA-Z809/02 SFMP incorporating the six CCFM criteria and indicators, and the ongoing participation of the Public Advisory Group provides assurance that the Participants are managing the forests based on sustainable use for all British Columbians.



### **Adequate Management and Conservation of Forest Resources**

The basic premise is to be consistent with the visual quality objectives except in the rare instance when other highly valued resources may be at risk if harvesting does not occur. In those instances, measures will also be identified to mitigate visual impacts due to the harvesting. Allowing some flexibility to address serious issues such as forest health through some limited harvesting may reduce natural mortality in the visual quality polygon or adjacent visually sensitive areas. It may therefore have a net long-term benefit to the visual resources in the specific polygon, and on visual resources in adjacent areas by reducing long-term mortality due to forest health agents. Consequently the Participants believe this change to these requirements contributes to adequately managing and conserving forest resources.

.



10. Section 8 - Changes in Requirements

**Comments from: Ralph Winter, Stand Management Officer, FPB**

Dated: April 13, 2010

The section 108 clause is not consistent with legislation....  
 Section 108 is limited to prescribed circumstances only....  
 This section in the SFMP must be deleted and removed  
 The SFMP cannot change the conditions for where section 108 applies

- Participants' have deleted the reference to section 108 in the SFMP .

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**From:** Winter, Ralph FOR:EX  
**Sent:** Tuesday, March 9, 2010 8:51 AM  
**To:** Osbourne, Kelly FOR:EX  
**Subject:** FW: Fort St. John Pilot Project SFMP # 2

Section 108 of *FRPA* will apply if an event causing damage to a plantation or site occurs that will result in significant extra expense to the Licensee in meeting the obligation to establish a free growing stand. The Licensee must not have caused or contributed to the damage unless by officially induced error and must have exercised due diligence in relation to the cause of the damage.

- See above comments

See page 282

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**Comments from: Joelle Scheck, Ecosystems Section Head, MOE**

Dated: April 21, 2010

|                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Sec. 8 – Changes in Requirements<br/>                 Sub-sec. 8.1.1 WTP Retention Levels – page 279</p> | <p>Support the revision to the APS</p>                                                                                                                                                                                                                                                                                                                                       |
| <p>Sec. 8.1.4 Coarse Woody Debris – page 285</p>                                                            | <p>Does CWD monitoring address/record piece size and quality of CWD?<br/><br/>                 Response – CWD sampling follows the VRI ground sampling procedures (section 8) - piece size and decay classes are tallied. For the purposes of the indicator (section 6.6), consistent with the performance standard, the data are only compiled to report on CWD volume.</p> |

Review of Fort St. John Code Pilot SFMP Section 8

May 14, 2010

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**Additional Comments from: Richard Kabzems, May 17<sup>th</sup>**

### **8.1.2 Permanent Access Structures**

The participants have achieved 5% or less of area in Permanent Access Structures in 2007, 2008 and 2009 (Table 23 in the February 2010 draft SFMP). The three year average for CANFOR was 4.9%, and the BCTS average for the same time period was 2.8%.

The FSJPPR standards of 7% in Permanent Access Structure was greater than operational performance PAS levels of less than 5% even when it was first established. The Pilot Participants have demonstrated that 5% PAS is consistently achievable, even when applied on an individual block basis, and reported on an annual basis. The 5% PAS serves as a regular benchmark in the planning phase to encourage decreased road densities.

Reporting on an annual basis for Permanent Access Structures is more consistent with a results based approach as it shortens the time between action and evaluation. The annual assessment also increases the ability for the participants to successfully rehabilitate areas which have exceeded 5% in PAS, and maintain land as productive forest.

There is no need to change the requirements for permanent access structures from the current maximum 5% PAS on a cutblock basis, reported annually.

**Participant response – to address the comment above, the PAS strategy has not been changed from that presented in SFMP #1. SFMP #2 continues to indicate that PAS will be measured at a DFA level by managing participant rather than an individual cutblock basis.**

### **8.1.3.3 Deciduous reforestation**

I understand this section to mean that the existing deciduous stocking requirements will remain in use until the ‘deciduous compiler’ is ready to use and a landscape level assessment of deciduous regeneration is used.

The minimum number of trees identified in Table C of Appendix 6 the draft SFMP is lower than any previous or existing deciduous standard used by the MFR that I am aware of. The minimum aspen height of 2 m has been used in British Columbia aspen regeneration guidelines since 1997 if not before. Using a minimum height of 1.5 m for aspen regeneration assessments increases the risk to the Crown of accepting aspen areas while they are still vulnerable to a number of damaging agents (particularly browse), and before other problematic conditions may have been fully expressed.



With the combination of low aspen numbers, low minimum height and up to 15 years before assessment, an area could ‘pass’ the proposed deciduous reforestation assessment even with a reduction in site productivity due to management actions such as harvesting under unsuitable conditions. Using the Site Index equations of Nigh, Krestov and Klinka (2002) in Site Tools 3.3, a height of 1.5 m at year 15 would be a Site Index of 4.

As described above, the proposed changes in requirements refers to a number of items in the text of the SFMP which do not meet the test of adequately managing and conserving forest resources.

The draft MOFR stocking guidelines for hardwoods were not included due to the fact that the development of the deciduous compiler is to occur in the future. As the measurement components of the deciduous landscape strategy are finalized the stocking guidelines will be appended to the SFMP.

The minimum height for deciduous was approved in Appendix F of the Fort St. John Pilot Project Regulation. There has not been a deviation from that height in Table C.

#### **8.1.3.5 Mixedwood Reforestation Stocking Guidelines**

The amendments are based on the Peace District Managers letter of June 1, 2006. These were based on based on the best available science at the time.

The SFMP should properly reference the source of the material.

**Action** - the SFMP will be revised to reference the DM’s letter.

I have provided comments on Appendix 10, “Mixedwood Management Guidelines” in a previous communication.

#### **8.1.4 Coarse Woody Debris**

The goal of a minimum overall target of 50% of the pre-harvest volume CWD is a reasonable starting point and could be applied more widely in British Columbia.

Please contact me if I can provide any additional information.

#### **Code Pilot SFMP Section 8 “Changes in Requirements” – additional review comments May 17, 2010**

In Section 8 of the 2010 Draft SFMP, there are a number of vague statements that are not verifiable as written, and cannot be considered as a performance standard or a regulatory requirement.

#### **8.1.3.2 Landscape Level Assessment of Coniferous and Deciduous Areas**

“SFMP #2 proposes to extend this strategy to deciduous reforestation areas, to be effective upon the completion of the deciduous compiler.”



**Action** – revise SFMP to add in timelines when we expect this to occur. The landscape level deciduous reforestation Strategy will be reviewed by MFR when an SFMP amendment is submitted for this section.

#### 8.1.3.5 Mixedwood Reforestation Stocking Guidelines

“It is the intent of the Participants to move toward adapting the landscape level reforestation assessment to mixedwood areas, consistent with that employed on coniferous and deciduous area. It is hoped that this will be completed during the term of this SFMP, at which time amendments to the SFMP may be proposed. The research paper by Farnden (2009) outlining a process to assess mixedwoods on a multiblock basis will form the basis of this adaptation (see Appendix 18).”

As written, these sections create confusion regarding what changes are being proposed, and confusion regarding whether these changes are based on previous regulation or schedules within the 2004 SFMP. There should be another place in the document to describe a vaguely defined future intent.

Proposed changes in requirements need to be limited to items which are clearly defined, using a well established methodology that can be utilized and verified by any qualified professional. To remove any confusion regarding performance standards during the term of the SFMP, these two sections need to be revised and the vague statements removed. These two sections should be rewritten in a style which is consistent with the language found in e.g. 8.1.1 Wildlife Tree Patch Retention Levels.

Please contact me if I can provide any additional information.

Richard Kabzems, M.Sc., P.Ag., R.P.F.

**Action** – revise SFMP to add in timelines when we expect this to occur. An amendment will be done to SFMP when mixedwood landscape level process is developed. The landscape level mixedwood reforestation Strategy will be reviewed by MFR when an SFMP amendment is submitted for this section.

#### 8.1.5 Riparian Reserve Strategy

The Riparian Reserve strategy, and the related indicator # 7 (**see Section 6.7 Riparian Reserves**) is consistent with the requirements of the *FSJPPR*, but does allow foresters some leeway to harvest in riparian reserves, subject to the conditions outlined in the acceptable variance. Under those specific conditions, the provision effectively eliminates the requirement to get variances from the District Manager to harvest in riparian reserves, although the District Manager still is responsible for authorizing a harvest authority. **For the purposes of Section 35(5), Section 28(1) (b) (i) (A) of the FSJPPR may be affected by the application of this Riparian Management Strategy, specifically the acceptable variance to this indicator**

Wording above such as “...but does allow foresters some leeway to harvest in riparian reserves,.. is very subjective and needs to be changed. Same goes for the reference to “... extraordinary situations where other resource values may be at risk.” Reserves are there for a good reason!



*Participants have revised the wording in the indicator as well as section 8 to address the concerns noted above and have specifically listed instances where variances to the indicator and target will be applied (FPPR section 51).*

### **Adequate Management and Conservation of Forest Resources**

The basic premise is to maintain riparian reserves except in the rare instance when other highly valued resources may be at risk if harvesting does not occur. Measures will also be identified to minimize the impacts on the riparian values in those instances. Allowing some flexibility to address serious issues such as forest health through some limited harvesting may actually reduce natural mortality in reserve areas. It therefore may have a net benefit to the broader riparian resource values. Consequently the Participants believe this change to these requirements contributes to adequately managing and conserving forest resources.

*Reference to "... allowing for some flexibility to address serious issues..." is very subjective and needs to be changed.*

*This concern should be address with the changes to the indicator and section 8 as noted above.*

#### **8.1.6 Visual Quality Strategy**

The Visual Quality Strategy and the related indicator # 44 (**see Section 6.44 Visual Quality Objectives**) is consistent with the requirements of the *FSJPPR*, but does allow foresters some leeway to, in exceptional occasions, exceed visual quality objectives subject to the conditions outlined in the acceptable variance. Under those specific conditions, the provision effectively eliminates the requirement to get variances from the District Manager to exceed visual quality objectives when other high value resources are at risk, although the District Manager still is responsible for authorizing a harvest authority. *Reference to "... but does allow foresters some leeway..." is very subjective and needs to be changed.*

*This concern should be address with the changes to the indicator and section 8 as noted in response to comments made by Luc Roberge.*

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**From:** Winter, Ralph FOR:EX

**Sent:** Tuesday, May 11, 2010 10:47 AM

**To:** Weaver, David W FOR:EX; Powelson, Allan FOR:EX; Monetta, Anna FOR:EX; Hunt, Elizabeth A FOR:EX; Bankowski, Jacek T FOR:EX

**Cc:** Martin, Pat J FOR:EX; Hays-Byl, Winn FOR:EX; Astridge, Kevin FOR:EX; Hunt, Tony L FOR:EX; Bedford, Lorne FOR:EX

**Subject:** FW: Further review required of the Fort St John Code pilot SFMP #2

**Importance:** High

Hi Dave, Al, jacek and Anna and tony

Can you please review and advise if there are issues here



I note very different veg competition stds. Have you folks and been involved in the development of the changes in red in the SFMP document with regard to appendix 6?...

### 8.1.3.6 Appendix 6 Supplemental Reforestation Requirements

For the purposes of Section 35(5) of the *FSJPPR*, the following sections of Appendix 6 will be used to replace effected portions of Section 32 of the *FSJPPR*: **Appendix 6 Section 1.2 Crop Tree Requirements and Vegetative Competition** replaces the requirements in 32(6)(a),(b),(d), and 98(1) Table A.

**Appendix 6 Section 1.3 Minimum Inter tree distance** replaces the minimum inter-tree distance requirements in Section 32(6)(d).

Comments on to the above noted sections made by District and Regional Staff have been addressed previously in this document

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## **SECTION 8 – CHANGES IN REQUIREMENTS (to FSJPPR)**

Comments from Al Rodine, Tenures supervisor, Peace Forest District

Received: April 27, 2010

A couple of comments from a review of SFMP Chapter 8 amendments.

### **8.1.6 Visual Quality**

Proposed change would allow licensee to write their own exemption from achieving established VQO when this would protect higher value resource.

DM still approves the HA so we would want to be notified of these blocks at time of HA application. Application should include the professionals' rationale for exceeding VQO.

Will there be a list of situations for which this exemption opportunity applies? E.G. MPB infested timber, other?. Will we get a chance to review/approve the list?

A change has been made to the Section 8 as well as the indicator write up, please see response to Luc Roberge's comments

### **Roads on the FOS**

Proposal to write SFMP language that tweaks FOS content for type of roads to be shown. Only roads proposed for construction would be shown. Existing non-status roads would not be shown. E.G. is upgrading a seismic line road construction?

Clarification: It is the intent of the Participants to not have to show proposed locations of bridge and culvert construction in the FOS, just new roads proposed for construction.



It is the intent of the participants to show all known roads on the FOS maps for which spatial information is available, however in many circumstances it has been found that there may not be spatial data for a previously constructed “non-status road” that exists on the ground that the participants wish to utilize. Upgrading a seismic line would be considered construction of a road for the purposes of this strategy

Is the definition of ‘construction’ objective enough?

I think this is a good change. Will reduce the amount of amendments required to show existing non-status roads. A Road Authorisation is still required. Perhaps a bit of risk with First Nations groups for roads not shown?

Al Rodine R.F.T.

Tenures

Peace Forest District

250 784 1230 or FAX 250 784 0143

[EMAIL...al.rodine@gov.bc.ca](mailto:al.rodine@gov.bc.ca)

---

Comments from Ralph Winter, Stand Management Officer, FPB

Received May 11, 2010

I note the following

### **8.1.2 Permanent Access Structures**

In order to provide increased flexibility to increase road densities where needed due to site conditions, to encourage decreased densities where practical, and to reduce Participant and government paperwork arising from frequent Section 25 variance requests, the Participants believed it desirable to assess the amount of Permanent Access Structures (PAS) in cutblocks at a larger scale than block by block. SFMP # 1 revised the APS to:

“A maximum of 5% of the total area in Managing Participants’ cutblocks occupied by permanent access structures in which harvesting was completed, as determined on a 3 year rolling average.” Pursuant to Section 35(5) of the *FSJPPR*, the approval of SMFP # 1, effective April 1, 2004 replaced the Applicable Performance Standard (APS) relating to permanent access structures described in Section 30(1)(b) of the *FSJPPR*, with the applicable performance standard as specified by the indicator statement, target statement and acceptable variance

I note the current RNI average is 3.6 % over 3 years (see Mof Report above) Is there a reason why we would want to allow the 3 year rolling average to have a max of 5%...

See comments above in the response to comments made by Sandy Currie regarding the Road Access Management Strategy

Comments from Ralph Winter, Stand Management Officer, FPB



Received May 11, 2010

I note the proposed changes below...

I thought that there were still significant outstanding issues with regard to the Deciduous and mixed wood standards. Can you confirm that is true or not.

The company is also proposing to revise the compiler to address these new standards using FIA funds. To my knowledge there will be no FIA funds for this.

I don't think this clause should be allowed to go ahead with district, region approval of the new approach. Al and Dave can you advise district and region on your perspectives please

### **8.1.3.2 Landscape Level Assessment of Coniferous and Deciduous Areas**

Can you please review and advise if there are issues here

I note very different veg competition stds. Have you folks and been involved in the development of the changes in red in the SFMP document with regard to appendix 6?...

Responses to all comments made on the Landscape Level Silviculture Strategy have been addressed above in the pertinent section of this document and corresponding changes have been made where appropriate to the SFMP document.

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11. Comment Received on Indicators not Linked to Landscape Level Strategies or “non-legal” aspects of the plan

COMMENTS AND RESPONSES CONTAINED IN THIS SECTION ARE IN REFERENCE TO INDICATORS AND TARGETS THAT ARE REQUIREMENTS OF THE CSA STANDARD AND ARE NOT REQUIRED UNDER THE FSJPPR OR ARE PART OF A LANDSCAPE LEVEL STRATEGY AND ARE THEREFORE NOT SUBJECT TO APPROVAL BY GOVERNMENT. THE PARTICIPANTS WILL HOWEVER, ENDEAVOUR TO ANSWER THE QUESTIONS AND COMMENTS BELOW.

**Comments from: Caren Dymond, Forest Carbon and Climate Change Researcher, MOF**

**Dated: March 24, 2010**

OK, I was able to review the modelling details behind

MAR 1 SFMP\_public\_review\_and\_comment\_version\_2010\_02\_08.pdf

The fundamental issue is in the way natural disturbances are defined in the modelling scenarios.

***On page 213 the target statement is to maintain average sequestration rates consistent with or greater than natural sequestration rates. However, in Figure 15, page 215, it clearly shows natural sequestration rates dropping precipitously over the next 50 years. That clearly indicates to me that either their natural disturbance rates of 20,000 ha per year is way too high. Alternatively, the carbon stocks at t=0 are way too high and not in sync with natural disturbance rates. We see a change like the sequestration rates dropping precipitously that as a modelling artefact and not helpful. The authors of the report argue that the drop is due to a changing age class structure to a more even distribution with more younger and older stands. However, there will be approximately 4% of the area in stands older than 150 years - not much different than currently. Will there be substantially more young stands (<50) yes, because the natural disturbance regimes applied are much higher than reflected in the current age class distribution. To me, that says they are too high.***

OK, so if we look beyond year 50, why is the average sequestration rate higher in the AAC scenario? Because they dropped the natural disturbance rate from 20,000 ha per year to 1,000 ha per year (possibly zero). I can't find any justification of this low a natural disturbance rate. Perhaps this is in the TSR2 report. Of course, they added approximately 21,000 ha of logging (~2.8 Mm<sup>3</sup>/yr at ~130 m<sup>3</sup>/ha). The sequestration rates are higher because of the transition from natural to managed yield curves.

On page 219, Figure 17 shows the total carbon storage in the DFA. the natural disturbance and the AAC appear to be the same. That's very odd, since harvesting removes a lot more carbon from the ecosystem than natural disturbances do. Given what we understand about disturbance rates and sequestration rates described above, it appears they modelled the impact of fire and harvest the same way. On page 218 they state the standing volume is used as a surrogate for storage of ecosystem C. Of course, it is not. Burned stands have more carbon remaining in surviving trees and deadwood than clearcut stands. There may also be more remaining in the forest floor and soil, depending on the relative severity.

As an editorial, it seems odd to plan a harvest rate than results in such a draw-down of growing stock.



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The participants will review the indicators and targets associated with carbon sequestration and carbon storage in future iterations of this plan to assess their accuracy, effectiveness and appropriateness. At this time the participants are awaiting TSR 3 to do another carbon budget analysis prior to making any significant changes to these indicators.

**Comments from: Joelle Scheck, Ecosystems Section Head, MOE**

Dated: April 21, 2010

| Section/page no.                                          | Comment                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Page 142                                                  | First full paragraph refers to the SFMP as an “annual report” – suggest editing<br><br>Change was made in plan to address this comment                                                                                                                      |
| Page 143                                                  | First paragraph – add “and UWRs” into the first sentence (“The location of the WHAs and UWRs are maintained....”)<br><br>Change was made in plan to address this comment                                                                                    |
| Sec. 6.17 Representative Examples of Ecosystems, page 145 | What is the rationale for the 12% baseline target for the majority of ecosystems? Is this consistent with Bunnell and Wells et al?<br><br>The participants used the values identified by the Brundtland Commission as identified in the indicator write up. |



## **Ministry of Forests and Range**

### **Fort St. John Pilot Project**

#### **Draft SFMP Participants Response to Government Comments #2**

Participants responses are in Red and highlighted in Yellow

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**From:** Marsh, Chris R FOR:EX  
**Sent:** Wednesday, May 26, 2010 8:45 AM  
**To:** Rodine, Al J FOR:EX  
**Subject:** Tenure Review of SFMP

Note: Some of my comments may be covered off in other plans but since I am not familiar with them, I have written what comes to mind when reading the SFMP text. Therefore some of my concerns may be covered elsewhere. My review is cursory due to time restraints but I have tried to target some forest management related concerns that jumped out at me that may not already be covered by other's review.

I have not been able to find the part of the Reg that allows proposed changes to the Reg to be included in an SFMP. Yes they can propose changes for review but not in an SFMP. As noted in my attached comments, I don't believe this is the vehicle to complete that type of review. Reg changes are passed through an Order in Council and including them in an SFMP for approval by the regional manager MoFR and regional director (MOE) when they don't have the authority to approve Reg changes is not correct.

The FSJPP Regulation does not allow changes to the Reg by the Participants, however the mechanism that is available is similar to proposing what is available to FSP's where a licensee can propose alternate results and strategies rather than use the defaults. In the case of the FSJ Pilot Reg Part 4 section 35 (5) & (6) of the Fort St. John Pilot Reg allows the participants to propose alternatives to Part 3 Division 5 – Field Performance Requirements and the Schedules with Landscape Level strategies.

*“(5) The participants must ensure that the sustainable forest management plan*



*(a) specifies the provisions, if any, of Part 3 Division 5 and the Schedules that are to be affected through the application of the proposed landscape level strategy, and*

*(b) includes a rationale on how the proposed landscape level strategy will*

*(i) provide at least equivalent protection for forest resources and resource features as that provided in the provisions referred to in paragraph (a),*

*(ii) be consistent with the preamble to the Act, and*

*(iii) provide for adequate management and conservation of forest resources.*

*(6) The participants must ensure that the sustainable forest management plan includes any applicable performance standards that are to be used for the purposes of Part 3 Division 5 and the associated Schedules.”*

#### Section 4.1 Timber Harvesting Strategy- Pg 49

- Does the Fort St John Land & Resource Plan adequately address the need to ensure that the location of cutblocks ensures the stands selected for harvest provide for sustainability in managing at the landscape unit level . I see a lot of reference around the economic viability of the processing facilities linked to the harvesting costs. I would like to see some reference to balancing wood costs according to profit margins. In other words the higher cost wood should be utilized when times are good to avoid a “donut” effect around the mills which could threaten their viability when fibre supply tightens up and markets again head down. I see the FOS has analysis information on the plan’s seral stage distribution impacts. Is this summarized for the past term in the SFMP?

The SFMP does not currently have an indicator specific to changing harvest profile with changing market conditions (i.e. increasing haul distance with increasing profitability). The Forest Operations Schedule, by the requirement to have a minimum of six years worth of volume identified, allows the participants the ability to be somewhat flexible with their choice of profile to harvest at any given time in response to changing market conditions. The Participants try to balance the timber profile within and over the term of the FOS and between the Participants. Indicators within the Timber Harvesting Strategy (Indicators 48, 49, 51, 52, and 53) speak to the current values accounted for in the Timber Harvesting strategy that deal with sustainability and some of the values identified in the TSR.



The Seral Stage Analysis contained in the SFMP is an analysis of the state against the identified SFMP targets moving forward. It is the values that we will compare the proposed 2010 FOS to for consistency. A Seral Stage analysis will be completed on the current FOS in this year's annual report comparing the harvesting that occurred over the term of the current FOS to the targets set in the 2004 SFMP.

- Sequential Clustered Development – This is referenced in Section 4.1.1. – pg 50 If this is a one pass, one entry system for harvesting, how does this adequately manage on the landscape level. Is the timber the same age in this area? Is one pass a 4 year timeframe? This appears to be a strong reference to the need to lower costs re the economic viability issue, or is the Graham area already a high cost area and this assists in making this timber cost efficient by grouping the cutblocks in one area.

The Graham area is in fact one of the highest cost areas in the DFA, however the one pass system (carried over from the previous plan) is a timber harvesting strategy that is designed primarily to minimize impacts to wildlife in an area identified in the LRMP as being an area of concern while allowing for timber harvesting to take place. The proposed strategy is consistent with the principles identified in the Graham River Integrated Resource Management Plan (GRIMP) which divides the Graham River planning area into several smaller clusters based on the sub-watershed level. The general intent is to go into one cluster, harvest all the operable merchantable timber within that cluster within a shortened timeframe and then pull out and deactivate until the next rotation. The intent is to minimize the amount of time that harvest operations are current in a given cluster (sub-watershed) to minimize negative impact on wildlife. This strategy was built with input from the MOE. There are several clusters that are identified as "no go" clusters that no harvesting will be proposed in. Further information is available on request. A side benefit from the clustered harvesting is concentration of harvest operations which may reduce overall harvesting costs

#### Section 4.1.5 Sustainable Timber Harvest Level Strategy- pg 53

- Not only is there a need to demonstrate to the public that the short term harvest levels are consistent with the allocated cut levels, there needs to be some assurance that the economic viability of the mills is not being compromised by excessive logging of blocks within close proximity of the mill . Or provide a caveat that wood costs be balanced against market upturns and downturns to ensure long term economic sustainability.

Acknowledged,



In determining annual harvest plans the Participants must balance a number of concerns in the short term such as cost (stumpage and haul costs) as well as managing for forest health concerns (indicator 49) and harvesting the timber profile (indicators 51 and 52). These indicators require performance in height class 2 Pli as well as deciduous stands in the northern reaches of the DFA. If this performance is not shown the participants' run the risk of incurring downward pressure on setting the AAC at the next TSR. These indicators, as well as the seral and forest types indicators serve as checks that put pressure on the Participants to ensure that harvest areas are well distributed throughout the DFA rather than concentrating operations in the "near" areas. Because these "checks" are already built in to the SFMP combined with the requirement that the FOS 6 year suite of blocks identified for harvest must be consistent with the SFMP indicators, the Participants feel that an indicator to assess the balancing of logging costs against profit margins is not required.

. A review of past history reveals that the harvest pattern has been well distributed across the DFA in order to maintain close harvesting opportunities into the future.

#### Section 4.1.6 Coordination of Planning Strategy – Pg 53-54

- Since a significant portion of annual deliveries of fibre is required during the fall and winter, would it not be practical to mention that BCTS as a participant should be targeting summer ground for most of their TSL's since the large tenure holders could then balance wood costs by providing the majority of their fibre supply from winter blocks. Or use the principle where possible of "Sequential Clustered Development" on summer ground areas for multiple participants if possible without over harvesting an area.

No, this would not be practical, as the Participants attempt to balance the profile equally between themselves. The Participants balance the near, far, summer and winter operable areas equally. This is an underlying requirement in the management agreement that the Participants have developed which guides our joint development of the FOS. By disproportionately weighting BCTS volume to a specific profile (i.e. summer harvest) you would also be interfering with BCTS' mandate to be a benchmark for the MPS. Additionally, while BCTS may offer volume on ground available for summer harvest, the term of BCTS Sales is generally 2 years and BCTS cannot dictate to their licensees when to harvest, making it entirely possible that all of the summer volume offered by BCTS would be logged in the winter.



Section 2.1.6 Tembec – Pg 33

- Tembec’s Forest licence A70730 is issued in the Dawson Creek TSA . It is not clear in the plan that this licence is not part of the Tembec’s contribution to the Pilot. You should also make it clear that Pulpwood Agreement 13 that Tembec holds has an 18,000 m3 apportionment associated with the Farrell Creek area in the Fort St John TSA. However, this volume is also not associated with the Code Pilot and is managed separately from the Pilot participants by LP for Tembec.

As license A70730 is issued in the Dawson Creek TSA not the Fort St. John TSA it would not be appropriate to mention it in this plan.

While PA 13 does encompass a portion of the DFA the participants are not aware of any specific apportionment contained within that agreement that limits them to 18,000m3/year within the Fort St. John TSA, although this number is referenced within the TSR. The participants will consider adding clarification around this in the SFMP

**Action:** add reference to PA-13 to the SFMP

- Also the stock symbol for Tembec is TMB not TMC if this info is required for interest.

Thank you for the clarification

Section 8.2 Revised Forest Operations Schedule –pg 286

- Should proposed legislation revisions to Pilot Reg be a part of the SFMP? I don’t see this as a content requirement for an SFMP. I don’t think this is an appropriate place to get the proposed changes approved by approval of the SFMP. I would suggest the suggestions receive separate review by the district , the Pilot working group and Branch staff familiar with FRPA with legal support. It doesn’t get proper review by including them in the SFMP. Also as per my opening comments , I doubt the legality of including them in An SFMP for approval. We have had some surprises in the past re Reg changes that didn’t get a full review by the correct parties. Considerations were missed.



It is the opinion of the participants that this is consistent with and in fact required by the FSJ Pilot Project Regulation. (see comments above re: "Changes in Requirements" Revised Forest Operations Schedule Requirements were identified and approved in SFMP #1 and the identified changes do not deviate a great deal from the changes approved in SFMP #1. By proposing these changes the Participants believe there will be numerous administrative efficiencies gained by the Participants as well as government staff reviewing the FOS and Harvest Authorizations. The identification of administrative efficiencies, while still providing for equivalent or better protection of forest resources is one of the goals of the FSJPP. It is the opinion of the Participants that these proposed changes regarding FOS map and information requirements will provide the desired administrative efficiencies and maintain the high degree of management and conservation of forest resources that the Participants are known for.

However, I will comment on some of the suggested Reg changes:

- An example of one of the recommended changes not being consistent to FRPA is the suggested change to allow a Forestry Professional to sign an FSP. In FRPA the Forester's Act, Section 20 and the definition of the "practice of professional forestry" requires that a person must be a forestry professional under the Association to practice forestry in BC. This fits under professional reliance where signing and sealing is required. FRPA doesn't specify the requirement so the REG should also be changed to conform to FRPA as we move towards FRPA'izing the Pilot.

I believe the comment that is referred to above is the proposal to allow a Forestry Professional to prepare minor amendments to the FOS, not an FSP as referencing an FSP in this document would not be appropriate. This should be changed to "Qualified Registered Professional" to be consistent with the current definitions in the FSJPPR

**Action:** Participants change occurrences of Forestry Professionals in the SFMP to "Qualified Registered Professional"

- Section (j)(ii) suggestion to delete the requirement to identify areas to be reforested as coniferous areas, deciduous areas, or mixed wood areas in Section 23 and in the FOS. The DM does not approve the FOS but does approve the Harvest Authority. Therefore, the DM should be aware of what is the proposal in regards to reforestation options.



Reporting in Results is after the fact and this gives the appearance of no planning to maintain the existing timber profile. Maybe it is better to move to professional reliance and make direct reference in the Reg to maintaining the existing timber profile by reference to the use of the Compiler to track this. The lack of a deciduous Compiler clouds this issue.

**Indicator # 1 forest types ensures that the Participants balance** the existing timber profile. Reporting via RESULTS of the planned reforestation pathway has historically occurred after harvest has been initiated, well prior to completing silviculture surveys.

- Section 81(e) (i)- Proposal to delete the requirement to show the approximate location of roads and bridges. This may be a concern where there are contentious issues associated with road locations. If this is removed, First Nations would likely have a concern, since the FOS works similar to an annual work schedule that other licensees provide as a service because FSP's don't provide enough information under FRPA to adequately complete consultation. I realize that providing an annual work schedule is not legal requirement under FRPA but since we are toting the FOS as a desirable way to provide information to get through the consultation hurdle, I think the information level should remain as is. However, I would agree that all existing non status roads need not be identified for the purposes of Section 23 (2), since this creates the need for copious amendments when not shown in the FOS. However, is it unreasonable to expect to show proposed access to the blocks in the FOS? If there is an existing road to a cutblock we should know if you intend on using that road. The TRIm roads file in the LRDW is up to date enough to be used in this context. Also the consultation issue creates concerns. This may not be in the best interest of the govt to change.

The intent of this proposed change is to remove the requirement to show the approximate location of bridges on proposed roads as it is not practical, while planning 6 years worth of harvesting across and entire TSA, to identify what type of crossing structure will be required on a particular stream, or if a structure will even be required. The intent is to still show proposed access to blocks within the FOS and new proposed mainline roads etc. The way the mapping requirements for the FOS are currently identified in the FSJPPR, it also does not allow the participants to use roads constructed by other industry (i.e. oil and gas) identified and constructed during the term of the FOS to access the block under the Harvest Authorization without a minor amendment to the FOS. The proposed change should allow for this efficiency. **To clarify, all of the roads that the participants intend to construct outside of a proposed block boundary will be shown as a proposed road in the FOS and go through the info sharing/consultation process**



- Section 81 (ii) (iii) (iv) – Proposal to delete the requirement to show proposed replacement or construction of bridges and major culverts. The crossings should still be shown to flag the proposal. As suggested crossing type can be determined later at field layout. If the crossing is shown then the site is at least flagged for inspection later.

As stated above: the Participants feel that it is not efficient or practical, while planning 6 years worth of harvesting across an entire TSA, to identify what type of crossing structure will be required on a particular stream, or if a structure will even be required.

- Section 81 (j) (ii) – Proposal to delete the requirement to identify if areas within authorized cutblocks are to be reforested as coniferous, deciduous or mixed wood areas. This would effectively allow any form of regen and /or compliance checks. The administrative penalties in Schedule G are unenforceable. It would be better to amend the Reg to make reference to balancing the regenerated areas to maintain the timber profile re the THLB over a period of time. Perhaps a target range could be placed into the Reg. Anyway the SFMP is not the place to decide this as there are more qualified than me who should be deciding what's best.

Making these changes within the SFMP will allow us to “test drive” the changes and assess the administrative efficiencies the changes provide without incurring the effort of revising the Regulation, that will be replaced in 6 years when the FSJPP is eliminated. This eventual fate of the FSJPP was identified in the MFR letter confirming the extension of the FSJPP for one additional 6 year planning period.

- Section 81 (c) (xii) and (xiii)- Proposal to remove the need to show the riparian class of streams wetlands, and lakes. The FOS is to be used as a planning document for stream crossings, reserves etc. This is basic information needed to determine what type or size of culvert, bridge type etc. If you are planning on removing the determination of culvert sizes and bridges at the FOS stage, I think this requirement should remain.

If government would like to conduct classifications of all streams, lakes and wetlands for the entire DFA and provide that to the Participants we would be more than happy to put that information on the FOS maps. Until such time as an inventory of this nature is available the participants wish to continue to classify riparian features during block and road layout. This is in keeping with the tenets of professional reliance. In order to meet the indicator targets for water quality and riparian management the Participants must conduct proper stream classification assessments and build crossings that will maintain the values present.



Also, the participants are trying to reduce the amount of “clutter” on the maps so that they can be more easily read and understood to facilitate the information sharing process.

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**From:** Harper, George J FOR:EX

**Sent:** Monday, May 17, 2010 2:37 PM

**To:** Monetta, Anna FOR:EX

**Cc:** Winter, Ralph FOR:EX; Kabzems, Richard FOR:EX; Hays-Byl, Winn FOR:EX; Martin, Pat J FOR:EX

**Subject:** FW: Review mixed wood and deciduous portions of the FSJ SFMP

Hi Anna,

Here are my quick comments after reading the Farnden Oct 27<sup>th</sup>, 2010 document entitled: *A Silviculture Survey Methodology for Boreal Mixedwoods*.

- The author fails to address “Why this survey method?” The various different surveys proposed for deciduous / mixed-woods / conifers may add un-necessary complexity and cost?
- The author does not sufficiently address the objectives given (2.1). What is “theoretical maximum achievable volume”, “predicted mean volume”?
- There is insufficient information provided on key components, models and linkages. The result is a lot of unknowns, confusion and complexity which makes it difficult to understand.
- How will it work and what will be the impact on the Crown risk and liability cannot be presently answered.
- The dependency on model output (MGM?) and empirical models that are poorly presented creates a “black box” scenario. A lot more detail is required to clarify how these functions apply to real world examples. What are the underlying modelling assumptions? Have the models been validated and to what dataset? Where should these models not be used?
- % cover is as a model parameter (3.3.3 model fitting – species composition): this is a subjective measure which may have high variation. It is not a measure to use if there is a need to legally confirm or challenge results & thresholds (C&E).
- I cannot confirm or support whether this is a positive survey method for boreal mixed-woods and any policy which may evolve from it.



I look forward to reviewing and continuing to participate on this project.

Note from the participants: There is no question that this is a new process and there are some questions and issues that still need to be examined. However part of the Pilot Project process is about identifying new ideas and concepts and the commitment from the participants is to field test Craig's survey methodology over the term of this SFMP and beyond. This survey methodology is new to the second SFMP and will be field tested and further implementation will be done with Government input.

**No changes proposed to the SFMP in response to these comments.**

Cheers,

***George Harper P.Ag., R.P.F.***

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*Material and opinions contained herein are solely those of the author and do not necessarily represent in whole or in part the position of the BC Ministry of Forests and Range.*

*"Nothing is permanent except change" Heraclitus of Ephesus (c. 535 –475 BCE)*

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**From:** Winter, Ralph FOR:EX

**Sent:** Wednesday, May 12, 2010 4:25 PM

**To:** Martin, Pat J FOR:EX; Turcotte, Shirley FOR:EX

**Cc:** Kabzems, Richard FOR:EX; Harper, George J FOR:EX; Hays-Byl, Winn FOR:EX; Winter, Ralph FOR:EX

**Subject:** RE: Review mixed wood and deciduous portions of the FSJ SFMP

See material below

<< Message: FW: Fort St. John Pilot Project SFMP # 2 >>

Note in the documents

***Strategy and Implementation Schedule:***

The conifer strategy is currently implemented, while the deciduous strategy will be implemented on similar principles to the conifer strategy. The deciduous strategy still requires the development of a deciduous compiler, and will utilize MFR deciduous yield

Sustainable Forest Management Plan

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*February 8, 2010*

curves, and the MFR's "Draft stocking guidelines for hardwoods in the BWBS" for 15 year old stands. In the interim deciduous reforestation will be assessed based on the revised applicable performance standards outlined in Appendix 6, and summarized in Section 8.1.3.3. The Participants are planning on evaluating the applicability of extending this survey methodology to mixedwoods during the term of this SFMP. The development of a landscape level mixedwood survey methodology will be based on the research document "*A Silviculture Survey Methodology for Boreal Mixedwoods*" developed by Craig Farnden, which is included in Appendix 18.

Following is a description of the Assessment System which will be used for both conifer and deciduous. The key components of the assessment system are:



- The assessment will measure success with a comparative estimate of theoretical predicted potential yield (volume) to actual expected yield (volume).
- The system will be based on data from individual cutblocks, but the data will be assessed over many blocks across the landscape.
- Areas are evaluated at a predetermined age following harvest.
- The results are tracked at the landscape and cutblock levels.
- Foresters will have flexibility at the cutblock level to vary regimes and provide for other values as they progress to a landscape level target for yield.
- The system will provide data to improve silviculture regimes and targets over time.

#### Also note

The “*Mixedwood Management Strategy for the Fort St. John TSA*” which was submitted to the government in December of 2005 has recently been revised. A copy of the current revised version is located in Appendix 10 (“*Mixedwood Management Guidelines for the Fort St. John TSA*”). This document forms an integral part of the overall reforestation strategy. The document outlines the methodology for defining ‘pure’ and ‘mixedwood’ stands, for the purpose of determining the declaration of areas. To support business objectives, the strategy also describes an internal ledger system the Participants use to track original declaration areas and the result of any changes to area declarations from subsequent silviculture activities.

**No changes proposed to the SFMP in response to these comments.**

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**From:** Martin, Pat J FOR:EX  
**Sent:** Wednesday, May 12, 2010 3:51 PM  
**To:** Turcotte, Shirley FOR:EX; Winter, Ralph FOR:EX  
**Cc:** Kabzems, Richard FOR:EX; Harper, George J FOR:EX; Hays-Byl, Winn FOR:EX  
**Subject:** RE: Review mixed wood and deciduous portions of the FSJ SFMP

Ralph and Shirley: as you know, Winn suggested research support for this. I canvassed the deciduous/mixedwoods folks and both George Harper and Richard Kabzems are going to join in. Please send them any background that you feel they will need for the meeting. thanks

-----Original Appointment-----

**From:** Winter, Ralph FOR:EX **On Behalf Of** Turcotte, Shirley FOR:EX  
**Sent:** Wednesday, May 12, 2010 9:15 AM  
**To:** Martin, Pat J FOR:EX  
**Subject:** FW: Review mixed wood and deciduous portions of the FSJ SFMP  
**When:** Monday, May 17, 2010 1:00 PM-2:00 PM (GMT-08:00) Pacific Time (US & Canada).  
**Where:** Douglas-fir Bdrm / Eliz to Phone Douglas-fir Bdrm at 250 356-1616 (R. Winter link in AI if needed)

You are welcome if you have time

-----Original Appointment-----

**From:** Turcotte, Shirley FOR:EX  
**Sent:** Wednesday, May 12, 2010 9:00 AM  
**To:** Turcotte, Shirley FOR:EX; Winter, Ralph FOR:EX; Hunt, Elizabeth A FOR:EX; Hunt, Tony L FOR:EX; Powelson, Allan FOR:EX; Weaver, David W FOR:EX  
**Subject:** Review mixed wood and deciduous portions of the FSJ SFMP  
**When:** Monday, May 17, 2010 1:00 PM-2:00 PM (GMT-08:00) Pacific Time (US & Canada).  
**Where:** Douglas-fir Bdrm / Eliz to Phone Douglas-fir Bdrm at 250 356-1616 (R. Winter link in AI if needed)

Elizabeth/Tony: Can you please sit together and dial into the Douglas-fir Bdrm at 250 356-1616

Al: If you are not able to join in person, Ralph Winter will link you into this call. Thanks.

Purpose

To

1. Identify and discuss what are the key outstanding issues with regard to the Mixed woods standards and the Deciduous standards in the SFMP
  2. identify next steps / next meetings
- 

Anna

I think these are important issues to discuss with CANFOR

Is there a forest sustainability issue if the carbon sequestration is dropping so much?

**From:** Dymond, Caren FOR:EX  
**Sent:** Friday, June 11, 2010 10:54 AM  
**To:** Winter, Ralph FOR:EX  
**Subject:** RE: Response to Govt. comment on FSJPP SFMP #2

Hi

In Figure 15, page 215, shows natural sequestration rates dropping precipitously over the next 50 years.

Either the carbon stocks at  $t=0$  are too high or the natural disturbance rates are too high.



-Caren

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Victoria, BC

V8W 9C2

**From:** Winter, Ralph FOR:EX  
**Sent:** Friday, June 11, 2010 10:32 AM  
**To:** Dymond, Caren FOR:EX  
**Subject:** RE: Response to Govt. comment on FSJPP SFMP #2

What is the modelling artefact

**From:** Dymond, Caren FOR:EX  
**Sent:** Friday, June 11, 2010 8:59 AM  
**To:** Winter, Ralph FOR:EX  
**Subject:** RE: Response to Govt. comment on FSJPP SFMP #2

Hi Ralph

Sorry, the best I can do is 3 reasons:

Indicator 38



1. Has a large modeling artefact in years 1-50.
2. Unrealistic assumption that the natural disturbance rate drops from 20,000 ha per yr to 1,000 or less ha per year in the managed scenario.

Indicator 39

3. Unrealistic assumption that fire equals harvest.

Does that help?

Caren

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V8W 9C2

**From:** Winter, Ralph FOR:EX  
**Sent:** Friday, June 11, 2010 08:47 AM  
**To:** Dymond, Caren FOR:EX  
**Subject:** FW: Response to Govt. comment on FSJPP SFMP #2

Hi Caren

Can you give me again the key reason you think the modelling is flawed...



Sorry i am slow on the uptake...

---

**From:** Dymond, Caren FOR:EX  
**Sent:** Wed 09/06/2010 9:59 AM  
**To:** Winter, Ralph FOR:EX; Monetta, Anna FOR:EX  
**Subject:** RE: Response to Govt. comment on FSJPP SFMP #2

Hi Anna

CANFOR is not planning on changing their flawed carbon modelling, so indicators 38 and 39 should be removed.

Best regards,

Caren

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V8W 9C2

As noted in the previous responses to government comments document, the SFMP indicators related to Carbon Storage and Sequestration are not part of a Landscape Level strategy, or required by the FSJPPR but rather are included for CSA purposes only. With this in mind, it is appropriate to point out that the non legal indicators

(those included for CSA purposes only) are therefore not subject to approval by government.

The Participants appreciate the comments provided and intend to modify these indicators sometime in the future, however as these are not "legal" indicators they are currently considered to be a low priority for the participants and as such will not be changed at this time.

The Participants intend to revise the carbon indicators when the next TSR analysis is completed for the FSJ TSA, this will likely result in revised carbon modeling and assumptions around disturbance level and existing carbon stocks. Deferring the revision of the carbon analysis to coincide with the next TSR was proposed in the original approved SFMP and will provide the Participant's with administrative and cost efficiencies that are most definitely appreciated given the poor economic conditions prevalent in the forest industry.

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Anna

I think the biggest concern is

:"Prescribing foresters may incorporate more or less restrictive soil disturbance limits in SLP's if they determine soil conditions warrant these changes".

See comments below

**From:** Dube, Stephane FOR:EX

**Sent:** Friday, May 28, 2010 1:09 PM

**To:** Monetta, Anna FOR:EX

**Cc:** Winter, Ralph FOR:EX

**Subject:** Comments on FSJPP 2010 Draft SFMP - 4.9 Soils and 4.2 Road Access



Hi. Thanks again for the opportunity to review the material pertaining to the Road Access and Soils Strategies of the FSJPP 2010 Draft SFMP. I will expend further upon issues raised in my previous email dated August 13, 2009.

#### 4.2 Road Access Strategy.

Proponents propose to assess PAS on a wider basis (i.e. total harvested areas) and using a 3 yr rolling average; I agree that it has a business value in that it provides flexibility to Industry in terms of total chance planning. On the other side, it will make it harder to monitor PAS given the number of managing participants and the geographical extend of the area covered. In addition to that, how will C&E be able to inspect for compliance if the performance requirement is no more on a cutblock basis? That should be addressed.

My other point is that based on recent published data, PAS% averages just over 3% provincially. Given the FSJPP operating area is not particularly known for problems of road construction and that, roads used by oil & gas will not be included in the PAS calculations there is not a strong argument here to replace the existing regulatory PAS requirement of 7% per cutblock by 5% of the total cutblock area over 3 years as proposed. In a result-based environment, a 3 year-period represents a long time to report on the state of a resource.

Clarification: The current approved standard for the FSJ TSA (SFMP #1) is 5% on a 3 year rolling average. This is reported on by the Participants annually in the Annual Report, as required by the FSJPPR. The Participants conduct this analysis and provide the results to government. Government may choose to conduct their own analysis if they so wish, and in fact MFR C&E staff have done this in the past. The recognition by the Participants that the PAS limit is 5% rather than 7% requires the Participants' to actively manage permanent access construction in order to achieve the lower target by design rather than by default.

Also please note that this is not a "regulation change" but rather a revised performance standard.



A PAS of 5% is better than 7%; It is a standard's improvement and accomplished fact. However, I don't see the proposed regulation change as a way to do more towards minimizing permanent losses of site productivity than the existing performance standard (*FSJPPR* sec 30(1)).

#### 4.9 Soils.

The participants propose to align its new soil disturbance strategy on existing *FRPA* default targets for maximum disturbance limits of 5% for sensitive soils and 10% for any other soils by NDU's. For all Roadside Work Areas (RWA's), the limit increases to 25% for accommodating decking and processing timber. This is a positive step and a welcome change to the 2004 landscape level strategies. These limits aim to lessen damages to soil functions and biota during heavy equipment traffic. They are scientifically sound and guided by past experiences.

Up until now, it is my opinion that those standards have supported adequate conservation of the soil and related resources for carefully planned and harvested sites. It has not proven to be costly and inconvenient for the Forest Industry. They have become "acceptable results" for forest certification.

There is a statement on page 99 that needs some clarification. They quoted: "Prescribing foresters may incorporate more or less restrictive soil disturbance limits in SLP's if they determine soil conditions warrant these changes". Of course, a soil limit can be changed in response to an accurate site description and site-specific determination of soil disturbance hazards. However, if the participants choose to apply a soil limit other than the 5%, 10% or 25% (for RWA's), they must provide new data to support varying limits while still protecting soils. I want to be certain that one cannot change a limit at will, particularly in situations of excessive site degradation.

The intent of the above noted statement is so that a Qualified Registered Professional would be able to (and should) adjust the soil disturbance limit as dictated by the site specific factors, despite the defaults. For example, the current default is 5% on the Boreal plains NDU, which has predominantly sensitive soils. If a site with less sensitive soils is encountered the prescribing forester may prescribe a higher limit (i.e. from 5% to 10%). Conversely, if in the other NDU's where the soils are predominantly non-sensitive, a sensitive soil is encountered a prescribing forester can reduce the soil disturbance limits (i.e. from 10% to 5%).



Information on soil sensitivity will be collected at the block layout and Site Level Plan (SLP) preparation stage, the soil disturbance limits will be set in the SLP at this time and will not be manipulated post SLP preparation to allow for excessive site degradation.

The planning, operational practices and field monitoring and monitoring procedure sections are sound and specific. Good work!

Hope this helps you.

That's all folks!

*"It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change."* - Charles Darwin

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## Fort St. John Pilot Project

### Participants Response to Government Comments #3 on Draft SFMP #2

Following are comments provided by Leslie McAuley and Richard Kabzems:

Monetta, Anna FOR:EX

*Send back to Darrell/Marc*

From: McAuley, Leslie FOR:EX  
 Sent: Tuesday, June 8, 2010 1:22 PM  
 To: Monetta, Anna FOR:EX  
 Cc: Winter, Ralph FOR:EX; McAuley, Leslie FOR:EX; Charleson, Lee FOR:EX  
 Subject: RE: Response to Govt. comment on FSJPP SFMP #2  
 Attachments: RE: Further rev. aw required of the Fort St John Code pilot SFMP #2

*yes - I verified that seedlot info goes into RESULTS + told Leslie.*

Anna,

A couple of points, for your consideration:

1. **Explicit linkages to legislated requirements.** CF standards apply only to persons operating under s. 29 of FRPA (with FSP or WLP). As Tony Hunt points out (see email attachment), the FSJPP SFMP#2 (as proposed) may require an amendment to the CF standards to include participants operating under the FSJPPR. *Note: Lee returns June 28<sup>th</sup>.*
2. **Explicit reference to annual reporting requirements.** My review comments (Mar 30/10) indicated that there should be an explicit requirement in the FSJPP SFMP#2 (see s.99 of FSJPP - record keeping; no explicit reference to seedlots) for reporting planting activities as per seed used. The FSJPP SFMP#2 participants have stated that "information is tracked in [the] Cenyea database and maps can be generated." However, I am also looking for a linkage to RESULTS reporting (as per FPPR - requirement to report on an annual basis the registration numbers of seed used, and the number of trees planted, area treated and number of trees planted beyond the transfer limits for each seedlot).

Can you confirm that FSJPP SFMP seed use information (as described above) is reported annually in RESULTS? Also, can you confirm that this is a requirement has been explicitly identified in the FSJPP SFMP#2, or FSJPPR?

This information is critical for a number of reasons, including, *but not limited to*:

- tracking seed from source to site (maintaining genetic identity of province's genetic resources);
- measuring performance in the field (maintaining productivity of provinces' genetic resources; linking genetic source/planting stock with timber, non timber, forest health, carbon);
- criteria and indicator reporting of genetic diversity (maintaining genetic diversity of province's genetic resources);
- assessing current and future vulnerability of genetic resources (maintaining genetic adaptation of provinces' genetic resources, climate change adaptation).

*in the SFMP using C.F. standards into the SFMP pg. 293*

From: Winter, Ralph FOR:EX  
 Sent: Tuesday, June 8, 2010 9:17 AM  
 To: Berch, Shannon M FOR:EX; Weaver, David W FOR:EX; Maloney, David A FOR:EX; Densmore, Nancy FOR:EX; Burleigh, Jennifer FOR:EX; Nigh, Gordon D FOR:EX; Powelson, Allan FOR:EX; Kabzems, Richard FOR:EX; McAuley, Leslie FOR:EX; Marc, Jacques FOR:EX; Picard, Paul FOR:EX; Hunt, Tony L FOR:EX; Dymond, Caren FOR:EX; Turcotte, Shirley FOR:EX; Miller, Jan C (Forests) FOR:EX; Kope, Harry FOR:EX  
 Cc: Monetta, Anna FOR:EX; Bedford, Lorne FOR:EX; Hays-Byl, Winn FOR:EX  
 Subject: FW: Response to Govt. comment on FSJPP SFMP #2  
 Importance: High

Hi folks

Please find attached the responses from CANFOR that are addressing the previous submitted comments from you.

- Please see what you submitted for comments
- Please see how CANFOR is proposing to address or not address your comments



**Monetta, Anna FOR:EX**

*Send back to Darrell/Mark*

**From:** Kabzems, Richard FOR:EX  
**Sent:** Thursday, June 10, 2010 6:57 PM  
**To:** Monetta, Anna FOR:EX  
**Cc:** Winter, Ralph FOR:EX  
**Subject:** Responses to DIO

- 1) Surveyor belief as a free to grow criteria. Well established criteria which all trained surveyors can consistently apply are given in A to D. The Pilot participants response:  
 "Criteria E is not an addition to the selection criteria, as it was included in the original SFMP for crop tree requirements. Despite the absence of available scientific background to make this selection defensible should not discredit the professional accountability of the surveyor to rationalize a well growing crop tree decision."

I cannot accept surveyor belief over science.

Including this Criteria creates the opportunity for not free growing areas to be accepted by the Province, with negative implications for future timber supply.

- 2) Deciduous stocking standards. The Code pilot participants did not appear to understand that the main point of the example given was that the standards they are using are so low, that regenerating unmerchantable stands would still be acceptable under the Code Pilot. The point was not addressed in the response by the code participants.

There are clear negative implications to future timber supply when a regeneration standard that is so very low is used.

- 3) Permanent access structures. The response:

Participant response – to address the comment above, the PAS strategy has not been changed from that presented in SFMP #1. SFMP #2 continues to indicate that PAS will be measured at a DFA level by managing participant rather than an individual cutblock basis.

Based on this response, I am not clear if the Code Pilot participants are planning to use a three year rolling average of 5% PAS, even though this is above operational performance in northern British Columbia. Reduction of loss of the timber harvest land base is fundamental to maintaining future timber supply.

Richard Kabzems, MSc, PAg, RPF  
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Participants Response to Leslie McAuley's comments dated June 8, 2010:

- #1 We would have no objection to Government proposing an amendment to the Chief Forester's Standards to include the participants of the FSJPPR. In the interim, the requirement to follow the Chief Forester Standards has been written into the SFMP.
  
- #2 We are reporting much of this information now by way of the annual report (required by the FSJPPR) and via RESULTS. Section 51 of the FSJPPR requires that we report the following: a summary of the reforestation activities carried out including the regeneration method, year of establishment, estimated species composition and density at establishment. We would like to be able to drop the reforestation activity reporting requirement in the annual report and simply report this information via RESULTS alone. This however would likely require a FSJPPR amendment to revise the reporting requirements of Section 51. In addition, please consider that section 99 of the FSJPPR requires that we must keep a record of the seedlots used and the locations where they are planted. This information is collected and is available upon request. Requiring us to commit to report this information is an added administrative burden that in our opinion is not warranted and not in keeping with the intent of the FSJPP to identify and implement administrative efficiencies and to focus on results based management and professional reliance.

Participants Response to Richard Kabzem's comments dated June 10, 2010:

- #1 In our opinion, Criteria E does not create the opportunity for otherwise not-free-growing areas to be accepted by the province. The landscape level silviculture strategy recognizes that some strata will not meet the criteria for well-growing, but that this is acceptable if the population as a whole meets target volume within variance. However, we believe that Richard is concerned that data collected from MSQ surveys will lead to inaccurate volume predictions through the use of Criteria E (trees being called well-growing when they won't contribute to future volume). In practice, criteria E is used sparingly. Surveyors are instructed to make comments on plot cards when using criteria E to denote a crop tree as well-growing. This is done to facilitate a site visit by the forester in charge of the survey contract. The forester completing the data compilation for the SFMP annual report must be confident that the data going into the compiler is complete, accurate, and collected appropriately. Thus, if a surveyor used criteria E to denote a crop tree as well-growing, the forester in charge, in my opinion, should verify the assessment of the crop tree made by the surveyor. This has been included as a requirement in the statement describing criteria E, in Appendix 6 of the final



version of SFMP 2 submitted for approval. This way, professional judgment will be used to decide if a particular tree will live to contribute to future harvestable volume, but the SFMP participants are exposed to less risk of having to complete additional treatments on blocks that in reality do not have serious brush problems.

- #2 Section 98 of the FSJPPR identifies the minimum free growing stocking requirements for deciduous areas. With a minor exceptions regarding the timing of completion of well growing assessments, the deciduous stocking standards proposed in the SFMP as interim standards until a landscape level strategy and volume compiler are developed, are the very same stocking requirements noted in the *FSJPPR*. The participants intend to apply the well growing height and stocking criteria to the assessment of 6 to 9 year old deciduous stands. The participants intend to manage deciduous stands such that the well growing requirements are achieved by 9 growing seasons after harvest commencement. When the deciduous landscape level management strategy is developed a new standard for the timing of well growing assessments that is consistent with the ability to accurately predict future yield will be developed and will replace the SFMP interim deciduous stocking standards that are taken from the FSJPPR .
  
- #3 SFMP # 2 continues to indicate that permanent access structure management will be measured at a DFA level, using a 3 year rolling average with a maximum threshold of 5% of the total area in managing participants cutblocks that may be occupied by PAS. For greater clarity the SFMP indicator target statements are noted below:

| Indicator Statement                                                                                                                         | Target Statement                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Percentage of the total area in Managing Participants’ cutblocks occupied by permanent access structures in which harvesting was completed. | A maximum of 5% of the total area in Managing Participants’ cutblocks occupied by permanent access structures in which harvesting was completed, as determined on a 3 year rolling average. |

The target statement 5% max threshold for PAS is more restrictive than the FSJPP threshold of 7%.

**Following are Chris Marsh’s comments on SFMP Section 8:**



Darrell.... Yes ... it appears we need some clarification on what is allowed to be varied , how and by who. We are concerned that as per Section 25(2) (c) (ii) of the Reg, only those Field Performance Requirements listed under Division 5 that specify that an applicable performance standard can be established, are the only ones that can be varied under the SFMP and approved by the regional manager and regional director. Initial observation puts these constraints on forest practices as being stand level biodiversity , namely coarse wood debris targets (S 29(2), and wildlife trees and patches (S 29(1), permanent access structures (S 30), stocking requirements (S 32(5)), reforestation performance such as the period, stocking standard, and well growing crop tree standards such as minimum heights and spacing as outlined in Section 32(6) and 32(8). In some cases the DM must consult with the participants before establishing standards (S 35(7)).

All the other field performance standards such as visual quality, conserving the soil, protecting the productive capacity of the harvested areas may or may not be allowed to be varied , but it appears these would be one off variances allowed by the DM under harvesting authorizations under Section 25(2) (c)(i) & (iii) and Section 25(3) . What I think is key is that since the SFMP is approved by the regional manager and regional director (MOE), they cannot approve any changes to the applicable performance standards unless they are included under the umbrella of Section 35(6). This section provides for content of the SFMP and links only those Field Performance Requirements which have “applicable performance standards “ as the ones that can be altered by approval of the SFMP. In my mind it does not provide the ability to change all the standards established in the Reg.

An example of this is some of your requests in Section 8.2 which deals with Revised Forest Operations Schedule Requirements. You are correct that under Section 79 **information** can be varied or deleted from the Forest Operations Schedule (FOS) if conditions included in the SFMP. The key word in the legislation is **information. Section 81 of the Reg deals with information requirements of the FOS, while the other sections mostly deal with legal process requirements only altered by amending the Reg.** There are certain requirements under Schedule C such as Section 80(3) and Section 80(4) , which deal with who signs the FOS. These are requirements not **information** under the Reg which cannot be altered through the approval of the SFMP. The same should apply to the “Notice requirement Revisions” on page 288 of the SFMP where you are requesting deleting the requirement of Section 83(4) (c)(i), which requires a notice if the block is increased and includes a riparian management zone of a stream with a classification of S1, S2, S3 or S4.

Some of your suggested changes to the legal process requirements are most likely good streamlining changes, but the point I am making is that they cannot be altered through approval of the SFMP.

In summary here are my concerns:

- • SFMP is trying to “pre- vary “ Field Performance Requirements that only the district manager can vary either as a “one off” or by varying a performance requirement under section 42
- • If the Reg doesn’t state there is an “applicable performance standard under Division 5, Field Performance Requirements can other requirements or standards a be altered at the SFMP stage. It appears only the district manager has the authority to alter other variances.
- • Section 8.2 – Revised Forest Operations Schedule – Legal process requirements cannot be altered through the approval of the SFMP.

We should discuss the above on a call to see if we can resolve this before contacting Trevor Swan for legal interpretation.

Participants’ response to Chris Marsh’s comments:

Sections 35(5) &(6) of the FSJPPR provide the participants with the ability to specify applicable performance standards in the SFMP that may be different from the field performance requirements noted in the regulation. We feel that building a variance into an applicable performance standard is an acceptable and appropriate means to effect administrative efficiencies in dealing with unique situations such as forest health concerns. Regardless of the variances built into any applicable performance standard, by virtue of the fact that the MFR District Manager must approve all harvest authorities, the District Manager in effect retains actual authority over the approval and implementation of the variance. Without approval of the harvest authority, the participants will not be able to implement any variance built into any harvesting related applicable performance standard in the SFMP.

With regard to the review of the proposed FOS process changes (section 8 of SFMP#2), conducted with Anna Moneta and Chris Marsh on June 23, the participants have revised the SFMP to reflect that the participants are recommending that government consider revising the FSJPPR to take advantage of the administrative efficiencies that would be realized through the suggested revisions to:

- FOS Notice Requirements *FSJPPR* Section 83(4)( c)(i) and 83(4)( c)(iii) and

- FOS General Content Section 80(3) and 80(4).

The SFMP has been revised to make it clear that the SFMP approval is not effecting these proposed changes to the FSJPPR, rather the SFMP now only recommends that Government consider these recommendations for incorporation into a future amendment of the FSJPPR.