

**Presentation to the
Special Committee on Timber Supply
(SCOTS)**

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320 Strategy Room
Morris J. Wosk Centre for Dialogue
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Thank you for extending the opportunity to Friends of Ecological Reserves (FER) to participate. We make 22 recommendations in thirteen areas of concern that flow from review of your terms of reference. We hope that you find this constructive and include our recommendations and observations in your report. FER is a small volunteer organization with no paid staff. FER has been in existence for over thirty years.

Executive Summary

We support a need for a change to the status quo. We cannot support harvesting of conservation forests reserves as the solution to timber supply as this would reduce environmental standards and therefore would be in conflict with your terms of reference which call for high environmental standards. We support public land ownership and the crown land model we have today. We do not see private-land tenure and even offering exclusive operating areas on crown land as a good economics or a means to sustain environmental values. Globalization has changed forest companies and they are less able and willing to steward public resources as they focus shareholder return.

We are concerned about the scope and focus of the consultations as most of BC's population lives outside of the Mountain Pine Beetle (MPB) area yet the consultations have been held largely away from urban centers. Forests are held equally in trust for all British Columbians yet a subset of the population has had greater input. MPB changed our forests and we need to change our thinking about future forests in the mid and longer term. It is time BC had a larger forum and process to build a vision and strategy about all of the provincial renewable resources. A larger forum and process need to have sufficient scope to examine managing ecosystems to sustain number forest values (environmental stewardship), the economy, resource rents and communities stability. We hope SCOTS can be a catalyst for a larger forum with a broader scope.

Natural disturbances are currently addressed in Timber Supply Reviews (TSR) through salvageable losses and operational adjustment factors. What is wrong with this approach is there is no probability of loss of timber from natural disturbances shown in allowable annual cut (AAC) forecasts. Without disturbance probability we overstate timber supply. There is an urgent need to change TSR to include natural disturbance probabilities so we do not continue to show undeliverable volumes with regard to future timber supply. This means using existing disturbance ecology research, investing in new disturbance studies and adding ecologists to the TSR forecasting team in government. This would help to ensure credible inclusion of future disturbances to allow for more realistic estimates of future timber supply.

The Chief Forester is delegated AAC responsibilities as outlined in Section 8 of the Forest Act. This is a very good approach in legislation for setting harvest rates on public land. It is data informed, shows assumptions and analysis and allows public review and input (notwithstanding the probability issues raised above). Retain section 8 of the Forest Act and the role of the Chief Forester and do not allow this to become a cabinet decision. Our support for the institution of the Chief Forester is tempered by concerns that, as interpreted and implemented, it does not meet the legislated intent and report and requirement to meet the short and long implications to the province. TSR also needs to do quantitative multi-resource value forecasts and report on condition of habitats for fish, wildlife and biodiversity, as well as on recreational views and all non-timber values and resource values outlined in the Forest Range Practices Act. Reporting on timber and the economics of timber alone is not consistent with the legislated intent for section 8 of the Forest Act.

BC needs a Chief Biologist, with legislated responsibilities for setting conservation and harvest targets for species. This legislation can be patterned after that of the Chief Forester. A Chief Biologist would work with the Chief Forester to set habitat goals and use forecasts linked to species needs for the next 30 to 50 years when habitat supply is predicted to be at a critical low.

Government data shows significant over-capacity in milling even after the 30 – 104% boost to AAC for expedited beetle wood salvage. Current mill capacity can be sustained in the midterm without lowering environmental standards if milling capacity and expectations are kept to one shift level for Lakes and Quesnel, and at an 80 and 90% of capacity for mills in the Prince George and Williams Lake area.

There was to be a conservation up-lift as well as AAC up-lift. More stand-level retention was left during salvage operations however landscape level tactical plans that could have mitigated impacts on all the forest resource never occurred. These landscape level plans are still needed but now will be through the lens of how to restore values and sadly without the benefits that could have minimized impacts. We hope this committee will advocate for a forest restoration program as well as landscape/watershed scale plans needed for implementation. Restoration and reforestation programs mean employment.

We hope that this committee supports the advice of the Auditor General (AG) and asks the government to set clearly defined timber objectives and we suggest this should be done in the larger context for all renewable resources. It may even be premature for this committee to set objectives for some supply units before the AG's advice is acknowledged as sensible and acted on.

It may be realistic to seek mid-term timber supply from small diameter younger trees not from current older forests which support recreation and conservation objectives. Protection of established understory regeneration in all stands and a change in current harvest approaches also may provide a significant boost to mid-term timber supply. It is unfortunate that this understory protection was not mandated during salvage and implemented over the last 8 years. There are also questions on how many green trees were harvested during salvage and to what extent this decreased the midterm supply and revenue.

A Federal/Provincial cost share agreement of not less than five years and not less than 200 million for reforestation and restoration is needed. The need today is greater than it was during previous Forest Renewal Development Agreements because of the MPB. On the ground restoration must be supported by strategic assessments (where and how much) and implemented through tactical landscape/watershed plans.

The Biogeoclimatic zones in which MPB is resident have the lowest amount of land within the Parks and Protected Areas (PPA) system in BC. Protected Areas will increase in value in future and help maintain BC's biodiversity. Five percent of the Ponderosa Pine and Interior Douglas Fir zones and 6% of the Sub boreal Spruce and Boreal Black and White Spruce zones are protected. Considering climate change it is doubtful that this will be sufficient to insure the sustaining of BC's biological legacy in these areas. A commitment to improve the amount of protected area is needed.

The low percentages of PPA in the MPB zones could be improved by adding Old Growth Management Areas (OGMAs) to the PPA system. Parks and Protected areas designation offers greater long term security and protection of conservation functions than OGMAs appear to have now.

A lot of time was invested in strategic land use plans and the zones and objectives. This should not be unilaterally changed without the re-engagement of planning table stakeholders in some manner, such as recalling and supporting monitoring committees. Even then these planning groups need access to technical support sufficient to provide balanced analysis to understand the impacts of increasing timber supply, the impact to all resources and the need to change the status quo.

Allowing some relaxation of environmental standards in a Timber Supply Areas (TSA) such as the Lakes area would divide BC into zones with differing environmental standards. We strongly support the need for consistent provincial standards. These are both fair to all tenures holders and fair to all BC citizens. We hope to see the option of harvesting conservation reserves removed and strong support for a level playing field endorsed. It is not clear that there is wide spread support either in industry, or by the Association of BC Forestry Professionals for reducing environmental standards. Reducing standards also has implications for forest certification.

Changing the conservation and mature forest retention requirements is premature in light of the absence of data on whether current practices actually sustain the full suite of forest resources values and objectives already in legislation. The Forest Resource Evaluation Program (FREP) in government has not reported and measured many of the values in the eight years since the new result based code has been in effect. It is possible that current forest practices do sustain values, and more rather than less old forests may need to be retained.

Tenure reform options require a great deal more information to come to a decision, and we hope to see an independent panel with appropriate investigative powers, and with members approved by a number of stakeholders. Further investigation is needed to understand returns to the crown (revenue), investments in mid and long term timber supply, and the ability to sustain a full array of forest values such as water, fish, wildlife, forage, visual and recreational resources. To be credible and address the greater public good, the independent panel would need to be at arms-length from government and report in a non-partisan forum.

The committee's terms of reference indicate a need to be mindful of a balanced budget and trade arrangements. Revenue is a means to balance budgets and it is unclear if the incentives to salvage pine (such as royalties of 0.25/cubic meter) were appropriate or whether there should have been funds from salvage used to build a Forest Investment fund. This means looking at timber pricing and current arrangements for setting stumpage.

Since energy from fuel is within the terms of reference it is prudent to again engage BC Utilities Commission with a formal advisory role to on electricity rates, energy development and all energy options including energy from wood. This may require a change in the Clean Energy Act.

Introduction

The mill explosions and deaths in Burns Lake and Prince George were a tragedy and led to the formation of your committee. We do not support harvesting of reserves in this area as the solution to timber supply. Nor do we believe that government should provide guarantees of timber supply that are sufficient to bolster investment and guarantee wood supply for a new mill in Burns Lake. We believe alternate solutions better address the public good, including those who live in Burns Lake. We support a need for a change to the status quo.

Thankfully BC has a high percentage of public land referred to as “crown land” and so all British Columbians have a legitimate stake in what happens and will share the consequences of your recommendations. At current population levels each citizen has approximately a 44 ha share in the province. We support the public land ownership model and do not see private-land tenure and offering exclusive operating areas as a solution to short and long term timber supply management or as a benefit to British Columbians.

1. Concerns regarding the scope and focus of the consultations process

BCs population now exceeds 4.4 million, of which approximately 2.2 million live in the Vancouver Area. You have received input in Smithers, Houston, Burns Lake, Fraser Lake, Fort St James, Vander Hoof, Prince George, Mackenzie, Valemount, McBride, 100 Mile House, Williams Lake, Quesnel, Kamloops and Merrit. However less opportunity was afforded at larger centres such as Vancouver and to date there has been no opportunity for participation in Victoria. Mountain pine beetles (MPB) have created a provincial dilemma and the magnitude of the proposed changes warrants a wider and more inclusive consultation.

A larger forum and process is needed on BC renewable resources as there are forest changes (climate change probabilities) and a need for wider stake holder and public consultation so that economic (timber supply), environmental and social values can be seen in a broader scope and time frame. It is not possible to take one resource value such as timber and solve this for one constituent by defining this as timber supply problem solvable by a timber-supply-only solution. MPB have impacted many forest values.

Recommendation 1. Increase the opportunity in urban centers to provide inputs to changes affecting conservation provision as forests are publically owned and held in trust for all British Columbians.

Recommendation 2. Create a larger forum and process to develop a Provincial Renewable Resource Strategy suitable for setting goals for a number of resource values in mid and long term and placing Burns Lake and other similarly affect communities into a larger context.

2. Concern over the current approach to natural disturbances in timber supply forecasts.

The Chief Forester’s Timber Supply Review (TSR) shows a single graphic projection for allowable annual cut (AAC) based on expected forest volume and the assumption current forest practices will continue indefinitely. However there is no discussion of the probability of loss of timber from natural disturbances shown in AAC forecasts. Natural disturbances are currently addressed in the TSR through salvageable losses and operational adjustment factors. Models are only as good as the assumptions used. Ignoring a major ecosystem driver has contributed to the current over-capacity in milling infrastructure (apparent boom) and the mid-term supply problem (apparent bust) situation we find ourselves needing to accept.

Stand replacing disturbances in the central interior occur frequently and are caused by wildfires, insects and disease. Natural disturbances are often large, though nothing on the scale of the MBP is historically known. As a high proportion of interior forests historically never reach ecologically mature forest (climatic climax) condition before the next disturbance occurs, there is only a small percentage of older forest in these ecosystems. The lesson from the MPB is that we need to change TSR forecasts so that they show high and low probabilities for available wood after probable losses to insects, fire and disease. If we continue to plan forest harvests using single line forecasts as we do today we will continue to over-estimate and overbuild, and then not be able to deliver wood to the rural communities in the future. Mills will face the same consequences in the future as they do today; no timber supply when future disturbances occur. To avoid this it is imperative to factor disturbance probability into the TSR.

Recommendation 3. Invest in new research or reprioritize existing research to inform on disturbance return intervals (size and frequency and disturbance agent, fire insects and disease) and link this to forest resiliency (understory survival etc.) and then in light of climate change set AACs that are commensurate with what will be available and informed by disturbance ecology science.

Recommendation 4. Immediately for all Timber Supply Areas (TSAs) in the MPB zone provide probabilities bracketing the existing AAC forecasts. Immediately engage natural disturbance ecologists as advisors to TSR to guide the current forecasts of timber analysts. Do not continue to plan timber supply without probability and do not continue to raise undeliverable expectations which are not in the public interest.

3. Section 8 of the Forest Act AAC determination and the Chief Forester.

The Chief Forester has a legislated mandate and must determine an AAC at least every ten years and also include the short and long term implications to British Columbians of alternative rates of timber harvesting from the areaⁱ. The Chief Forester's role and responsibilities as outlined in Section 8 of the Forest Act is good legislation for setting harvest rates on public land. It is data informed, shows assumptions and analysis and allows public review and input. The Forest and Range Practices Act (FRPA) recognizes a number of publically held legally recognized forest values such as biodiversity, soils, timber, fish/riparian, wildlife, water, recreation, cultural features, visual resource features, forage and timber. These values have objectives in legislation and are expected to be sustained along with timber.

TSR analysts forecast timber and classify all other forest values as non-timber values as they constrain the availability of timber in their timber model. To increase timber supply in a TSR model analysts turn off non-timber constraints and determine timber supply when these constraints no longer apply. So called non-timber constraints include hydrologic and visual green-up, riparian reserves, retention and partial retention visual quality zones, old growth management area, landscape-level seral stage objectives, ungulate winter ranges provisions for mature timber, wildlife habitat areas and wildlife tree patches. Table 1 shows the apparent cost to the Timber Supply and the apparently available wood if no other values are managed in the forest. What you cannot see in a timber-only forecast is the added impact or consequences to the other values impacted to get the timber boost. This absence of reporting on all values is inconsistent with the intent of current legislation both in the Forest Range Practices Act (FRPA) and the Forest Act Section 8 as these values are legitimately part of the short and long implications to the province.

Recommendation 5. Retain section 8 of the Forest Act and the role of the Chief Forester. Require that TSR report on all forest resources recognized in the FRPA as this is consistent with setting AACs. The legislation is not broken but interpretation of how to apply it falls short of intent.

Recommendation 6. Require significant changes so that the current narrow scope of the TSR shifts to become a quantitative multi resource value forecast include use of habitats for fish and wildlife,

biodiversity, recreational viewscapes and all non-timber values. Make sure the multi-resource value forecasts are credible. Note also that it is unknown if current practices (constraints) actually sustain the recognized forest values. (See recommendation section 9 recommendation 18)

4. Request a Chief Biologist for BC patterned after the legislated Chief Forester mandate.

The way in which Section 8 of Forest Act is crafted for setting AAC far surpasses the approach used by Ministry of Environment to set conservation targets and fish and wildlife consumption targets. The Ministry of Environment (MOE) needs legislated help. Your committee can put this on the agenda. The public, especially rural communities, value fish and wildlife and want to maintain threatened and endangered species. The public has less opportunity to provide data, or understand the assumptions than is used to set AACs. Rural communities stand to gain a great deal by understanding how to sustain fish and wildlife “non-timber resources” as these values may be more important in the mid-term than timber. However there is a lack of legislated mandate on how the MOE could accomplish this and no parallel to that afforded to the Chief Forester. The habitat mandate rests with Forests and the species population mandate rests with Environment. Where are mid and long term species objectives? Where are habitat supply forecasts? Just as timber supply is experiencing a mid-term short fall so are fish and wildlife species. BC needs a Chief Biologist, with legislated responsibilities, to work with the Chief Forester to set objectives and conduct longer term forecast for habitat supply as it too will be at a critically low level in (30 to 50 years).

Recommendation 7. Support a mandate for a Chief Biologist of BC within the Ministry of Environment patterned after the mandate of the Chief Forester and Section 8. The Chief Biologist would periodically assess inventory and monitoring data, provide criteria used to forecast supply, and then set population targets for conservation and harvest of fish, wildlife and maintenance of ecosystems at risk. This concept has had some exposure to Forestry Professionals and support (see Forestry Forum Articleⁱⁱ.)

5. Allowable Annual Cut Up lifts

Table 1 uses some of the data from a June 6th 2012 presentation by Kevin Kreese. The data shows significant over-capacity in milling even after the 30 – 104% boost to AAC for expedited beetle wood salvage. From this table it appears that current mill capacity can be sustained in the mid-term if milling capacity is managed at a one shift level for Lakes and Quesnel and those in Prince George and Williams Lake in the midterm at an 80 and 90% of capacity. If the disturbance probabilities had been provided as part of Timber Supply Review (TSR) or completed for investors, would the current over capacity have occurred? Table 1 does not account for future natural disturbances and uncertainties around the forecasts and likely overstates available timber but these are the government’s figures being used to inform this debate.

Table 1. Kreese June 6, 2012 Slide Background – AAC and Mill Capacity.

TSA	Prince George	Lakes	Quesnel	Williams Lake
Pre-uplift AAC	9.4 million m3/yr	1.3 million m3/yr	2.3 mc m3/yr	2.8 million m3/yr
Up lift %	33%	53%	74%	104%
Current AAC	12.5	2.0	4.0	5.7
Mid Term timber supply	6.4	0.5	1.2	1.9
Visual Quality Objectives (VQO)removal	+3%	Removed already in mid-term supply*	+5%	4%

Old Growth Management Areas (OGMA) removal	+16%	+7%	+11%	+11%
Riparian and Stand level retention removal	+15%	+10%	+13%	+6%
Mill Capacity				
1 shift	5.2	0.7	1.3	1.7
2 shifts	10.6	1.3	2.5	3.5
3 shifts	15.8	1.9	3.8	5.2
	80% for 1 shift	1 shift	1 shift	90% for 1 shift

* It is unclear if the removal of Visual Quality Objectives has had any review or agreement outside of timber modeling.

Recommendation 8. Indicate that there is sufficient wood supply to keep mills in the mid-term but at a lower capacity than designed and built today.

6. What Happened to the Conservation Uplift?

Once it was established that the MPB could not be controlled, the emphasis shifted to salvage logging and the up-lift of AAC as shown for some TSAs in Table 1. As water, wildlife, fish and biodiversity values are also impacted the ‘timber uplift’ (AAC increase) was to be accompanied by a ‘conservation uplift’ which was an increase in retention of mature forest structure in harvested areas. In aid of the conservation uplift, B.C.’s Chief Forester in 2005 issued the report *Guidance on Landscape- and Stand-level Structural Retention in Large-scale Mountain Pine Beetle Salvage Operations* which addressed how to mitigate impacts through wider riparian zones on S4 streams and other measures to retain stand structure. Although this guidance is not legally binding, and applied directly only to the Lakes, Prince George and Quesnel TSAs, it explains how the Chief Forester expected the conservation uplift to be applied. At the landscape level, the guidance was to be implemented through “*collaborative, multi-stakeholder, long-term landscape-level planning as this is the best option for managing increased retention.*”ⁱⁱⁱ No integration of salvage options and mitigation options occurred and no landscape level long-term planning occurred between industry and government.

The Forest Practices Board in a report in 2009 examined the degree to which the Chief Forester’s guidance on retention has been followed or applied.

At the stand level, the guidance—that retention of mature forest structure increase as size of harvested patches increases—appeared to have been implemented. “However, there was no planning for, or implementation of conservation uplift at the landscape level.”^{iv} This means that many mitigation opportunities were lost during the salvage operations and impacts to non-forest values were likely exacerbated by absence of landscape level planning to safeguard conservation while maximizing salvage harvest.

It should be remembered that forest practices and cumulative effects have already compromised many values (non-timber values) for example fish values and the backlog of stream crossing blockages to fish passage. It is estimated that there are 134,000 to 200,000 stream crossings on resource roads in BC that present potential barriers to fish passage. Two years of work through the Forest Investment Account (FIA), investigated more than 5,000 stream crossings suspected or known to have “*high-priority deficient crossing structures*”. The FIA program resulted in detailed assessments of about 1500 crossings. About 25-30 percent (375–450) of those crossings were ranked as either high or medium priorities for

restoration. Restoration projects were completed on about 50 crossings. Note at this rate of restoration it may take 3,000 years to restore fish passage.

Fish passage was the subject of a report (Forest Practices Board 2009) and it was found that of 1,110 road crossings over fish streams in 19 watersheds around B.C. less than half of the crossings were likely to allow fish to pass through without problems^v.

We know there are severe impacts still coming to many watersheds in the MPB affected forests. The FPB 2007 Baker Creek study noted *"former 20-year peak flow events can now be expected every 3 years and with salvage increase by 90% over the base"* and the FPB recommended *"Government develop policy and strategies for protecting drinking water and fish habitat in the MPB- attacked watersheds"*.

Recommendation 9. Based on priorities and understanding of impacts to all forest resources investment is needed for reforestation and restoration and to mitigate MPB impacts. Strategically which areas to target for reforestation and restoration can be defined by redesigned TSR and redesigned Silviculture Strategies and on the ground activities implemented through landscape unit and watershed level plans. (See section 9 on the need to address backlog reforestation).

7. Need for Longer Term Timber Management Objectives.

The Auditor General 2012^{vi} Audit of FLNRO timber management expressed concern over the absence of timber objectives against which to plan and implement measures to reach management objectives. This report and its findings have not been taken seriously to date by the government. SCOTS can help by supporting the need to heed the AG recommendations. To make recommendation may in fact be premature in the absence of provincially established timber objectives. The Auditor General's report states:

- *The ministry has not clearly defined its timber objectives. Without clearly defining its timber objectives, the ministry cannot ensure that its management practices are effective.*
- *Existing management practices are insufficient to offset a trend toward future forests having a lower timber supply and less species diversity in some areas.*
- *The ministry does not appropriately monitor and report its timber results against its timber objectives.*

The Auditor General also indicated that:

- *"In light of the devastation resulting from mountain pine beetle, the ministry has a window of opportunity to shape our future forests and mitigate the impact with a timely, reforestation plan and cost-effective silviculture. To do this, the government needs to establish a provincial plan that states its long-term timber objectives and focuses its resources in order to foster economic stability and quality of life for British Columbians now and in the future."*

Recommendation 7. Advocate the government to implement the advice of the Auditor General and to set clearly defined timber objectives and to do this within the larger context for all renewable resources (Recommendations 1 and 2).

8. What are the realistic mid-term timber supply options for impacted TSAs?

It is unlikely that the current approach to transport and milling will remain the same over the next several decades when the mid-term wood supply is at its lowest. It appears likely that smaller trees and technology to process them may become more practical and viable. Disturbance ecology also indicates there is a higher probability of small trees being on the landscape. Instead of offering current reserves for harvest the SCOTS needs to promote shorter rotation forests and strengthen the network of older reserves, not diminish them.

Recommendation 10. Seek mid-term timber supply from small diameter younger trees not from current older forests which serve to sustain non-timber values.

9. Current back log of not satisfactorily restocked (NSR) forests.

Twenty four years ago (1988) concern over the amount of NSR in BC led to two five year Federal and Provincial Forest Agreements (FRDA I and FRDA II). These agreements were to plant the back log NSR forest which had been previously logged. These Federal/Provincial program reforested many areas and restored watersheds damaged by harvesting. After 1988 no more NSR was being added because forest companies became responsible for silviculture and reforestation with liability for stands until they reached a free to grow stage.

The B.C. Partnership Agreement on Forest Resource Development (FRDA II) which ended in 1996. The five year agreement (1991 to 1996) was a \$180 million and it was 50/50 cost-shared agreement between the federal government and the province. Today we are in a similar situation only the size of the problem appears to be much larger if we are to restore timber and non-timber values impacted by MPB. There is and will continue to be decreasing forest employment unless there are again significant investments in silviculture and restoration activities.

The Forest Practices Board June 26 report indicates that “*Decisions about whether to replant areas where mountain pine beetle and fire have killed most of the trees will have an impact on the future timber supply in the BC interior*” and “*At a minimum, if nature is left to take its course, the eventual crop of timber in those areas will be delayed.*”^{vii}

Recommendation 11. SCOTS recommends a Federal/Provincial cost share agreement of not less than five years and not less than \$200 million to address reforestation and restoration needs created by MPB. These funds should be applied to complete tactical watershed and landscape unit planning needs that will guide restoration and prevent additional cumulative impacts. Investment will be directed to areas in need of recovery, such as community watersheds and fisheries sensitive streams, and not be limited only to returns expected to future timber supply.

There is advanced understory regeneration in many dead pine stands as well as other stands. These younger established trees are the mid-term timber supply. The extent to which young forest has been protected during salvage operations and what incentives exist to protect mid-term timber supply in all forest operations remains unclear. See recommendation in section 7 on need for timber objectives.

Recommendation 12. That SCOTS promote the need to protect established understory regeneration in all stands and change current harvest approaches to retained advanced regeneration during harvests. Young trees provide a significant boost to mid-term timber supply.

10. Strategic Land Use Plans are a social contract

When Regional Land Use plans, such Caribou-Chilcotin, Vancouver Island and Kootenay, and the TSA-sized Land Resource Management Plans (LRMPs) were implemented the goals were to increase protection and set aside areas to sustain the biological legacy of Canada’s most biologically diverse province, as well as to formally add 6% to BCs protected area system to reach a goal of a total of 12% protected area. Representation of BC ecosystems and biological diversity was a guiding principle in expanding the protected areas. Table 2 shows the Biogeoclimate Zones of BC and representation after the implementation of plans. Twelve % was not achieved in areas affected by MPB. Given climate change and the apparent uncertainty a more secure and expanded Parks and Protected Areas systems is needed for BC’s interior ecosystems.

Table 2. Biogeoclimatic Zones with less than 10% protected. The CDF was not affected by MPB.

BEC zone	% protected	Biogeoclimatic Zone Name
CDF	4	Coastal Douglas Fir Zone
IDF	5	Interior Douglas Fir zone
PP	5	Ponderosa Pine Zone
SBS	6	Sub boreal Spruce Zone
BWBS	6	Boreal Black and White Spruce Zone
SBPS	9	Sub-boreal Spruce Zone
ICH	10	Interior Cedar Hemlock Zone

Recommendation 13. Increase the amount of forested areas in Parks or park-like protection for the forest zones areas affected by MPB and with less than 10% currently protected such that a sufficient number of larger benchmark natural areas remain in natural condition to guide forest management^{viii} to sustain diversity in forest resources in the short to mid-term.

The FPB 2012 Old Growth report^{ix} indicates that a patch work of arrangements exists to protect Old Growth. The forest industry has invested significant resources into identifying old-growth forest for retention since the mid-1990s.

Recommendation 14. Up-grade the protection of Old Growth Management Areas (OGMAs) and strengthen the protection of these areas so there is consistency across the province. Add OGMAs to the PPAs system in all units which have less than 10% protection in the PPAs system.

11. Land use plans and landscape unit plan objectives.

Significant efforts by stakeholders at planning tables were made to define the future mix of resource values and maintain these in short, mid and longer term. There are legal higher level plan objectives endorsed by government. Picking a single value as paramount to all values and advocating for this over all others without consultation or impact and trade off analysis of all stakeholders is an ill-advised approach to crafting a sustainable future. At least the same level of effort is needed to amend plans and look at options as was done previously and changes to the status quo need to include First Nations at planning table if they are willing to participate. There is only one land base to provide and supply the complex mix of resource values for all local communities.

Recommendation 15. Do not amend land use plans without the re-engagement of LRMP stakeholders in some manner, such as recalling monitoring committees and invite First Nations. These groups need access to technical support sufficient to provide balanced analysis for the groups to understand the impacts of increasing timber supply and the impacts to all resources of changing the status quo.

12. Provincial forest practices standards: A level playing field is needed for industry and all British Columbians need assurances of adequate stewardship of their commonly held resources.

Tradeoffs negotiated at land use planning tables over strategic land uses were made against a back drop of forest practices. Legislated practices were to set provincial minimums for each planning table. Planning tables could then negotiate strategic provisions and tradeoffs between values above firm

legally binding provincial minimums. This level playing field was a cadre of forest practices standards initially enabled in the Forest Practices Code Act, regulations and guidebooks, and later in the Forest Range Practices Act and regulations. Prior to this there were fish-forestry guidelines and ungulate winter ranges but these conservation provisions were inconsistently applied and followed. Currently provisions for fish, wildlife, water, visual and cultural resources and a level playing field are enabled by a 6% reduction in the 1995 timber supply across the province.^x This level playing field was for the benefit of all tenure holders and reduced timber supply purchased through a variety of constraints on harvest such as; riparian areas linked to stream classes, wildlife tree retention, old growth management areas in landscape units with high, medium and low biodiversity emphasis attributes, wildlife habitat areas, and visual and hydrologic green-up. Collectively these conservation provisions mitigate the impacts of roads and harvesting and assure the public that BC is practicing sustainable forest management. No-harvest zones should not be offered as the solution to short term timber supply as this will undermine credibility that has been built very slowly since the 1990s. The claim to sustainable forestry can no longer be made by the forest industry if conservation provisions are withdrawn.

Recommendation 16. Do not divide BC into zones with differing environmental standards. Do not recommend changes to provincial standards to meet local short term economic needs, or counter natural disturbances losses or management shortcomings.

Recommendation 17. Remove the option for improving short and medium term timber supply by harvesting conservation reserves. Support maintenance of a level playing field for all tenure holders in all areas.

13. **Uncertainty over the effectiveness of current practices.**

The shift to a results based code means that the government is expected to set clear measurable objectives and that license holders will propose harvest and reforestation in results and strategies in their Forest Stewardship Plans (FSPs) to meet government objectives. The government approves FSP and then decides through monitoring if practices have been effectiveness on behalf of the crown's objectives. A program for monitoring effectiveness has not yet been able to establish the adequacy of current practices and whether a 6% 1995 timber supply code is actually working and whether current practices actually sustain forest resources. The Forest and Range Evaluation Program (FREP) is monitoring and reporting on effectiveness of practices, however after eight years of FRPA the evaluation program has yet to report on the adequacy of some practices that took effect in 2004. Changing the conservation and mature forest retention requirements is premature in light of the absence of data on whether current practices actually sustain the full suite of forest resources values and objectives in legislation. It is conceivable that a 6% timber impact code is actually not sustaining some values. A rush to reduce code provisions is ill advised in view of a lack of evidence on sustainability of all forest resources.

Recommendation 18. Prior to changing provincial standards to increase timber it is prudent to understand and report on how effective the current standards are in meeting the crown's objectives for other forest values. There may be evidence of the need to increase and not decrease conservation provisions.

14. **Placing Forest Certification at risk**

Market pressures have increased the level of participation in numerous Forest Certifications available to the forest industry over the last few decades. Those with certification have achieved incremental improvements in practices and streamlined operations as results of in-house pre-audits and certification

audits. With the exception of the Forest Stewardship Council other certifications do not set standards above those required by government. Proposals to harvest conservation areas pose a risk of losing sustainable forest management certification and in the broader context tarnishing or losing international reputation in some markets. It is as well not clear that all markets care whether we degrade resources here at home.

Recommendation 19: Inquire and make known which forest companies that currently hold certifications support reducing provincial standards and the harvest of currently protected reserves as an appropriate the response to MPB and a good approach to mid-term timber supply.

15. Professional Reliance – The Forest Professionals code of ethics

Foresters and their association may be conflicted on how to meet their professional mandate under the *Forester's Act* where their primary duty is to “*serve and protect the public interest*” and “*to uphold the public interest respecting the practice of professional forestry*”. More information, transparency and accountability on the consequences to all forest resources are needed to identify the public interest in the short and long-term.

Recommendation 20. Seek clarity on the position of the Association on BC Forestry Professional on the advisability on the government changing conservation provisions.

16. Whether to advocate for Area-Based Tenures as a solution to mid and long-term timber supply.

It is unclear whether there is evidence to support area-based tenures such as TFLs, woodlots or Community Forests as superior tenures to non-area based tenures. To answer this question would require an independent review and access to proprietary Tree Farm License information before a meaningful comparison could be made between area and volume based tenures with regard to the public good. It would also require a number of indicators against which to objectively compare and define public good.

Recommendation 21. To inform tenure options require an independent panel with members approved by a number of stakeholders and with the appropriate investigation powers needed to review criteria such as returns to the crown (revenue), investments in mid and long term timber supply, and the ability to sustain a full array of forest values such as water, fish, wildlife, range visual and recreational resources). Have this group assess a number of different tenure arrangements and report on a number of criteria that support the public good.

17. How to pay for investments in forest and rural communities.

SCOTS can offer insight on whether royalties on timber are fairly compensating BC citizens. Current salvage volumes are offered at \$0.25 a cubic meter. It is not clear that is a reasonable royalty. Some independent impartial analysis is needed to understand 0.25 cent wood, incidental harvest of green wood and the bigger question of for setting stumpage and BC Timber Sales approach of acting as the average operator.

The committee is in a unique position to find out why super mills can be built without guarantees of timber supply from reserves, as apparently Burns Lake needs access to reserves. The appurtenancey agreements have been waived and now AAC from TSAs can be processed outside of that TSA. This allows AAC volumes to move to larger mills at the expense of some smaller local communities. Houston has the largest sawmill in the world and a new high capacity mill in Vanderhoof of similar size is

apparently being constructed. At the time this is written it could not be confirmed whether the world's largest mill is being built in Vanderhoof in the middle of the beetle killed forests and next to Burns Lake. If this is being done it is apparently assumes access to conservation forests for wood supply.

This means that Burns Lake is sandwiched between mega mills. Mills have closed in McBride and harvest from that TSA now goes to Prince George. Would an up-lift and government approval to harvest conservation forests actually help the Burns Lake in the mid-term? If approved would there be up-lift of wood that could realistically be destined for other mills? Are the fortunes of Burns Lake and many smaller communities now not more strongly tied to how well they sustain non-timber resources? There may be ability to finance investments into future forests if there are changes to royalties.

Recommendation 20. SCOTS advocate for a larger review of forest Revenue and royalties and the process to set them. Further to 12 (Tenure review) a review of the current BC Timber sales and the average operator mandate for setting stumpage and crown royalties appears with SCOTS mandate, as well as other approaches such as comparisons to royalties possible through competitive bid for standing timber and log markets and setting market value and return to crown. Could restructuring royalties support forest investment so desperately needed?

Recommendation 21. A review of 0.25 cent wood and whether there has been loss of revenue from incidental green wood harvest.

18. Forests and the need to maintain competitive electricity rates.

Since SCOTS mandate includes competitive electricity the mandate includes recommendations on clean energy and a provincial energy plan. When considering whether wood supply can be used to produce electricity it would be prudent to take a broad view and consider a BC energy plan and our needs.

Recommendation 22. SCOTS recommend that the BC Utilities Commission again have a formal advisory role on electricity rates, energy development and all energy options including energy from wood.

Appendix 1. Background and invitation context:

The committee is to make recommendations in response to loss of timber supply to MPB

- that could increase timber supply, including direction on the potential scope of changes to land use objectives, rate of cut and the conversion of volume based to area based tenures; and,
- Areas requiring change to legislation and/or key implementation tools.

The Committee has been asked to bear in mind the following factors in framing recommendations:

- Fiscal commitment of the province to balance the budget and maintain competitive electricity rates;
- Maintaining high environmental standards and protection of critical habitat for species and key environmental values;
- Optimal health of communities and as orderly a transition as possible to post beetle cut levels;
- Maintaining a competitive forest industry;
- The existence of First Nations rights and claims of title; and
- The Softwood Lumber Agreement and other trade agreements.

Appendix II. Background on Friends of Ecological Reserves

Friends of Ecological Reserves is a non-government volunteer organization supporting Ecological Reserves (ERs) and has provided extra eyes and ears for BC government staff for over 30 years in order to maintain the integrity and the intent of ERs. Ecological reserves are exceedingly small and less than 1/10 of percent of crown lands. ERs were established to study and monitor ecosystems in their natural state. They thus provide means to understand the sustainable management of forests and all of the resource values associated with those forests. Visit. <http://ecoreserves.bc.ca/>.

ⁱ Forest Act wording taken from the legislation available on line at.

http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96157_01

ⁱⁱ 2007 Nov-Dec Issue Forum Magazine. “Should BC have a Chief Biologist?”

http://www.abcfp.ca/publications_forms/BCFORMagazine/documents/BCFORPRO-2007-6.pdf

ⁱⁱⁱ Chief Forester guidance on the need for and method to implement added measures needed to mitigate impacts to non-timber from beetle kills and the added impacts of expedited major salvage.

http://www.for.gov.bc.ca/hfp/mountain_pine_beetle/stewardship/cf_retention_guidance_dec2005.pdf

^{iv} Forest Practices Board. 2009. Biodiversity Conservation during Salvage Logging in the Central Interior of BC. Special Report FPB/SR/35. <http://www.fpb.gov.bc.ca/publications.aspx?id=4940>

^v <http://www.fpb.gov.bc.ca/publications.aspx?id=3714>

^{vi} Auditor General’s report 2012 on Timber Objectives. <http://www.bcauditor.com/pubs/2012/report11/timber-management>

^{vii} Forest Practices Board June 2012 report. How much of British Columbia’s forest is not satisfactorily restocked? And what should be done about it?

http://www.fpb.gov.bc.ca/SR42_How_much_of_BC_forest_is_not_satisfactorily_restocked.htm

^{viii} FORREX 21 Sustainable Forestry Benchmarks. <http://www.forrex.org/publications/forrex-series>

^{ix} FPB June 2012 Old Growth Report http://www.fpb.gov.bc.ca/NEWS_RELEASE_SIR36_Old-growth_protection_in_place_but_faces_challenges.htm

^x 6% code and history of the evolution of the forestry legislation. <http://www.for.gov.bc.ca/hfp/publications/00222/>