

Growing Fibre, Growing Value

Special Committee on Timber Supply



AUGUST 2012



August 15, 2012

To the Honourable
Legislative Assembly of the
Province of British Columbia

Honourable Members:

I have the honour to present herewith *Growing Fibre, Growing Value*, the report of the Special Committee on Timber Supply.

The report contains the recommendations of this Committee in regards to the issue of mid-term timber supply for British Columbia.

Respectfully submitted on behalf of the Committee,

John Rustad, MLA
Chair

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Composition of the Committee

Members

John Rustad, MLA	Chair	Nechako Lakes
Norm Macdonald, MLA	Deputy Chair	Columbia River-Revelstoke
Harry Bains, MLA		Surrey-Newton
Donna Barnett, MLA		Cariboo-Chilcotin
Eric Foster, MLA		Vernon-Monashee
Bill Routley, MLA		Cowichan Valley
Ben Stewart, MLA		Westside-Kelowna

Technical Advisors

Larry Pedersen

Jim Snetsinger

Clerks to the Committee

Kate Ryan-Lloyd, Deputy Clerk and Clerk of Committees

Susan Sourial, Committee Clerk

Research Staff

Josie Schofield, Manager, Committee Research Services

Morgan Lay, Lead Researcher

Assisted by Gordon Robinson, Matthew Cleaves and Dirk van Duyn

Terms of Reference

On May 16, 2012, the Legislative Assembly agreed that a Special Committee on Timber Supply be appointed to examine, inquire into and make recommendations with respect to mid-term timber supply for British Columbia resulting from the pine beetle epidemic-related loss of timber supply in the central interior, and to conduct consultations on this issue with the public and local governments, including communities and First Nations, by means the Special Committee considers appropriate, with a final report due August 15, 2012.

The Special Committee shall specifically consider:

- Recommendations 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 above considerations should occur with due regard for the following:

- 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.

The Special Committee so appointed shall have all the powers of a Select Standing Committee and is also empowered:

- To appoint of their numbers, one or more subcommittees and to refer to such subcommittees any of the matters referred to the Committee;
- To sit during a period in which the House is adjourned, during the recess after prorogation until the next following Session and during any sitting of the House;
- To adjourn from place to place as may be convenient;
- To retain Jim Snetsinger and Larry Pedersen as technical advisors, and any other personnel as required to assist the Committee.

The said Special Committee shall report to the House no later than August 15, 2012, and shall deposit the original of its reports with the Clerk of the Legislative Assembly during a period of adjournment and upon resumption of the sittings of the House, or at the next following session, the Chair shall present all reports to the Legislative Assembly

Acknowledgements

Committee Members could not have fulfilled their terms of reference in the short time allocated by the House without the cooperation and services of numerous people.

Susanna Laaksonen-Craig, Executive Lead, Forest Sector Initiatives, as well as other senior officials from the Ministry of Forests, Lands and Natural Resource Operations, assisted the Committee during the planning stage, presented informative briefings, organized a site visit and provided a wealth of resource materials.

The Committee's technical advisors, Larry Pedersen and Jim Snetsinger, shared their considerable expertise and knowledge, adding value throughout our inquiry.

As well, the Committee has relied on two branches of the Legislative Assembly. The Parliamentary Committees Office has provided a range of valued services, from arranging our hectic travel schedule to providing sound procedural advice and excellent research services. We extend our sincere appreciation to Kate Ryan-Lloyd, Susan Sourial, Josie Schofield, Morgan Lay, Gordon Robinson, Matthew Cleaves, Dirk van Duyn, Jacqueline Quesnel, Mary Newell and Stephanie Raymond. In addition, Hansard Services has recorded and transcribed all our meetings. Michael Baer, Jean Medland and Monique Goffinet-Miller travelled with the Committee to broadcast and record our proceedings.

Last but certainly not least, the Committee would like to thank all the British Columbians who took the time out of their busy lives to provide their input as participants in the consultations. Their input has been most valuable and made a significant contribution to our work.

Executive Summary

Forests make up nearly two thirds of the province's land base and are an important economic, social and environmental resource in the lives of many British Columbians. Over the last 13 years, the outbreak of mountain pine beetle (MPB) has affected an estimated 18.1 million hectares of forest land throughout BC.

The all-party Special Committee on Timber Supply was appointed in May 2012, by the Legislative Assembly of British Columbia to make recommendations to address the loss of mid-term timber supply in the central interior. The Committee was assisted by two technical advisors and the Ministry of Forests, Lands and Natural Resource Operations (FLNRO).

Using a Discussion Paper, the Committee conducted public hearings from June 18 to July 12, 2012, and accepted written submissions until July 20. In the space of six weeks, it visited 15 communities in the central interior and held three days of hearings in Vancouver. Overall, the Committee received over 650 submissions from First Nations, local governments, industry stakeholders and the public.

With regard to forest stewardship, the key messages the Committee heard were to: recognize First Nations as rights-holders; respect non-timber values; recognize ongoing efforts of local communities and regional coalitions; and protect the BC brand. On land-base issues, many submissions urged government to: make better use of the existing forest resource; protect forest reserves; consider relaxing constraints on harvesting in certain circumstances, such as to promote economic recovery in Burns Lake; leave existing timber supply area boundaries alone; and consider investing in infrastructure to improve access to timber.

Concerning forest practices, the key messages were to meet basic restocking requirements and to base decisions on an updated forest inventory. On timber tenures, there was support for a shift to more area-based tenures, for efforts to diversify the economies of forest-dependent communities, and for reducing exports of unprocessed logs.

Based on the input received, the Committee decided to frame its recommendations within the broad context of future forest management in British Columbia. Its recommendations to increase mid-term timber supply focus on: engaging local communities and First Nations in future plans; finding ways to grow more fibre and maximize its value by utilizing marginally economic stands and/or investing in fertilization; and on increasing the type and form of area-based tenures to support enhanced levels of forest stewardship and private sector forest investment.

The Committee also considered carefully the requests that an early decision to be made on the timber supply to help facilitate the rebuilding of the Burns Lake mill destroyed by fire in January 2012. During its deliberations, the Committee learned that there was a strong possibility that the mid-term timber supply could be double the amount that was initially forecast for the Lakes Timber Supply Area. Within this context, we have outlined a series of next steps for government to consider implementing in order to facilitate the economic recovery effort.

Introduction

Since the mountain pine beetle (MPB) infestation became an epidemic in 1999, an estimated 18.1 million hectares of forest land in British Columbia have been affected. The latest projections indicate that the MPB will have killed between 53 and 70 percent of merchantable pine by 2021.

The infestation has had a severe impact on the central interior of British Columbia where natural forests consist primarily of pine. Mortality levels in the central interior vary between and within timber supply areas (TSAs). The most affected TSAs include 100 Mile House, Bulkley, Kamloops, Mackenzie, Merritt, Morice, Prince George, Robson Valley and Williams Lake, with the highest pine mortality rates (above 45 percent) in the Lakes and Quesnel TSAs and the Vanderhoof forest district.

In response to the epidemic, harvest levels have been elevated since 2001 to capture salvage opportunities, with due regard paid to meeting existing environmental objectives for the areas involved. The Province has also committed \$884 million to initiatives related to curbing the effects of the mountain pine beetle — including \$129 million for spread control and fertilization, and \$71 million for energy development and infrastructure in beetle-affected communities.

As well, provincial, federal and local governments have funded initiatives to assist forestry-dependent communities diversify their economies. For example, since 2005 three beetle action coalitions have received \$9 million from the Province to prepare communities for transition to the post-epidemic economy.

Over the next decades the timber supply in the interior will continue to decrease. When beetle-killed pine is no longer salvageable, the province's overall supply of mature timber will be reduced, and 10 to 15 years from now it is forecast to be 20 percent below the pre-infestation levels, a reduction that may last up to 50 years.

The projected drop in timber in the allowable annual cut (AAC) for the central interior represents the timber necessary to keep approximately eight mills running. In areas with the greatest percentage of pine in the forest, shortages are already being noted and the drop in the harvest levels will likely exceed 20 percent. The anticipated decrease in timber supply will have significant negative economic and social impacts on forestry-dependent communities and present major challenges to the industry.

Questions about the mid-term timber supply, the future of some mills, forestry and central interior communities were brought into the spotlight by deadly mill explosions in Burns Lake and Prince George.

On January 20, 2012, the Babine Forest Products mill in Burns Lake exploded and burned to the ground. Two employees were killed, 19 were injured in the fire, and 250 employees were displaced. On April 23, 2012, an explosion and fire at Lakeland Mills in Prince George killed two employees and injured 22 other workers.

The provincial government responded by establishing a cross-ministry leadership group to coordinate response-and-recovery efforts and to work with municipal officials, First Nations and community leaders to provide community services and plan for the future. As the two companies and the communities work to rebuild, difficult questions about the sustainability of fibre supply, the long-term profitability of the mills and the future for forestry-dependent communities are being asked.

On May 16, 2012, the all-party Special Committee on Timber Supply was struck to examine the mid-term timber supply in the province's central interior region. Tasked with developing recommendations on how timber supply could be increased, the Committee conducted six weeks of consultations prior to developing its recommendations.

This report begins by outlining the work of the Committee. It then presents the key messages that emerged from its consultations. The next section contains a discussion of the context the Committee used to frame its recommendations and then presents the Committee's recommendations on six major topics.

Work of the Committee

On May 16, 2012, the Legislative Assembly approved a motion creating the Special Committee on Timber Supply (the Committee). The Committee's terms of reference were to examine and make recommendations about increasing the mid-term timber supply in BC's central interior as a result of the mountain pine beetle (MPB) infestation.

The Committee was also tasked with conducting consultations on this issue with the public and local governments, including communities and First Nations. Specifically the Committee was instructed to consider recommendations that could increase timber supply, including direction on the potential scale of changes to land use objectives, the rate of allowable annual cut and the conversion of volume-based to area-based tenures; and areas requiring change to legislation and/or key implementation tools.

The terms of reference specified that the above considerations should occur with due regard for: 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 Agreements and other trade agreements.

On May 17, 2012, the Committee met in Victoria and elected John Rustad as Chair and Norm Macdonald as Deputy Chair. The Committee also discussed the terms of reference, considered a draft meeting schedule and defined the scope of consultations.

On May 22, 2012, pursuant to the Committee's terms of reference, former Chief Foresters Larry Pedersen and Jim Snetsinger were engaged by the Committee to act as technical advisors for the duration of the Committee's inquiry.

Technical Briefings

The Committee held five meetings to receive technical briefings from senior officials in the Ministry of Forests, Lands and Natural Resource Operations (the Ministry). At meetings on May 28, 30 and 31, 2012, ministry officials presented and answered questions related to provincial timber management processes. Topics included in the PowerPoint presentations were: forest inventory, the timber supply review (TSR) process, and land use planning (LUP) and timber constraints. Two presentations in Vancouver on June 4 focused on the Ministry's response to the mountain pine beetle (MPB) epidemic. On June 6 in Vancouver, the Ministry presented to the Committee a series of possible options to mitigate the mid-term timber supply shortage arising from the MPB epidemic.

A list of resources provided by the Ministry is included on page 40 and a brief glossary of forestry terms is contained in Appendix A.

Consultations

As part of its inquiry into the mid-term timber supply in the central interior, the Committee conducted consultations from June 18 to July 12, 2012, and accepted written submissions from June 11 until July 20, 2012. The process provided First Nations, local governments of areas affected by the epidemic, and a variety of stakeholders that make up “the forest community” with an opportunity to share their perspectives on and solutions to the mid-term timber supply challenge. Over the course of the consultations, the Committee received 650 submissions mainly from British Columbians.

Discussion Paper

A three-page Discussion Paper was developed by the Ministry to guide the consultations. The paper outlined the effects of the mountain pine beetle (MPB) epidemic, summarized the government response and presented a snapshot of future timber supply in the central interior.

The paper presented five potential options to increase the mid-term timber supply:

- harvesting some of the areas currently constrained for timber harvest in order to support other resource values;
- increasing the harvest of marginally economic timber;
- changing the flow of timber by adjusting administrative boundaries or accelerating timber availability;
- shifting to more area-based tenures and associated more intensive forest management; and
- increasing the level of intensive forest management through fertilization and other advanced silviculture activities.

Using the information presented in the Discussion Paper and the Ministry resources available on the committee website, British Columbians were asked to consider the following questions:

- What values and principles should guide the evaluation and decision-making regarding potential actions to mitigate the timber supply impacts?
- How should decisions regarding potential actions to mitigate the timber supply impacts be made and, by whom?
- What specific information about your local area would you like the Committee to know and consider?
- What cautions and advice do you have for this committee in considering whether and how to mitigate mid-term timber supply?
- How would you as an individual or a community want to be engaged in these considerations going forward?

Regional Consultations

The Committee spent three weeks travelling through the MPB-affected central interior. During this time it held meetings and public hearings in 15 central interior communities and conducted two site visits.

The Committee issued a province-wide news release on June 11, 2012, announcing its consultations and the dates and locations of its meetings. Advertisements announcing the public hearings were placed in regional and local newspapers and local radio advertisements were also purchased. The public was invited to register on a first-come, first-served basis for 15-minute presentation slots.

First Nations Meetings

First Nations communities from the central interior were invited to meet and to share their perspectives with the Committee. In total, 25 First Nations presented to the Committee and an additional four First Nations submitted written submissions to the Committee.

Local Government Meetings

Local governments were also invited to participate in the regional consultations. Elected officials from 21 local governments, representing four regional districts and 16 municipalities appeared before the Committee to share their local perspectives on mid-term timber supply and to offer locally relevant solutions. One municipality submitted a written submission.

Regional Public Hearings

The Committee hosted 16 public hearings in communities in the 11 timber supply areas (TSAs) most severely affected by the mountain pine beetle (MPB) epidemic. Beginning the first week of hearings in Smithers, the Committee travelled west along Highway 16 stopping in Houston, Burns Lake, Fraser Lake, Fort St. James, Vanderhoof, Prince George, Mackenzie, and Valemount before concluding in McBride. The second week of travel focused on the Cariboo region, with hearings in 100 Mile House, Williams Lake, Quesnel and a second meeting in Prince George. Regional consultations concluded with hearings in Merritt and Kamloops.

The Committee heard 107 presentations, including 85 from organizations. Several foresters and other professionals also shared their views on sustainable forest management.

Presentations at public hearings were made by a diverse group of community stakeholders and land users. Industry stakeholders shared their challenges and future hopes, and local union representatives offered their perspectives on how to maintain timber supply and protect workers. Local environmental organizations emphasized the need to consider non-timber values while tourism operators, guide outfitters, trappers and ranchers reminded the Committee of the other sectors that rely on forest lands for their livelihood. As well, post-secondary institutions, research organizations, and community groups emphasized the need to consider the social fabric of resource-dependent communities and the need to invest in future solutions.

Site Visits

To see for themselves the damage caused by the MPB epidemic, on July 4, 2012, the Committee completed a field tour in the area outside of Quesnel, BC. The tour began with a helicopter overview flight of western timber cutblocks highlighting forestry challenges and successes in the region. The Committee heard presentations from ministry field staff based in the Cariboo and Quesnel district offices on harvesting practices designed to protect caribou populations in the region, and how First Nation sensitive sites and environmental stewardship are considered when timber is harvested. The Committee also learned of the need for more roads to facilitate harvesting; viewed a BC Timber Sales (BCTS) operating area; and heard about efforts by a local company, Pinnacle Pellet, to harvest timber affected by the 2006 Nazko fire for pellet production.

The ground portion of the field tour included a discussion of visual quality objectives (VQOs), balancing recreation and timber needs, secondary stand structure regulation, old growth management area (OGMA) values, the contribution of dead timber to biodiversity, and mule deer winter ranges.

On July 6, 2012, the Committee toured a seed orchard just outside of Quesnel. The orchard is operated by the Vernon Seed Orchard Co. and was initiated by West Fraser Mills Ltd. It is now a joint venture company owned by West Fraser Mills Ltd., Canadian Forest Products Ltd. and Winton Global Lumber Ltd.

Vancouver Hearings

The Committee's final week of travel included three days of hearings in Vancouver (July 9-11) where it heard 40 presentations. These meetings provided major forestry companies, provincial associations representing other industry stakeholders and various provincial environmental organizations with the opportunity to share their views. These participants included large wood product and bioenergy companies, industry working groups, and organizations representing biologists, forestry workers, silviculture contractors, woodlot owners, community forests and the wilderness tourism and outdoor recreation sector.

Written Submissions

In addition, the Committee received 489 written submissions by email or via the online submission form available on its website. Fifty written submissions were received from organizations representing environmentalists, tourism operators, forestry businesses and unions representing forestry workers. Over 400 written submissions arrived from individual citizens.

A complete list of all the participants in the consultations is contained in Appendix B.

Meeting Schedule

May 17, 2012	Organization Meeting	Victoria
May 28, 2012	Technical Briefing	Victoria
May 30, 2012	Technical Briefing	Victoria
May 31, 2012	Technical Briefing	Victoria
June 4, 2012	Technical Briefing	Vancouver
June 6, 2012	Technical Briefing	Vancouver
June 18, 2012	Public Hearing	Smithers
June 18, 2012	Public Hearing	Houston
June 19, 2012	Public Hearing	Burns Lake
June 19, 2012	Public Hearing	Fraser Lake
June 20, 2012	Public Hearing	Fort St. James
June 20, 2012	Public Hearing	Vanderhoof
June 21, 2012	Public Hearing	Prince George
June 21, 2012	Public Hearing	Mackenzie
June 22, 2012	Public Hearing	Valemount
June 22, 2012	Public Hearing	McBride
July 4, 2012	Site Visit	Quesnel
July 5, 2012	Public Hearing	100 Mile House
July 5, 2012	Public Hearing	Williams Lake
July 6, 2012	Public Hearing	Quesnel
July 6, 2012	Site Visit	Quesnel
July 6, 2012	Public Hearing	Prince George
July 9, 2012	Public Hearing	Vancouver
July 10, 2012	Public Hearing	Vancouver
July 11, 2012	Public Hearing	Vancouver
July 12, 2012	Public Hearing	Merritt
July 12, 2012	Public Hearing	Kamloops
August 1, 2012	Deliberations	Victoria
August 2, 2012	Deliberations	Victoria
August 7, 2012	Deliberations	Victoria
August 8, 2012	Deliberations	Victoria
August 13, 2012	Deliberations	Victoria
	Adoption of Report	

Summary of What We Heard

During its consultations, the Committee heard a wide range of views on the issue of mid-term timber supply in the central interior region. This section of the report contains a summary of the key messages conveyed in the 650-plus submissions we received from within and outside the province.

- **Recognize First Nations as rights-holders**

“I think we have an opportunity, with this beetle epidemic, to do things differently than the way we've been doing them — to include First Nations, to manage the land in a more respectful way.... It's such an opportunity at this point in time, with the 20 percent fall down, to change everything about the way we do forestry in BC.” (Dave Nordquist, Adams Lake Indian Band, Kamloops public hearing)

In meetings with First Nations, public hearings and written submissions, the Committee heard about the importance of working collaboratively with First Nations to develop strategies to address the mid-term timber supply. First Nations expressed their expectation that further discussion about forest resources on traditional territory be completed on a government-to-government basis.

- **Respect non-timber values**

“Although we live in an area where resource extraction is important, we still deserve the same protection for our non-timber resource values and our quality of life as in other regions of the province.” (Elisabeth Doerig, Nechako Lodge and Aviation, Vanderhoof public hearing)

Submissions received from across the province stressed the importance of managing the forest land base for diverse values. The Committee was encouraged to consider not only the value of timber but also the other economic, environmental, social and spiritual values related to our forests. For example, forestry workers, tourism operators and guide-outfitters described how valuable an asset the forest is to their respective industries. Conservation and environmental groups focused on the values of biodiversity and wild spaces, and First Nations on the spiritual significance of certain areas on the timber harvesting land base.

- **Recognize ongoing efforts of local communities and regional coalitions**

“I want to emphasize the importance of local input into the decision-making. We're the ones who live here and spend the most time here, so we hope we have the strongest voice when a decision process is in place.” (Mayor Luke Strimbold, Village of Burns Lake, Burns Lake public hearing)

The value of community input and of community-based decision-making bodies was another key message communicated to the Committee in oral presentations and in written submissions. Repeatedly, the Committee heard that there is no one-size-fits-all solution to the mid-term timber supply challenges.

The importance of local knowledge was highlighted in the development of local land use plans and the ongoing work of the three beetle action coalitions (BACs). Local governments, the BACs, foresters and other residents of the timber supply areas all stressed that further work on forest management issues should not undo or override locally developed land use plans.

- **Protect the BC brand**

“BC has earned a strong international reputation for world-class management of forest values. We must maintain and strengthen that reputation. We cannot risk ruining our environmental brand.” (Tom Hoffman, Tolko Industries Ltd., 100 Mile House public hearing)

Another common theme emerging from the consultations was the importance of managing the forest in such a way as to protect the BC brand. Industry stakeholders highlighted the importance of maintaining the forest industry’s internationally recognized sustainability labels. At the Vancouver hearings, Interfor expressed concern about proposals to make significant changes to the principles of sustainable forestry, and the Forest Stewardship Council Canada suggested the options proposed in the Discussion Paper to increase mid-term timber supply could prevent future certification. The Committee also received submissions from many British Columbians, and a few international visitors, who identified preservation of the wilderness and continued support for “Super, Natural British Columbia” as their top priorities.

- **Make better use of the existing forest resource**

“There’s probably an opportunity to prioritize some of our stands or areas for rehab that aren’t going to get dealt with.” (Carl vanderMark, Houston public hearing)

Several submissions received by the Committee stressed the importance of including stands of timber currently considered uneconomic from a sawlog perspective. The Forest Fibre Alliance of BC, for example, made a strong case for including non-sawlog fibre in the allowable annual cut (AAC) calculations as a way to increase the timber supply dramatically. Prince George-based Pacific Bioenergy Corp., a leading producer of wood pellets for the export market, proposed that the AAC should be appropriately distributed between sawlog grade operators and non-sawlog grade operators to facilitate a level playing field and appropriately drive business-to-business exchange.

Other submissions pointed out that opportunities exist in timber that is currently considered waste — for example, in slash piles and in small-diameter and short-length waste materials. To improve utilization rates, they made a number of suggestions including: new tenure opportunities to utilize roadside residue from ongoing forestry operations, tough new utilization standards that require companies to bring logged trees into communities for processing, or the offer of incentives such as “cut-control credits”.

Some submissions, though, expressed reservations about greater utilization of waste on the forest floor. They included the Ecoforestry Institute Society and the BC Trappers Association that regard waste, in particular coarse woody debris, as having an important environmental value for small animals and for soil health.

- **Protect forest reserves**

“Opening up reserves and visual corridors for logging to fill timber supply shortfalls will have a long-term effect on the environment without a long-term benefit to communities.” (Nikki Skuce, ForestEthics Advocacy Association, Smithers public hearing)

The Ancient Forest Alliance, Canopy, ForestEthics Solutions, Greenpeace, the Sierra Club of BC and the Wilderness Committee all urged the Committee to consider the importance of wilderness and wildlife when making recommendations on future forest management. Many individual submissions were also received on the issue of relaxing constraints on timber harvesting, not only from the central interior and other regions of the province but also from across Canada and other countries.

The common request conveyed in these submissions was to protect BC’s forest reserves – whether they be visual-quality areas (that protect scenery for tourism), old growth management areas (that protect old growth forests), riparian reserve zones (that protect fish habitat and water quality), ungulate winter ranges (that protect the winter habitat of an ungulate species such as moose, deer, caribou and mountain goats), wildlife habitat areas (that protect species at risk like grizzly bears), or recreation areas (located on Crown lands outside parks and municipalities).

The nature-based tourism sector was also opposed to harvesting in forest areas set aside for visual quality objectives or old growth values. At the Vancouver hearings, the Wilderness Tourism Association explained how integral viewscapes, wildlife and recreation are to the BC tourism experience; and the Outdoor Recreation Council of BC also urged the Committee to recognize outdoor recreation as an important forest value.

- **Consider relaxing constraints on harvesting in certain circumstances**

“Current visual quality objectives and thresholds need to be rationalized to be efficient and effective, but certainly not abandoned in visually sensitive areas, especially when associated with lakes and rivers.” (Ross Hamilton, District of Fort St. James, Fort St. James public hearing)

The Committee also heard the case for harvesting in some of the constrained areas as a way to increase the mid-term timber supply. Some forest products companies, for example, suggested that harvesting in old growth and special management areas may be appropriate in some circumstances – such as, in stands of dead timber. As well, some residents of timber supply areas pointed out that constraints on harvesting in sensitive areas were established before the mountain pine beetle (MPB) epidemic and are no longer relevant, that little visual quality remains in dead pine stands, and that many constrained areas are fire hazards or no longer qualify as living ecosystems.

- **Relax some constraints to promote economic recovery in Burns Lake**

“The objectives of the strategy that we came forward with for the Burns Lake area are to look at opportunities for reducing the visual-quality objective policy and the old growth management areas while maintaining the intent of both of those policies, primarily to be able to obtain the fibre that is at high risk of wildfire.” (Chief Albert Gerow, Burns Lake Band and Burns Lake Native Development Corporation, Burns Lake public hearing)

In the case of the Lakes timber supply area, a number of submissions advocated the careful reconsideration of current harvest constraints to assist the economic recovery efforts in the community of Burns Lake. The Village of Burns Lake noted that modest adjustments to non-timber values could be considered without jeopardizing high-quality stewardship and while promoting well-rounded tourism, recreation and forest opportunities. The relaxing of constraints was also included as part of a list of timber supply opportunities developed by the Burns Lake Native Development Corporation, the six local First Nations, the Village of Burns Lake and the Bulkley-Nechako Regional District. Hampton Lumber Mills also proposed changes to land-based constraints including visual quality objectives (VQOs) and old growth management areas (OGMAs). The Lakes Outdoor Recreation Society too explained that they were in favour of relaxing constraints on VQOs for harvest and salvage so long as the measures were temporary and respected the goals of land use plans.

- **Leave existing TSA boundaries alone**

“For government to step in now so late in the game and invalidate our investments with sweeping and arbitrary changes to forest tenure administration would send shockwaves through the industry and our communities. Instead of amalgamating timber supply areas, government should use unallocated and undercut volumes as a mid-term mitigation tool.” (Don Kayne, Canadian Forest Products Ltd., July 9 Vancouver Public Hearing)

Over the course of the consultations the Committee received a very clear message not to recommend adjusting timber supply area (TSA) boundaries as a mitigation option to increase mid-term timber supply. Besides Canfor, other industry stakeholders opposed amalgamation, including Apollo Forest Products, the Interior Lumber Manufacturing Association, Interfor and the BC Forest Fibre Alliance. The District of Houston, based in the Morice TSA, also voiced its opposition to administrative boundary changes, as did the Nak’azadli Band in the Prince George TSA.

- **Consider investing in infrastructure to improve access to timber**

“Public investment in access infrastructure — roads, ferry crossings, that sort of thing — will provide some measure of mitigation to those regional imbalances by bringing about safe and efficient log transportation solutions to the communities most affected.” (James Magowan, Fraser Lake Sawmills, Fraser Lake public hearing)

Proponents of investment in infrastructure argued that this option was a way to provide better access to available timber and to capitalize on the business opportunities in the emerging bio-energy sector. Submissions from the cities of Quesnel and Prince George, forest companies and individuals all presented arguments for investment in resource-road infrastructure to access mature timber. A Fort St. James resident, for example, pointed out that road upgrades with higher speed limits would enable mature timber currently beyond economic reach to become immediately available. Several forestry companies also presented the case for more investment in access infrastructure. They included Fraser Lake Sawmills that saw this option as a way to mitigate regional imbalances in timber supply. Vanderhoof Specialty Wood Products and RiverCity Fibre indicated their support for government assistance to improve roads, and Tl’oh Forest Products and Ta Da Chun Timber identified specific road projects.

Two First Nations also presented the case for investment in electricity infrastructure. The Cheslatta Carrier Nation identified a need to upgrade the electrical grid capacity in order to develop bioenergy opportunities and the Nazko First Nation and its partners made the point that higher capacity three-phase electricity infrastructure was vital for the development of a pellet plant in the Nazko Valley.

- **At a minimum, meet basic restocking requirements**

“What I’m arguing for here – and this what the Swedes do – is start with high initial stocking because the type of wood quality is very much dependent on how crowded those trees are early on.”

(Ray Travers, July 9 Vancouver public hearing)

The Council of Forest Industries, the voice of the BC interior forest industry, identified the need to address reforestation and restocking needs created by the mountain pine beetle epidemic. Citing recent reports on nontsufficiently-restocked (NSR) areas issued by the Forest Practices Board and the BC Office of the Auditor General, the major forestry unions also recommended urgent action on restocking and a review of the cost effectiveness of current provincial reforestation programs. Friends of Ecological Reserves proposed that the Province work with the federal government to implement reforestation plans based on landscape units.

Some submissions — including Hampton Lumber Mills, Canfor, Central Interior Logging Association, Interior Logging Association, Williams Lake Indian Band and some foresters — advocated increased investment in fertilization and other silviculture techniques like planting, spacing, and pruning. However, concerns were expressed about the cost-effectiveness of fertilization by the Interior Lumber Manufacturing Association, the District of Vanderhoof and BC Wildlife Federation Region 7A, which also referred to its potential to cause water pollution.

- **Base decisions on an updated forest inventory**

“We believe that continued investment in the basic inventory is crucial, since the forest land base is subject to increasing demands from many directions, thereby taxing an inventory system that was never designed to provide information at levels or scales now required.”

(Mark Semeniuk, Interior Lumber Manufacturers Association, July 10 Vancouver public hearing)

Another clear message in some submissions was the need to update the forest inventory. Local governments and industry stakeholders recommended that government make such an investment to ensure that the inventory accurately captures the profound changes to the landscape that have resulted from the mountain pine beetle epidemic and climate change. It was also pointed out that an accurate inventory is crucial to making sound forest management decisions. A few submissions suggested that the new inventory should be expanded to fully capture the status of non-timber values and all timber uses that can be derived from the forest.

- **Shift to more area-based tenures**

“I’m in the camp of area-based management. I think that’s the proper way to go, instead of volume-based tenures. But there are problems with how you would move from where you are

today to area-based management.” (Bill Bourgeois, Healthy Forests-Healthy Communities, July 9 Vancouver public hearing)

The Committee heard from a variety of area-based tenure holders who stressed the respective benefits of community forests, First Nation woodland licences, tree farm licences or woodlots. Several municipalities reported that community forests allow local resources to be managed to meet local needs, create local jobs and diversify the timber market; and, according to the Village of McBride, they generally provide a higher level of jobs per cubic metre than the major licensees. The BC Community Forest Association informed the Committee that community forests represent 1.5 percent of the provincial allowable annual cut (AAC) and recommended the number of community forests be increased for communities and First Nations.

In a written submission to the Committee, the Williams Lake Indian Band voiced its opposition to any transition to area-based tenures for major licensees because of the current treaty processes and the selection of “treaty settlement lands” that is currently underway. Instead, the Band suggested the expansion of First Nations woodland licences. At a meeting in Kamloops, the Adams Lake Band expressed concern that moving to area-based tenures would create direct conflict between companies with allocated harvest rights and the Band’s rights to the same trees.

Major companies, such as West Fraser Mills Ltd., argued that area-based tenures should be expanded, citing a 15 percent increase in the allowable annual cut (AAC) in its tree farm licence in Quesnel as an example of a benefit. They recommend that government create legislation to permit exchange of volume-based to area-based tenures on a proposal basis. Other businesses told the Committee that conversion will present significant challenges and is best done when the timber quality is better. The Federation of Woodlot Associations, which represents private landowners, claimed that additional woodlot licences can play an important role in mitigating mid-term timber supply issues.

- **Diversify the economies of forest-dependent communities**

The primary focus must be on developing resilience through economic diversification and strong communities.” (Councillor Rimas Zitkauskas, Village of Telkwa, Written Submission 1)

A recurring message during the consultations highlighted the need for economic diversification within forest-dependent communities and for additional value-added manufacturing opportunities. Resources North Association, based in Prince George, encouraged the consideration of the full range of current and potential natural resource development activities, including energy and mining. Other submissions, including the Williams Lake Transition Town Group, focused on bio-energy as an important economic opportunity. The Forest Fibre Alliance of BC informed the Committee that in order to capitalize on the shift from a sawlog based economy to a fibre-based economy, incentives to harvest non-viable wood must be created. However, it was noted by forest licensees and union representatives that actions to promote bio-energy opportunities must not undercut traditional operators or penalize existing businesses.

- Reduce exports of unprocessed logs

“In the past decade we believe that the export of raw logs has been a significant contributing factor in the loss of value-added jobs here in BC.” (Mark Cameron, Communications, Energy and Paperworkers Union of Canada, July 10 Vancouver public hearing)

The Communications, Energy and Paperworkers Union of Canada, the United Steelworkers and the BC Government and Service Employees’ Union were all in favour of reducing exports of unprocessed logs. They proposed this option as a way to augment the mid-term timber supply and to provide more employment within the province. One company, West Fraser Mills, also observed that the province is losing a lot of value by exporting logs and that more finished products could be produced in British Columbia.

As well, the Wilderness Committee, along with a number of their supporters, wrote to the Committee urging a ban on log exports in order to provide a more secure supply of timber for local mills without needing to enter protected forests. A similar appeal was also made by the BC Forests Society, urging a reduction in log exports by purposefully seeking out BC buyers.

- Make a decision on rebuilding the Babine mill sooner rather than later

“The first conclusion is that the provincial government has no choice but to work with the Burns Lake Native Development Corporation, the Burns Lake community and Hampton to ensure the construction of a new sawmill in Burns Lake - hopefully commencing before the first snowfall.” (Bob Matters, United Steelworkers Wood Council, July 11, Vancouver public hearing)

Throughout the consultations, the Committee was urged to recommend that government rebuild the Babine Forest Products mill in Burns Lake in order to maintain competitive timber prices in the region and to protect the social fabric of the local community. The Village of Burns Lake’s council argued that the rebuilding of the mill is crucial to the success of the region, while the Lake Babine Nation encouraged swift action to rebuild, noting the need to take advantage of this construction season.

Similarly, Hampton Lumber explained in its presentation to the Committee, that every month of delay increases hardship and losses. The company insisted that an answer was needed by the end of August in order to make the multi-million dollar commitment needed to have the mill running in early 2014. The Burns Lake and District Chamber of Commerce also emphasized the need for a quick response in order to reduce uncertainty for businesses and families.

Context for Forest Management in British Columbia

During the consultations, the Committee received valuable input to the questions identified in its June 2012 Discussion Paper. In addition to the key messages outlined above, the Committee received both oral and written input on the broader forest management context in British Columbia. As one would expect, there is a wide array of perspectives on this topic. By definition, the current model of Crown land ownership in British Columbia gives the people of BC a significant stake in how forests are managed in the province.

The current forest management regime has a pedigree that can be traced back to the first *Forest Act* of 1912. Since then, there have been significant changes in technology, social values and environmental considerations. Today's forest management framework has been shaped over the past 100 years through a number of Royal Commissions on Forest Resources (e.g. Sloan, Pearse); revisions to legislation (e.g. *Forest Act*, *Forest Practices Code Act*, *Forest and Range Practices Act*); and various government initiatives, such as the recent Working Roundtable on Forestry report (March 2009), and the government's discussion paper on a new vision for silviculture in British Columbia (March 2009).

There are common threads through many of the successive examinations of forest management in British Columbia. In reviewing the past history of where we have been, and where we are today, it is clear that progress has been made on many fronts. However, there are still many challenges associated with key issues, such as:

- The level of community and First Nations' benefits arising from active management of Crown forests;
- Security of investments made on Crown forest tenures;
- Ensuring resilient forests for future generations;
- Ensuring a diversity of forest tenures;
- Deriving the optimal combination of social, environmental and economic goods and services from our forests.

Based on the input provided, and the direction the Province has taken over the past 30 or more years, the Committee thinks there needs to be continued emphasis and attention paid to forest management in British Columbia. The Committee regards this report to the Legislative Assembly, while not comprehensive given its terms of reference, to be yet another signpost that helps shape future forest management in the province. With this in mind, the Committee respectfully submits that the following elements are relevant considerations in guiding future forest management in the province:

Growing more fibre and extracting more value

Within the context of the existing land use plans, and the principles of sound sustainable forest management, we must find ways to grow more fibre on the timber harvesting land base and to realize more value from the wide spectrum of possible uses for that fibre.

Improving portfolio management

We think there is an opportunity to more effectively benefit from the inherent productivity of commercial forest land in British Columbia. This should be pursued with a complementary objective of maintaining BC's sustainable forest management brand. While growing more fibre is a desired outcome, this needs to be achieved within the context of growing resilient forests in the face of a changing climate.

"Growing" social licence

For the Committee, it is crucial that communities and First Nations benefit from active involvement in forest management and thereby become fully supportive of new directions. Tenure performance needs to be monitored to ensure forest management objectives are being met, and tenure policy needs to ensure the appropriate consideration of First Nations and community interests.

In addition, the Committee thinks forest industry diversity, as represented by an array of small, medium and large licensees, along with opportunity for new entrants, is a strategic objective that should be set for British Columbia.

Creating the climate and incentives for private sector investments in our forests

One of the key messages the Committee heard was that there is considerable interest in increasing the type and form of area-based tenures to support enhanced levels of forest stewardship and private sector forest investment. Like previous inquiries, we suggest that area-based tenures should continue to be diversified and improved upon. This should be pursued through: community consultation and support; enabling legislation; rigorous evaluation and award criterion; and in the spirit of continuous improvement. An incremental walk-before-you-run approach is recommended.

With this preamble in mind, the Committee proposes the following recommendations to the Legislative Assembly, and regards all of them as consistent with this broad context for future forest management in British Columbia.

1. Preserving the Integrity of British Columbia's Sustainable Forest Management System

Recognizing First Nations rights and interests

First Nations raised many different points during their meetings with the Committee, including the need for deeper and more meaningful consultation with the Province on any changes contemplated by the Committee. Beyond that, there were many reminders about the nature and extent of First Nations rights and claims of title; in some instances, requests for economic development opportunities and, in other instances, requests that resource development activities be slowed down in traditional territories.

Recommendation 1.1

The Committee recommends to the Legislative Assembly that the Province:

- a) Ensure it meets its legal consultation duty and any required accommodations when planning or implementing changes to the forest management regime in a specific area.
- b) Consider the expansion of First Nation tenures when contemplating material changes to the tenure system.

Respecting land use plans

Without question, one of the most commonly expressed views during the regional hearings was about the need to respect local land use planning (LUP) processes. Current land use plans reflect many years of complex negotiations among different interests and, notwithstanding changes to the forest, are still considered important and relevant.

Another clear message the Committee heard was that there has been a loss of momentum in monitoring and assessing ongoing compliance with land and resource management plans (LRMPs), or in ensuring that these plans are kept current in light of changing circumstances.

The common request was that if changes are required in response to the mountain pine beetle epidemic, there should not be a one-size-fits-all approach. Instead, the issues, defined in narrow and clear terms, should be referred back to the communities and the planning tables for local consideration.

There were also many reminders that land use plans were intended to be “living plans”, which was generally explained to mean that they would continue to be monitored and revised in order to stay current and to reflect new information as it becomes available.

Recommendation 1.2

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Assess the feasibility of re-establishing the monitoring committees for land and resource management plans (LRMPs) and, if feasible, task them with conducting a time-limited review of

- the LRMPs and their relevance, in light of changes to the forested landscape. The appropriate role of local First Nations needs to be reviewed with them.
- b) Use the best available science to establish key priorities for monitoring committees to review in each management unit under LRMPs and local area plans. The purpose of the reviews is to ensure that the plans are meeting their original intent, given the changes in the forest that have occurred as a result of the mountain pine beetle epidemic.

Upholding forest certification

Various submissions outlined the important role that forest certification plays in providing assurance to both global and international publics and customers that BC forest practices are sustainable and meet a high standard. As such, certification is considered as an important part of the “BC Brand” and a level of caution is required to ensure that the value of the brand is not undermined, or that the brand not be put at risk when contemplating or making changes in how our forests are managed.

It is important therefore that the Province be circumspect in responding to the Committee's recommendations by ensuring its decisions support the test of sustainable forest management certification and continue to facilitate forest certification.

Recommendation 1.3

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Undertake a critical assessment of the risks to certification and BC's sustainable forest management (SFM) image prior to making any changes in response to this report.
- b) Ensure that proper notification and communication plans are developed where sensitive changes are considered as an appropriate response, given the wide-ranging impacts of the mountain pine beetle.

Supporting the beetle action coalitions

The three beetle action coalitions (BACs), based in Cariboo-Chilcotin, Omineca and the Southern Interior, have prepared regional-level strategies and comprehensively reviewed many of the same issues as the Special Committee on Timber Supply. It is noted that their work is largely aimed at managing the transition to the post-epidemic economy in addition to considerations about timber supply. The Committee has stayed mindful of their important work during the course of this review, and would like to express its appreciation for their ongoing efforts.

Recommendation 1.4

The Committee recommends to the Legislative Assembly that the Ministry respect the important work that has been undertaken by the beetle action coalitions (BACs) and continue to support their goals and objectives by reviewing policies and programs as appropriate.

2. Land Base Issues

Including marginally economic forest types

The Committee heard about stands that are accessible and otherwise available for harvesting but are not merchantable because of small piece size, incidence of decay, species composition and low stocking. If these marginally economic forest types were utilized, the mid-term timber supply could increase. However, the amount of area that is considered to be marginally economic varies by management unit. In some instances, the volume is significant and if it can be developed, would assist in meeting timber supply demands during the critical period of mid-term scarcity.

“Partitioning” is a mechanism that creates an incentive to operate in these marginally economic areas by having them support higher harvest levels and at the same time allows for the viability of these areas to be tested over time. It also might promote the type of innovation that may be required to support their development.

The recommendations in this section are therefore based on the significant risk that declining timber supplies represent to local economies and the need to test and assess the potential contribution of marginally economic stands to mid-term timber supply.

Recommendation 2.1

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Review marginally economic forest types within each timber supply area (TSA) and quantify the types and areas of forest that might be justifiably included in a partition within the timber harvesting land base (THLB).
- b) Give consideration to revising the Minister’s letter that expresses the social and economic objectives of the Province by requesting that the Chief Forester thoroughly examine the potential of marginally economic forest types to address the harvest opportunities these stands offer.
- c) Review relevant policies to ensure that they encourage innovations that promote and support the utilization of marginally economic forest types.
- d) Consider the competing demands for any additional fibre in each unit and ensure that apportionment and allocation decisions weigh and consider those demands, including considering the opportunity that issuing new licences could represent.

Reviewing the management of sensitive areas

Very clearly, certain areas are sensitive for a variety of social, economic and environmental considerations. As noted earlier, the consultations conducted by the Committee reveal that there is not a strong desire to revisit the value or importance of the concept of managing sensitive areas — whether they are old growth management areas; wildlife habitat areas and ungulate winter ranges; wildlife tree patches; visually sensitive landscapes; riparian areas, or other important non-timber forest management objectives and considerations.

However, given the significant impacts of the mountain pine beetle (MPB), it is important to review the management of sensitive areas on a site-by-site basis to determine whether they are meeting their original objectives in the post-MPB era, and to consider if there are better or different ways of meeting their intent at the time of their initial establishment.

Recommendation 2.2

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Design a science-based review process for local use by monitoring committees, as referenced in Recommendation 1.2 above, in the assessment of existing sensitive-area designations to ascertain if they are still defensible or whether they need to be modified; and give due consideration to any changes in technology that might help to achieve the objectives for these areas.
- b) Only consider harvesting sensitive areas within the timber harvesting land base (THLB) if the decision is based on the science-based review process referenced in Recommendation 2.2a above.
- c) Ensure that the review process is cost effective and justifiable, and that no changes are implemented in the management of sensitive areas in any area where there is a lack of general consensus.
- d) Conduct this review process with a view to improving overall forest management in the beetle-impacted timber supply areas. While potential changes may augment the timber supply, this is not a predictable outcome.

Avoiding amalgamation of timber supply areas

Larger units can provide more flexibility and have more timber supply stability due to a larger forest base with a larger diversity of species and ages. However, the input the Committee received on this subject asked that this option not be considered at this time.

Recommendation 2.3

Based on the analysis and information available on this topic, the Committee recommends to the Legislative Assembly that the Province not consider the amalgamation of timber supply areas.

Increasing infrastructure investment to support fibre utilization

In certain areas, the rate and extent of infrastructure development can limit or affect overall salvage and harvesting success in the area. The Committee received several suggestions about the value and benefit of increasing the level of investment to support a broad range of public and economic interests in the landscape – whether for public recreational access, access for mineral exploration and development, or for other forest development initiatives.

Recommendation 2.4

The Committee recommends to the Legislative Assembly that the Province review the feasibility, through business case analysis, of developing road and power-line infrastructure into currently under-developed management units affected by the mountain pine beetle as a potential mid-term timber supply mitigation action.

3. Forest Practices Considerations

Growing more fibre

British Columbia has a comprehensive forest management regime. Despite the comprehensive system that is currently in place, the significant shortage in mid-term timber supply necessitates that all options to grow and utilize more fibre and to generate more value from the forest, need to be fully analysed and implemented as appropriate. The Committee received a consistent message in this regard. Some of the key areas of concerns were as follows:

- (i) Stocking standards in light of climate change implications associated with the increased incidence of forest pests and pathogens.
- (ii) Free-to-grow standards relative to the objective of developing a resilient forest and reducing the risks to the Crown once a stand has been declared “free to grow”.
- (iii) Associated with the free-to-grow issue, species diversity at the stand and landscape level is considered an area for examination and potential improvement.

The Committee also learned about the significant benefits (e.g. growing additional fibre) of British Columbia’s tree improvement program and how continued efforts in this silvicultural area can yield high returns on capital invested.

The Committee also received information on the potential benefits of increased use of partial cutting systems in a timber-constrained mid-term. The Committee agrees that the shortage of mid-term fibre will require that all economically viable harvesting techniques be explored.

Recommendation 3.1

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Work with industry to establish silviculture-related forest practice requirements that ensure the objectives of growing more fibre and generating more value are achieved.
- b) Maintain or enhance the current level of funding for the tree improvement program.
- c) Ensure that, with respect to partial-cutting systems, the appropriate selective-harvesting training materials are in place; survey and stocking standards are adequate; electronic data- capture systems are able to transfer efficiently the disturbance history into the forest inventory; and the growth-and-yield models used to predict timber supply from partially harvested stands are current.

Investing in intensive silviculture

Intensive silviculture activities, such as fertilization, can increase the available mid-term timber supply during this critical period of shortfall. The Committee was informed that fertilizing stands that are between 30 to 70 years old can increase harvest volumes 20 to 40 years from now; and fertilizing 15- to 30-year-old stands can increase harvest volumes 40 to 70 years from now.

An analysis completed by the Ministry indicates that a sustained investment in fertilization of approximately \$11 million per year could increase timber supply by as much as 290,000 cubic metres per year starting in 2022. This analysis did not include all the management units affected by the mountain pine beetle; therefore the opportunity for additional volume gains could be even greater.

Recommendations 3.2

The Committee recommends to the Legislative Assembly that the Province determine the level of investment in intensive silviculture, such as fertilization, that it will sustain.

The Committee further recommends to the Legislative Assembly that the Ministry:

- a) Place priority on completion of type 4 silvicultural strategies to guide investments in intensive silviculture in accordance with established criteria.
- b) Develop a strategy and objectives for re-engaging the federal government to acquire funding that will be used to help respond to the mountain pine beetle crisis. The funding would support the planning and implementation of joint federal, provincial and industry programs and partnerships in response to forest management and community challenges associated with the epidemic.
- c) Establish criteria for the allocation of funding for intensive silviculture on area-based tenures in order to leverage private sector investment.

Reducing wildfire risks

It is predicted that wildfires will be increasingly difficult to control in coming years. Consequently, timber losses are projected to increase because of changes to forest fuel complexes. In order to keep these losses at a manageable level and reduce overall risks, it will be necessary to set and implement strategies for managing the distribution of fuels in the forest and around communities.

Recent experience and data show that by managing fuels in the wildland-urban interface, catastrophic wildfire risks can be reduced and fire suppression costs and efforts can succeed in a cost effective manner. There are very good examples of how community forests have directed their efforts to help achieve these goals (e.g. Logan Lake community forest in the Merritt timber supply area). With proper planning, other tenures should be able to help achieve improved outcomes as well.

Emerging analysis and technology have shown that there are reasonable actions that can be planned and taken to manage forest fuels and fire risks at the landscape level in order to reduce overall losses and help to control costs. Based on this information the Committee makes the following recommendation.

Recommendation 3.3

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Continue to fund strategies and activities for the reduction of fuel in the wildland-urban interface. Where these investments reduce overall fire suppression risks and costs, then the Ministry might best fund these expenditures from the fire suppression budget, thereby reducing overall cost to the Province.

- b) Ensure that tenure holders help to manage fuels across the broader forest landscape in addition to the urban interface.
- c) Work closely with tenure holders by linking its fuel management programs to type 4 silvicultural strategies.

Managing not-sufficiently-restocked (NSR) areas

The Forest Practices Board recently released a special report entitled *How much of British Columbia's forest is not satisfactorily stocked? And what should be done about it?* There has been substantial debate about how much of the timber harvesting land base will meet expectations for timber supply because of damage caused by the mountain pine beetle and fire. This debate has been put in the context of the term “not sufficiently restocked” (NSR).

It is estimated that there may be up to 1 million hectares of area that may become classified as NSR due to beetles and fire. This is only an estimate, as the areas have not yet been surveyed or stratified and because the epidemic continues to affect the forest.

The Committee understands the relationship between areas that are classified as NSR, the timber harvesting land base and timber supply. It is noted that the government has yet to respond to the recommendations of the Forest Practices Board report.

It is also noted that decisions need to be made about how to assess and classify the forest stands that are impacted by mountain pine beetle in order to refine projections about how these areas should be managed in the future, once the epidemic has run its course. Until this work is completed, any estimates of the total area of NSR are speculative and it remains unknown how much of the impacted area remains sufficiently stocked, how much is NSR, and how much of the NSR area is naturally regenerating and likely to become restocked in a given time frame.

The Committee recognizes that there are many possible choices and appropriate considerations for how areas classified as NSR get managed in the future. For example, some of the areas are likely to be harvested and reforested, subject to financial considerations; some will be candidates for some type of rehabilitation actions to ensure their timely reforestation; and others may be best left to recover on their own. The choices that are made will affect timber supply projections and associated allowable annual cut (AAC) determinations made by the Chief Forester.

Recommendation 3.4

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Determine the most cost-effective means of assessing and classifying the stands that are impacted by mountain pine beetle and then implement a program for their assessment and classification.
- b) Develop technical and financial criteria for stratifying NSR areas that considers among other things:
 - i. The areas that are likely to be harvested and reforested;

- ii. The areas that are candidates for rehabilitation through various types of treatment to ensure their timely reforestation; and
 - iii. The areas that should be left to recover on their own, with projected timelines for when they will become sufficiently restocked.
- c) Ensure that the Ministry's plans are clear, transparent and publically communicated, and that the plans are monitored and adjusted as necessary, and changes publicly reported.

4. Other AAC-related Issues

Updating forest inventory

The dynamic changes taking place in the forest as a result of the mountain pine beetle epidemic are difficult to capture and account for in a cost-effective manner at the best of times. However, the task is made even more difficult during periods of budget instability.

As noted earlier, several concerns about declining inventory efforts were expressed to the Committee during its consultations. Some of the concerns were simply characterized as being about the level of expenditure while others were more clearly focused on how weaknesses in the inventory create uncertainty about the overall state of the forest and about how to plan and account for changes to the forest. For example, as discussed above, what areas are no longer satisfactorily restocked and require treatment? Or, how can the Province accommodate emerging economic interests, such as the growing bio-economy sector, when there is uncertainty about how much of the forest is dead versus alive?

It is recognized that the forest inventory is used to establish or bring perspective to a broad range of important social, environmental, and economic forest management goals. Given that the mountain pine beetle epidemic is coming to an end, it is now vitally important to update the inventory in a cost-effective and timely manner to: support important decisions such as new allowable annual cut (AAC) determinations; to plan reforestation efforts; to assess the attainment of environmental and social objectives; and to evaluate new licences that support demands from the forest sector, the emerging bio-economy sector and other fibre-based initiatives.

Recommendations 4.1

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Prepare a position paper that:
 - i. States the purposes, uses and objectives of the forest inventories and the many important decisions that it supports; and
 - ii. Assesses the strengths and weaknesses of the inventories in meeting their objectives, including their current utility in supporting management priorities and strategic forest-level management decisions that need to be taken in response to the beetle epidemic.
- b) Review and establish forest inventory priorities for the areas affected by the mountain pine beetle and develop realistic, cost-effective budget projections required to meet them.

The Committee further recommends that based on the Ministry's review, the Province ensure that sufficient funding is provided to support the preparation of a five-year provincial inventory action plan that details how the program will meet provincial priorities, including consideration of the urgent issues emerging in the mountain pine beetle areas.

Managing harvest flow

One of the potential options to mitigate timber availability in the aftermath of the mountain pine beetle might be to harvest more of the remaining mature volume in the years between the start of the mid-term and the beginning of the long-term level. This means addressing short-term needs by harvesting more timber in the short-term by borrowing timber from the future and having reduced timber supplies at some point in the future as a consequence.

Recommendation 4.2

The Committee recommends to the Legislative Assembly that the Ministry maintain current harvest flow policies and allow the Chief Forester to determine an appropriate harvest flow for each management unit during allowable annual cut (AAC) determinations.

Determining allowable annual cut (AAC)

As new information becomes available, and as the beetle epidemic is now in decline in most units, it is important to review harvest levels and ensure that they are declining at an appropriate rate and time. In addition, as other new information becomes available, it is always useful to review those findings to refine the timber supply projections for the area.

It is important to ensure that balance is maintained between, on the one hand, keeping harvest levels high enough to ensure the harvest and recovery of dead timber and the timely reforestation of the sites they occupy, and, on the other, the imperative of maintaining the maximum amount of green timber that is reserved to support the mid-term timber supply in each one.

Recommendation 4.3

The Committee recommends to the Legislative Assembly that the Ministry continually review the timber supply in each management unit and advise the Chief Forester on priorities for when the next AAC allocation is required. In management units where the AAC has been previously increased to facilitate harvesting, and where lower levels of mountain pine beetle have been experienced than originally expected, the Chief Forester decide on a new AAC determination as soon as practicable.

Reducing fibre losses due to fire, pests and wind throw

The current timber supply review (TSR) process and allowable annual cut (AAC) determinations take into account unsalvaged losses that occur due to natural causes such as wind throw, fire, pests and pathogens. The level of unsalvaged losses varies between management units, as does the forest management action taken to minimize these losses. It is noted that on some tenure areas unsalvaged losses have been minimized through direct action.

Historically, where the Chief Forester is aware of actions being taken to address salvage opportunities, this is taken into account and the volume of unsalvaged losses is reduced in the TSR net-down process.

In management units where there has been a history of unsalvaged losses with limited actions being taken to harvest or recover them, the Chief Forester could potentially create a partition and uplift the AAC, giving rise to a new harvest opportunity in the management unit.

Recommendation 4.4

The Committee recommends to the Legislative Assembly that the Ministry ask the Chief Forester to review how unsalvaged losses are projected in allowable annual cuts (AACs). If the Chief Forester determines that it is reasonable to establish partitions to promote the utilization of fibre that would otherwise not be recovered, and thereby reduce the level of unsalvaged losses, then tenure policy experts should work with the forest sector to determine if a workable and effective policy could be developed that would:

- i. Promote the utilization of fibre associated with unsalvaged loss projections by using a partition to reflect the amount that could potentially be salvaged.
- ii. Determine whether it is reasonable and practical to develop and administer a salvage program to promote the recovery and utilization of this timber.

5. Forest Tenure Issues and Interests

Expanding area-based tenures

Approximately 80% of the Crown forest resource is currently under “volume-based” tenure, where a tenure holder is typically one of many having rights to a specific volume of timber within a timber supply area. The remaining 20% of the resource is under area-based tenure, in First Nations woodland licences, tree farm licences, community forest agreements or woodlot licences.

During the consultations, interest was expressed in expanding the amount of area-based tenure in the province, or any other future form of area-based tenure.

Recommendation 5.1

Given the history of area-based tenure management in British Columbia and elsewhere in Canada, the Committee recommends to the Legislative Assembly that the Ministry:

- a) Gradually increase the diversity of area-based tenures, using established criteria for conversion and a walk-before-you-run approach.
- b) If conversion to more area-based tenures is desirable, give consideration to incorporating a take-back-volume provision, or some equivalent public benefit, on conversion to area-based rights and reallocating that volume to First Nation and/or community area-based tenures.
- c) Before considering a conversion of a licensee’s renewable volume-based tenures in whole, or in part, rigorously evaluate: the licensee’s past performance; their commitment to sustainable forest management; their commitment to investment in forest management including, but not limited to, silvicultural investments; and community and First Nations support for conversion through a process of public consultation.

Utilizing fibre

Fibre availability reflects the changing nature of the forest and can be utilized to maximize the potential of the emerging bioenergy sector. On the post-beetle landscape, there are increasing amounts of dead fibre in the standing forest that are rapidly losing merchantability for traditional uses. Also there are increasing volumes of marginally economic fibre being left on cutblocks. During the consultations, the Committee received many proposals that expressed interest in gaining access to this fibre to support the emerging potential to utilize this fibre for bio-energy or other specialty uses.

Recommendation 5.2

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Continue to pursue the development and implementation of the Receiving Licence and Supplemental Forest Licence as additional vehicles to improve utilization and maximize jobs per cubic metre of fibre.

- b) Examine the potential for a fibre-based AAC pilot, while ensuring the necessary and complementary environmental standards (i.e. coarse woody debris), cut control and waste-measurement requirements are implemented concurrently and as part of the pilot.
- c) Review the legislation, policies and licence administrative framework to ensure optimum utilization of the forest resource while maintaining environmental standards.

Log exports

During the course of the Committee's consultations, the topic of log exports from the province was raised. The major forestry unions asked whether logs being currently exported from BC could somehow be part of the solution to future mid-term timber supply shortages in the central interior of the province.

Given that the BC interior region will soon be facing a potential 10 million cubic metres per year mid-term shortage of timber, all possible mitigation options need to be explored. The role that current timber exports from the north could play in mitigation strategies should not be overlooked.

Recommendation 5.3

The Committee recommends to the Legislative Assembly that the Ministry review current procedures to ensure that potential timber exports of fibre from Crown lands are identified to assist in mitigating mid-term timber supply in the central interior of the province.

6. Burns Lake

In January 2012, the Babine Forest Products mill near Burns Lake was destroyed by fire.

The Committee heard a number of presentations associated with this tragic event, outlining various views about what should be done in response to the situation.

The local communities (native and non-native) lament the job loss and are looking to the Province for actions that will positively guide the mill owner's desire to use a combination of insurance and other investment capital to rebuild the mill.

In recognition of the sensitivity of the situation in Burns Lake and the expectations for a comprehensive and timely response, this section of the report is more detailed than previous sections.

Hampton Affiliates Proposal

Hampton Affiliates (hereafter referred to as Hampton), the owner of Babine Forest Products, made a strong representation to the Committee about its need for a clear, comprehensive and timely response from the Province in order to gain certain assurances that will support its efforts to rebuild the mill.

Hampton's presentations are on the record and are clear for all to see. Its comprehensive proposal turns on a few key issues. The key issues that Hampton raised at the Burns Lake public hearing on June 18, 2012, are:

- When the epidemic started and the allowable annual cut (AAC) was increased, the residents of Burns Lake were promised they would be taken care of when the harvest levels dropped.
- The Lakes Timber Supply Area's AAC can be maintained at a million cubic metres in the short- and mid-term.
- The AAC needs to be lowered to a million cubic metres immediately to conserve the green fibre that is being harvested and use this fibre for the mid-term.
- Hampton's annual licence of 450,000 cubic metres should be converted to an area-based licence north of Highway 16, where the road systems, logging infrastructure and tug and barge operations can feed the Babine Forest Products and Decker Lake mills.
- The remaining annual harvest should be allocated to Burns Lake Native Development Corporation or First Nations with restrictions that the logs be delivered to Lakes District mills at fair market value.
- An answer is needed by the end of August to make a multi-million-dollar commitment to machinery and perform the site prep that's necessary as the weather allows. With that timeline, construction of the sawmill can take place in 2013 and the mill can start up in early 2014.

Hampton added a further clarification at the July 11 Vancouver hearing:

- The Committee's report should also encourage the Ministry to find other replacement licence volume for Hampton's big competitors, near their many other sawmills in the province.

This latter comment suggests that other existing operators in the Lakes TSA should have their rights revoked and that those operators should then be given some additional harvesting rights elsewhere to compensate for the change.

Finally, it is noted that Hampton provided the Committee with a comprehensive report entitled *Lakes AAC Analysis Report – Management Option Investigation*.

Based on their submissions, Hampton clearly places weight on its understanding that government promised to help them when harvest levels are reduced following the AAC uplift. The balance of their expectations turns on a number of related considerations: the tragic nature of the mill fire; its associated job loss; and the need to maintain a competitively viable mill in this area.

Read in total, the two presentations that Hampton made to the Committee propose a solution for rebuilding the mill based on some key decisions that need to be made by the Province. The issues are complex and are presented here for clarity and ease of reference.

Considerations of the Committee

The Committee appreciates the sensitivity of the situation in Burns Lake, and we understand and accept the need for a timely response to the Hampton proposal and the key elements that it contains.

The Committee evaluated all of the elements of the Hampton proposal. Our review was supported by analysis and advice from the Ministry that provided detailed timber supply analysis information.

Our findings are encouraging and we believe that the recommendation that we are putting forward is significant and should provide general guidance to help determine the Ministry's actions and to assist Hampton with its important decision whether or not to rebuild the mill.

In our evaluation, we developed and assessed a number of timber supply scenarios that turned on combinations of decisions that would create different outcomes. These scenarios were assessed in an effort to determine their impact on Hampton by trying to predict the amount of volume that would be directly and indirectly available to support their operations. They were also assessed in terms of the volume that would be directly available to other operators in the area, including consideration of the potential for new First Nations licences.

The key elements that were considered in this review that would ultimately require decisions were:

- The potential contribution of marginally economic forest types to the AAC;
- Other forest management considerations that influence that AAC;
- The need to update the forest inventory to support a new AAC determination and the likely timing of that; and

- Apportionment and licence award decisions that could be made by the Minister. Key considerations are options for non-replaceable forest licences and the licence offer that has been made to local First Nations

The Committee supports the view that it is very possible that the mid-term timber supply could be closer to 1 million cubic metres per year rather than the 500,000 cubic metres per year that was initially forecast for the Lakes Timber Supply Area (TSA). It is important to note that we state this with full knowledge and respect for the authority that the Province's Chief Forester has in determining allowable annual cuts. To be clear, we are not trying to predict or direct the Chief Forester. We are simply observing that there are some reasonable considerations that can lead to a higher than initially projected mid-term timber supply forecast and that these findings are encouraging.

The projection is based on information provided by both the Ministry and by Hampton. The key factors that support this higher AAC are: a partition that reflects increased utilization of marginally economic forest types; implementation of a sustained fertilization program in the Lakes TSA; and moving from spatial to non-spatial attainment of old growth targets in the TSA.

Based on our evaluation of the key elements of the Hampton proposal and our broader review and findings we offer the following recommendations.

Our response to the situation in Burns Lake

Given the tragic mill fire at Babine Forest Products, there are high expectations for a timely and comprehensive response from the Committee about future fibre supply options for the area.

Expectations are high on the part of local native and non-native communities impacted by the mill fire that the Province would direct or implement actions that will give clear direction to Babine Forest Products, given their desire to rebuild the mill.

Based on the Ministry and Hampton's analyses projecting a higher-than-originally-forecast timber supply in the Lakes TSA, the Committee makes the following recommendation that outlines a series of next steps for government to consider implementing in order to facilitate the economic recovery effort.

Recommendation 6.1

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Direct that a reconvened local planning table, with appropriate membership, evaluate, consider the appropriateness, and make recommendations on non-spatial management of old growth in the TSA, in a manner consistent with Recommendation 2.2 above.
- b) Direct that alterations to the management of visual quality objectives and other sensitive areas in the Lakes TSA are not recommended for review at this time, unless there is absolute agreement by the reconvened planning table to do so. This holds true for any other elements of the Lakes TSA land and resource management plan.

- c) Confirm a funding allocation which is intended to be ongoing, to support a targeted fertilization program in the Lakes TSA.
- d) Complete a type 4 silviculture analysis for the Lakes TSA to guide the fertilization program and also to set other important silvicultural goals as well as to support setting goals for the management of wildfire risks in the TSA.
- e) Consider revising the Minister's letter that expresses the social and economic objectives of the Province to emphasize the importance of maximizing volume flows in the Lakes TSA to assist with economic recovery in the area. Emphasis should be placed on the development potential of the marginally economic forest types with full consideration of their availability, given the many important non-timber objectives in the TSA.
- f) Update the Lakes TSA inventory in a timely and cost-effective manner, in order to support the earliest possible reconsideration of the AAC for the area.
- g) Expedite negotiations with Burns Lake First Nations to determine the feasibility of awarding them a licence for harvesting in the marginally economic forest types.
- h) Clarify whether the non-replaceable forest licence allocation will be removed from the apportionment when the licences expire.
- i) Retain the replaceable forest licence harvest rights of existing licensees in the TSA.
- j) Respond, in a manner consistent with Recommendation 5.1, to Hampton's request for a tree farm licence when sufficient information on AAC and apportionment considerations is available.

Summary of Recommendations

1. Preserving the Integrity of British Columbia's Sustainable Forest Management System

Recommendation 1.1

The Committee recommends to the Legislative Assembly that the Province:

- a) Ensure it meets its legal consultation duty and any required accommodations when planning or implementing changes to the forest management regime in a specific area.
- b) Consider the expansion of First Nation tenures when contemplating material changes to the tenure system.

Recommendation 1.2

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Assess the feasibility of re-establishing the monitoring committees for land and resource management plans (LRMPs) and, if feasible, task them with conducting a time-limited review of the LRMPs and their relevance, in light of changes to the forested landscape. The appropriate role of local First Nations needs to be reviewed with them.
- b) Use the best available science to establish key priorities for monitoring committees to review in each management unit under LRMPs and local area plans. The purpose of the reviews is to ensure that the plans are meeting their original intent, given the changes in the forest that have occurred as a result of the mountain pine beetle epidemic.

Recommendation 1.3

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Undertake a critical assessment of the risks to certification and BC's sustainable forest management (SFM) image prior to making any changes in response to this report.
- b) Ensure that proper notification and communication plans are developed where sensitive changes are considered as an appropriate response, given the wide-ranging impacts of the mountain pine beetle.

Recommendation 1.4

The Committee recommends to the Legislative Assembly that the Ministry respect the important work that has been undertaken by the beetle action coalitions (BACs) and continue to support their goals and objectives by reviewing policies and programs as appropriate.

2. Land Base Issues

Recommendation 2.1

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Review marginally economic forest types within each timber supply area (TSA) and quantify the types and areas of forest that might be justifiably included in a partition within the timber harvesting land base (THLB).
- b) Give consideration to revising the Minister's letter that expresses the social and economic objectives of the Province by requesting that the Chief Forester thoroughly examine the potential of marginally economic forest types to address the harvest opportunities these stands offer.
- c) Review relevant policies to ensure that they encourage innovations that promote and support the utilization of marginally economic forest types.
- d) Consider the competing demands for any additional fibre in each unit and ensure that apportionment and allocation decisions weigh and consider those demands, including considering the opportunity that issuing new licences could represent.

Recommendation 2.2

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Design a science-based review process for local use by monitoring committees, as referenced in Recommendation 1.2 above, in the assessment of existing sensitive-area designations to ascertain if they are still defensible or whether they need to be modified; and give due consideration to any changes in technology that might help to achieve the objectives for these areas.
- b) Only consider harvesting sensitive areas within the timber harvesting land base (THLB) if the decision is based on the science-based review process referenced in Recommendation 2.2a above.
- c) Ensure that the review process is cost effective and justifiable, and that no changes are implemented in the management of sensitive areas in any area where there is a lack of general consensus.
- d) Conduct this review process with a view to improving overall forest management in the beetle-impacted timber supply areas. While potential changes may augment the timber supply, this is not a predictable outcome.

Recommendation 2.3

Based on the analysis and information available on this topic, the Committee recommends to the Legislative Assembly that the Province not consider the amalgamation of timber supply areas.

Recommendation 2.4

The Committee recommends to the Legislative Assembly that the Province review the feasibility, through business case analysis, of developing road and power-line infrastructure into currently under-developed management units affected by the mountain pine beetle as a potential mid-term timber supply mitigation action.

3. Forest Practices Considerations

Recommendation 3.1

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Work with industry to establish silviculture-related forest practice requirements that ensure the objectives of growing more fibre and generating more value are achieved.
- b) Maintain or enhance the current level of funding for the tree improvement program.
- c) Ensure that, with respect to partial-cutting systems, the appropriate selective-harvesting training materials are in place; survey and stocking standards are adequate; electronic data- capture systems are able to transfer efficiently the disturbance history into the forest inventory; and the growth-and-yield models used to predict timber supply from partially harvested stands are current.

Recommendations 3.2

The Committee recommends to the Legislative Assembly that the Province determine the level of investment in intensive silviculture, such as fertilization, that it will sustain.

The Committee further recommends to the Legislative Assembly that the Ministry:

- a) Place priority on completion of type 4 silvicultural strategies to guide investments in intensive silviculture in accordance with established criteria.
- b) Develop a strategy and objectives for re-engaging the federal government to acquire funding that will be used to help respond to the mountain pine beetle crisis. The funding would support the planning and implementation of joint federal, provincial and industry programs and partnerships in response to forest management and community challenges associated with the epidemic.
- c) Establish criteria for the allocation of funding for intensive silviculture on area-based tenures in order to leverage private sector investment.

Recommendation 3.3

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Continue to fund strategies and activities for the reduction of fuel in the wildland-urban interface. Where these investments reduce overall fire suppression risks and costs, then the Ministry might best fund these expenditures from the fire suppression budget, thereby reducing overall cost to the Province.
- b) Ensure that tenure holders help to manage fuels across the broader forest landscape in addition to the urban interface.
- c) Work closely with tenure holders by linking its fuel management programs to type 4 silvicultural strategies.

Recommendation 3.4

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Determine the most cost-effective means of assessing and classifying the stands that are impacted by mountain pine beetle and then implement a program for their assessment and classification.

- b) Develop technical and financial criteria for stratifying NSR areas that considers among other things:
 - i. The areas that are likely to be harvested and reforested;
 - ii. The areas that are candidates for rehabilitation through various types of treatment to ensure their timely reforestation; and
 - iii. The areas that should be left to recover on their own, with projected timelines for when they will become sufficiently restocked.
- c) Ensure that the Ministry's plans are clear, transparent and publically communicated, and that the plans are monitored and adjusted as necessary, and changes publicly reported.

4. Other AAC-related Issues

Recommendations 4.1

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Prepare a position paper that:
 - i. States the purposes, uses and objectives of the forest inventories and the many important decisions that it supports; and
 - ii. Assesses the strengths and weaknesses of the inventories in meeting their objectives, including their current utility in supporting management priorities and strategic forest-level management decisions that need to be taken in response to the beetle epidemic.
- b) Review and establish forest inventory priorities for the areas affected by the mountain pine beetle and develop realistic, cost-effective budget projections required to meet them.

The Committee further recommends that based on the Ministry's review, the Province ensure that sufficient funding is provided to support the preparation of a five-year provincial inventory action plan that details how the program will meet provincial priorities, including consideration of the urgent issues emerging in the mountain pine beetle areas.

Recommendation 4.2

The Committee recommends to the Legislative Assembly that the Ministry maintain current harvest flow policies and allow the Chief Forester to determine an appropriate harvest flow for each management unit during allowable annual cut (AAC) determinations.

Recommendation 4.3

The Committee recommends to the Legislative Assembly that the Ministry continually review the timber supply in each management unit and advise the Chief Forester on priorities for when the next AAC allocation is required. In management units where the AAC has been previously increased to facilitate harvesting, and where lower levels of mountain pine beetle have been experienced than originally expected, the Chief Forester decide on a new AAC determination as soon as practicable.

Recommendation 4.4

The Committee recommends to the Legislative Assembly that the Ministry ask the Chief Forester to review how unsalvaged losses are projected in allowable annual cuts (AACs). If the Chief Forester determines that it is reasonable to establish partitions to promote the utilization of fibre that would otherwise not be recovered, and thereby reduce the level of unsalvaged losses, then tenure policy experts should work with the forest sector to determine if a workable and effective policy could be developed that would:

- i. Promote the utilization of fibre associated with unsalvaged loss projections by using a partition to reflect the amount that could potentially be salvaged.
- ii. Determine whether it is reasonable and practical to develop and administer a salvage program to promote the recovery and utilization of this timber.

5. Forest Tenure Issues and Interests

Recommendation 5.1

Given the history of area-based tenure management in British Columbia and elsewhere in Canada, the Committee recommends to the Legislative Assembly that the Ministry:

- a) Gradually increase the diversity of area-based tenures, using established criteria for conversion and a walk-before-you-run approach.
- b) If conversion to more area-based tenures is desirable, give consideration to incorporating a take-back-volume provision, or some equivalent public benefit, on conversion to area-based rights and reallocating that volume to First Nation and/or community area-based tenures.
- c) Before considering a conversion of a licensee's renewable volume-based tenures in whole, or in part, rigorously evaluate: the licensee's past performance; their commitment to sustainable forest management; their commitment to investment in forest management including, but not limited to, silvicultural investments; and community and First Nations support for conversion through a process of public consultation.

Recommendation 5.2

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Continue to pursue the development and implementation of the Receiving Licence and Supplemental Forest Licence as additional vehicles to improve utilization and maximize jobs per cubic metre of fibre.
- b) Examine the potential for a fibre-based AAC pilot, while ensuring the necessary and complementary environmental standards (i.e. coarse woody debris), cut control and waste-measurement requirements are implemented concurrently and as part of the pilot.
- c) Review the legislation, policies and licence administrative framework to ensure optimum utilization of the forest resource while maintaining environmental standards.

Recommendation 5.3

The Committee recommends to the Legislative Assembly that the Ministry review current procedures to ensure that potential timber exports of fibre from Crown lands are identified to assist in mitigating mid-term timber supply in the central interior of the province.

6. Burns Lake

Recommendation 6.1

The Committee recommends to the Legislative Assembly that the Ministry:

- a) Direct that a reconvened local planning table, with appropriate membership, evaluate, consider the appropriateness, and make recommendations on non-spatial management of old growth in the TSA, in a manner consistent with Recommendation 2.2 above.
- b) Direct that alterations to the management of visual quality objectives and other sensitive areas in the Lakes TSA are not recommended for review at this time, unless there is absolute agreement by the reconvened planning table to do so. This holds true for any other elements of the Lakes TSA land and resource management plan.
- c) Confirm a funding allocation which is intended to be ongoing, to support a targeted fertilization program in the Lakes TSA.
- d) Complete a type 4 silviculture analysis for the Lakes TSA to guide the fertilization program and also to set other important silvicultural goals as well as to support setting goals for the management of wildfire risks in the TSA.
- e) Consider revising the Minister's letter that expresses the social and economic objectives of the Province to emphasize the importance of maximizing volume flows in the Lakes TSA to assist with economic recovery in the area. Emphasis should be placed on the development potential of the marginally economic forest types with full consideration of their availability, given the many important non-timber objectives in the TSA.
- f) Update the Lakes TSA inventory in a timely and cost-effective manner, in order to support the earliest possible reconsideration of the AAC for the area.
- g) Expedite negotiations with Burns Lake First Nations to determine the feasibility of awarding them a licence for harvesting in the marginally economic forest types.
- h) Clarify whether the non-replaceable forest licence allocation will be removed from the apportionment when the licences expire.
- i) Retain the replaceable forest licence harvest rights of existing licensees in the TSA.
- j) Respond, in a manner consistent with Recommendation 5.1, to Hampton's request for a tree farm licence when sufficient information on AAC and apportionment considerations is available.

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Appendix A: Brief Glossary of Forestry Terms

allowable annual cut (AAC): Rate of timber harvest permitted each year from a specified area of land.

area-based tenures: Area-based tenures grant a licensee virtually exclusive rights to harvest timber within a specified area. (*see volume-based tenure*)

BC Timber Sales (BCTS): BC Timber Sales was founded in 2003 with a mandate to provide the cost and price benchmarks for timber harvested from public land in British Columbia. It manages some 20% of the provincial Crown allowable annual cut.

Beetle Action Coalitions (BACs): Three coalitions in the Cariboo-Chilcotin, Omineca and Southern Interior that have prepared regional-scale strategies and implemented mitigation plans in response to the mountain pine beetle epidemic.

biodiversity: The biological diversity of plants, animals and other living organisms in all their forms and levels of organization, including the biological diversity of genes, species and ecosystems.

Chief Forester (CF): An independent position appointed by order in council who determines an allowable annual cut for each timber supply area and tree farm licence at least once every 10 years.

coarse woody debris (CWD): Logs and stumps that provide habitat for plants, animals and insects, and a source of nutrients for soil development.

commercial thinning: A silviculture treatment where trees large enough to be sold as products, such as poles or fence posts, are removed from an overstocked stand to improve the health and growth rate of the remaining trees.

community forest agreement: An area-based tenure that grants exclusive rights to a First Nation, municipality or regional district to harvest an allowable annual cut for a specific area. As of January 2012, about 1.28 million hectares were being managed as community forests. There are currently 47 active community forests in British Columbia and another nine communities in the application process. Burns Lake Community Forest was offered the first 25-year licence in September 2004.

cutblock: A specific area, with defined boundaries, authorized for harvest.

cutblock adjacency: Requiring that recently harvested areas must achieve a desired condition (green-up) before nearby or adjacent areas can be harvested.

falldown: Government issued allowable annual cut uplifts in response to the mountain pine beetle so more trees could be harvested while they maintain economic value. Now that much of the dead pine has been harvested, there will be a reduction, or falldown, reducing the harvest. (*see uplift*)

Forest and Range Practices Act: The *Forest and Range Practices Act* and its regulations govern the activities of forest and range licensees in British Columbia, setting requirements for planning, road building, logging, reforestation, and grazing.

Forests for Tomorrow: A Ministry of Forests, Lands and Natural Resource Operations program set up in 2005 to improve future timber supplies and ecosystems through investments in seed and seedling production, site preparation, planting and fertilization, surveying, mapping, and research. The program, introduced in response to catastrophic wildfires and the mountain pine beetle epidemic, aims to strengthen the resilience of B.C.'s forests to climate change and natural disturbances.

forest inventory: An accounting of the trees and other land cover in British Columbia's forests. The forest inventory includes computerized maps and a database describing the location and nature of forest cover, including size, age, timber volume, and species composition.

fuel management: The process of modifying forest and range fuels (trees, low branches, needles, and woody debris) to achieve specific land management objectives, including managing forest fuels in and around communities in order to reduce the potential for devastating wildfires.

growing stock: The volume estimate for all standing timber at a particular time.

growth and yield: Growth and yield is focused on describing how individual stands of trees change with time, primarily through processes of tree species reproduction, establishment, growth, mortality and interaction.

harvest forecast: A measure of the maximum timber supply that can be realized over time for a specified land base and set of management practices. The result of forest planning models, it is affected by size and productivity of the land base; current growing stock; and management objectives, constraints and assumptions.

improved stock: Trees selected from the natural population with better than average characteristics such as growth rates.

inoperable areas: Areas defined as unavailable for harvest for terrain-related or economic reasons such as distance from processing facilities, existing roads, difficulty of road access, and availability of suitable timber. This can change over time with changing harvesting technology and economics.

integrated resource management: The identification and consideration of all resource values, including social, economic and environmental needs, in resource planning and decision-making.

land and resource management plan (LRMP): A strategic, multi-agency, integrated resource plan at the sub-regional level based on the principles of enhanced public involvement, consideration of all resource values, consensus-based decision making, and resource sustainability.

Land-Based Investment Strategy: A strategy to guide investments in British Columbia's natural resources such as reforestation and tree improvement to realize environmental sustainability and economic prosperity.

landscape-level biodiversity: The *Landscape Unit Planning Guide* provides objectives for maintaining biodiversity at both the landscape level and the stand level. At the landscape level, guidelines are provided for the maintenance of seral stage distribution, patch size distribution and landscape connectivity. (*see stand-level biodiversity*)

landscape unit: A planning area based on topographic or geographic features, that is appropriately sized (up to 100,000 hectares), and designed for application of landscape-level biodiversity objectives.

land use planning (LUP): The process of inventorying and assessing the status, potential, and limitations of a particular geographic area (the land base) and its resources, with a view to planning and managing these resources to satisfy human needs now and in the future.

long-term harvest level: A harvest level that can be maintained indefinitely.

marginally economic forest types: Stands that are accessible and otherwise available for harvesting but are non-merchantable because of small piece size, incidence of decay, species composition and low stocking.

mid-term timber supply: The mid-term timber supply is the amount of timber available for harvest in the next 20 to 60 years. Most of these trees are already growing – actions such as fertilization and thinning can help them grow faster and stronger. Trees planted now will make up the long-term timber supply.

minimum harvestable age: The age at which a stand of trees is expected to achieve a merchantable condition.

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mountain pine beetle (MPB): Mountain pine beetles are a natural part of the ecosystem in British Columbia's interior forests. They attack mature pine trees by laying eggs under the bark. When the eggs hatch, the larvae mine the phloem area beneath the bark and eventually cut off the tree's supply of nutrients.

non-spatial: Setting a target percentage within a geographic unit rather than setting aside a specific area for retention of values such as old growth. (*see spatial*)

non-timber forest products: Products of biological origin other than wood derived from forests, other wooded land and trees outside forests such as forest plants and mushrooms.

not sufficiently restocked (NSR): An area not covered by a sufficient number of well-spaced trees of desirable species according to stocking standards set by the British Columbia Forest Service.

old-growth forest: A forest with live and dead trees of various sizes, species, composition, and age class structure. Old-growth forests are part of a slowly changing but dynamic ecosystem; the age and structure vary significantly by forest type.

old growth management areas (OGMAs): Areas that contain, or are managed to replace, specific structural old-growth attributes and that are identified as special management areas. They are currently established under the *Land Act*, and timber harvesting is generally avoided in designated old growth management areas.

partition: A portion of the allowable annual cut that is attributable to certain types of timber and/or terrain.

protected area: A designation for areas of land and water set aside to protect natural heritage, cultural heritage or recreational values (may include national park, provincial park, or ecological reserve designations).

recreation sites and trails: Recreation sites and trails on Crown lands outside parks and municipalities managed by Recreation Sites and Trails BC, a branch of the Ministry of Forests, Lands and Natural Resource Operations.

riparian management zone: An area (of specified width) required to be established under the *Forest and Range Practices Act* adjacent to certain streams, wetlands and lakes in order to protect the riparian reserve zone. Forest practices are permitted but are governed by regulation and site specific situations.

riparian reserve zone: An area (of specified width) required to be established under the *Forest and Range Practices Act* adjacent to certain streams, wetlands and lakes where forest practices, including road construction are restricted.

set aside area: An area where there is no harvesting on a temporary or permanent basis to protect values such as water quality, scenery, recreation, animal migration or range.

shelf life: The length of time wood from trees killed by mountain pine beetles retains at least minimum qualities of a sawlog. It depends on a number of economic and stand site conditions – for example, trees retain their value longer under drier conditions.

silvicultural treatments: Activities that ensure regeneration of young forests on harvested areas, enhance tree growth or improve wood quality in selected stands such as site rehabilitation and preparation, planting, spacing, fertilization and pruning.

spatial: An area set aside for specific values, e.g. old growth management areas or wildlife habitat areas. (*see non-spatial*)

stand-level biodiversity: A stand is a relatively localized and homogeneous land unit that can be managed using a single set of treatments. In stands, objectives for biodiversity are met by maintaining specified stand structure (wildlife trees or patches), vegetation species composition and coarse woody debris levels. (*see landscape-level biodiversity*)

sustainable forest management certification: There are three certification programs used in British Columbia – Canadian Standards Association, Forest Stewardship Council and Sustainable Forestry Initiative. All ensure that harvested areas are reforested, that laws are obeyed and that there is no unauthorized or illegal logging. All go beyond this by requiring that biological diversity is conserved; wildlife habitat, soils and water resources are maintained, and timber harvesting is sustainable.

timber harvesting land base (THLB): Crown forest land within a timber supply area where timber harvesting is considered both acceptable and economically feasible, given objectives for all relevant forest values, existing timber quality, market values and applicable technology.

timber supply: The amount of timber that is forecast to be available for harvesting over a specified time period, under a particular management regime.

timber supply area (TSA): An integrated resource management unit established in accordance with *Section 7 of the Forest Act*.

timber supply review (TSR): The timber supply review program began in 1992 to update British Columbia's timber supply regularly in each of 37 timber supply areas and 34 tree farm licences.

timber tenures: Government transfers specific rights to use Crown, or public, forest and range land and resources to others through tenure agreements that can take the form of an agreement, licence or permit. The contract holder has specific rights to use public forests over a specific period of time, in exchange for meeting government objectives, including forest management obligations and the payment of fees including stumpage.

tree farm licence (TFL): A licence area made up of private and Crown lands where a licensee has a nearly exclusive right to manage forests and to harvest an allowable annual cut.

type 4 silviculture strategy: A comprehensive TSA level plan that identifies key objectives pertaining to an area. These strategies identify key harvesting and silviculture strategies to achieve timber and non-timber objectives. The strategies will provide direction regarding species selection, landscape level retention, harvesting priorities, climate change and other key local concerns. They also provide key priorities and a five-year plan for the Forest For Tomorrow activities.

uneconomic areas: Areas defined as unavailable for harvest for economic or terrain-related reasons. Characteristics used in defining uneconomic areas include distance from processing facilities, existing roads, difficulty of road access, and availability of suitable timber. Areas considered uneconomic can change over time as a function of changing harvesting technology and economics.

ungulate winter range (UWR): Designated area under the *Forest and Range Practices Act* identified as being necessary for the winter survival of an ungulate species such as moose, deer, caribou and mountain goats.

unsalvaged losses: The volume of timber killed or damaged annually by natural causes (e.g., fire, wind, insects and disease) that is not harvested.

uplift: Government issued allowable annual cut uplifts in response to the mountain pine beetle so more trees could be harvested while they maintain economic value. Now that much of the dead pine has been harvested, there will be a reduction, or fall down, reducing the harvest. (*see falldown*)

visual quality objective (VQO): Defines a level of acceptable landscape alteration resulting from timber harvesting and other activities. A number of visual quality classes have been defined on the basis of the maximum amount of alteration permitted.

volume-based tenures: Volume-based tenures grant licensees the right to harvest a certain amount of timber within a specified timber supply area, allowing several licensees to operate in the same management unit. (*see area-based tenures*)

volume estimates: Estimates of yields from forest stands over time. Yield projections can be developed for stand volume, stand diameter or specific products, and for empirical (average stocking), normal (optimal stocking) or managed stands.

watershed: An area drained by a stream or river. A large watershed may contain several smaller watersheds.

wildlife habitat areas (WHAs): Mapped areas designed to protect sites needed for species or community survival such as hibernation dens, nesting sites or migration areas.

wildlife tree patch (WTP): Special areas set aside from harvesting to retain and encourage wildlife and biological diversity. They may contain one or several trees.

Appendix B: List of Participants

First Nations

- Adams Lake Indian Band, Dave Nordquist, 12-Jul-12 (Kamloops)
- Burns Lake Band (Ts'il Kaz Koh First Nation), Chief Albert Gerow, Councillor Dan George, 19-Jun-12 (Burns Lake)
- Canim Lake Band, Chief Mike Archie, Councillor Don Dixon, John Kalmikoff, 05-Jul-12 (100 Mile House)
- Cheslatta Carrier Nation, Chief Richard Peters, Mike Robertson, 19-Jun-12 (Burns Lake)
- Esk'etemc First Nation, Chief Fred Robbins, Irvine Johnson, 05-Jul-12 (Williams Lake)
- Kamloops (Tk'emlúps) Indian Band, Chief Shane Gottfriedson, 12-Jul-12 (Kamloops)
- Lake Babine Nation, Chief Wilf Adam, 19-Jun-12 (Burns Lake)
- Lheidli T'enneh First Nation, Chief Dominic Frederick, Lowell Johnson, 06-Jul-12 (Prince George)
- Lillooet Tribal Council, Matt Manuel, 12-Jul-12 (Merritt)
- McLeod Lake Indian Band, Chief Derek Orr, Tanner Elton, 11-Jul-12 (Vancouver)
- Nak'azdli Band, Councillor Carl Leon, Leonard Thomas, 20-Jun-12 (Fort St. James)
- Nazko First Nation, Gerry Powell, 06-Jul-12 (Quesnel)
- Neskonlith Indian Band, Chief Judy Wilson, Al Delisle, 12-Jul-12 (Kamloops)
- Nicola Tribal Association, Natasha Fountain, 12-Jul-12 (Merritt)
- Nicola Tribes, Councillor Lennard Joe, 12-Jul-12 (Merritt)
- Okanagan Nation Alliance, James Pepper, 12-Jul-12 (Kamloops)
- Saik'uz First Nation, Chief Jackie Thomas, 20-Jun-12 (Vanderhoof)
- Simpco First Nation, Nathan Matthew, 12-Jul-12 (Kamloops)
- Takla Lake First Nation, Chief Dolly Abraham, Councillor Elke Lepka, 20-Jun-12 (Fort St. James)
- Tl'azt'en Nation, Vanessa Joseph, Renel Mitchell, 20-Jun-12 (Fort St. James)
- Toosey Indian Band, Chief Francis Lacey, 05-Jul-12 (Williams Lake)
- Tsilhqot'in National Government, Sam Zirnhelt, 05-Jul-12 (Williams Lake)
- Ulkatcho First Nation, Chief Zack Parker, Gary Arnold, 05-Jul-12 (Williams Lake)
- Xaxli'p First Nation, Councillor Howard Bob, Andrea Forney, 12-Jul-12 (Merritt)
- Xeni Gwet'in, Chief Marilyn Baptiste, 05-Jul-12 (Williams Lake)
- Canoe Creek Band (Stswecem'c Xgat'tem First Nation), Chief David Archie (Written Submission)
- Nooaitch Indian Band, Rod Gatenby (Written Submission)
- Soda Creek Indian Band (Xats'ull First Nation), Jacinda Mack (Written Submission)
- Williams Lake Indian Band, Chief Ann C. Louie (Written Submission)

Local Government

- Bulkley-Nechako Regional District, Tom Greenaway, 20-Jun-12 (Fort St. James), Bill Miller, 19-Jun-12 (Burns Lake) and 19-Jun-12 (Fraser Lake)
- Cariboo Regional District, Janis Bell, John Massier, Al Richmond, 05-Jul-12 (100 Mile House)
- Fraser-Fort George Regional District, Lara Beckett, Terry Burgess, Kevin Dunphy, Art Kaehn, Terry McEachen, 06-Jul-12 (Prince George)
- Thompson-Nicola Regional District, Randy Murray, 12-Jul-12 (Kamloops)
- City of Kamloops, Mayor Peter Milobar, 12-Jul-12 (Kamloops)
- City of Merritt, Mayor Susan Roline, 12-Jul-12 (Merritt)
- City of Prince George, Mayor Shari Green, Councillor Frank Everitt, 21-Jun-12 (Prince George)

City of Quesnel, Mayor Mary Sjostrom, Councillor
Laurey-Anne Roodenburg, Kari Bolton, Ed Coleman,
06-Jul-12 (Quesnel)

City of Williams Lake, Mayor Kerry Cook, Alan
Madrigga, Brian McNaughton, 05-Jul-12 (Williams
Lake)

District of 100 Mile House, Mayor Mitch Campsall,
Councillor Bill Hadden, 05-Jul-12 (100 Mile House)

District of Clearwater, Mayor John Harwood,
Councillor Jon Kreke, Leslie Groulx, 12-Jul-12
(Kamloops)

District of Fort St. James, Mayor Rob MacDougall,
Ross Hamilton, 20-Jun-12 (Fort St. James)

District of Houston, Mayor Bill Holmberg, Councillor
Jonathan Van Barneveld 18-Jun-12 (Houston)

District of Mackenzie, Mayor Stephanie Killam, 21-Jun-
12 (Mackenzie)

District of Vanderhoof, Mayor Gerry Thiessen,
Councillor Louise Levy, Councillor Kevin Moutray,
20-Jun-12 (Vanderhoof)

Town of Smithers, Mayor Taylor Bachrach, Councillor
Phil Briennesse, Councillor Bill Goodacre, Councillor
Charlie Northrup, 18-Jun-12 (Smithers)

Village of Burns Lake, Mayor Luke Strimbold,
Councillor Quinten Beach, 19-Jun-12 (Burns Lake)

Village of Fraser Lake, Mayor Dwayne Lindstrom,
Councillor Daniel Duncan, Councillor Kerry Jantz,
19-Jun-12 (Fraser Lake)

Village of McBride, Councillor Raj Basran, Marc von
der Gonna, 22-Jun-12 (McBride)

Village of Valemount, Mayor Andru McCracken, Shane
Bressette, 22-Jun-12 (Valemount)

Village of Telkwa, Councillor Rimas Zitkauskas
(Written Submission)

Public Hearing Presentations

Ainsworth Engineered Canada LP, Chad Eisner, Mike
Kennedy, Rick Takagi, 05-Jul-12 (100 Mile House)

AltaGas, Chris Doyle, Roger Harris, 19-Jun-12 (Burns
Lake)

Ancient Forest Alliance, Larry Gardner, Ken Wu, 11-
Jul-12 (Vancouver)

Apollo Forest Products Ltd., Bruce McLean, Greg
Stewart, 20-Jun-12 (Fort St. James)

Bill Arnold, 22-Jun-12 (McBride)

Aspenware, Brian McNaughton, 05-Jul-12 (Williams
Lake)

Association of BC Forest Professionals, Mike Larock,
Steve Lorimer, 09-Jul-12 (Vancouver)

Association of Professional Biology, Pamela Zevit, 10-
Jul-12 (Vancouver)

BC Wildlife Federation, Region 7A, Wayne Salewski,
20-Jun-12 (Vanderhoof)

Backcountry Lodges of BC Association, Bonnie Hooge,
06-Jul-12 (Prince George)

Backcountry Lodges of BC Association, Brad Harrison,
12-Jul-12 (Kamloops)

BC Cattlemen's Association, Kevin Boone, Dave
Haywood-Farmer, 12-Jul-12 (Kamloops)

BC Community Forest Association, Kevin Davie, Marc
von der Gonna, 09-Jul-12 (Vancouver)

BC Industry Working Group, David Gandossi, Kelly
McCloskey, Ric Slaco, John Talbot, 09-Jul-12
(Vancouver)

BC Wildlife Federation, Doug Janz, 10-Jul-12
(Vancouver)

Michael Beauclair, 12-Jul-12 (Merritt)

Alan Burger, 12-Jul-12 (Merritt)

Burns Lake and District Chamber of Commerce, Ron
Zayac, 19-Jun-12 (Burns Lake)

Burns Lake Native Development Corporation, Chief
Albert Gerow, 11-Jul-12 (Vancouver)

Kaitlyn Bysouth, 19-Jun-12 (Burns Lake)

Mauro Calabrese, 05-Jul-12 (Williams Lake)

Canadian Centre for Policy Alternatives - BC Office,
Ben Parfitt, 11-Jul-12 (Vancouver)

Canadian Forest Products Ltd., Mark Feldinger, Don
Kayne, 09-Jul-12 (Vancouver)

Cariboo Chilcotin Conservation Society, Martin Kruus,
05-Jul-12 (Williams Lake)

Cariboo Chilcotin Regional Resource Committee,
Petrus Rykes, 05-Jul-12 (100 Mile House)

Cariboo Pulp and Paper Co., Bruce Eby, 06-Jul-12
(Quesnel)

Cariboo-Chilcotin Beetle Action Coalition, Guenter
Weckerle, 05-Jul-12 (100 Mile House)

Cariboo-Chilcotin Guide Outfitters Association, Stuart Maitland, 05-Jul-12 (100 Mile House)

Carrier Lumber Ltd., Kevin Bedford, 06-Jul-12 (Prince George)

Caverhill Lodge Inc., Larry Loney, 12-Jul-12 (Kamloops)

Central Interior Logging Association; Interior Logging Association, MaryAnne Arcand, 11-Jul-12 (Vancouver)

Bob Clark, 06-Jul-12 (Prince George)

Ed Coleman, 06-Jul-12 (Quesnel)

College of New Caledonia - Lakes District Campus, Cathy Ashurst, Joan Ragsdale, 19-Jun-12 (Burns Lake)

Communications, Energy and Paperworkers Union, Mark Cameron, 10-Jul-12 (Vancouver)

Conifex Timber Inc., Tony Madia, Ken Shields, Kalen Uhrich, 11-Jul-12 (Vancouver)

Grant Conlon, 19-Jun-12 (Burns Lake)

Council of Forest Industries, Doug Routledge, 11-Jul-12 (Vancouver)

Floyd Crowley, 06-Jul-12 (Prince George)

Sean Curry, 12-Jul-12 (Kamloops)

Dave Daust, 18-Jun-12 (Smithers)

Jim Davidson, 18-Jun-12 (Smithers)

Nathan Davis, 05-Jul-12 (Williams Lake)

Ken Day, 05-Jul-12 (Williams Lake)

Mike Dunbar, 18-Jun-12 (Houston)

Dunkley Lumber Ltd., Blair Mayes, Doug Perdue, 20-Jun-12 (Fort St. James)

Dunkley Lumber Ltd., Jason Fisher, Doug Perdue, 11-Jul-12 (Vancouver)

Echo Valley Ranch and Spa, Alan Pineo, 05-Jul-12 (100 Mile House)

Federation of BC Woodlot Associations, Mark Clark, Brian McNaughton, 10-Jul-12 (Vancouver)

Neil Findlay, 12-Jul-12 (Kamloops)

Forest Fibre Alliance of BC, Brad Bennett, Jim Burbee, Mike Kennedy, 09-Jul-12 (Vancouver)

Forest Genetics Council of BC, Jack Woods, 11-Jul-12 (Vancouver)

Forest Stewardship Council Canada, Satnam Manhas, Orrin Quinn, 10-Jul-12 (Vancouver)

ForestEthics Advocacy Association, Nikki Skuce, 18-Jun-12 (Smithers)

ForestEthics Solutions Society, Valerie Langer, 09-Jul-12 (Vancouver)

Fraser Headwaters Alliance, Roy Howard, 22-Jun-12 (McBride)

Fraser Lake Sawmills, Jim Magowan, 19-Jun-12 (Fraser Lake)

Friends of Ecological Reserves, Mike Fenger, 10-Jul-12 (Vancouver)

Miles Fuller, 19-Jun-12 (Burns Lake)

Future Forest Ecosystem Scientific Council, Dr. Sybille Haeussler, 18-Jun-12 (Smithers)

Douglas Gook, 06-Jul-12 (Quesnel)

Keith Gordon, 20-Jun-12 (Fort St. James)

Lee Granberg, 05-Jul-12 (100 Mile House) and 12-Jul-12 (Merritt)

Hampton Lumber Mills, Richard Vossen, Steve Zika, 19-Jun-12 (Burns Lake) and 11-Jul-12 (Vancouver)

Doramy Havens, 06-Jul-12 (Quesnel)

Healthy Forests-Healthy Communities, Bill Bourgeois, 09-Jul-12 (Vancouver)

Anne Hetherington, 18-Jun-12 (Smithers)

Ken Hodges, 21-Jun-12 (Prince George)

Gunter Hoehne, 19-Jun-12 (Burns Lake)

Vicky Husband, 09-Jul-12 (Vancouver)

Interfor, Ric Slaco, 10-Jul-12 (Vancouver)

Interior Lumber Manufacturers Association, Jim Hackett, Mark Semeniuk, 10-Jul-12 (Vancouver)

Itcha Mountain Outfitters Ltd., Stewart Fraser, 06-Jul-12 (Quesnel)

Bruce Johnston, 06-Jul-12 (Quesnel)

David Jorgenson, 06-Jul-12 (Quesnel)

Virginia Karr, 22-Jun-12 (McBride)

Dave King, 21-Jun-12 (Prince George)

L & M Lumber Ltd., Alan Fitzpatrick, David Watt, 09-Jul-12 (Vancouver)

Likely Xats'ull Community Forest, Robin Hood, 05-Jul-12 (Williams Lake)

Logan Lake Community Forest Corporation, Don Brown, 12-Jul-12 (Merritt)

Dennis Loxton, 06-Jul-12 (Prince George)

Mary MacDonald, 21-Jun-12 (Prince George)

Mackenzie Fibre Management Corporation, Mac Anderson, 21-Jun-12 (Mackenzie) and 11-Jul-12 (Vancouver)

Cliff Manning, 19-Jun-12 (Burns Lake)

John Massier, 06-Jul-12 (Quesnel)

Lisa Matthaus, 11-Jul-12 (Vancouver)
 Dave Mayer, 18-Jun-12 (Smithers)
 Gordon McFee, 19-Jun-12 (Burns Lake)
 McMillan Creek Farmers and Women's Institute of
 Prince George, Mike Johnson, 21-Jun-12 (Prince
 George)
 Ministry of Forests, Lands and Natural Resource
 Operations, Josh Pressey, 18-Jun-12 (Houston)
 Ministry of Forests, Lands and Natural Resource
 Operations, Debbie Janning-Stewart, 19-Jun-12
 (Burns Lake)
 Bob Mitchell, 18-Jun-12 (Smithers)
 Bryan Monroe, 22-Jun-12 (McBride)
 Robert and Rosanne Murray, 19-Jun-12 (Burns Lake)
 Nechako Lodge and Aviation, Elisabeth Doerig, 20-Jun-
 12 (Vanderhoof)
 Nechako Retreat, Denis Wood, 20-Jun-12
 (Vanderhoof)
 Kim Newsted, 05-Jul-12 (Williams Lake)
 Northern Bioenergy Partnership, Dr. Charles Jago,
 Elissa Meiklem, 06-Jul-12 (Prince George)
 Chris O'Connor, 12-Jul-12 (Merritt)
 Denis O'Gorman, 12-Jul-12 (Merritt)
 Outdoor Recreation Council of BC, Howard Harshaw,
 10-Jul-12 (Vancouver)
 Pacific BioEnergy Corporation, Brad Bennett, 06-Jul-12
 (Quesnel) and 09-Jul-12 (Vancouver)
 Paper Excellence Canada Holding Corp., Darren Carter,
 Andreas Kammenos, 11-Jul-12 (Vancouver)
 Terry Park, 18-Jun-12 (Houston)
 Chris Paulson, 19-Jun-12 (Burns Lake)
 Jane Perry, 05-Jul-12 (Williams Lake)
 Jim Pojar, 18-Jun-12 (Smithers)
 Klaus Posselt, 19-Jun-12 (Burns Lake)
 Private Forest Landowners Association, Rod Bealing,
 11-Jul-12 (Vancouver)
 Pulp, Paper and Woodworkers of Canada, Arnold
 Bercov, 06-Jul-12 (Prince George)
 Dave Radies, 21-Jun-12 (Prince George)
 Tammy Rancourt, 21-Jun-12 (Mackenzie)
 Wayne Ray, 20-Jun-12 (Vanderhoof)
 Resources North Association, Melanie Karjala, 06-Jul-12
 (Prince George)
 RiverCity Fibre, Chris Ortner, Cliff Ramsay, 12-Jul-12
 (Kamloops)
 Allyson Rogers, 05-Jul-12 (100 Mile House)
 Gene Runtz, 22-Jun-12 (McBride)
 Salmon River Farmers Institute, Aime Cheramy, 21-
 Jun-12 (Prince George)
 Juha Salokannel, 20-Jun-12 (Fort St. James)
 Elizabeth Salomon-de-Friedberg, 12-Jul-12 (Merritt)
 Peter Sanders, 05-Jul-12 (100 Mile House)
 Randy Saugstad, 05-Jul-12 (Williams Lake)
 Svend Serup, 21-Jun-12 (Prince George)
 Shuswap Environmental Action Society, Jim
 Cooperman, 12-Jul-12 (Kamloops)
 Sierra Club BC, Jens Wieting, 11-Jul-12 (Vancouver)
 Sinclair Group Forest Products Ltd., Bruce McLean,
 Greg Stewart, 21-Jun-12 (Prince George)
 Skeena-Nass Centre for Innovation in Resource
 Economics, Steve Osborn, 18-Jun-12 (Smithers)
 South Cariboo Trappers Association, Judy Banas, Paul
 Blackwell, 05-Jul-12 (100 Mile House)
 Southern Interior Beetle Action Coalition, Rob Gay,
 Rhona Martin, 12-Jul-12 (Kamloops)
 James Steidle, 21-Jun-12 (Prince George)
 Dave Stevens, 18-Jun-12 (Smithers)
 Strive Energy Services, Greg Farney, 19-Jun-12 (Fraser
 Lake)
 Tl'oh Forest Products LP; Ta Da Chun Timber, Laura
 Chernowski, 20-Jun-12 (Fort St. James)
 Tolko Industries Ltd., Tom Hoffman, 05-Jul-12 (100
 Mile House)
 Tolko Industries Ltd., Bob Fleet, 11-Jul-12 (Vancouver)
 Ray Travers, 09-Jul-12 (Vancouver)
 United Steelworkers Union, Frank Everitt, Brian
 O'Rourke, 19-Jun-12 (Burns Lake)
 United Steelworkers Wood Council, Bob Matters, 11-
 Jul-12 (Vancouver)
 United Steelworkers, Local 1-425, Bob Macnair, 05-Jul-
 12 (Williams Lake)
 University of Northern British Columbia, Darwyn
 Coxson, 21-Jun-12 (Prince George)
 Upper Nechako Wilderness Council, Dan Brooks, 20-
 Jun-12 (Vanderhoof)
 Vanderhoof Specialty Wood Products, Paul Heit, 20-
 Jun-12 (Vanderhoof)
 Carl vanderMark, 18-Jun-12 (Houston)
 Len Vanderstar, 18-Jun-12 (Smithers)
 Ken Waite, 05-Jul-12 (100 Mile House)
 West Chilcotin Tourism Association, Bil Van Es, 05-
 Jul-12 (100 Mile House)

West Coast Environmental Law, Jessica Clogg, 10-Jul-12 (Vancouver)
 West Fraser Mills Ltd., Larry Gardner, Dave Lehane, 11-Jul-12 (Vancouver)
 West Fraser Timber Co., Al Bennett, Martin Ellefson, Stuart Lebeck, 06-Jul-12 (Quesnel)
 Western Silvicultural Contractors Association, John Betts, Bob Gray, John Lawrence, 10-Jul-12 (Vancouver)
 Josette Wier, 18-Jun-12 (Smithers)

Wilderness Committee, Joe Foy, 11-Jul-12 (Vancouver)
 Wilderness Tourism Association of BC, Evan Loveless, 09-Jul-12 (Vancouver)
 Williams Lake Field Naturalists, Fred McMechan, Ordell Steen, 05-Jul-12 (Williams Lake)
 June Wood, 20-Jun-12 (Vanderhoof)
 Woodbridge Associates Inc., Peter Woodbridge, 12-Jul-12 (Merritt)
 Ken Zielke, 09-Jul-12 (Vancouver)
 Rimas Zitkauskas, 18-Jun-12 (Smithers)

Written Submissions

Jason Addy
 Toni Adisano
 Eric Alexandre
 Shoshana Allice
 Caroline Amor
 Ancient Forest Alliance, Ken Wu
 Constance Anderson
 Karen Anderson
 Robert Andrew
 Mary Andrews
 Antler Ridge Ranch, Mark Williamson
 Dr. Saul Arbess
 Fabiola Arias
 Katrina Ariel
 Ben Arsenault
 Don Avis
 B.C. Government and Service Employees' Union, Darryl Walker
 Baker Creek Enhancement Society, Amy Law
 Allan Balogh
 John and Sandra Barth
 Lucy Bashford
 Jacob Bayless
 Bob & Janice Baynham
 David & Dorothy Beach
 Jim Beaton
 Kathleen Beavin
 Roger Beck
 Samuel Bednarski
 Sharon Bell

Yvonne Bell
 Desmond Berghofer
 Guy Berlinguette
 Paula Bethune
 Bio-Economy Dialogue Group,
 Greg Halseth
 Eldy Birnie
 Deb Bischoff
 Val Bjarnason
 Gary B Blackwell
 Susan Bond
 Wendy Boothroyd
 Jamie Bowman
 Eliza Boyce
 Sean Boyle
 Peter Bradford
 Karen Bragg
 Joshua Braidek
 Matthew Breech
 British Columbia Forests Society,
 Harry Drage
 Anthony Britneff
 Jean Brooks
 Cam Brown
 Terry L Brown
 Doug Brubaker
 Naomi Bruce
 Ray Bull
 Dionne Bunsha
 Dr. Philip Burton
 Paul Gordon Butterfield
 Doug Campbell
 Jeanette Campbell

Canopy; ForestEthics Solutions;
 Greenpeace, Stephanie Goodwin
 Pat Caraher
 Judith Carder
 Cariboo Chilcotin Coast Tourism Association, Bill Van Es
 Hannah Carpendale
 Jeremy Carpendale
 Steven Carpenter
 Theodora Carroll
 Gordon Carson
 Bruce Carter
 Jon Cash
 Tim Cash
 Matt Casselman
 Nick Castro
 Nick Charrette
 Cheakamus Community Forest,
 Peter Ackhurst
 Edward Chessor
 Stephen Chessor
 Jeff Childs
 Gord Chipman
 Victoria Chrisham
 Penny Christian
 Domenic Cicci
 Citizens' Environmental Advocacy Group, Bruce Edson
 Caroline Clark
 Terry Clark
 Harry Coates
 Steven Coffin

Sara Jane Colgan
Lyle Collie
Susan Collier
Columbia Headwaters
Community Forest Association,
Richard Hoar
Beverley Como
Lynn Conall
Anne Cooper
Stephen Copley
Jeff Corbett
Cara Cornell
A Cowan
Linda Craven
Nancy Crozier
Bonnie Cruickshank
Anne-Marie Daniel
Edwin Daniel
V. Daniel
Christian David
Nora Davidson
Michael Davis
Alan Dean
Gen Del
Anita den Dikken
Steeve Deschenes
Flora Di Cunto
Elizabeth Donald
Fiona Driehuyzen
Susan Dulc
Forest Eaton
Ecoforestry Institute Society,
Sharon Chow
Wendy Ehlers
Chris Elden
Karl Emde
Margaret Anne Enders
Monika Eriksen
Jim Erkiletian
Genevieve Esson
Dinda Evans
Glenn Farenholtz
Ken Farquharson
Lawrence Fawcett
Neil Findlay

First Nations Environmental
Network, Steve Lawson
Mike Fischer
Brian Fisher
Fisheries and Oceans Canada,
Don Lawrence
Donald Fleming
Fort Fraser & District Local of
BC Trappers Association,
Robert Frederieck
Rita Francis
Constance Franklin
Andrew Fraser
Ian Fraser
Free Rein Guest Ranch, Debbie
Atha
Ian French
Friends of Clayoquot Sound, Dan
Lewis
Friends of Lac des Roches and
Birch Lake, Sharron Woloshyn
Andrea Frisque
Dave Fuller
Dylan Gale
Josef Gallo
Karen Gardener
Lavonne Garnett
Lydia Garvey
Janis Gauthier
Warren Geronazzo
Trevor Giesbrecht
Mitch Giffin
Alan Gilchrist
David Gloag
Bram Goldwater
Doug Goodman
Diana Gostling
Patsy Granberg
Teague Griffin
Parker Grimes
Peter Grossman
Guide Outfitters Association of
BC, Mark Werner
Ted Gullison
Donna Hamilton
Patricia Handy

Alexa Hanson
Diana Hardacker
Nova Hart
Jonathan Harvey
John Hasenack
Hauer Bros. Lumber Ltd., Ainslie
Jackman
Jan Havelaar
Mimi He
Katherine Head
Mark Hein
Bob Helfrich
Yuill Herbert
Hanna Hermanek
Margaret Hess
Angela Hicke
Jesse Hiemstra
Brigitte Hiller
Andreas Hobyan
Steve Hocquard
Helmut Hofmeister
Candace Holt
Cindy Hook
Bill Horne
Horsefly River Roundtable, Bruce
MacLeod
Frank Hovenden
Jeff Hoy
Jeff Hubbick
Ed Hume
Evelyn Hunter
Julie Hunter
Lynn Husted
TJ Hyde
Bassam Imam
Paul Inden
Gregory Iorfino
Dr. John Irwin
Patrick Ivany
Donna Jabillo
Joe James
Diane Johnson
Faune Johnson
Faune Johnson
Sheree Johnson
Sara Johnston

Amy Jonah	Lower North Thompson	Ross Muirhead
Alysha Jones	Community Forest Society,	Allison Muller
Emyr Jones	Mike Francis	Michael Murphy
Joyce Jones	Kerrie Lowitt	Norman Nalleweg
Pam Jorgenson	Thomas Mac Krell	Nature Vancouver, Dan
Fred Kay	Jay Macarthur	Overmyer
Susan Kay-Downs	Quinn Macdonald	Nechako Group of Companies,
Lillian & Jim Kelly	James MacKay	Alan Fitzpatrick
Eva Kerr	Ken Madsen	Shel Neufeld
Peter Kerr	Bernice Magee	Kai Newman
David Kidd	David Majcher	Kim Newsted
Esther Klein	Lloyd Manchester	Anna Nguyen
J. Knight	David Manning	Mardon Nordine
Robyn Knight	Paul and Diane Manuel	North Columbia Environmental
Claudia Kobayashi	Christopher Mapstone	Society, Laura Stovel
Kateri Kosek	Ivan Marko	Northern British Columbia
Jodie Krakowski	Nicola Marshall	Tourism Association, Anthony
Murray La Brash	Kathleen Martin	Everett
La Pointe Consulting Ltd., Brian	Jodie McCormick	Colleen Northmore
LaPointe	Don McEachern	N'Quatqua Lands and Resources
Cory Lagasse	Brian McKinlay	Committee, Rene Thompson
Odin Lake	Taylor Mcleod	Nuk Tessli Wilderness
Lakes District Trappers	Kathy McMaster	Experience, Chris Czajkowski
Association, Russ Skillen	Lindsay Mcnally	Betsy Nuse
Lakes Outdoor Recreation	Sandy McNamee	Daniella Oake
Society, Lynn Synotte	Chuck McNaughton	Laura O'Brien
Peter Douglas Lambert	Jeff McNaughton	Joan O'Connor
Dorothee Lange	Bridget Meagher	Omineca Beetle Action Coalition,
Oliver Lardiere	Sara Medgyesi	Stephanie Killam
Randy Lautsch	Elissa Michaud	Omineca Enterprises Ltd, John
Amy Law	Anne-Marie Miles	Peterson
S. Lawrence	Onni Milne	Robert Ortiz
Swarn Leung	Andrew Mitchell	Satjeet Pandher
Dr. Kathy Lewis	Elizabeth Mitchell	Bert Parke
Lheidli T'enneh, Chief Dominic	Frank Mitchell	Keenan Parker
Frederick	Ron Moger	Jim Patterson
Lillooet Tribal Council, Matt	Eleanor Montour	Michael Peabody
Manuel	Keith Moore	Lynne Penhale
Monique Lind	Richard Moore	Caroline Penn
Colleen Linesman	Phyl Morello	Tessa Perkins
Cheryl Litwack	Caroll Morey-Hofmeister	Heather Phillips
Logan Lake Community Forest	Mylene Morissette	Jo Phillips
Corporation, Don Brown	Gloria Morotti	Daniel Pierce
Betty Logan	Ian Moss	Ray Pillman
Faye Logie	Mountain Cat Forest	June Pitcher
	Management, Graham Gerry	Ryan Potter

Regina Powell
Gretchen Prystawick
Quesnel Snowmobile Club,
Randy Lautsch
Pat Rasussen
Lawrence Redfern
Charles Reif
Brett Restemeyer
Kelly Reuter
Shana Richmond
Eric Rinne
Kelly Rivard
Philip Robbins
Irene Roberts
Katharine Robinson
Ron Rodrigo
Sharon Rogalsky
Shane Rogers
Anita Romaniuk
Pat Rose
June Ross
Kris Rothstein
Christopher Roy
Marcelle Roy
Gisela Ruckert
Jeff Rueger
Valerie Russell
Joan Russow
Robert Ruthkowski
Robert Ruthowski
Karen Sampson
Teresa Sande
Mark Sandstrom
Dan Saragosti
Kevin Sauve
Tara Sawatslay
James Schlichter
Chris Schmid
Stefan Schmitt
Richard Schritt
Tamara Schwartzentruber
Lyn Schwarz
Charlotte Schwenke
Barbara Seifred
C.K. Senay
Geoffrey Senichenko

Lee Sexsmith
Share Cariboo/Chilcotin
Resources, G.W. (Bill)
Carruthers
Larry Sharp
Mary and Richard Shields
Patricia Shute
Anne-Marie Silbernagel
Marie Simonsen
Bob Simpson
Susan Simpson
Siwash Lake Ranch, Allyson
Rogers
Nikki Skuce
Sky-Innovative Ltd., Simon Sahn
Michael Slusar
Steve Smith
Rich Sobel
Jordan Soet
Madeleine Speck
Pamela Speight
Earl Spielman
David Squance
Maria Squance
George Sranko
Christine St. Peter
Laurie Steffler
Sara Steil
Mary Stewart
C. Stokker
Judy Stratton
Norma Stromberg-Jones
Lisa Sund
Rafe Sunshine
Michael Surtherland
Ira Sutherland
Kevin Swoboda
Meg Sylvester
Kathryn Taddei
Patrick Tan
Tanizul Timber, John Marchal
Lynn Taylor
Tchesinkut Watershed Protection
Society, T.H. Blair
Teepee Heart Guest Ranch,
Deborah Davies

Ryan Thomas
Ron Timothy
Siglind Tinsley
Frank Tiramani
Renee Titterton
Tourism Industry Association of
BC, Lana Denoni
Tourism Prince George, Aidan
Kelly
Ted Traer
Katherine Trajan
Maureen Trotter
Karen Troubetzkoy
Liz Turner
Stephen Tyler
UBC Faculty of Forestry Alex
Fraser Research Forest, Cathy
Koot and Ken Day
J.G.G. Underhill
David Van Den Broek
Jane Van Sickle
Albert Vandenberg
Glenys Verhulst
Simon Vine
Dr. Dianne Vosloo
Norman Vriend
Grant M. Waldman
Cameron Wallace
Jean Wallace
Ben Walsh
Gail Ward
Wayne Wasiliew
Darin Watson
Patricia Watson
Helen Weiss
Scott Welton
Tom Wheeler
White Lake Residents
Association, Steve Corrie
Jan and Warrick Whitehead
Joanna Wilkinson
Susan Willdig
Williams Lake Transition Town
Group, Hayes Zirnheld
Dr. Kathleen Williams
Katie Williams

Barry Wilson
Ben Wilson
Byron Wilson
Susan Woermke
Dr. Karen Wonders
Mandy Wong
R. Wong
Kelsey Wood
Greg Wozny

Kellie Wyllie
Glenna Yahnke
Yellowstone to Yukon
Conservation Initiative, Wendy
Francis
Young Communist League of
Canada, Erin Searle
Bill Young
Lara Zalinko

Bill Zeiger
Steven Zeluck
Lorne Ziemer
Keira Zikmanis
Barbara Zimmer
Silvaine Zimmermann
Norm Zirnhelt

