



Canadian Forest Products Ltd.

Grande Prairie Division

November 18, 2010

Vicky Bosse, RPF, Acting Senior Manager, Forest Planning Section
Alberta Sustainable Resource Development
7th Floor, Great West Life Building
9920 – 108 Street
Edmonton, Alberta
T5K 2M4

Attention: Vicky

**Re: Terms of Reference for the 2012 Forest Management Plan for Canfor's FMA
9900037**

The enclosed terms of reference outlines our proposed methodology regarding the planned 2012 Forest Management Plan to be submitted as per the Canfor Forest Management Agreement.

We are pleased to submit them for your consideration and approval.

Yours truly,

A handwritten signature in blue ink, appearing to read "James Stephenson".

James Stephenson, RPF
Woodlands Manager

cc JP Bielech, RPF
Dwight Weeks, RPFT
Tim Boulton, RPF



**Terms of Reference
2012 Forest Management Plan for Canfor FMA 9900037**

**Canadian Forest Products Ltd.
Grande Prairie Division**

Prepared by:



J. P. Bielech, RPF #37 Woodlands Supervisor

Approved by:



Jim Stephenson, RPF #724 Operations Manager

Executive Summary

This Terms of Reference (TOR) describes the processes and timelines for development of a new Forest Management Plan (FMP) for FMA 9900037. The FMP will provide a Timber Supply Analysis (TSA), in conformance with the *Alberta Forest Management Planning Standard (AFMPS) ver. 4.1*. A new version of the AFMPS may be published in the interim period. If this occurs, some elements of the new Standard may be implemented if agreed to by all parties.

This FMP will use new inputs, models and assumptions compared to past management plan, but will build on the work done in the past. Past FMP's have used Complan as the main modeling tool, but we will be using a combination of Woodstock, Stanley and Patchworks. After evaluating numerous sensitivity analyses, the preferred management strategy will be selected.

The work for this FMP began in the fall of 2009 and the plan is to complete the FMP by May 1, 2012. This TOR documents the plan to achieve that goal. A plan development team with representatives from the Province, embedded quota holders and Canfor has been assembled for this purpose. Canfor is the principal planner regarding development of the FMP; however the process will be a cooperative effort between the government and other timber resource users. Other stakeholders and public will be consulted through the Forest Management Advisory Committee (FMAC), as part of the development of the FMP progresses. Aboriginal input will be garnered via processes that are in conformance with The Government of Alberta's First Nations Consultation Guidelines on Land Management and Resource Development.

Previous forest management assumptions will not apply to this FMP.

Copies of the approved FMP will be available for viewing on the ARSD website.



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1. Introduction

Canfor Corporation is a leading Canadian integrated forest products company based in Vancouver, British Columbia with facilities in British Columbia, Alberta, Quebec, Washington State and North and South Carolina. Canfor is one of the largest producers of softwood lumber in Canada. Canfor owns an 80% interest in Canfor Pulp Limited Partnership, one of the largest producers of northern softwood kraft pulp in Canada and a leading producer of high-performance kraft paper. The main operating company is Canadian Forest Products Ltd., from which the name Canfor is derived.

Canfor's long history of lumber production in Grande Prairie started in 1964 when its predecessor, North Canadian Forest Industries Limited (NCFI), acquired timber holdings in the area. On May 26, 1964, Canadian Forest Products Ltd. (formerly North Canadian Forest Industries Limited) entered into a twenty-year Forest Management Agreement with the Province of Alberta. This Agreement was renewed in 1978. In May 1999 Canadian Forest Products Ltd., Grande Prairie Division entered into a twenty-year Forest Management Agreement with the Province of Alberta that will expire on April 30, 2019 unless renewed under the provisions of the agreement. This agreement grants Canfor the rights to manage, grow, harvest and reforest coniferous timber, and to maintain and/or increase the coniferous annual allowable cut within Forest Management Area (FMA) 9900037, comprising approximately 649,160 hectares.

NCFI built its first mill in Grande Prairie and when these operations were sold to Canfor, a new dimension mill was built in 1989. Modernization occurred in 1996 and 2001 to maximize flexibility and manufacture metric and specialty lumber products, as well as North American sizes.

The majority of the logs required by the sawmill are obtained from FMA 9900037, which is located in three separate areas in the vicinity of Grande Prairie (Figure 1), and from coniferous quota tenures held by Canfor and 946013 Alberta Ltd. in the Hines Creek area. The Grande Prairie facilities have an approximate annual log requirement of 831,000m³/year¹.

In 2001, Canfor commenced preparation of a detailed forest management plan (Canfor, 2003) in accordance with paragraph 10 of the Forest Management Agreement 9900037, which received approval from ASRD in 2003. An amendment for changes to the sequencing due to the Mountain Pine Beetle (MPB) infestation was submitted in 2009.

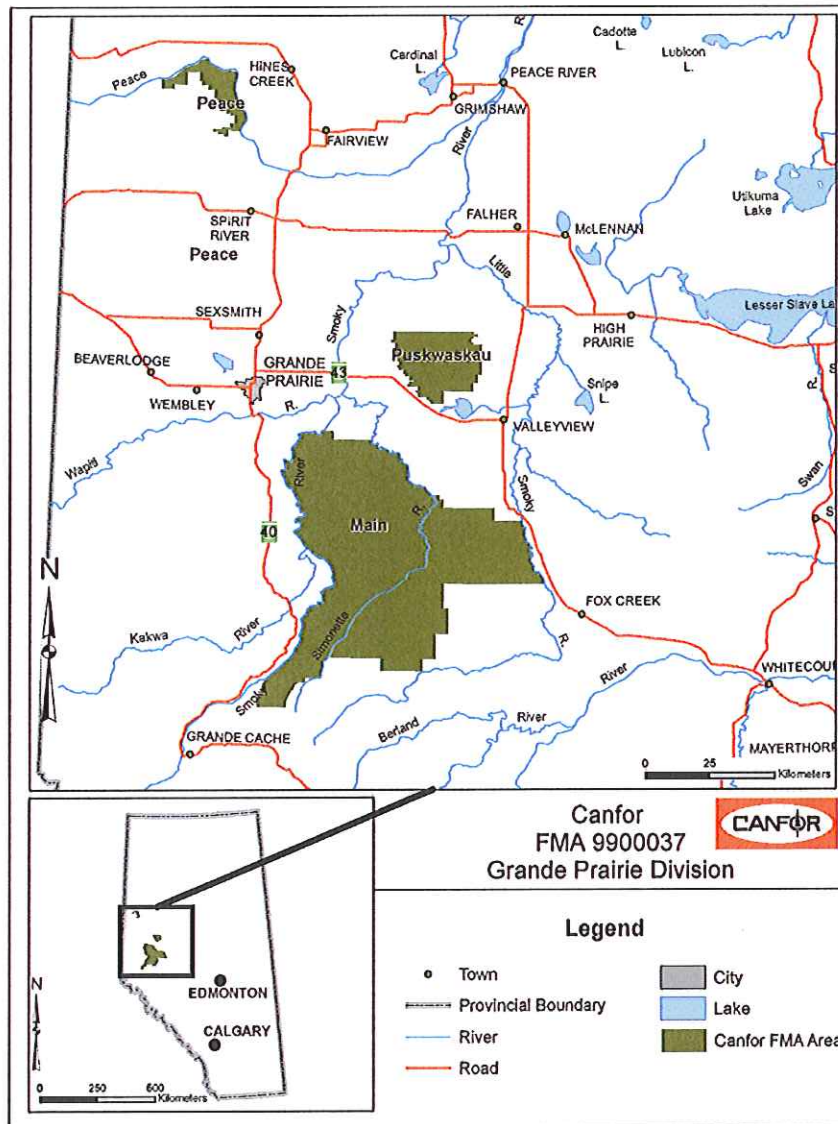
This FMP is being prepared in accordance with Section 10.(4) of Forest Management Agreement 9900037, which states that a new FMP be submitted prior to the tenth anniversary of that agreement. Due to the MPB amendment mentioned above, the deadline for the submission of this FMP was moved to May 1, 2012.

¹ Based on the five-year wood flow requirement (m³) indicated in Canfor's 2009 General Development Plan.



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Figure 1. Location of Canfor FMA 9900037





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1.1 Purpose of this Document

This Terms of Reference (TOR) describes the processes and timelines for development and submission of Canfor's Forest Management Plan (Canfor, 2012). The FMP and the Timber Supply Analysis (TSA) will be developed in conformance with the *Alberta Forest Management Planning Standard (AFMPS)* (ASRD, 2006). ASRD staff have informed Canfor that a new version of the AFMPS may be released in the near future. This FMP process will follow the 2006 AFMPS unless the PDT group agrees by consensus to adopt portions of the new standard.

1.2 Scope

This FMP applies to the forest management area described in FMA 9900037, as shown in Figure 1.

2. Framework

A Plan Development Team (PDT) will be assembled with the objective of producing the FMP, using a consensus model. The FMP process requires application of many different technical skills. The PDT will enlist the support of Technical Teams (TT's) as a means of providing specialized technical or analytical information. The makeup of the PDT and the TT's are listed in section 2.1.

Decision-making processes involving participants with diverse interests and backgrounds, may make it difficult to achieve consensus on all issues. The Conflict Resolution Process listed in Section 10.0 will be used when consensus cannot be achieved. Final decisions on the content of the FMP will reside with Canfor, as they will be responsible for its implementation. As the regulatory agency responsible for forest management, ASRD is responsible for the approval of the FMP, along with any conditions that may arise.

2.1 Plan Development Team and Technical Teams

The PDT will include the following members:

<u>Quota Holders</u>	<u>ASRD</u>	<u>Canfor</u>
Dave Beck (Ainsworth)	Tim Boulton (co-chair)	J.P. Bielech (co-chair)
Allan Bell (Tolko)	Karl Peck	Dwight Weeks
	Craig Brown	Jim Stephenson
<u>Other</u>	Dave Stepnisky	Terry Lazaruk
Modelling Consultant	Craig Johnson	
	Marty O'Byrne	



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Tim Boulton and JP Bielech will act as co-chairs of the PDT. JP and Tim will be representatives on all Technical teams. They will be responsible for determining agenda and disseminating minutes to all team members. Individuals outside of the PDT will be contacted for additional information and resources, as required. The Quota holders are to provide input through the PDT, although they have the right to go directly to ASRD if they do not feel that their issues are being addressed.

As certain components of the plan are completed, the PDT will recommend those components receive "agreement in principle" from ASRD.

The Technical Teams will be as follows:

- a. Growth and Yield: Thompson Nunifu, TECO Consulting staff, Dwight Weeks (lead). Purpose is to develop yield curves (natural and regenerated stands) for the modeling exercise.
- b. Watershed: Axel Andersen, Terry Lazaruk, John Diiwu, Craig Johnson, JP Bielech (lead). Purpose is to ensure that watershed issues are incorporated into the FMP.
- c. Net landbase: Terry Lazaruk, Karl Peck, Dwight Weeks (lead). Purpose is to define all aspects of the landbase for modeling.
- d. Wildlife/fisheries: Dave Stepnisky, Mike Russell, Craig Johnson, Terry Lazaruk, Dwight Weeks (lead). Purpose is to ensure the FMP addresses fish and wildlife habitat issues as per the AFMPS.
- e. Mixed wood management: Tolko, Ainsworth, Craig Brown, JP Bielech (lead). Purpose is to define how mixedwood stands will be modeled for the TSA. This will include harvest scheduling of natural stands, understory management and the Silviculture Matrix.
- f. VOITS alignment: Tim Boulton, Dwight Weeks (lead). Purpose is to ensure the AFMPS, CSA SFMP and Canfor Corporate Indicators are aligned as much as possible.
- g. Other TT's may be assembled on an as needed basis.

Tim Boulton and J.P. Bielech are to be copied on all TT agendas and minutes.

Operating Ground Rules will be revised within 6 months of submitting the FMP.



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2.2 Communication

Consistent, accurate communication will be essential in ensuring that the FMP Teams are able to work effectively. The two co-chairs will be responsible for information dissemination to the PDT members. Individual PDT and TT members are required to keep both co-chairs informed of issues being discussed. To ensure integration between the various teams, one PDT representative from each TT will be designated as the lead member who will be responsible for:

- forwarding TT's minutes to the PDT
- providing an update to the PDT on progress of the TT's
- providing the TT with relevant updates from the PDT
- determine when consensus is not achievable at the TT level, requiring the PDT to become involved

Minutes from PDT meetings will be forwarded to all PDT members and will be reviewed at the next meeting. Minutes from the TT meetings will also be circulated to all PDT members. Canfor will maintain digital records of all minutes and these can be requested at any time. Other information will generally be available at any time, although there may be some documents that will only be available through data sharing agreements. These special cases will be dealt with on a case by case basis.

Any inquiries received by members of the team from the public or the press will be forwarded to the two co-chairs. Replies will be discussed with the group prior to responding if the questions are significant.

The FMP and the Operating Ground Rules will be available on the SRD website once they are approved. Stewardship Reports will be provided to FMAC members and their organizations. Other documents such as approval letters and annual reports will be available upon request.

3.0 Public Participation

Canfor has adopted public participation as an essential element in development of this FMP. The Canfor Forest Management Advisory Committee (FMAC) was initiated in September of 1995. It has been one of the longest running Public Advisory Committees in Alberta. We will continue working with the FMAC on all aspects of the FMP. FMAC will be very involved in the development of the Values, Objectives, Indicators and Targets (VOITS) for inclusion in a new Sustainable Forest Management Plan (SFMP) for the FMA area that will conform to the requirements of the CSA Z809-08 standard. The SFMP is scheduled for completion in December of 2011. Through that process, Canfor will continue to be accountable to the public and will verify, by independent audit, that forestry operations are being managed to achieve present and future objectives.

First Nations identified by ASRD as having some interest in the area will be contacted to discuss how they want to be involved in this process, as per Alberta's First Nations Consultation Guidelines on Land Management and Resource Development



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4.0 Values, Objectives, Indicators and Targets (VOIT's)

Canfor Grande Prairie was one of the first companies to receive CSA SFM certification. Canfor's Sustainable Forest Management Plan (SFMP 2001), developed and approved in fulfillment of the requirements for certification under the Canadian Standards Association (CSA) Sustainable Forest Management System Standard CAN/CSA-Z809-96. In 2005, Canfor's SFMP was certified to the CAN/CSA-Z809-02 standard and it was incorporated into the FMP 2003 as a replacement of the previous version.

The CAN/CSA-Z809-08 standard has recently been released. SRD is reviewing this standard, with an objective of updating Annex 4 the Alberta Forest Management Planning Standard. Canfor has also been updating its corporate core indicators. The development of the VOIT's for this FMP will be formulated to meet the requirements of the AFMPS and any certification system that Canfor implements.. A Technical Team will be assigned to this task. Monitoring and forest stewardship reporting will be important components of the FMP. Monitoring provides the necessary feedback on assumptions and predictions, and supports adaptive management. Through the monitoring program, data will be collected to verify the status of the forest and, based on this "new" knowledge, management of forest resources will continue as prescribed, or will be modified to achieve acceptable outcomes.

Stewardship reports to ASRD will be submitted annually. These will come in the form of our Annual Performance Monitoring Reports. This report is provided to the Forest Management Advisory Committee (FMAC) and ASRD and is documents our progress on the CSA VOITS.

5.0 Timber Supply Analysis (TSA)

Management scenarios will be evaluated by a series of model runs. Canfor is evaluating several modeling programs for its corporate use. We will ensure that the chosen model is acceptable to ASRD prior to beginning its modeling work.

Sensitivity analyses will be completed to determine the level of risk implicit in the modeled solution. These can reveal areas where relationships between values are easily misunderstood and/or where small decisions have a high impact on the outcome. A decision on the acceptable level of risk is made. If the level of risk is unacceptable, then further analyses must be completed that will reduce the risk. After evaluating numerous sensitivity analyses, the preferred management strategy will be selected. Some scenarios that have been discussed are:

- Accelerated harvest of deciduous.
- Barred Owl/Seral stage options
- Caribou modeling scenarios
- Integrated vs. segregated land base scenarios
- Variable utilization options
- Others scenarios as they arise



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Any assumptions and protocols used in previous plans will be fully documented if they are to be used in this plan.

6.0 Project Plan (GANTT chart)

The accompanying GANTT chart provides a more detailed look at the overall process that will be used in developing the FMP. There will be a parallel ongoing discussion with FMAC as per the approved Canfor Public Involvement Plan. A generalized breakdown of the required steps is as follows:

- **Stage 1. Accomplishments by May 1, 2010**
 - ◆ Initiate Plan Development Team (PDT).
 - ◆ Initiate discussions with FMAC on the VOIT table
- **Stage 2. Accomplishments by November 15, 2010**
 - ◆ Submit Terms of Reference to SRD.
- **Stage 3. Accomplishments by December 31, 2010**
 - ◆ Submit Alberta Vegetation Inventory retro-fit for approval.
 - ◆ Meet with Aboriginal groups to discuss information sharing and input.
- **Stage 4. Accomplishments by March 31, 2011**
 - ◆ Landscape assessment.
 - ◆ Landbase Analysis
 - ◆ Begin yield curve development
 - ◆ Finish first round of VOIT discussions with FMAC
- **Stage 5. Accomplishments by September 1, 2011**
 - ◆ Yield curve submission.
 - ◆ Begin modeling runs.
 - ◆ VOIT review with Forest Management Advisory Committee (FMAC) finalized.
- **Stage 6. Accomplishments by December 1, 2011**
 - ◆ Management scenarios will be modeled via an iterative series of computer runs. A final run will eventually be conducted and the final management alternative will be selected. The preferred management strategy will be comprised of compatible resource management strategies that best achieve the identified objectives.
 - ◆ Both the PDT and the Forest Management Advisory Committee will be given time to complete a meaningful review of the FMP prior to submission. Feedback will be used to improve the submission document.
 - ◆ Finalize Silviculture Strategy portion of the document.



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- **Stage 7. Accomplishments by May 1, 2012**
 - ◆ Submission of the FMP to ASRD.
- **Stage 8. Operating Ground Rules finalization by November 2012**

7.0 Challenges to Resource Management

The challenge of the process is to develop plans and implementation strategies based on current knowledge and to find a balance between social, environmental and economic values.

Possible challenges include:

- The Mountain Pine Beetle infestation is continuing to expand in this area. As the infestation continues to develop, changes to the FMP may be required. ASRD will require some explanation of the impacts to growth and yield projections in MPB killed stands.
- Establishment of optimal timber flow regimes, in terms of managing the risk of beetle infestation, may require trade offs between pine management objectives and legal requirements, or Canfor commitments to maintain other resource values;
- Caribou issues in the southern portion of the FMA remain contentious. The PDT and the Wildlife TT will actively work together to address caribou habitat concerns.
- The Canada/ US Softwood Lumber Agreement applies prohibitive taxes on lumber export volumes at low markets, thereby reducing opportunities to sell additional lumber production that may result from AAC uplifts;
- Poor lumber markets may delay or inhibit capital investment in sawmill upgrades that are required to effectively utilize small diameter pine logs; and
- Poor markets may precipitate mill production slowdowns or mill closures.
- Age class and the decline in deciduous yield as to stand break-up in the older age classes. There will be a trade off with the old mixed wood seral stage requirements expected for some species like the Barred Owl.
- Determine how the Barred Owl is an output or built into the model run

8 Roles, Responsibilities and Obligation of Participants

A number of companies, organizations and individuals will play a role in the development of the amendment RTSA, as described in the following sections.

8.1 Canfor

Canfor is the principal planner regarding development of the FMP; however the process will be a cooperative effort between the public, other timber resource users, other stakeholders, government, and consultants.

The FMP will be developed and reviewed by the PDT, under the leadership of the Strategic Planning Superintendent. The FMP requires the approval of the Woodlands Manager.



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8.2 Alberta Sustainable Resource Development (ASRD)

The *Alberta Forest Management Planning Standard* (ASRD, 2006a) and its annexes, and updates provide the standard for preparing and implementing FMP's in Alberta.

ASRD staff will be members of the PDT. ASRD will also evaluate the submitted FMP for approval.

8.3 Quota Holders

The two deciduous quota holders will also be a part of the PDT. Their role will be to provide input into the FMP generally, and to represent the issues that affect them directly. Tolko and Ainsworth also provide representatives to act as advisors to FMAC.

8.4 Forest Management Advisory Committee

Canfor recognizes that public participation is essential to the development of successful forest management plans and established the Forest Management Advisory Committee (FMAC) in August 1995. The FMAC consists of members who represent a broad range of interested parties, including a Defined Forest Area² representative who works on Canfor's FMA area.

Membership is not limited to the above-mentioned list. FMAC periodically extends, invitations to other organizations to join the committee.

The committee operates under a terms of reference, which describes the committee's roles and responsibilities, as follows:

- Identify and select values, objectives, indicators and targets, based on the CSA Sustainable Forest Management (SFM) elements and any other elements of relevance to the DFA;
- Develop alternative strategies to be assessed;
- Assess alternative strategies and select the preferred one;
- Review the SFM plan;
- Design monitoring programs, evaluate results and recommend improvement;
- Discuss and resolve any issues relevant to SFM in the DFA;
- Provide input regarding Forest Ecosystem Management Objectives through VOITS; and
- In partnership with Canfor, review, refine and implement the Public Involvement Program.

For more information, see the approved "PUBLIC INVOLVEMENT PROGRAM FOR CANADIAN FOREST PRODUCTS LTD. FOREST MANAGEMENT AGREEMENT (FMA) 9900037"



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8.5 Consultants

Forestry consultants will play an important role in the development of the amendment RTSA. Canfor ensures that consultant services are provided in a manner consistent with its goals and objectives. Timberline Natural Resources Group Ltd. will be the primary consultant providing services with respect to the FMP.

8.6 Aboriginal Involvement

Canfor makes provision for Aboriginal input using processes that are in conformance with the Government of Alberta's First Nations Consultation Guidelines on Land Management and Resource Development (ASRD, 2006d).

Aboriginal involvement is ensured in two ways:

- Aboriginal groups, including Sturgeon Lake First Nation and Métis Nation Zone 6, are members of the Forest Management Advisory Committee; and
- Via direct consultation with Sturgeon Lake First Nation, Horse Lake First Nation and the Aseniwuche Winewak First Nation of Canada to ascertain their desired level of involvement.

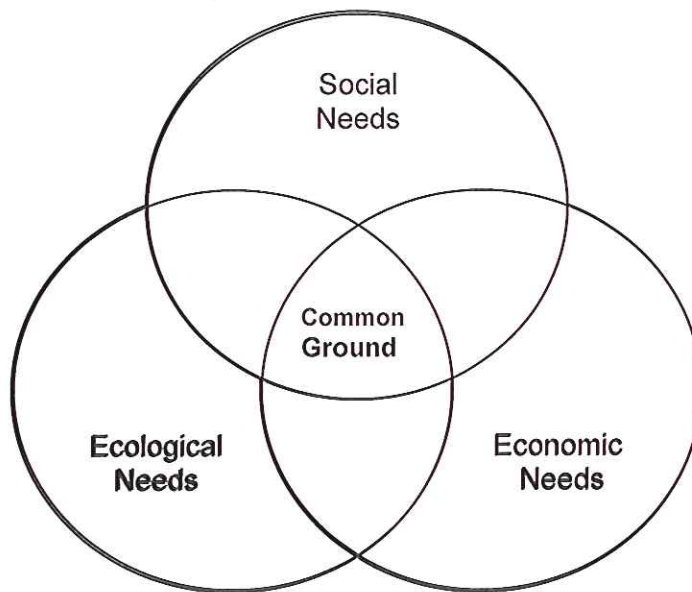
9.0 Conflicts of Interest

Members of Canfor's FMP planning team and any other person(s), either internal or external to Canfor, are expected to announce if they have a conflict of interest and to remove themselves from any decision making process.

10.0 Conflict Resolution

Resource management is needs driven, involving interplay of three factors: social needs, ecological needs, and economic needs. The interaction of these components can be visualized as indicated in the following schematic (Figure 2). The central portion of the drawing marked as “common ground” indicates where all three factors are in complete agreement. It is Canfor’s goal to meet the needs of the majority of stakeholders to the highest degree possible, but recognizing that full consensus on all issues may not be achievable.

Figure 2: Components of Resource Management (schematic)





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When dealing with social needs, one must be prepared to deal with conflict. For the purpose of this document, "conflict" is defined as "opposing viewpoints or opinions of two or more parties involved in the conflict."

When a conflict arises with a member of the public or another land user, an attempt will be made to resolve the concern through the following sequential process:

1. If the concern is via a telephone call, attempt to respond verbally. If the other person is not satisfied or requires a written response, then;
2. Respond to the person's concern in writing; or
3. If not resolved, offer to meet in person, at a convenient location, to discuss the concern(s). Offer the possibility of a field trip, if appropriate; and
4. If further action is required, offer to bring in a third party, depending on type of concern, to help work towards a solution or to conclude the conflict (see below). If appropriate, invite the person or party to an FMA meeting to voice their concern(s).

It must be recognized that not all conflicts can be resolved. Canfor must be sensitive to the needs of its stakeholders and incorporate concerns where feasible. However, Canfor is still required to meet the economic needs of its business while operating within the bounds of the FMA ground rules and Alberta legislation.

An effective Public Involvement Program allows various opportunities for the public to be heard, which goes a long way to minimize conflicts.

11.0 Mechanism to Adjust the Process

The most up to date data and information will be utilized to develop the FMP. As new information becomes available, Canfor will evaluate it and make a determination regarding the course(s) of action to be undertaken. If existing CSA targets cannot be achieved due to the impact of MPB, Canfor will work with the Forest Management Advisory Committee to develop revised targets or develop new indicators and targets as required.



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12.0 Access to Information

Canfor's process for development and implementation of the FMP will be an open and transparent process. In particular, Canfor will contact representatives of stakeholder groups that have expressed interest in Canfor's forest management strategy prior to submitting the FMP to ASRD. Following ASRD approval, the FMP and OGR's will be:

- Available for review at open houses and town hall meetings;
- Forwarded to interested parties on request; and
- Available on the ASRD website.

Other information such as approval documents, stewardship reports and other annual reports will be available upon request.



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13.0 Literature Cited

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