



CANADIAN STANDARDS
ASSOCIATION

Z809-08

Sustainable forest management



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Preface

This is the third edition of CSA Z809, *Sustainable forest management*. It supersedes the previous edition, published in 2002 under the title *Sustainable Forest Management: Requirements and Guidance*, which superseded both CAN/CSA-Z808, *A Sustainable Forest Management System: Guidance Document*, and CAN/CSA-Z809, *A Sustainable Forest Management System: Specifications Document*, published in 1996.

This Standard describes the requirements for sustainable forest management (SFM) of a defined forest area (DFA). The Standard outlines the requirements for a forest manager or owner wishing to implement the public participation, system requirements, and performance requirements for a DFA. It includes requirements for public participation, performance, management systems, review of actions, monitoring of effectiveness, and continual improvement. This Standard also outlines the auditing process used to determine whether SFM requirements are implemented at the DFA level. While this Standard provides guidance to users regarding certification, requirements for certification and decisions regarding approval rest with the certification bodies.

A second standard, CSA Z804, is intended for use by woodlot owners or managers of forests up to 4000 hectares.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Technical Committee on Sustainable Forest Management, under the jurisdiction of the Strategic Steering Committee on Business Management and Sustainability, and has been formally approved by the Technical Committee. It will be submitted to the Standards Council of Canada for approval as a National Standard of Canada.

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Notes:

- (1) Use of the singular does not exclude the plural (and vice versa) when the sense allows.
- (2) Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.
- (3) This publication was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this publication.
- (4) CSA Standards are subject to periodic review, and suggestions for their improvement will be referred to the appropriate committee.
- (5) All enquiries regarding this Standard, including requests for interpretation, should be addressed to Canadian Standards Association, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W 5N6.

Requests for interpretation should

- (a) define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;
- (b) provide an explanation of circumstances surrounding the actual field condition; and
- (c) be phrased where possible to permit a specific “yes” or “no” answer.

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are published in CSA’s periodical Info Update, which is available on the CSA Web site at www.csa.ca.

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Sustainable forest management

0 Introduction

0.1 General

Canada's forests make a significant contribution to our quality of life, the integrity of our environment, and the supply of paper and building materials and other forest products both at home and abroad. Canadian forests comprise diverse forest types and circumstances and support hundreds of forest-dependent communities. The future of our forests is important to all Canadians, including Aboriginal Peoples, who have a significant relationship with the land.

Canadian provinces have rigorous legislation and policies for the protection, conservation, and sustainable management of forests. This legislative framework is being continually improved, as is forest management in Canada. In addition to using regulatory tools, organizations can benefit from using voluntary tools, such as this Standard, to help them achieve sustainable forest management (SFM). This Standard gives organizations a system for continual improvement of their forest management performance and for engaging interested parties in a focused public participation process. Certification to this Standard involves regular and rigorous independent, third-party certification audits.

0.2 High degree of public involvement

CSA requires extensive public participation in the development of its Standards. The need for public participation is also strongly emphasized in this Standard, which requires organizations to seek comprehensive, continuing public participation and to work with Aboriginal Peoples at the community level. In this Standard, the public identifies forest values of specific importance to environmental, social, and economic concerns and needs. The public also takes part in the forest management planning process and works with organizations to identify and select SFM objectives, indicators, and targets to ensure that these values are addressed. The public participation requirements of this Standard are some of the most rigorous in certification standards in the world today. Because Canadian forests are primarily publicly owned, it is vital that a Canadian forest certification standard involve the public extensively in the forest management planning process. Forest management that meets the requirements of this Standard involves a positive relationship between the organization and the local community.

This Standard was first published in 1996, using an open and inclusive process managed by CSA. One-quarter of the CSA SFM Technical Committee membership consisted of timber producers, including woodlot owners; the remainder were scientists, academics, representatives of the provincial and federal governments, and environmental, consumer, union, and Aboriginal representatives. In 1995, special consultations with non-governmental and environmental organizations were conducted to obtain input into the development of this Standard. In addition, a Canada-wide public review of this Standard generated considerable interest, with CSA distributing over 1500 copies of the draft standard in response to requests for review. Public meetings were held in Montréal, Toronto, and Vancouver to seek further input.

In 2000, when CSA set out to review and improve upon the original Standard, it sought and incorporated public input once again. It also strengthened the conservation representation on its SFM Technical Committee to include representatives from Wildlife Habitat Canada, the Canadian Wildlife Federation, and the Ontario Federation of Anglers and Hunters.

Work on this third edition of CSA Z809 began in 2004. Input from existing public advisory groups (PAGs) active in the implementation of this Standard was sought to improve its effectiveness. Aboriginal representation was incorporated into the membership categories of the SFM Technical Committee. Input received from a broad range of interests during the public review of the draft standard was incorporated into this edition.

Like the previous editions, this edition of CSA Z809 was developed in an open, inclusive forum. This document reflects the ideas, positions, and concerns of a wide array of individuals and groups from across Canada with an interest in SFM, including the forest industry, woodlot owners, governments, academics, scientists, technical experts, Aboriginal Peoples, unions, consumer groups, and conservation, environmental, and social organizations.

0.3 CCFM SFM criteria and elements as the basis of the SFM performance requirements

The most broadly accepted Canadian forest management values generated to date are embodied in the CCFM SFM criteria and elements. The CCFM SFM criteria and elements are fully consistent with those of the Montréal and Helsinki processes, which are both recognized by governments around the world.

The requirements of this Standard are based on the CCFM SFM criteria. In this Standard, the CCFM SFM criteria and elements have been used as a framework for value identification and to provide vital links between local-level SFM and national and provincial forest policy. The CCFM SFM criteria also provide a strong measure of consistency in the identification of local forest values across Canada.

In this Standard, the organization is required to work closely with the public to identify the local values, objectives, indicators, and targets that reflect the national criteria and to incorporate them into forest management planning and practices. Decisions are made together with the public during this process.

0.4 Performance requirements

This Standard sets a level of performance to be met using a prescribed management system. Performance is dealt with at three levels. First, a set of SFM elements and core indicators is required. Second, the public has the opportunity to assist in setting specific values, objectives, additional indicators, and targets at the local forest level for each of the SFM elements, as well as to participate in effectiveness monitoring. This Standard requires a public participation process to establish and monitor locally appropriate targets (including thresholds and limits). Moreover, this Standard identifies specific requirements for the public participation process. This approach to performance not only respects government-recognized criteria for SFM but also allows the public to participate in the interpretation of the criteria and elements for local application. The third level is the assessment of actual changes in the forest as related to forecasts and results of management practices.

Thus, this Standard involves a combination of public participation, performance, and management system requirements.

0.5 Conformance with ISO (International Organization for Standardization) Standards

0.5.1 Development of CSA Standards

CSA standards development directives are consistent with ISO standards development directives. CSA Standards are developed through a consensus process that includes the principles of inclusive participation, respect for diverse interests, and transparency. The process is based on substantial agreement among committee members, rather than a simple majority of votes. When a draft standard has been agreed upon, it is submitted for public review, and amended as necessary. CSA Standards are living documents that are continually revisited and revised to address changing requirements and emerging technologies. Each Standard is reviewed at least every five years as part of a process of continual improvement.

0.5.2 Environmental management systems

This Standard is in conformance with the internationally recognized CAN/CSA-ISO 14001 environmental management system standard. A management system ensures that public participation and performance requirements are fulfilled in a systematic and predictable manner that guarantees continual improvement. This Standard includes the SFM continuum of

- (a) establishing a policy;
- (b) planning;

- (c) implementation and operation;
- (d) checking and corrective action; and
- (e) management review.

0.6 Forecasting and the future of the forest

Because of the relatively slow growth and long lifespan of Canadian forest trees, as well as the need to ensure the continuance of values associated with forests, forecasting the effects of forest management operations and practices is fundamental to this Standard. This forecasting, which is specified in the management plan, along with the functional bases for making the forecasts, is a key requirement and involves public participation. Forecasting allows the organization to specify the SFM strategy and forest practices that will achieve desired results in the context of adaptive management.

0.7 Continual improvement

The concept of continual improvement in SFM is central to this Standard. This Standard uses adaptive management procedures that recognize SFM as a dynamic process that incorporates new knowledge acquired through time, experience, and research, and that also evolves with society's changing environmental, social, and economic values. This Standard also requires the organization to undertake an annual review of all its requirements, including performance requirements, to identify areas for continual improvement.

Continual improvement is a necessary aspect not only of forest management but also of the evolution of this Standard. That is why CSA requires that its SFM Technical Committee review this Standard periodically to ensure that it incorporates knowledge gained through implementation. A review of this Standard must occur within five years of publication. The first edition of this Standard was published in 1996 and the second edition in 2002. This third edition, published in March 2009, is subject to the same process of review.

0.8 Third-party independent audits

To become certified to this Standard, the organization goes through a third-party independent audit to the SFM requirements in this Standard (these requirements are found in *Clauses 4 to 7*). The audit is conducted by a certification body accredited by the Standards Council of Canada. The individual auditors employed or contracted by the certification body have the requisite forestry expertise and are certified as environmental auditors. Audits to this Standard are done by accredited certifiers and certified auditors who are independent of the standards-writing body (CSA). In addition to the initial audit, there are mandatory annual reviews, which include both a document review and on-site checks of the forest to ensure that progress is being made towards the achievement of targets and that the SFM requirements are being upheld. In addition, a full re-certification audit is required periodically following the initial certification, in accordance with the requirements of the Standards Council of Canada.

0.9 Transparency

This Standard specifies requirements for full public disclosure of

- (a) all SFM plans developed under the Standard;
- (b) annual reports on progress against SFM plans; and
- (c) results of independent certification and surveillance audit reports.

1 Scope

1.1

This Standard specifies requirements for sustainable forest management (SFM) of a defined forest area (DFA), including requirements for

- (a) the management framework;
- (b) commitment;

- (e) the systematic review of actions;
- (f) the monitoring of effectiveness; and
- (g) continual improvement.

1.2

In CSA Standards, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; “may” is used to express an option or that which is permissible within the limits of the standard; and “can” is used to express possibility or capability. Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material. Notes to tables and figures are considered part of the table or figure and may be written as requirements. Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

2 Reference publications

This document refers to the following publications, and where such reference is made, it shall be to the edition listed below.

CSA (Canadian Standards Association)

CAN/CSA-ISO 14001-04

Environmental management systems — Requirements with guidance for use

CAN/CSA-ISO 19011-03(R2007)

Guidelines for quality and/or environmental management systems auditing

CAN/CSA Z731-03

Emergency preparedness and response

Z804-08

Sustainable forest management for woodlots and other small area forests

CAN/CSA-Z809-02

Sustainable forest management requirements and guidance

Z1600-08

Emergency management and business continuity programs

Alberta Forest Genetic Resources Council

Position Paper — Genetically Modified Organisms (GMO), 2001.11.15

<http://www.abtreegene.com/policy.html>

CCFM (Canadian Council of Forest Ministers)

Criteria and Indicators of Sustainable Forest Management in Canada: National Status 2005

http://www.ccfm.org/ci/index_e.php

Defining Sustainable Forest Management in Canada: Criteria and Indicators 2003

http://www.ccfm.org/ci/index_e.php

CFIA (Canadian Food Inspection Agency)

Action plan for invasive alien terrestrial plants and plant pests: Phase 1 — Key Initiatives, 2006

<http://www.inspection.gc.ca/english/plaveg/invenv/action/phase1e.shtml#1>

CFS (Canadian Forest Service)

Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3), Version 1.0 User's Guide, 2007
http://carbon.cfs.nrcan.gc.ca/cbm/operational_scale_e.html

Criteria and Indicators of Sustainable Forest Management in Canada: Technical Report 1997
http://www.ccfm.org/ci/index_e.php

Government of Canada

Canadian Biodiversity Strategy, 1995

Constitution Act, 1982

Migratory Birds Convention Act, 1994, c. 22

Delgamuukw v. British Columbia, [1997] 3 S.C.R. 1010.
<http://scc.lexum.umontreal.ca/en/1997/1997rcs3-1010/1997rcs3-1010.html>

Fisheries Act R.S.1985. c. F-14, s.1

R. v. Badger, [1996] 1 S.C.R. 771.
<http://scc.lexum.umontreal.ca/en/1996/1996rcs1-771/1996rcs1-771.html>

R. v. Van der Peet, [1996] 2 S.C.R. 507.
<http://scc.lexum.umontreal.ca/en/1996/1996rcs2-507/1996rcs2-507.html>

ILO (International Labour Organization)

Conventions and Recommendations.

http://ilo.org/global/What_we_do/InternationalLabourStandards/Introduction/ConventionsandRecommendations/lang--en/index.htm

ISO/IEC (International Organization for Standardization/International Electrotechnical Commission)

ISO/IEC 17000-04

Conformity assessment — Vocabulary and general principles

ISO/IEC 17021-06

Conformity assessment — Requirements for bodies providing audit and certification of management systems

IUCN (International Union for Conservation of Nature)

IUCN's Protected Area Programme

http://www.iucn.org/about/union/commissions/wcpa/wcpa_overview/wcpa_ppa

NRCAN (Natural Resources Canada)

Forest 2020: Practical Guide, Afforestation of Wildlands, 2005.

<http://cfs.nrcan.gc.ca/subsite/afforestation/reports/summaries>

The State of Canada's Forests — Annual Report 2008.

<http://canadaforests.nrcan.gc.ca/rpt#sustainable>

NRTEE (National Round Table on the Environment and the Economy)

Building Consensus for a Sustainable Future: Putting Principles into Practice, 1996

PEFC (Programme for the Endorsement of Forest Certification Schemes)

Annex 4: Chain of Custody of Forest Based Products — Requirements

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SCC (Standards Council of Canada)

CAN-P-15 (2000)

Accreditation Programs: Requirements and Procedures for Suspension and Withdrawal, Complaints, Appeals and Hearings

CAN-P-16 (2006)

Conformity assessment — Requirements for bodies providing audit and certification management systems

CAN-P-1517C (2006)

*Management Systems Accreditation Program (MSAP) Handbook: Conditions and Procedures for the Accreditation of Organizations Certifying/Registering Management Systems***UNEP (United Nations Environment Program)***Convention on Biological Diversity — Conference of Parties — 2005***Other publications**Beckley, T.M. et al. *Public Participation in Sustainable Forest Management: A Reference Guide to Best Practices*. Edmonton: Sustainable Forest Management Network, 2006.Hubbard, W. et al. *Forest Terminology for Multiple-Use Management*. University of Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, 1998.www.sfrc.ufl.edu/Extension/ssfor11.htm

3 Definitions and abbreviations

3.1 Definitions

The following definitions apply in this Standard:

Aboriginal — ““aboriginal peoples of Canada” [which] includes the Indian, Inuit and Métis peoples of Canada”. [*Constitution Act, 1982, Subsection 35 (2)*]**Aboriginal right** — “in order to be an Aboriginal right an activity must be an element of a practice, custom, or tradition (or an element thereof) integral to the distinctive culture of an Aboriginal group claiming that right”. [*R. v. Van der Peet, 1996*]**Aboriginal title** — “...is a right to the land itself, is a collective right to the land held by all members of an aboriginal nation. ...encompasses the right to use the land pursuant to that title for a variety of purposes, which need not be aspects of those aboriginal practices, cultures and traditions which are integral to the distinctive aboriginal cultures”. [*Delgamuukw v. British Columbia, 1997*]**Aboriginal treaty rights** — “...are those contained in official agreements between the Crown and the native peoples”. [*R. v. Badger 1996*]**Accreditation body** — authoritative body that performs accreditation.**Note:** *The authority of an accreditation body is generally derived from government [ISO/IEC 17000]***Adaptive management** — a learning approach to management that recognizes substantial uncertainties in managing forests and incorporates into decisions experience gained from the results of previous actions.**Afforestation** — the conversion of non-forested land to forested land through planting or seeding.**Note:** *Planting carried out after logging is not afforestation as defined under the Kyoto Protocol.***Appeal** — a request by an organization that is certified or seeking certification to a certification body or an accreditation body for reconsideration by that body of a certification decision that has been made.

Auditor — a person qualified to perform audits.

Note: For SFM certification audits, auditors are qualified in accordance with the requirements specified in SCC CAN-P-16, SCC CAN-P-1517C, and SFMP Handbook to CAN/CSA-Z809.

Biodiversity (biological diversity) — “the variability among living organisms from all sources, including inter alia, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems”. [Canadian Biodiversity Strategy, 1995]

Biomass — the total amount (mass) of living matter in a given ecosystem, population, or sample.

Note: In the context of sustainable forest management, biomass usually refers to plant matter.

CAN/CSA-ISO 14001 — an internationally recognized environmental management system standard revised in 2004 by the International Organization for Standardization.

Note: CAN/CSA-ISO 14001 has been approved as a National Standard of Canada by the Standards Council of Canada.

Certification — the result of a successful certification process in conformance with this Standard, whereby the certification body issues a certification certificate and adds the organization’s certification to a publicly available list maintained by the certification body.

Note: Certification of a management system is sometimes also called registration.

Certification applicant — an organization that has applied to an accredited certification body for certification to this Standard.

Certification audit — a systematic and documented verification process used to obtain and evaluate evidence objectively in order to determine whether an organization meets the SFM requirements of this Standard.

Certification body — an independent third party that is accredited as being competent to certify organizations with respect to nationally and internationally recognized standards.

Certification certificate — the official document issued by a certification body to an organization upon successful completion of the certification process (including the certification audit).

Coarse woody debris — all large deadwood in various stages of decomposition.

Note: Coarse woody debris includes standing dead trees, fallen wood, stumps, and roots.

Complaint — an expression of dissatisfaction, other than an appeal, by any person or organization to a certification body or an accreditation body related to the activities of that body, where a response is expected.

Note: In Canada, the accreditation body for certification bodies conducting audits to this Standard is the Standards Council of Canada.

Compliance — the conduct or results of activities in accordance with legal requirements.

Component — an individual element of the SFM system.

Note: Components include policy, planning, implementation and operation, checking and corrective action, and management review.

Conformance — meeting non-legal requirements.

Note: Non-legal requirements include policies, work instructions, or standards (including this Standard).

Continual improvement — the ongoing process of enhancing SFM performance using

- (a) experience;
- (b) assessment of results;
- (c) the incorporation of new knowledge in line with the organization’s SFM policy; and
- (d) the application of SFM requirements.

Corrective action — action to eliminate the cause of a detected nonconformity or other undesirable situation.

Note: *There can be more than one cause for a nonconformity. Corrective action is taken to prevent recurrence, whereas preventive action is taken to prevent occurrence.*

Defined forest area (DFA) — a specified area of forest, including land and water (regardless of ownership or tenure), to which the requirements of this Standard apply.

Note: *A DFA can consist of one or more contiguous blocks or parcels.*

Deforestation — “clearing an area of forest for another long-term use”. [NRCAN *The State of Canada’s Forests — Annual Report 2007*]

DFA-related worker — an individual employed by an organization to work for wages or a salary, who does not have a significant or substantial share of the ownership in the employer’s organization and does not function as a manager of the organization.

Ecosystem — plants, animals, and micro-organisms and their non-living environment, interacting as a functioning unit.

Note: *“The term ‘ecosystem’ can describe small-scale units, such as a drop of water, as well as large-scale units, such as the biosphere”. [Canadian Biodiversity Strategy, 1995]*

Element — the subcategory used to define the scope of each SFM criterion.

Note: *Each SFM criterion contains several elements. The SFM elements were derived from the national-scale elements developed by the CCFM for more specific local applications.*

Environment — the surroundings in which an organization operates.

Note: *The environment encompasses air, water, land, natural resources, flora, fauna, humans, and the interrelations of these elements.*

Fish habitat — “spawning grounds and nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly to carry out their life processes”. [Fisheries Act, 1985]

Focal species — species that warrant special conservation attention and are thus used to guide the management of ecosystems to conserve biodiversity.

Note: *Criteria for the selection of focal species can include ecological, socio-cultural, scientific, and economic considerations.*

Forecast — an explicit statement of the expected future condition of an indicator.

Forest — an ecosystem dominated by trees and other woody vegetation growing more or less closely together, its related flora and fauna, and the values attributed to it.

Forest condition — the state of the forest ecosystem as determined by a range of variables associated with forest structure, composition, and processes.

Forest land — land supporting forest growth or capable of doing so or, if totally lacking forest growth, bearing evidence of former forest growth.

Genetically modified organism (GMO) — an organism that, through human intervention in a laboratory, has had its genome or genetic code deliberately altered through the mechanical insertion of a specific identified sequence of genetic coding material (generally DNA) that has been either manufactured or physically excised from the genome of another organism.

Note: *Genetic modification can be used to alter a wide range of traits, including insect and disease resistance, herbicide tolerance, tissue composition, and growth rate (adapted from Alberta Forest Genetic Resources Council statement).*

Indicator — a variable that measures or describes the state or condition of a value.

Interested party — an individual or organization interested in and affected by the management activities of a DFA.

Invasive alien species — plants, animals, or micro-organisms that have been introduced by human action outside their natural past or present distribution, and whose introduction or spread threatens the environment, the economy, or society, including human health. [CFIA, 2006]

Long term — in the context of making forecasts regarding forest structure and composition, at minimum, twice the average life expectancy of the predominant trees in a DFA, up to a maximum of 300 years.

Migratory bird — the sperm, eggs, embryos, tissue cultures, and other parts of a migratory bird as defined in the *Migratory Birds Convention Act, 1994*.

Native species — a species that occurs naturally in an area; a species that is not introduced.

Objective — a broad statement describing a desired future state or condition of a value.

Old-growth forest — a forest dominated by old trees.

Note: *The age and structure of old-growth forests vary significantly by forest type and from one eco-region to another.*

Organization — a company, corporation, firm, enterprise, government, authority, or combination thereof, incorporated or not, public or private, that has its own functions and administration and that, for the purposes of this Standard, applies for certification.

Note: *For organizations with more than one operating unit (e.g., a division), a single operating unit may be defined as an organization.*

Personnel — management, contractors, and DFA-related workers employed by an organization.

Plantation — a forest area that does not follow natural succession patterns due to reforestation involving high-intensity silviculture practices.

Notes:

- (1) *Plantations are highly managed treed areas with few natural characteristics; they are generally managed for a single purpose.*
- (2) *Not all areas subjected to intensive silvicultural treatments are plantations.*

Preventive action — action to eliminate the cause of a potential nonconformity or other undesirable situation.

Notes:

- (1) *There can be more than one cause for a potential nonconformity.*
- (2) *Preventive action is taken to prevent occurrence, whereas corrective action is taken to prevent recurrence.*

Private woodlot owner — an individual or a group of individuals who privately own forest land. For the purposes of this Standard, private woodlots are those recognized as “woodlots” by the woodlot owner association in each province.

Productivity — the natural ability of a forest ecosystem to capture energy, support life forms, and produce goods and services.

Protected area — an area of land and/or sea specifically dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources, and managed through legal or other effective means. [IUCN, 1994]

Reforestation — re-establishment of trees on forested land following natural (e.g., fire) or human (e.g., timber harvest) disturbance, by natural or artificial (e.g., planting) means.

Seral stage — an identifiable stage of vegetative recovery following a disturbance.

Note: *Disturbances include fire, blowdown, and timber harvest.*

SFM performance — the assessable results of SFM as measured by the level of achievement of the targets set for a DFA.

SFM policy — a statement by an organization of intentions and principles in relation to SFM that provides a framework for objectives, targets, practices, and actions.

SFM requirements — the public participation, performance, and system requirements of this Standard.

SFM system — the structure, responsibilities, practices, procedures, processes, and time frames specified by a certification body for implementing, maintaining, and improving SFM.

Short-term operational plan — an annual or five-year plan.

Species at risk — species defined as at risk by national and provincial legislation applicable to a given DFA.

Standard — a document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines, or specifications for activities or their results, aimed at the achievement of the optimum degree of consistency in a given context.

Note: *Standards are based on the consolidated findings of science, technology, and experience and are aimed at the promotion of optimum community benefits.*

Strategy — a coordinated set of actions designed to meet established targets.

Sustainable forest management (SFM) — management “to maintain and enhance the long-term health of forest ecosystems, while providing ecological, economic, social, and cultural opportunities for the benefit of present and future generations”. [NRCAN *The State of Canada’s Forests 2007*]

Sustainable harvest level — the harvest level of forest products that, with consideration for ecological, economic, social, and cultural factors, leads to no significant reduction of the forest ecosystem’s capacity to support the same harvest level in perpetuity.

Target — a specific statement describing a desired future state or condition of an indicator.

Note: *Targets should be clearly defined, time-limited, and quantified, if possible.*

Tenure — the terms under which a forest manager or owner possesses the rights, and assumes the responsibilities, to use, harvest, or manage one or more forest resources in a specified forest area for a specified period of time.

Note: *Private ownership of forest land is the strongest form of tenure, as the rights and obligations rest solely with the forest owner. Forest tenures of public land in Canada fall into two main categories: area-based and volume-based. Area-based tenures not only confer timber-harvest rights but also usually oblige the tenure holder to assume forest management responsibilities. Volume-based tenures normally give the holder the right to harvest specific volumes of timber in areas specified by the landowner or manager, but can also oblige holders to assume forest management responsibilities.*

Top management — persons with decision-making authority regarding SFM policy, resource allocation, and planning in the DFA.

Value — a DFA characteristic, component, or quality considered by an interested party to be important in relation to an SFM element or other locally identified element.

Watershed — the total land area from which water drains into a particular stream or river. [Hubbard et al., 1998]

3.2 Abbreviations

The following abbreviations apply in this Standard:

BMP	— Best management practices
CCFM	— Canadian Council of Forest Ministers
CoC	— Chain of Custody
CSA	— Canadian Standards Association
DFA	— Defined forest area

- ILO — International Labour Organization
- ISO — International Organization for Standardization
- NPP — Net primary production
- PAG — Public Advisory Group
- PEFC — Program for endorsement of forest certification schemes
- SCC — Standards Council of Canada
- SFM — Sustainable forest management

4 Sustainable forest management requirements

4.1 General requirements

The organization shall meet the

- (a) public participation requirements specified in Clause 5;
- (b) performance requirements specified in Clause 6; and
- (c) system requirements specified in Clause 7.

4.2 Required activities

The organization shall meet the SFM requirements of this Standard, which include

- (a) compliance with legislation applicable to the DFA;
- (b) values, objectives, indicators, and targets that clearly address the SFM criteria and elements in this Standard;
- (c) ongoing and meaningful public participation;
- (d) implementation of adaptive management;
- (e) progress towards or achievement of performance targets; and
- (f) continual improvement in performance.

5 Public participation requirements

5.1 Basic requirements

The organization shall establish and implement a public participation process by

- (a) starting a new process;
- (b) building on an existing process; or
- (c) reviving a previous process.

5.2 Interested parties

The organization shall

- (a) openly seek representation from a broad range of interested parties, including DFA-related workers, and invite them to participate in developing the public participation process;
- (b) provide interested parties with relevant background information;
- (c) demonstrate through documentation that efforts were made to contact and encourage affected and interested communities, including Aboriginal communities, to become involved in the SFM public participation process;
- (d) acknowledge that Aboriginal participation in the public participation process is without prejudice to Aboriginal title and rights, or treaty rights; and
- (e) establish and maintain a list of interested parties that includes
 - (i) those that chose to participate;
 - (ii) those that decided not to participate;
 - (iii) those that were unable to participate;

- (iv) the reasons for not participating, if provided; and
 - (v) efforts within the organization to enable participation.
- The list shall contain names and contact information.

5.3 Process: Basic operating rules

The organization shall demonstrate that

- (a) the public participation process works according to clearly defined operating rules that contain provisions on
 - (i) content;
 - (ii) goals;
 - (iii) timelines;
 - (iv) internal and external communication;
 - (v) resources (including human, physical, financial, information, and technological, as necessary and reasonable);
 - (vi) roles, responsibilities, and obligations of participants and their organizations;
 - (vii) conflict of interest;
 - (viii) decision-making methods;
 - (ix) authority for decisions;
 - (x) mechanisms to adjust the process as needed;
 - (xi) access to information (including this Standard);
 - (xii) the participation of experts, other interests, and government;
 - (xiii) a dispute-resolution mechanism; and
 - (xiv) a mechanism to measure participants' satisfaction with the process; and
- (b) the participants have agreed to the public participation process operating rules.

5.4 Content

In the public participation process, interested parties shall have opportunities to work with the organization to

- (a) identify and select values, objectives, indicators, and targets based on SFM elements and any other issues of relevance to the DFA;
- (b) develop one or more possible strategies;
- (c) assess and select one or more strategies;
- (d) review the SFM plan;
- (e) design monitoring programs, evaluate results, and recommend improvements; and
- (f) discuss and resolve any issues relevant to SFM in the DFA.

The organization and the public participation process shall ensure that the values, objectives, indicators, and targets are consistent with relevant government legislation, regulations, and policies.

5.5 Communication

The organization shall

- (a) provide access to information about the DFA and the SFM requirements;
- (b) provide information to the broader public about the progress being made in the implementation of this Standard;
- (c) make allowances for the different linguistic, cultural, geographic, or informational needs of interested parties;
- (d) demonstrate that there is ongoing public communication about the DFA, including the public participation process; and
- (e) demonstrate that all input is considered and responses are provided.

6 SFM performance requirements

6.1 DFA-specific performance requirements

The organization, working with interested parties in the public participation process at each stage, shall establish DFA-specific performance requirements that address the SFM elements in Clause 6.3, as follows:

- (a) for each element, one or more DFA-specific values shall be identified;
- (b) for each value, one or more objectives shall be set;
- (c) for each value, one or more meaningful indicators shall be identified, including core and locally selected indicators. Indicators shall be quantitative where feasible;
- (d) for each indicator, data on the current status shall be provided, and one appropriate target shall be set. Each target shall specify acceptable levels of variance for the indicator and clear time frames for achievement. A clear justification shall be provided for why the targets have been chosen;
- (e) one or more strategies shall be identified and elaborated for meeting identified targets; and
- (f) forecasts shall be prepared for the expected responses of each indicator to applicable strategies, and the methods and assumptions used for making each forecast shall be described.

The work shall be recorded and summarized in the SFM plan. During plan implementation, measurements shall be taken for each indicator at appropriate times and places. Measurement results shall be interpreted in the context of the forecasts in the SFM plan. See Figure A.4 for an illustration of the relationship of values, objectives, indicators, and targets. See Clauses 7.5.1 and 7.6 for information on adaptive management.

6.2 SFM criteria — General

The organization, in conformance with the public participation process requirements of Clause 5, shall address the discussion items listed under each Criterion below, and shall identify DFA-specific values, objectives, indicators, and targets for each element, as well as any other values associated with the DFA.

The indicators shall include, but not necessarily be limited to, the core indicators identified in this Standard.

6.3 SFM criteria, elements, and core indicators

6.3.1 Criterion 1 — Biological diversity

Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part.

Discussion Items for Criterion 1

The public participation process shall include discussion of the following topics:

- Forest fragmentation and forest loss
- Management in the context of natural disturbance regimes and patterns and the range of natural variation
- Maintenance of populations and communities over time
- Local and regional protected areas and integrated landscape management
- Silvicultural regimes and tools such as plantations, pesticides (including integrated pest management and pesticide-use regulations), structural retention, and timber harvest practices (including clear-cutting)
- Practices to limit the spread of invasive alien species, and the regulatory prohibitions related to adverse ecological effects and the use of exotic tree species
- The gene pool of native seed stock, and genetically modified organisms (GMOs) and the associated regulatory/policy requirements
- Management and protection of biological resources of cultural heritage significance
- Management of cultural values and resources
- Locally available processes and methods for identifying sites with special biological and cultural significance
- Conservation of old-growth forest attributes
- Participation in government programs to protect threatened and endangered species

Element 1.1 — Ecosystem diversity

Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA.

Core indicators

- 1.1.1 — Ecosystem area by type
- 1.1.2 — Forest area by type or species composition
- 1.1.3 — Forest area by seral stage or age class
- 1.1.4 — Degree of within-stand structural retention

Element 1.2 — Species diversity

Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.

Core indicators

- 1.2.1 — Degree of habitat protection for selected focal species, including species at risk
- 1.2.2 — Degree of suitable habitat in the long term for selected focal species, including species at risk
- 1.2.3 — Proportion of regeneration comprised of native species

Element 1.3 — Genetic diversity

Conserve genetic diversity by maintaining the variation of genes within species and ensuring that reforestation programs are free of genetically modified organisms.

Element 1.4 — Protected areas and sites of special biological and cultural significance

Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological and cultural significance.

Identify sites of special geological, biological, or cultural significance within the DFA, and implement management strategies appropriate to their long-term maintenance.

Core indicators

- 1.4.1 — Proportion of identified sites with implemented management strategies
- 1.4.2 — Protection of identified sacred and culturally important sites

6.3.2 Criterion 2 — Ecosystem condition and productivity

Conserve forest ecosystem condition and productivity by maintaining the health, vitality, and rates of biological production.

Discussion Items for Criterion 2

The public participation process shall include discussion of the following topics:

- Climate change impacts and adaptation
- Trends in natural and human-caused disturbances
- Proportion of naturally disturbed area that is not salvage harvested
- Biomass utilization

Element 2.1 — Forest ecosystem resilience

Conserve ecosystem resilience by maintaining both ecosystem processes and ecosystem conditions.

Core indicator

- 2.1.1 — Reforestation success

Element 2.2 — Forest ecosystem productivity

Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.

Core Indicators

- 2.2.1 — Additions and deletions to the forest area
- 2.2.2 — Proportion of the calculated long-term sustainable harvest level that is actually harvested

6.3.3 Criterion 3 — Soil and water

Conserve soil and water resources by maintaining their quantity and quality in forest ecosystems.

Discussion Items for Criterion 3

The public participation process shall include, but not be limited to, discussion of the following topics:

- Soil productivity (long-term nutrient levels, shallow soils, best management practices for soil protection)
- Seasons of operations (operating windows, impacts on soil during frozen and unfrozen conditions)
- Site rehabilitation in areas of severe soil disturbance
- Water quality in watersheds supplying domestic water
- Healthy watersheds
- Management practices and regulatory requirements that protect water quality and quantity

Element 3.1 — Soil quality and quantity

Conserve soil resources by maintaining soil quality and quantity.

Core Indicators

- 3.1.1 — Level of soil disturbance
- 3.1.2 — Level of downed woody debris

Element 3.2 — Water quality and quantity

Conserve water resources by maintaining water quality and quantity.

Core Indicator

- 3.2.1 — Proportion of watershed or water management areas with recent stand-replacing disturbance

6.3.4 Criterion 4 — Role in global ecological cycles

Maintain forest conditions and management activities that contribute to the health of global ecological cycles.

Discussion Items for Criterion 4

The public participation process shall include, but not be limited to, discussion of the following topic:

- Carbon emissions from fossil fuels used in forest operations

Element 4.1 — Carbon uptake and storage

Maintain the processes that take carbon from the atmosphere and store it in forest ecosystems.

Core Indicators

- 4.1.1 — Net carbon uptake
- 2.1.1 — Reforestation success

Element 4.2 — Forest land conversion

Protect forest lands from deforestation or conversion to non-forests, where ecologically appropriate.

Core Indicator

- 2.2.1 — Additions and deletions to the forest area

6.3.5 Criterion 5 — Economic and social benefits

Sustain flows of forest benefits for current and future generations by providing multiple goods and services.

Discussion Items for Criterion 5

The public participation process shall include, but not be limited to, discussion of the following topics:

- Benefits for local communities and Aboriginal Peoples (cultural, spiritual, economic, health, etc.)
- Fair distribution of benefits and costs
- Proportion of goods and services sourced from local communities (to the extent that they are available and reasonably cost-competitive)

Element 5.1 — Timber and non-timber benefits

Manage the forest sustainably to produce an acceptable and feasible mix of timber and non-timber benefits. Evaluate timber and non-timber forest products and forest-based services.

Core Indicator

- 5.1.1 — Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA

Element 5.2 — Communities and sustainability

Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies.

Core Indicators

- 5.2.1 — Level of investment in initiatives that contribute to community sustainability
- 5.2.2 — Level of investment in training and skills development
- 5.2.3 — Level of direct and indirect employment
- 5.2.4 — Level of Aboriginal participation in the forest economy

6.3.6 Criterion 6 — Society's responsibility

Society's responsibility for sustainable forest management requires that fair, equitable, and effective forest management decisions are made.

Discussion Items for Criterion 6

The public participation process shall include, but not be limited to, discussion of the following topic:

- Development of working relationships with willing Aboriginal communities and/or people

Element 6.1 — Aboriginal and treaty rights

Recognize and respect Aboriginal title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights, and treaty rights.

Core Indicators

- 6.1.1 — Evidence of a good understanding of the nature of Aboriginal title and rights
- 6.1.2 — Evidence of best efforts to obtain acceptance of management plans based on Aboriginal communities having a clear understanding of the plans
- 6.1.3 — Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur

Element 6.2 — Respect for Aboriginal forest values, knowledge, and uses

Respect traditional Aboriginal forest values, knowledge, and uses as identified through the Aboriginal input process.

Core Indicator

- 6.2.1 — Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values

Element 6.3 — Forest community well-being and resilience

Encourage, co-operate with, or help to provide opportunities for economic diversity within the community.

Core Indicators

- 6.3.1 — Evidence that the organization has co-operated with other forest-dependent businesses, forest users, and the local community to strengthen and diversify the local economy
- 6.3.2 — Evidence of co-operation with DFA-related workers and their unions to improve and enhance safety standards, procedures, and outcomes in all DFA-related workplaces and affected communities
- 6.3.3 — Evidence that a worker safety program has been implemented and is periodically reviewed and improved

Element 6.4 — Fair and effective decision-making

Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.

Core Indicators

- 6.4.1 — Level of participant satisfaction with the public participation process
- 6.4.2 — Evidence of efforts to promote capacity development and meaningful participation in general
- 6.4.3 — Evidence of efforts to promote capacity development and meaningful participation for Aboriginal communities

Element 6.5 — Information for decision-making

Provide relevant information and educational opportunities to interested parties to support their involvement in the public participation process, and increase knowledge of ecosystem processes and human interactions with forest ecosystems.

Core Indicators

- 6.5.1 — Number of people reached through educational outreach
- 6.5.2 — Availability of summary information on issues of concern to the public

7 SFM system requirements**7.1 General**

The organization shall establish and maintain an SFM system as specified in [Clause 7](#).

7.2 SFM policy

Top management shall define and maintain the organization's SFM commitment through policy statements and/or other documented public statements. The statement(s) shall contain a commitment to

- achieve and maintain SFM;
- meet or exceed all relevant legislation, regulations, policies, and other requirements to which the organization subscribes;
- respect and recognize Aboriginal title and rights, and treaty rights;
- provide for public participation;
- provide participation opportunities for Aboriginal Peoples with rights to and interests in SFM within the DFA;

- (f) provide conditions and safeguards for the health and safety of DFA-related workers and the public;
- (g) honour all international agreements and conventions to which Canada is a signatory;
- (h) improve knowledge about the forest and SFM, monitor advances in SFM science and technology, and incorporate these advances where applicable; and
- (i) demonstrate continual improvement of SFM.

The statement(s) shall be documented, communicated, and made readily available.

7.3 Planning

7.3.1 Defined forest area (DFA)

The organization shall designate a clearly defined forest area to which this Standard applies.

The organization shall define the geographic extent and the respective ownership and management responsibilities for the DFA.

7.3.2 Shared responsibilities

The organization shall ensure that all parties necessary to address the SFM elements for the DFA are involved in the process. The organization shall clearly describe the respective roles and responsibilities of the parties involved.

Where there are parties operating within the DFA that are not interested in participating and are not necessary for the achievement of the SFM elements, the organization may proceed without their involvement provided that the objectives and targets can still be achieved.

7.3.3 Rights and regulations

The organization shall

- (a) respect the legal rights and responsibilities of other parties in the DFA that are not part of the certification applicant;
- (b) demonstrate that relevant legislation and regulatory requirements relating to ownership, tenure, rights, and responsibilities in the DFA have been identified and complied with;
- (c) demonstrate that Aboriginal title and rights, and treaty rights have been identified and respected;
- (d) demonstrate that the legal and constitutional rights (including those specified in the International Labour Organization [ILO] conventions to which Canada is a signatory [such as “Freedom of Association” and “Protection of the Right to Organize”]) and the health and safety of DFA-related workers are respected, and their contributions to SFM are encouraged;
- (e) demonstrate that the acquired and legal rights of private woodlot owners to set the values, objectives, indicators, and targets relating to their properties are respected; and
- (f) establish and maintain procedures to identify and have access to all legal and other requirements to which the organization subscribes that are applicable to the DFA. This includes requirements related to ownership tenure, rights, and responsibilities in the DFA.

7.3.4 Incorporation of public participation requirements

The public participation requirements specified in Clause 5 shall be incorporated into the SFM system.

7.3.5 SFM plan

The organization shall document, maintain, and make publicly available an SFM plan for the DFA. The SFM plan for each DFA shall include

- (a) a comprehensive description of the DFA;
- (b) a summary of the most recent forest management plan and the management outcomes, including the conclusions drawn in the management review;
- (c) a statement of values, objectives, indicators, and targets;
- (d) the current status and forecasts for each indicator, including a description of the assumptions and analytical methods used for forecasting;
- (e) a description of the chosen strategy, including all significant actions to be undertaken and the associated implementation schedule;

- (f) a description of the monitoring program;
- (g) a comparative analysis of actual and expected outcomes; and
- (h) a demonstration of the links between short-term operational plans and the SFM plan.

7.4 Implementation and operation

7.4.1 Structure and responsibility

Roles, responsibilities, and authority required to implement and maintain conformance with SFM requirements shall be defined, documented, and communicated within the organization.

The organization shall provide resources essential to the implementation and control of the SFM requirements, including human resources and specialized skills, technology, and financial resources.

The organization shall appoint a specific management representative(s) who shall have defined roles, responsibilities, and authority for

- (a) ensuring that the SFM requirements are established and maintained in accordance with this Standard; and
- (b) reporting on the SFM requirements to top management for review and as a basis for continual improvement.

7.4.2 Training, awareness, qualifications, and knowledge

The organization shall identify training needs. It shall also ensure that personnel receive training in accordance with the impact of their work on the DFA and their ability to ensure that SFM requirements are met.

The organization shall establish and maintain procedures to ensure that personnel, at each relevant function and level, have knowledge of

- (a) the importance of conformance with the SFM policy and with the SFM requirements;
- (b) the environmental impacts, actual or potential, of their work, and the benefits of meeting the SFM requirements;
- (c) their roles and responsibilities in achieving conformance with the SFM policy and SFM requirements, including emergency preparedness and response requirements; and
- (d) the potential consequences of deviations from specified operating procedures.

The organization shall ensure that its personnel are qualified on the basis of appropriate training and/or work experience and have opportunities to gain new knowledge. The organization shall also require contractors working on its behalf to demonstrate that their personnel have the requisite training and awareness levels.

The organization shall continually improve its knowledge of the DFA and SFM and shall monitor advances in SFM science and technology, and incorporate them where and when applicable.

7.4.3 Communication

The organization shall

- (a) establish and maintain procedures for internal communication between its various levels and functions;
- (b) establish and maintain procedures for receiving, documenting, and responding to relevant communication from external interested parties;
- (c) make the SFM plan publicly available;
- (d) make publicly available an annual report on its performance in meeting and maintaining the SFM requirements; and
- (e) make publicly available the results of independent certification and surveillance audit reports, including, at minimum, the following information:
 - (i) a description of the audit process, objectives, and scope;
 - (ii) the scope of certification;
 - (iii) DFA and tenure description;
 - (iv) a list of the elements audited both off-site and on-site;

- (v) the name of the certified organization and/or co-applicant(s) that were audited, including their representatives;
- (vi) the name of the certification body, lead auditor, and audit team members;
- (vii) the dates the audit was conducted and certification completed;
- (viii) a summary of the findings, including general descriptions of nonconformities, opportunities for improvement, and exemplary practices/positives;
- (ix) a statement of corrective actions taken for current nonconformities;
- (x) the status of nonconformities from previous audits;
- (xi) the certification recommendation;
- (xii) the number of sites visited on the ground and activities observed;
- (xiii) the number of public participation members, government officials, DFA-related workers, and other interested parties that were interviewed;
- (xiv) the date of the next audit; and
- (xv) forest areas for the next audit.

7.4.4 SFM documentation

The organization shall establish and maintain documentation, in paper or electronic form, that

- (a) describes the SFM requirements and their interaction; and
- (b) provides direction to related documentation.

Organizations shall ensure that DFA-related workers and contractors have access to the documentation relevant to their responsibilities and tasks.

7.4.5 Document control

7.4.5.1

The organization shall establish and maintain procedures for controlling all documents (paper or electronic) required by this Standard, to ensure that

- (a) documents can be readily located;
- (b) documents are periodically reviewed, revised as necessary, and approved as adequate by authorized personnel;
- (c) the current versions of relevant documents are available at all locations where operations essential to the fulfillment of the SFM requirements and the SFM plan are performed;
- (d) obsolete documents are promptly removed from all points of issue and use, or otherwise prevented from unintended use; and
- (e) obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified.

7.4.5.2

Documentation shall be

- (a) legible;
- (b) dated (with dates of revision);
- (c) readily identifiable;
- (d) maintained in an orderly manner; and
- (e) retained for a specified period.

Procedures and responsibilities for the creation and modification of the various types of documents shall be established and maintained.

7.4.6 Operational procedures and control

The organization shall

- (a) identify the operational procedures and controls needed to meet the SFM requirements;
- (b) establish and maintain documented procedures to cover situations in which the absence of such procedures could lead to deviations from the SFM requirements;
- (c) stipulate operating criteria, including maintenance and calibration requirements;

- (d) communicate relevant procedures, controls, and requirements to employees, suppliers, and contractors; and
- (e) ensure that contractors working on behalf of the organization have the necessary operational procedures and controls.

7.4.7 Emergency preparedness and response

The organization shall

- (a) establish and maintain procedures to identify the potential for, and response to, accidents and emergencies in the DFA;
- (b) establish and maintain procedures to prevent and mitigate the impacts associated with accidents and emergencies;
- (c) review and revise, where necessary, its emergency preparedness and response procedures, particularly after the occurrence of accidents or emergencies; and
- (d) where practicable, test procedures periodically.

7.5 Checking and corrective action

7.5.1 Monitoring and measurement

The organization shall

- (a) establish and maintain documented procedures to monitor, on a regular basis, the key characteristics of its operations and activities that demonstrate progress towards SFM in the DFA. This shall include the recording of performance levels, relevant operational controls, and conformance with the SFM requirements;
- (b) monitor indicators for comparison against forecasts;
- (c) establish and maintain a documented procedure for periodically evaluating compliance with relevant legislation and regulations, and conformance with relevant policies applying to the DFA. If non-compliances or nonconformities are found, the organization shall address these through corrective and preventive actions; and
- (d) assess the quality, validity, and meaningfulness of the locally determined indicators and all of the targets.

7.5.2 Corrective and preventive action

The organization shall establish and maintain procedures for

- (a) defining responsibility and authority for identifying and investigating nonconformity;
- (b) taking action to mitigate impacts; and
- (c) initiating and completing corrective and preventive action.

Any corrective or preventive action taken to eliminate the causes of actual and potential nonconformities shall be appropriate to the magnitude of problem and commensurate with the impact encountered.

7.5.3 Records

The organization shall establish and maintain procedures for the identification, maintenance, and disposal of SFM requirement records. These records shall include training records and the results of audits and reviews.

SFM requirement records shall be

- (a) legible;
- (b) identifiable;
- (c) traceable to the activity involved; and
- (d) stored and maintained such that they are readily retrievable and protected against damage, deterioration, or loss.

Their retention times shall be established and recorded.

Records shall be maintained, in a manner appropriate to the system and to the organization, to demonstrate conformance to the requirements of this Standard.

7.5.4 Internal audits to the SFM requirements

7.5.4.1

The organization shall

- (a) establish and maintain procedures for annual internal audits to ensure that they conform to the SFM requirements of this Standard; and
- (b) provide information on the results of these internal audits to top management.

7.5.4.2

The organization's internal audit program, including any schedules, shall be based on the importance of the specific SFM activity and the results of previous audits.

Audit procedures shall cover the following:

- (a) scope;
- (b) frequency;
- (c) methods;
- (d) responsibilities and requirements for conducting audits;
- (e) auditor qualifications; and
- (f) reporting results.

7.6 Management review

The organization's top management shall, at least annually, review the SFM requirements to ensure that progress towards SFM continues to be suitable, adequate, and effective. The information necessary to allow top management to carry out this evaluation shall be collected. This review shall be documented.

In order to be adaptive, the management review shall address the possible need for changes to policy, targets, and other SFM requirements, in light of audit results, changing circumstances, and the commitment to continual improvement.

Annex A (informative)

Guidance for implementation and certification

Notes:

- (1) This Annex is not a mandatory part of this Standard.
- (2) The boxed text in this Annex is a reproduction of the requirements of this Standard. The text located outside the boxes provides guidance to clarify the specifications within, by using explanations and practical examples. This guidance material does not provide any additional requirements to those specified in the boxes. An organization seeking third-party independent certification will be audited to the text in the boxes, and decisions regarding compliance with these requirements rest with the certification bodies.

A.4 Sustainable forest management requirements

A.4.1 General requirements

4.1 General requirements

The organization shall meet the

- (a) public participation requirements specified in Clause 5;
- (b) performance requirements specified in Clause 6; and
- (c) system requirements specified in Clause 7.

SFM requirements are presented in three separate clauses to facilitate comprehension of the main tenets of this Standard. However, these three sets of requirements are interrelated and should be considered together, rather than independently. For example, the performance requirements provide much of the content for the public participation process. Similarly, an important function of the system requirements is to provide the organization with the means to manage and track its SFM performance for the purposes of continual improvement.

A.4.2 Required activities

4.2 Required activities

The organization shall meet the SFM requirements of this Standard, which include

- (a) compliance with legislation applicable to the DFA;
- (b) values, objectives, indicators, and targets that clearly address the SFM criteria and elements in this Standard;
- (c) ongoing and meaningful public participation;
- (d) implementation of adaptive management;
- (e) progress towards or achievement of performance targets; and
- (f) continual improvement in performance.

The SFM requirements create a framework that facilitates effective and consistent on-site forest management while focusing on continual improvement. To be certified, the organization needs to meet the SFM requirements, which include the public participation, performance, and system requirements specified in Clauses 5, 6, and 7. The organization is to address all of the SFM elements, as well as other values identified through the public participation process, by establishing objectives, indicators, and targets for the specific DFA. The organization is to establish and maintain an SFM system that includes the following components:

- policy;
- planning;

- implementation and operation;
- checking and corrective action; and
- management review to achieve continual improvement.

A.4.3 Adaptive management

The SFM system requirements are based on the principle of adaptive management, which enables and encourages the improvement of management actions and practices based on knowledge gained from experience. The organization should incorporate adaptive management concepts when implementing and maintaining the SFM system.

Forest ecosystems change continuously as a result of both human and non-human influences. SFM necessitates the establishment of relationships between forest values and management actions. Adaptive management facilitates knowledge of these relationships at the temporal and spatial levels at which forest systems are managed. SFM in accordance with this Standard uses adaptive management to achieve continual improvement. This is done by regularly monitoring and assessing a set of core and locally selected indicators and by modifying forecasts, activities, and plans based on this information (see Figure A.1).

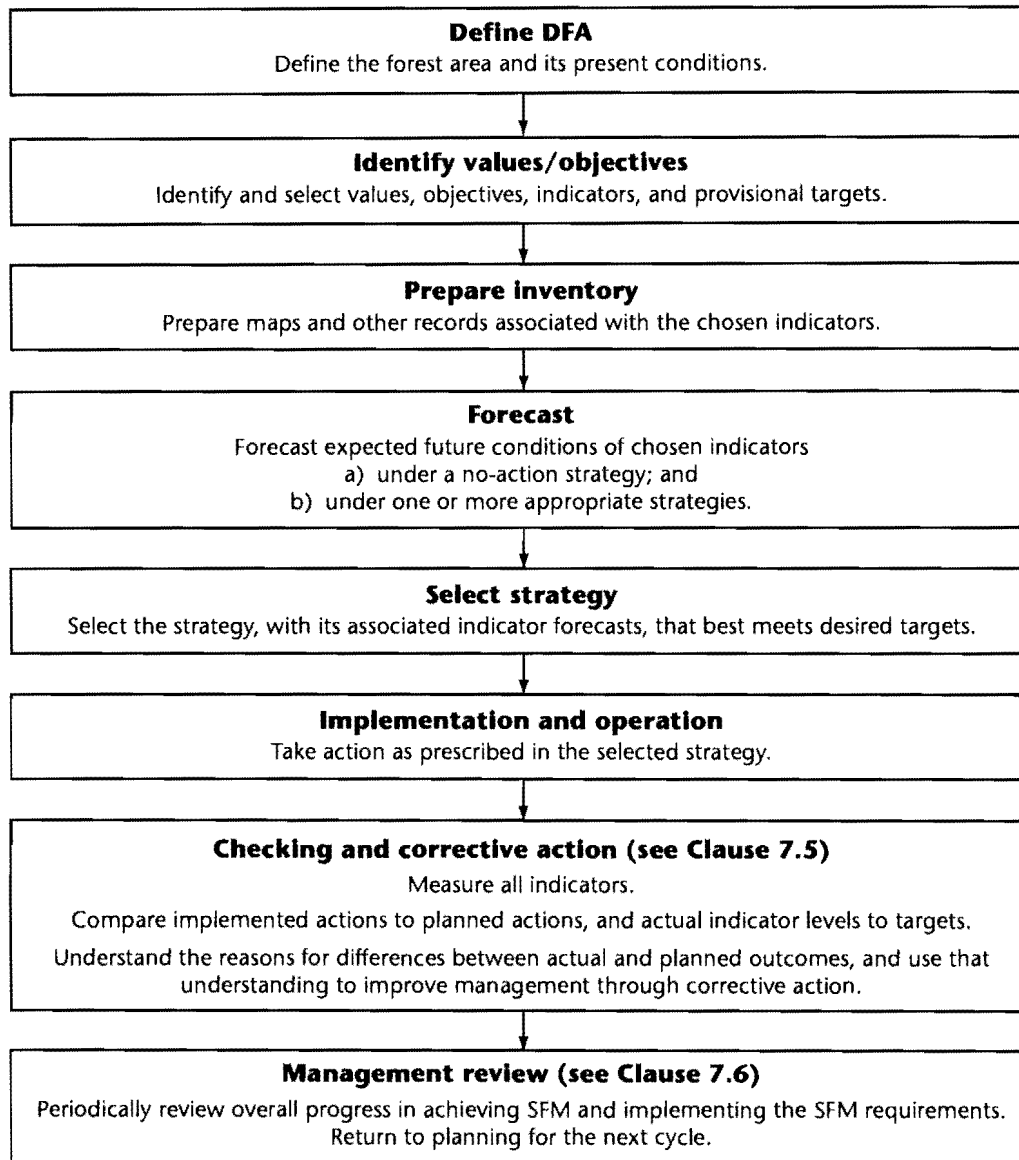


Figure A.1
Adaptive management as applied to forests
(See Clause A.4.3.)

A.4.4 Continual improvement

Continual improvement (see Figure A.2) and overall progress towards SFM are achieved when all SFM requirements are aligned and working together. Each of the SFM requirements has specific considerations, and each is dependent on the others to be effective.

SFM policy and management review are the fundamental generators of continual improvement. The SFM policy sets the foundation for SFM for the organization and acts as a guide. Management review provides an opportunity for the organization to examine its performance against the SFM requirements,

both individually and collectively. The review, which takes place annually or more frequently, maintains the continual improvement cycle through specific guidance, direction, and the allocation of necessary resources.

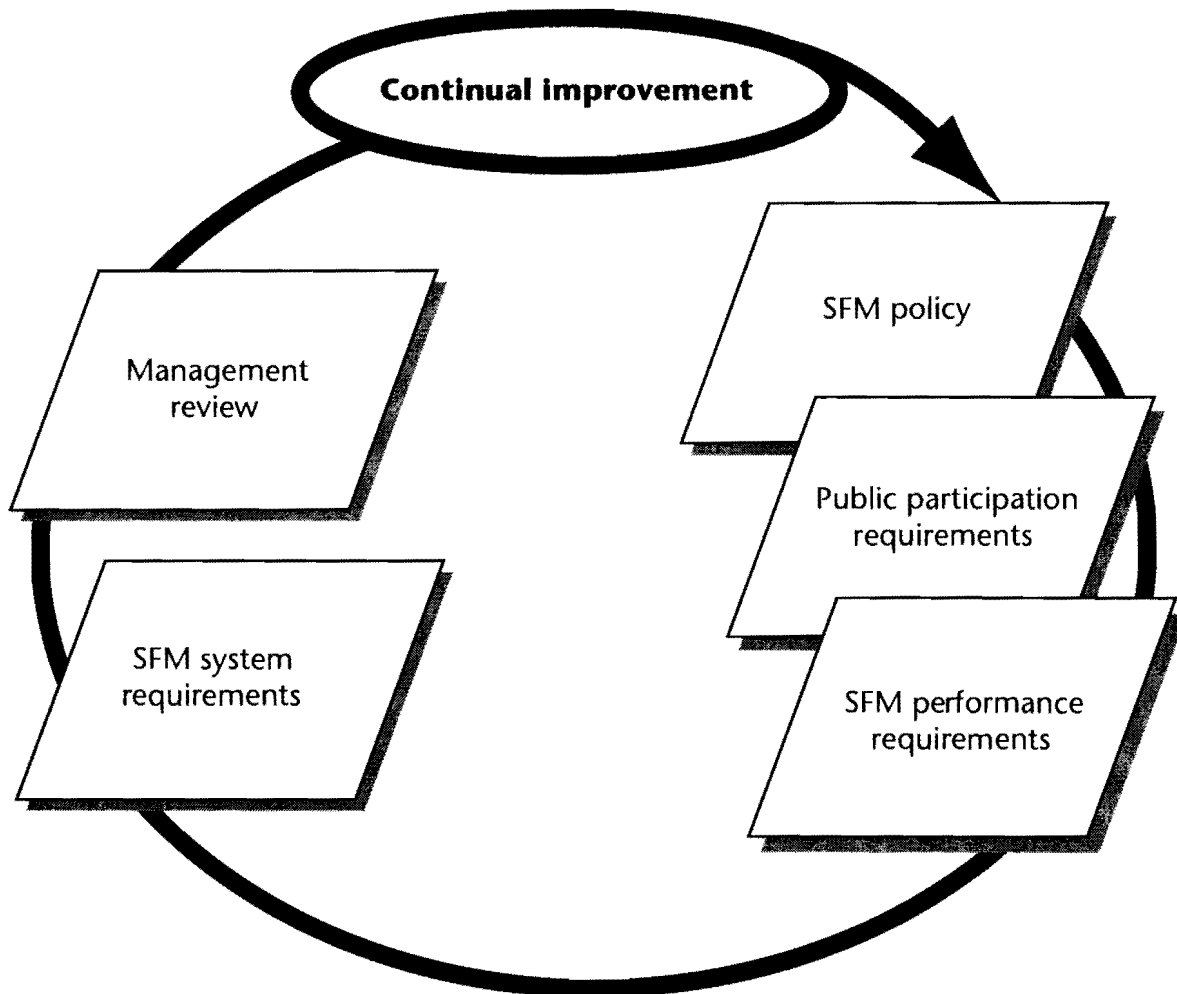


Figure A.2
SFM continual improvement loop
 (See Clause A.1.4.)

A.5 Public participation requirements

A.5.1 General requirements

5.1 General requirements

The organization shall establish and implement a public participation process by

- (a) starting a new process;
- (b) building on an existing process; or
- (c) reviving a previous process.

Public participation is a process of engagement that incorporates a diversity of values into SFM. (For more information on public participation, see Beckley et al., *Public Participation in Sustainable Forest Management: A Reference Guide to Best Practices*.) The public participation process specified in this Standard does not replace the Crown's legal duty to consult with Aboriginal Peoples. Members of the public are widely considered to have the right to be involved in the management of publicly owned forests. Private forest landowners may voluntarily adopt processes with extensive public input. Through their participation in the process, citizens can enhance their knowledge of SFM in general and of other interests and values related to local forests. They also gain a valuable opportunity to be involved in the decision-making process for local forests.

Implementation of a public participation process as specified in this Standard gives the public an opportunity to be involved proactively in the management of a DFA. Interested parties are invited to have input in the major steps of SFM, and the organization has an obligation to heed such input, either by accepting it and revising management accordingly or by responding with specific reasons for not accepting it.

Public participation processes, however, have their limits. In a DFA-specific process, participants should not expect to be able to change existing public policies, laws, and regulations established by governments, nor to promote a concept that is illegal. A public participation process for SFM under this Standard respects existing authority for decisions associated with the use and management of the DFA.

Effective public participation processes accommodate the public's wide range of knowledge, interests, and involvement with regard to SFM, as well as its differing cultural and economic ties to the forest. The approach to public participation may vary according to the DFA, the desired outputs, and the specific needs and rights of interested parties. A variety of strategies for public participation might have to be employed on a single DFA in the development and implementation of the SFM requirements. For example, one strategy is to involve a local group of interested and affected parties on an ongoing basis. This strategy could be complemented by communication with a broader public to increase awareness and understanding of SFM and to provide a mechanism for soliciting a wide range of input into the development and implementation of the SFM requirements.

The organization will be implementing the SFM requirements in an environment where other decision-making processes already exist. The organization will need to take previous planning into account and build upon existing management systems, public processes, and decisions relevant to the DFA, even though they might be applicable to a land base larger than the DFA. The organization might have an opportunity to use existing public participation processes when implementing the SFM requirements. Where the outputs of such processes are regulatory or policy requirements of the jurisdiction in which the DFA is situated, these requirements should be reflected in the SFM system.

The organization can build on the results of existing or former public participation processes, but might need to refine and/or expand them to apply specifically to the DFA and to meet the public participation requirements of this Standard. Where existing processes do not address all the public participation requirements of this Standard, the organization should ensure that the gaps are filled through complementary measures.

A.5.2 Interested parties

A.5.2.1

5.2 Interested parties

The organization shall

- (a) openly seek representation from a broad range of interested parties, including DFA-related workers, and invite them to participate in developing the public participation process;
- (b) provide interested parties with relevant background information;

To seek representation of those directly affected by or interested in forest management in the DFA, the organization needs to have an understanding of the relevant interests and positions of local, interested parties. In addition, it is important that the organization consider the broader public interest, particularly where decisions are likely to be seen as regionally significant or contentious. The organization should openly seek representation from DFA-related workers and/or their union representatives.

Interested parties can be engaged in public participation processes in several ways. Specific groups or individuals can be selected and personally invited to participate. Alternatively, parties may be invited to nominate a representative. Where it is advisable on practical grounds to restrict the number of participants, clear criteria for selection should be established, and a mechanism should be developed to provide those interested parties not selected with the opportunity to have input in the process.

A.5.2.2

5.2 Interested parties

- (c) demonstrate through documentation that efforts were made to contact and encourage affected and interested communities, including Aboriginal communities, to become involved in the SFM public participation process;

The encouragement of Aboriginal forest users and communities to become involved in identifying and addressing SFM values can vary from community to community, but always begins with a clear respect for their rights, values, and traditional knowledge. From a foundation of respect, an organization is able to involve Aboriginal representatives in the decision-making process based on their interests, values, and traditions, and integrate their knowledge into management planning at the outset. This can result in opportunities for capacity-building, Aboriginal employment opportunities, and business development with Aboriginal contractors and businesses, including joint ventures.

If an organization approaches an Aboriginal forest user or community with an understanding of what they might expect from the engagement and what some of their concerns might be, the chances of engaging effectively and alleviating concerns are increased. When attempting to engage Aboriginal Peoples in a meaningful way, an organization should

- approach the Aboriginal community to determine the appropriate authority on the theme of SFM. The appropriate authority might be the elected Chief and Council, or a forestry committee established by a band. The appropriate authority can vary by community;
- have a background on Aboriginal Peoples and the rapidly changing legal context;
- have an understanding of existing provincial policies and legislation on Aboriginal participation and consultation; and
- be open to the perspectives of Aboriginal Peoples on their participation and on key aspects of SFM.

Information about the SFM plan should be provided to Aboriginal communities associated with the DFA (e.g., through workshops or training sessions), particularly if they are not already receiving information through active participation in an advisory group. Providing this information can facilitate mutual understanding and encourage further Aboriginal participation.

A.5.2.3**5.2 Interested parties**

- (d) acknowledge that Aboriginal participation in the public participation process is without prejudice to Aboriginal title and rights, or treaty rights; and

This Standard recognizes that Canadian forests have special significance to Aboriginal Peoples. It further recognizes the unique rights and legal status of Aboriginal Peoples, and that they possess expertise, knowledge, and insights concerning SFM, derived from their traditional practices, beliefs, and experience. Aboriginal forest users and communities require unique consideration in the public participation process.

Aboriginal Peoples who have an interest in or who are affected by forest management in a DFA should be given an opportunity to contribute their knowledge to the process of setting values, objectives, indicators, and targets. In some cases, this opportunity might necessitate a separate process of Aboriginal participation.

Some jurisdictions have specific regulations or policies regarding Aboriginal participation. Even where regulations or policies are in place, and especially where they are not, the organization should seek out guidance from Aboriginal Peoples regarding the best methods and/or frequency of contact.

A.5.2.4**5.2 Interested parties**

- (e) establish and maintain a list of interested parties that includes
- (i) those that chose to participate;
 - (ii) those that decided not to participate;
 - (iii) those that were unable to participate;
 - (iv) the reasons for not participating, if provided; and
 - (v) efforts within the organization to enable participation.
- The list shall contain names and contact information.

Several reasons might be associated with a lack of participation, including but not limited to

- treaty engagement;
- land claim issues;
- court hearings pertaining to relevant issues;
- issues related to representation and participation; and
- the relationship between the organization and interested parties and/or Aboriginal Peoples.

An organization seeking certification could benefit from knowing the reasons for a person's or group's lack of participation, as it might be within the organization's ability to facilitate such participation. Reasons that might be associated with lack of participation can include issues related to representation and participation, the relationship between the organization and interested parties and/or Aboriginal people, court hearings pertaining to relevant issues, or land claim issues. It is likely beyond the organization's ability to control or remove some impediments to participation (such as land claim issues), but in other cases (such as the relationship between the organization and interested parties), it might be feasible for the organization to initiate discussions on solutions that would enable the desired participation.

Certified organizations should maintain a list of active participants and documentation describing the circumstances for recent changes to the list. The organization should conduct periodic reviews of the active participants and invite new participants as necessary.

A.5.3 Process: Basic operating rules

A.5.3.1 General

5.3 Process: Basic operating rules

The organization shall demonstrate that

- (a) the public participation process works according to clearly defined operating rules that contain provisions on
 - (i) content;
 - (ii) goals;
 - (iii) timelines;
 - (iv) internal and external communication;
 - (v) resources (including human, physical, financial, information, and technological, as necessary and reasonable);
 - (vi) roles, responsibilities, and obligations of participants and their organizations;
 - (vii) conflict of interest;
 - (viii) decision-making methods;
 - (ix) authority for decisions;
 - (x) mechanisms to adjust the process as needed;
 - (xi) access to information (including this Standard);
 - (xii) the participation of experts, other interests, and government;
 - (xiii) a dispute-resolution mechanism; and
 - (xiv) a mechanism to measure participants' satisfaction with the process; and
- (b) the participants have agreed to the public participation process operating rules.

The public participation process for a specific DFA will be a function of the range of interested parties and their values and needs. Organizations should thus develop public participation processes that are appropriate to local circumstances. To ensure that the public participants have some degree of ownership of the process in which they are being asked to participate, this Standard specifies requirements for agreement on the operating rules that guide the process. This involves a determination of the relative importance of the required characteristics of a public participation process according to local circumstances. For example, if participants exercising their responsibility under this clause jointly determine that a dispute-resolution mechanism (Clause 5.3, Item (a)(xiii)) is unnecessary, and a rationale is provided, then such a process would not be included in the operating rules.

Public participation is not confined to a single event; it is an ongoing process. It must consistently provide input toward the continual improvement of the organization's fulfillment of the SFM requirements, and continue to do so during the monitoring and follow-up phases of the SFM system.

Guidance on operating rules is provided in Clauses A.5.3.2 to A.5.3.15.

A.5.3.2 Content

The operating rules should specify the range of considerations and issues to be addressed in the process.

A.5.3.3 Goals

The aims or purposes for the public participation process should be defined. The goals should address the expectations of the interested parties that have chosen to participate.

A.5.3.4 Timelines

The operating rules should specify the expected duration of various stages of the process, including delivery dates for key outcomes. Timelines should be sensitive to both efficiency (i.e., implementation of this Standard without undue delay) and effectiveness (i.e., taking sufficient time to meet SFM requirements and successfully complete key tasks).

A.5.3.5 Provisions for internal and external communication

The success of the public participation process is greatly influenced by the extent and quality of communications, both internal and external. Consideration should be given to the ways in which

- the organization will communicate with other participants;
- participants will communicate and interact with each other; and
- participants will communicate with their respective constituencies and the broader public.

See Clause A 5.3.7.

A.5.3.6 Resources

Effective public participation requires resources for successful implementation. The operating rules should specify the resources that will be made available to the process, by which parties, and under what conditions. Consideration should be given to the following:

- Human resources are needed to implement and service the process.
- Physical resources include meeting places and transportation services.
- Financial resources are needed to defray process costs and to underwrite the direct expenses of participants attending meetings.
- Relevant information, a key ingredient in any planning process, should be assembled and put in a format that is readily accessible to participants.
- Technological resources are mainly the analytical tools associated with planning, including geographic information systems, remote sensing images, and various communications tools.

A.5.3.7 Roles, responsibilities, and obligations of participants

Expectations of both the participants and the organization should be clear at the outset and throughout the public participation process. Participant representation (do they represent themselves or an organization or affiliation?), attendance (are alternates permitted? how many meetings can a participant miss?), continuity, and similar matters are critical to credible, efficient, and valuable public participation. Where the participants come into the process representing other organizations, they have the responsibility to keep their respective constituencies regularly apprised of the process and report the views of their constituents back into the process.

A.5.3.8 Provisions for conflict of interest

The public participation process should have a system to deal with conflicts of interest, particularly when participants have relationships with the organization or any other party that must be declared.

A.5.3.9 Decision-making methods

For effective engagement, participants should know how meetings will be conducted and decisions made. It is particularly important to establish

- whether meetings will use a specific method (e.g., consensus seeking); and
- if there is any voting, how it will be done.

A.5.3.10 Authority for decisions

The operating rules should clarify which participants in the process have the authority to decide on specific matters. Participants should know about the organization's regulatory responsibilities; this will help define the scope of the organization's authority and of the public participation process.

A.5.3.11 A mechanism to adjust the process

Changes to the public participation process are sometimes needed during implementation as participants become more involved. Such changes should be made according to protocols specified at the beginning of the process.

A.5.3.12 Access to information

Information is critical to a sound public participation process. Participants, and particularly the organization, should bring forward relevant information. To understand SFM as described in this Standard, it is vital that the organization ensure that all participants be given an opportunity to read this Standard (available electronically at no cost at www.csa.ca).

Conditions of confidentiality of certain information should be specified, if applicable. This Standard recognizes the rights of Aboriginal Peoples to their intellectual and cultural knowledge, innovations, and practices, and the need to protect sensitive information when it is shared. Generally, information presented by any party in a forum that is part of the public participation process will become public information. Conditions on the use of any information, from any source, exchanged in separate Aboriginal consultation processes may be governed by prior agreements among all the parties involved.

A.5.3.13 The participation of experts, other interests, and government

The participants might find it useful to invite experts to discuss technical issues. Government representatives may become regular participants in the process, or they may take observer or technical-support roles. Non-local interests might have a desire to provide input, and the means of doing so should be agreed upon in advance. One approach is to design special ad hoc forums for dialogue between non-local interests and local interested parties.

A.5.3.14 Dispute-resolution mechanism

A common decision-making approach used in public participation processes for forest management in Canada today is that of consensus, which might or might not require unanimity. Given the sometimes heated debates that surround contemporary forest management, total agreement can be difficult to reach on some DFA-specific issues. The operating rules should anticipate this circumstance and outline a means of dealing with conflict. Many guides are available to help participants understand participatory and/or consensus-seeking processes and develop means to resolve disputes. The guiding principles published by the National Round Table on the Environment and the Economy (reproduced in Table A.1) are of particular relevance since they were developed in a Canadian context.

Table A.1
Guiding principles of consensus processes
 (See Clause A.5.3.14.)

Principle No.	
1	Purpose driven People need a reason to participate in the process.
2	Inclusive, not exclusive All parties with a significant interest in the issues should be involved in the consensus process.
3	Voluntary participation The parties who are affected or interested participate voluntarily.
4	Self design The parties design the consensus process
5	Flexibility Flexibility should be designed into the process.
6	Equal opportunity All parties must have equal access to relevant information and the opportunity to participate effectively throughout the process.
7	Respect for diverse interests Acceptance of the diverse values, interests, and knowledge of the parties involved in the consensus process is essential.
8	Accountability The parties are accountable both to their constituencies and to the process that they have agreed to establish.
9	Time limits Realistic deadlines are necessary throughout the process.
10	Implementation Commitment to implementation and effective monitoring are essential parts of any agreement.

Note: Adapted from NRTEE, Building Consensus for a Sustainable Future: Putting Principles in Practice (1996).

A.5.3.15 Measuring participant satisfaction

Participatory processes work best when participants are satisfied with how the process is running. Therefore, process convenors and facilitators need to know how participants are feeling about the means and protocols of engagement. Different methods can be used for gauging participant satisfaction, including qualitative interviews and quantitative surveys.

A.5.4 Content

A.5.4.1

5.4 Content

In the public participation process, interested parties shall have opportunities to work with the organization to

- (a) identify and select values, objectives, indicators, and targets based on SFM elements and any other issues of relevance to the DFA;
- (b) develop one or more possible strategies;
- (c) assess and select one or more strategies;
- (d) review the SFM plan;
- (e) design monitoring programs, evaluate results, and recommend improvements; and
- (f) discuss and resolve any issues relevant to SFM in the DFA.

It is the organization's responsibility to provide interested parties with an opportunity to participate in the activities specified in Clause 5.4. However, the level of involvement will be up to the participants. If the participants choose to focus only on the items that they consider to be significant, it remains the responsibility of the organization to address all of the items specified in Clause 5.4 and to report back to the participants on its decisions. The participants would then be in a position to provide input, should they so desire.

Because the final set of values, objectives, indicators, and targets is specific to the DFA, the outputs from broader processes might need to be refined and gaps gradually closed. To facilitate this, the organization may compile information about its existing commitments to values, objectives, indicators, and targets as a "seed document" for its public participation process. However, it should be clear to participating interested parties that any such document is only a starting point and that it could be accepted, rejected, or improved upon through the public participation process.

The issues referenced in Clause 5.4 Item (f) might arise in association with the discussion items specified for each criterion in Clause 6.3 or during other discussions that are part of the public participation process. The outcome of discussions regarding an issue(s) relevant to SFM in the DFA should consist of one or more of the following:

- demonstration that the issue raised is not applicable to the DFA;
- identification of one or more DFA-specific values and the associated objectives, indicators, and targets;
- identification of the issue as a topic that the public participation process should discuss on an ongoing basis;
- establishment and implementation of performance-based thresholds and specifications to address the issue;
- addressing the issue through policy, operational controls, and/or best management practices;
- demonstration that the issue has already been addressed through satisfaction of a previously identified value; and
- other means, developed and accepted through the public participation process, that clearly and adequately address the issue.

A.5.4.2

5.4 Content

The organization and the public participation process shall ensure that the values, objectives, indicators, and targets are consistent with relevant government legislation, regulations, and policies.

A key role of public participation is the development of values, objectives, indicators, and targets for the DFA. Outcomes of this process should, at minimum, comply with existing government laws and regulations. The process should also respect the findings of any formal public participation processes that have developed values, objectives, indicators, or targets relating to the SFM elements at a landscape or regional level in the area in which the DFA is situated.

A.5.5 Communication

A.5.5.1

5.5 Communication

The organization shall

- (a) provide access to information about the DFA and the SFM requirements;
- (b) provide information to the broader public about the progress being made in the implementation of this Standard;

To meet the requirements of Clause 5.5, Items (a) and (b), the organization should provide information for interested parties to review and comment upon. Different participants might request varying amounts and types of information. While access to all relevant information should be provided, the organization is not required to disclose information on internal proprietary and confidential matters, such as personal information about staff or information that might affect the organization's competitive advantage. In some cases, summaries of information can be provided.

Interested parties involved in the public participation process can represent broader constituencies and should relay information to those constituencies. However, the organization should provide information to a broader public about the process and progress of implementing the SFM requirements. The strategies for disseminating such information include

- public announcements in the media;
- development of a website;
- open houses;
- town meetings;
- smaller meetings with specific interest groups; or
- other forms of communication.

Opportunities should be provided for sharing information, views, and values. Suggestions received through the broader process of public communication should be considered by the organization and responded to in a timely fashion.

A.5.5.2

5.5 Communication

- (c) make allowances for the different linguistic, cultural, geographic, or informational needs of interested parties;
- (d) demonstrate that there is ongoing public communication about the DFA, including the public participation process; and
- (e) demonstrate that all input is considered and responses are provided.

The requirements of this Standard include a rigorous process designed to provide interested parties with an opportunity to influence decisions and to provide input on important issues. However, this does not mean that the decision-making power resides with the public alone. The organization should take the public input seriously and demonstrate that it is responsive to and respectful of this input. In doing so, the organization should clearly explain how decisions, including any trade-offs, are reached. See Clause A.7.4.3.

A.6 SFM performance requirements

A.6.1 DFA-specific performance requirements

A.6.1.1 General

6.1 DFA-specific performance requirements

The organization, working with interested parties in the public participation process at each stage, shall establish DFA-specific performance requirements that address the SFM elements in Clause 6.2, as follows:

- (a) for each element, one or more DFA-specific values shall be identified;
- (b) for each value, one or more objectives shall be set;
- (c) for each value, one or more meaningful indicators shall be identified, including core and locally selected indicators. Indicators shall be quantitative where feasible;
- (d) for each indicator, data on the current status shall be provided, and one appropriate target shall be set. Each target shall specify acceptable levels of variance for the indicator and clear time frames for achievement. A clear justification shall be provided for why targets have been chosen;
- (e) one or more strategies shall be identified and elaborated for meeting identified targets; and
- (f) forecasts shall be prepared for the expected responses of each indicator to applicable strategies, and the methods and assumptions used for making each forecast shall be described.

The work shall be recorded and summarized in the SFM plan. During plan implementation, measurements shall be taken for each indicator at appropriate times and places. Measurement results shall be interpreted in the context of the forecasts in the SFM plan. See Figure A.4 for an illustration of the relationship of values, objectives, indicators, and targets. See Clauses 7.5.1 and 7.6 for information on adaptive management.

Because values represent what is important in and for a DFA, the organization should have a clear and transparent mechanism for identifying DFA-specific values and translating them into detailed targets that can be met with implementation of a chosen strategy. This Standard identifies a basic set of mandatory core indicators and specifies a process for identifying other indicators and setting associated targets. The values, objectives, indicators, and targets identified during the public participation process may be documented in a table (see Table A 2).

Table A.2
Sample integration of public participation process
content requirements and DFA performance requirements

(See Clauses A.6.L.1 and A.6.L.5.)

Public participation process content (see Clause 5.4)	Setting DFA performance requirements (see Clause 7.3.5)	Explanations and examples
Identify and select values, objectives, indicators, and targets.	For each element, identify one or more DFA-specific values.	When considering Element 1.2, Species diversity, the habitat for a population of pileated woodpeckers could be a DFA-related value. There can be many values for each element.
	For each value, identify one or more objectives.	For the pileated woodpecker habitat, the objective could be to maintain the habitat at the present level. Limit objectives to one per value; however, in some circumstances, more than one objective might be necessary.
	For each value, identify one or more indicators, including core and locally selected indicators.	For the pileated woodpecker habitat, the indicator might be the habitat carrying capacity, measured by the number of breeding pairs per 100 km ² . Each value can have more than one indicator.
	For each indicator, provide data on current status and identify a target.	For the pileated woodpecker habitat, the current habitat carrying capacity might be 20 pairs per 100 km ² , and the target might be a minimum of 20 pairs per 100 km ² .
Develop appropriate strategies to be assessed.	Design a small set of appropriate strategies.	Examples might include (a) no timber harvest and associated activities; (b) continuation of current forest management; (c) shift to highly intensive forest management; and (d) strong move to emulation of natural disturbance patterns. Strategies should be restricted in number (approximately 4 to 6) and clearly distinguished in the early stages of analysis. Each strategy includes all the major actions that could affect the habitat for the pileated woodpecker (e.g., access, timber harvest, regeneration, protection).
	Create a forecast for each chosen indicator in response to each applicable strategy.	Forecasts for biophysical indicators should be quantitative and long-term. Forecasts for socio-economic indicators may be quantitative or qualitative, as appropriate. Forecasts for qualitative indicators can be developed using scenario-building techniques. Provide the analytical basis for all forecasts.
Assess strategies and select the preferred one.		Use formal (e.g., trade-off analysis, multivariate statistical techniques) and/or informal (e.g., discussion) methods to weigh the relative merits of the assessed strategies. If no strategy emerges as broadly acceptable, then revise targets or develop new strategies, or both, and prepare new forecasts. Continue the process until an acceptable/preferred strategy emerges.

(Continued)

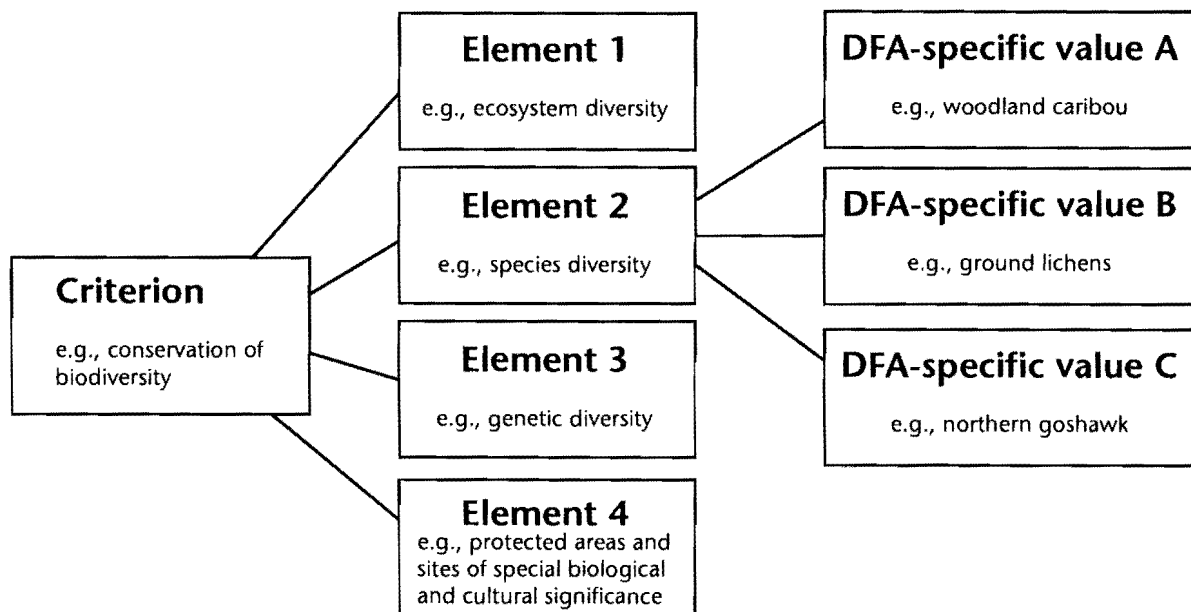
Table A.2 (Concluded)

Public participation process content (see Clause 5.4)	Setting DFA performance requirements (see Clause 7.3.5)	Explanations and examples
Review the SFM plan.		This step allows all parties to agree that the SFM plan properly reflects the decisions reached throughout the process so far.
Design monitoring programs, evaluate results, and determine opportunities for improvement.	Design field measurement programs and implement them.	Collect appropriate data to track indicators and any other variables deemed important in checking the performance of forecasting models.
	Analyze results and include them in the public participation process for interpretation and discussion.	All parties should examine monitoring data in the context of the forecasts and discuss how to improve all facets of the SFM plan for its next revision/iteration.

A.6.1.2 Identifying DFA-specific values

A set of forest values should be created that pertains specifically to the DFA. In the public participation process, interested parties might wish to begin by identifying DFA-specific values and then organizing them under the elements. Alternatively, they might begin by considering the elements and then making sure to identify at least one DFA-specific value for each element. The SFM criteria and elements specified in Clause 6 serve as organizing concepts and ensure that DFA-specific values cover a comprehensive range of SFM considerations (see Figure A.3).

During the process, interested parties might identify DFA-specific values that are not apparently associated with any of the SFM elements. In such a case, the number of elements might have to be increased to include the additional values.



Note: Objectives and indicators are identified for DFA-specific values in Figure A.1.

Figure A.3
Criteria, elements, and DFA-specific values
 (See Clause A.6.1.2.)

A.6.1.3 Defining objectives

Each value should have at least one objective that describes the desired future condition for the value. Interested parties may develop more than one objective for each value. In such a case, the parties should strive to ensure compatibility among the objectives, aiming for mutually supporting objectives rather than conflicting ones.

A.6.1.4 Identifying core and locally selected indicators

A.6.1.4.1

Indicators are the means of measuring or describing the state or condition of forest values. Some indicators are prescribed as core indicators in Clause 6.3. Others are identified through the local public participation process. Interested parties are guided in various ways regarding indicator selection, including by

- their own ideas about useful indicators;
- the core indicators in this Standard;
- mandatory indicators related to government regulations and policies that relate to the DFA; and
- possible reference sets of indicators, such as those of the CCFM and the Model Forest Network.

The organization's own internal management policies and procedures can dictate the need for certain indicators, and the interested parties might find it useful to consult with technical experts. The final indicator set is a result of the input from a number of sources.

A.6.1.4.2

Selecting indicators involves defining what is to be measured and why it is important. Indicators pertaining directly to forest conditions are preferred over those that pertain to SFM activities. Direct measurement of a forest condition provides a better gauge of most values than measuring an activity that influences the condition.

In some instances, direct measurements of forest conditions are not feasible, and an indirect measurement is necessary. In such cases, the relationship between the selected indicator and the condition being measured should be clearly established and periodically checked to ensure that the stated relationship remains valid. For example, if a certain ecosystem type is used as a surrogate for the population of a rare species, it is necessary to confirm periodically that the rare species is present in the ecosystem type.

A.6.1.4.3

In the indicator selection process, interested parties should apply a set of quality criteria when assessing whether proposed indicators should be retained for use. Such criteria should include the following:

- Measurability — targets can only be set for indicators that can be measured;
- Predictability — indicators whose future levels can be predicted with reasonable accuracy should be used;
- Relevance — indicators should be clearly applicable to their associated values;
- Understandability — indicators should be simple, clear, and easy to understand;
- Validity — indicators should be consistent with the scientific understanding of the value they measure and should be technically valid (objectively obtained, documented, comparable, and reproducible); and
- Feasibility — the process of monitoring indicators should be practical, cost effective, and efficient.

A.6.1.4.4

Scientists recognize four legitimate types of measurement scales:

- Nominal — measurements are based on names (e.g., names of tree species);
- Ordinal — ranks are assigned (e.g., tallest trees, second tallest trees, etc.). In the ordinal scale, the distance between ranked items is generally not equal;

- Interval — the distance between quantitative units is equal but there is an arbitrary zero (e.g., temperature in degrees Celsius — when the temperature is zero degrees Celsius, we still have a temperature); and
 - The ratio scale — the distance between quantitative units is equal and zero is non-arbitrary (e.g., volume of wood in a stand). Using a ratio scale, 0 m³ of wood means there is no wood.
- All four of these measurement scale types have utility and legitimacy; selection should be based on careful consideration, to ensure appropriate application and use in tracking indicators.

A.6.1.5 Setting targets

Each indicator requires a single target to define the desired future condition. A target may be a specified level for an indicator at a given point in the future or a series of such levels for a corresponding series of points in the future. See Table A.2 for a sample target.

Targets can be set in a variety of ways. Using the “bull’s eye” concept, a target could call for the indicator to show a fixed quantity or a fixed range. Alternatively, the target could specify a minimum or maximum value for the indicator. Whichever approach is chosen, targets should specify acceptable departures (e.g., the size, location, duration, and frequency of a deviation) from the chosen limits.

There is a danger in trying to set firm targets at the beginning of the planning process, as it is possible that no feasible strategy can be designed and implemented to meet all targets. A better approach is to set tentative or provisional targets at the beginning of the planning process, and then iteratively develop and assess strategies and adjust targets until a match is obtained between an appropriate set of targets and an acceptable strategy (see Table A.2).

A key concept in determining appropriate SFM performance in relation to ecological elements (i.e., those associated with Criterion 1) is the range of natural variation. For each chosen indicator, explicit consideration should be given to a reference time frame, the limits on the range of natural variation, and behaviour of the indicator within these limits. As part of the public participation process, the organization and interested parties should examine carefully and discuss fully the role of the range of natural variation in the context of SFM in the DFA.

A.6.1.6 Designing and evaluating strategies

In the context of this Standard, a strategy comprises the actions, specified according to type of action and time and place of implementation, that are proposed to achieve one or more targets. A strategy can be as simple as holding workshops and open houses to meet targets for satisfactory public participation. Conversely, it can be as complex as a comprehensive set of silvicultural prescriptions to meet targets for a sustainable wood supply while conserving biodiversity, water, and soil, and promoting carbon sequestration. A particular strategy can relate to a specific target (e.g., workshops relate to public participation) or can relate to targets for many indicators at once (e.g., a silviculture strategy relates to biodiversity, forest productivity, soil and water, carbon budget, and wood supply).

If only one type of action is appropriate for achieving a target, then only one strategy is developed. However, for many indicators, a range of strategies might be appropriate. For example, in exploring how to meet targets for habitats of focal species (see Element 1.2), the organization and interested parties might wish to explore the relative effectiveness of different means of harvesting timber (e.g., clear-cutting vs. partial cutting) or regenerating harvested areas (e.g., natural vs. planting). Possible strategies should be limited in number (for tractability of assessment work) and easily distinguished (so that any analytical results can show how the indicator responses to the assessed strategies actually differ).

A good strategy is one that has the best potential to help managers achieve established targets. Where there is essentially only one strategy deemed to work in this regard, strategy assessment is simple. However, where several strategies are under consideration, strategy assessment and selection can be complicated. For example, where a set of silviculture strategies has implications for many indicators specified in Clause 6.3, strategy evaluation is a complicated exercise of examining forecasts for all the relevant indicators under the full range of strategies considered.

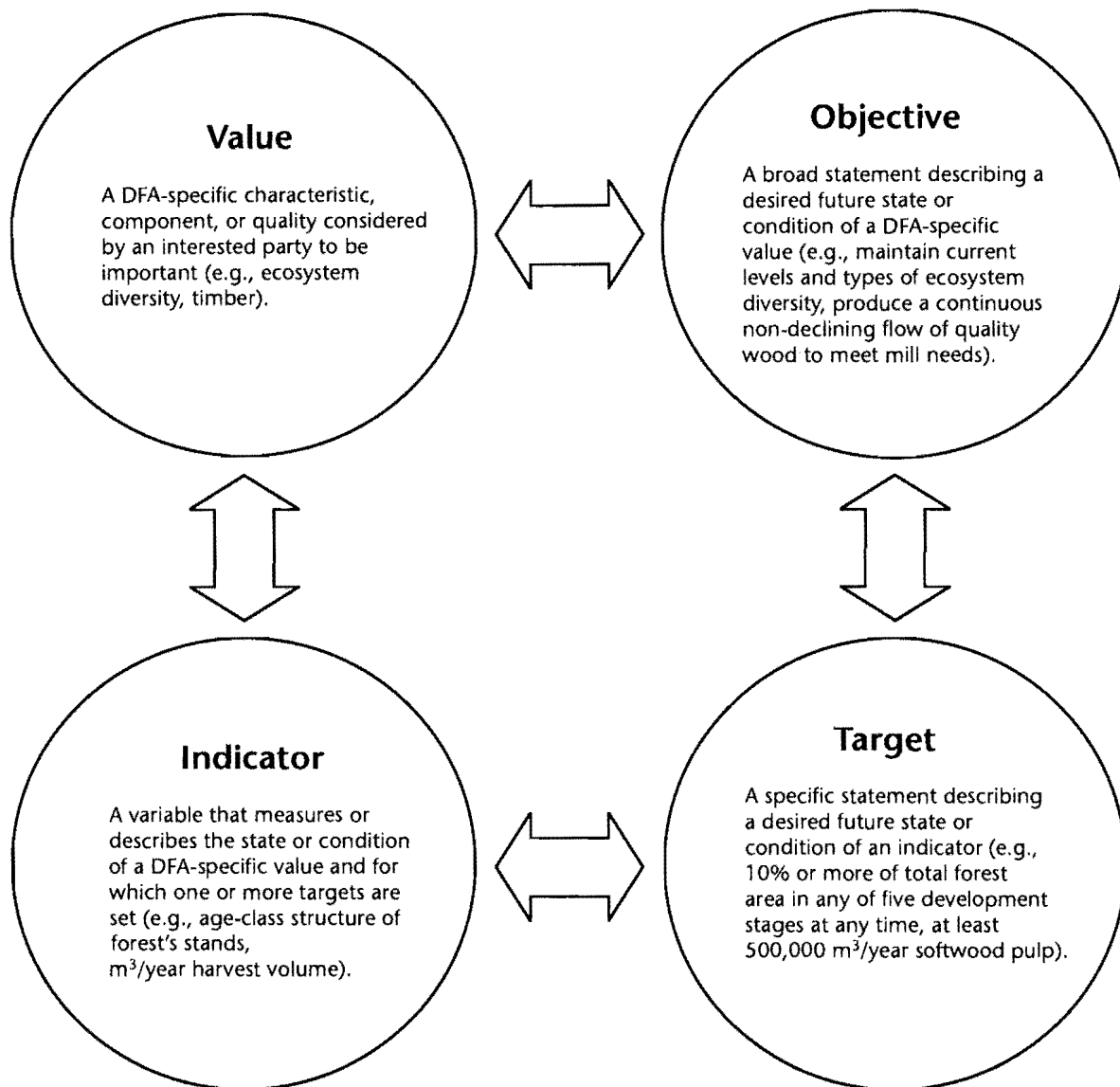


Figure A.4
Relationship of values, objectives, indicators, and targets
(See Clause 6.1 and Figure A.3.)

A.6.1.7 Making forecasts

Indicator forecasts require specialized processes that are appropriate to each indicator. Forecasts for quantitative indicators are normally made using mathematical models that can range from simple equations to complex computer models associated with a GIS (geographic information system). Forecasts for qualitative indicators are normally made using scenario-building techniques. Regardless of the approach used, explicit forecasts should be provided for all indicators, along with an accompanying explanation of the analytical techniques used to generate forecasts. Explanations should specify explicitly the particular time and space considerations associated with each indicator, since many indicators change over time and are unevenly distributed across the DFA.

Organizations should address two issues when making indicator forecasts. The first is potential interactions among indicators. Many of the indicators chosen to represent DFA-specific values will not be independent of each other; forecasts for linked indicators should be made using integrated models. The second issue relates to the fact that some indicators are influenced as much by human actions within the DFA that are not related to SFM as they are by actions related to SFM. Examples include recreational forest use, and exploration and extraction of minerals, oil, or gas from below the earth's surface. In such cases, there can be cumulative effects. In the context of this Standard, the cumulative effects on an indicator are those from both SFM actions and from other actions. Organizations are urged to assess cumulative effects in their indicator forecasting exercises.

A.6.1.8 Monitoring indicators

Monitoring is repetitive measurement, or measurement over time. Monitoring delivers the data required to assess management effectiveness. In the context of adaptive management of forests, managers should monitor both the actions they take (to determine if what actually is done matches what was planned) and the effects of the actions (to determine if the desired indicator responses are being achieved and targets met).

Adaptive management is, above all, a learning exercise in which comparisons of expectations with real outcomes can reveal where managers have been successful in delivering on values and where value satisfaction is inadequate. The latter can result from departures from planned actions or from lack of sufficient knowledge to forecast indicator outcomes with confidence. Monitoring provides the data needed to determine the magnitude and nature of differences between forecasts and reality, and the reasons for the differences. Ultimately, the goal is to determine how and why forecasts are incorrect and to improve predictive capability for the next round of SFM planning. Monitoring data and analyses are essential components of an overall assessment of the ongoing validity of values, objectives, indicators, and targets (see Clause A.7.5.1.3).

In some cases, DFA managers do not have authority to manage for specific public values associated with the DFA land base. For example, the organization has authority to manage bird habitats but not bird populations. In such cases, it is incumbent upon the organization to undertake the monitoring and research required to determine whether its SFM strategies are meeting habitat targets. Broader scientific processes are needed to determine if the habitat targets are sufficient to meet population targets.

A.6.2 SFM criteria — General

6.2 SFM criteria — General

The organization, in conformance with the public participation process requirements of Clause 5, shall address the discussion items listed under each Criterion below, and shall identify DFA-specific values, objectives, indicators, and targets for each element, as well as any other values associated with the DFA.

The indicators shall include, but not necessarily be limited to, the core indicators identified in this Standard.

Successful implementation of SFM requires both a strong process and a comprehensive content. The content of SFM is determined by the values established for the DFA.

In this Standard, adoption of the CCFM's SFM criteria as a framework for value identification provides vital links between local-level SFM and national and provincial forest policy, as well as a strong measure of consistency in identification of local forest values across Canada.

Each criterion is followed by a list of discussion items. These represent issues commonly faced by forest managers and interested parties in DFAs across Canada. As part of the public participation process specified in this Standard, participants discuss each of the items and demonstrate, through clear records, that the issues inherent in the items have been brought to a satisfactory resolution. Revisitation of the discussion items might be necessary as local circumstances change. An appropriate time for revisitation would be during preparation for a re-certification audit.

Each element is described in a heading followed by an elaborating statement. Core indicators are subsequently identified for use in SFM implementation in accordance with this Standard. Where core indicators have been deemed to apply to several elements, they are repeated under each applicable element.

A.6.3 SFM criteria, elements, and core indicators

A.6.3.1 Criterion 1 — Biological diversity

Conserve biological diversity by maintaining integrity, function, and diversity of living organisms and the complexes of which they are part.

Discussion Items for Criterion 1

The public participation process shall include discussion of the following topics:

- Forest fragmentation and forest loss
- Management in the context of natural disturbance regimes and patterns and the range of natural variation
- Maintenance of populations and communities over time
- Local and regional protected areas and integrated landscape management
- Silvicultural regimes and tools such as plantations, pesticides (including integrated pest management and pesticide-use regulations), structural retention, and timber harvest practices (including clear-cutting)
- Practices to limit the spread of invasive alien species, and the regulatory prohibitions related to adverse ecological effects and the use of exotic tree species
- The gene pool of native seed stock, and genetically modified organisms (GMOs) and the associated regulatory/policy requirements
- Management and protection of biological resources of cultural heritage significance
- Management of cultural values and resources
- Locally available processes and methods for identifying sites with special biological and cultural significance
- Conservation of old-growth forest attributes
- Participation in government programs to protect threatened and endangered species

Element 1.1 — Ecosystem diversity

Conserve ecosystem diversity at the stand and landscape levels by maintaining the variety of communities and ecosystems that naturally occur in the DFA.

Core Indicators

- 1.1.1 — Ecosystem area by type
- 1.1.2 — Forest area by type or species composition
- 1.1.3 — Forest area by seral stage or age class
- 1.1.4 — Degree of within-stand structural retention

Element 1.2 — Species diversity

Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained through time, including habitats for known occurrences of species at risk.

Core Indicators

- 1.2.1 — Degree of habitat protection for selected focal species, including species at risk
- 1.2.2 — Degree of suitable habitat in the long term for selected focal species, including species at risk
- 1.2.3 — Proportion of regeneration comprised of native species

Element 1.3 — Genetic diversity

Conserve genetic diversity by maintaining the variation of genes within species and ensuring that reforestation programs are free of genetically modified organisms.

Element 1.4 — Protected areas and sites of special biological and cultural significance

Respect protected areas identified through government processes. Co-operate in broader landscape management related to protected areas and sites of special biological and cultural significance.

Identify sites of special geological, biological, or cultural significance within the DFA, and implement management strategies appropriate to their long-term maintenance.

Core Indicators

- 1.4.1 — Proportion of identified sites with implemented management strategies
- 1.4.2 — Protection of identified sacred and culturally important sites

A.6.3.1.1 General

Canada is a signatory to the United Nations *Convention on Biological Diversity* and has developed a national strategy for biodiversity conservation (the *Canadian Biodiversity Strategy*, 1995). The *Convention on Biological Diversity* recognizes the dependence of Aboriginal Peoples on biological resources and the value of traditional knowledge and practices in the conservation of biological diversity and sustainable use of its components. Biodiversity is an umbrella concept dealing with all living things and their relationships and habitats. It is a complex concept that recognizes ecological, genetic, social, and cultural dimensions related to the conservation and sustainable use of biological resources. A fundamental requirement for biodiversity conservation is the in situ conservation of ecosystems and natural habitats with special focus on scales of time, space, and hierarchical order. Because forests are ecosystems of incredible biological richness, biodiversity is central in the pursuit of SFM.

Landscape ecology provides insight into a range of themes underpinning biodiversity conservation. These include the concepts of patches (e.g., forest stands) and matrix (the surrounding land in which patches are situated) and how these can affect habitat suitability for forest species. The degree of both forest loss and fragmentation can affect forest habitat. Fragmentation describes the breaking up of formerly continuous forest ecosystems and includes the concepts of edge (i.e., boundaries between distinct ecosystems that form unique habitats), patch area and shape, and connectivity (i.e., the way forest ecosystems are joined to each other such that ecological processes such as animal migration can occur with little resistance). Anthropogenic, linear features, such as roads, pipelines, electricity transmission lines, and seismic lines, are often implicated in reducing forest connectivity and increasing fragmentation, as well as contributing to overall forest loss.

Many experts believe that natural disturbance regimes and the range of natural variation in forest ecosystems provide sound models and guidance for the conservation of forest biodiversity. These concepts acknowledge that forest disturbances occur through natural forces such as fire, insect outbreaks, disease and windthrow, and that human disturbances can be best managed by emulating the rates of natural disturbances and the structures, shapes, and patterns of the resulting ecosystems. Management strategies are designed to ensure that the forest continues to function within the range of natural variation. Managers may take guidance from historical or current disturbance regimes, or they may investigate how future climate change might alter the disturbance regimes during the next century. It should be recognized, however, that human-caused disturbances cannot entirely emulate the effects of natural disturbances and that not all aspects of natural disturbances can or should be emulated.

Except for commercial tree species, in most cases the organization has no authority to manipulate plant and animal populations. Rather, it manipulates habitats through management actions focused primarily on trees. Habitat, in terms of both quantity and quality, is a key component of the health of species populations. Species cannot exist where habitats are inhospitable. However, just because the habitat is suitable does not mean that a species will occupy it to its fullest capacity; other forces, such as hunting, fishing, and diseases, can prevent a species from occupying its normal range at normal densities. For

forest-dwelling species, managers should take special care with species that exist at their range limits, that exist in isolated populations, and for which knowledge is deficient.

In conservation planning, protected areas are widely seen as pivotal in conserving biodiversity and maintaining natural ecological processes. In some circumstances, small protected areas can serve vital protection functions (e.g., a small critical habitat for a species); in others, large protected areas are required. Conservation design strives to establish networks of protected areas that are representative of both the enduring landscape features and the local or regional biodiversity.

Silvicultural practices, including timber harvesting, can either degrade or enhance biodiversity values. For example, reckless timber harvesting can destroy forest habitats for some species, whereas sensitive timber harvesting can actually be used to improve habitat conditions. Key attributes of silvicultural practices that influence biodiversity include type of treatment, spatial extent and layout, timing (seasonal and long term), and intensity. An example of a habitat element that requires special attention in the design and implementation of forest treatments is deadwood, whose snags and downed logs provide habitat for a diverse range of forest species.

In some parts of Canada, alien invasive species have the potential to threaten native forest biodiversity. Examples include the Emerald Ash Borer in southwestern Ontario and the Brown Spruce Longhorn Beetle in Nova Scotia. SFM demands prudence in monitoring and treatment design to limit the spread of alien invasive species into Canadian forests. This might mean that the organization agrees not to engage in practices where there is a risk of introducing invasive alien species, or commits to undertaking special actions should an invasive alien species become established, through no fault of the organization, in the DFA.

Some have raised concerns over whether tree breeding programs are gradually reducing the genetic diversity of native forests. Attention should be given to the nature of the gene pools associated with seed stocks of native species, as well as effective population sizes in seed orchards.

A.6.3.1.2 Element 1.1 — Ecosystem diversity

Ecosystem conservation represents a coarse-filter approach to biodiversity conservation. It assumes that by maintaining the structure and diversity of ecosystems, the habitat needs of various species will be provided. For many species, if the habitat is suitable, populations will be maintained. Two key characteristics of forest ecosystems are the community types, as driven largely by the species composition of the overstorey, and community seral stages, as driven by succession and disturbance processes. These factors are strong predictors of the biotic communities that will inhabit both forest stands and the entire forest landscape.

Ecosystem area by type can be influenced by managers, and many foresters/ecologists prefer to characterize the forest in terms of ecosystem types (according to forest ecosystem classifications) rather than by age and type of structures as derived from classic forest inventories. Forest ecosystem classification schemes are well-developed, hierarchical systems, and local experts/stakeholders can jointly decide on the appropriate scales of application.

The measurement of forest area by type or species composition should include wetlands and other non-forest ecosystem types, even if they are relatively stable through time, as forest management can directly affect them, if in a relatively minor way. Plantations should also be included in the analysis. Measuring forest area by seral stage or age class relies on some form of classification that takes into account the time since stand-replacing disturbance as well as evolving forest structural development. A simple classification might include the following five seral stages: regenerating, young, immature, mature, and old. Older age classes are often the most difficult to manage, primarily because they require much time to develop. However, they are often host to unique communities that would not otherwise be present across the forest landscape.

A.6.3.1.3 Element 1.2 — Species diversity

While ecosystem conservation is the coarse-filter approach to biodiversity management, species diversity is the fine-filter approach. For most species, forest managers can manipulate habitats only, not species populations. To account for the degree of habitat protection for selected focal species, including species at risk, forest managers should recognize short-term habitat needs, particularly for critical and core habitats, and consider existing protection plans for species at risk. For the longer term, forest managers can use

habitat supply models (as part of any forest forecasting exercises) to track the degree of long-term habitat suitability for selected focal species, including species at risk. To account for concerns that forests be regenerated primarily with native tree species, managers should address and monitor the proportion of regeneration comprised of native species.

A.6.3.1.4 Element 1.3 — Genetic diversity

Ecologists recognize that species diversity rests on a foundation of diversity in gene pools within and among species. Unfortunately, gene-pool diversity is difficult to measure. Until practical indicators of characteristics inherent to genetic diversity are developed, this element should be addressed through discussions and management protocols. For tree species, such discussions and protocols will focus on tree breeding programs and seed stocks.

A.6.3.1.5 Element 1.4 — Protected areas and sites of special biological and cultural significance

Protected areas are an important tool for biodiversity conservation. They can help to protect and conserve species that occur within their boundaries and can contribute to conservation across the broader landscape. They are also valuable ecosystems in their own right. A DFA exists within a larger landscape and potentially within a broader land-use planning process. Effective conservation within a landscape encompasses a network of both protected areas and sustainable activities within the DFA and other working parts of the landscape. Organizations should co-operate with provincial managers to determine whether representative samples of the ecosystems present in the DFA are protected at the landscape level either in the DFA or in the adjacent area and should have examples of such protected areas. A peer-reviewed gap analysis can be used to identify the existence and significance of protected areas when determining whether adequate representation of the range of sites has been achieved. When identifying local values and developing objectives, indicators, and targets for biodiversity, there should be alignment with strategic or policy direction provided by the provincial government and the CCFM.

Sites of biological and cultural significance include critical areas for wildlife habitat, sensitive sites including spiritual and cultural sites, and unusual or rare forest conditions or communities. A wide range of criteria may be used in their identification. Such sites might need protection or active management to perpetuate the conditions that make them significant. Such management can focus on preventing harmful actions (e.g., fencing or signs to discourage human traffic inside an area) or on taking restorative actions (e.g., removal of barriers to periodic flooding of a wetland).

Organizations should ensure that a process is in place to identify any sites of biological and cultural significance that would be threatened by forest management activities without the implementation of special management strategies. These sites can vary in size depending on the nature of the value identified. Management strategies should endeavour to maintain the specific values present on these sites.

Efforts should be made by the organization to involve willing Aboriginal communities in the identification and protection of sites of cultural significance. To address the issues regarding the sharing of confidential and sensitive information from Aboriginal communities, organizations are encouraged to develop information sharing agreements, such as partnership agreements and memoranda of understanding, that outline ways to protect this information.

A.6.3.2 Criterion 2 — Ecosystem condition and productivity

Conserve forest ecosystem condition and productivity by maintaining the health, vitality, and rates of biological production.

Discussion Items for Criterion 2

The public participation process shall include discussion of the following topics:

- Climate change impacts and adaptation
- Trends in natural and human-caused disturbances
- Proportion of naturally disturbed area that is not salvage harvested
- Biomass utilization

Element 2.1 — Forest ecosystem resilience

Conserve ecosystem resilience by maintaining both ecosystem processes and ecosystem conditions.

Core Indicator

- 2.1.1 — Reforestation success

Element 2.2 — Forest ecosystem productivity

Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species. Reforest promptly and use tree species ecologically suited to the site.

Core Indicators

- 2.2.1 — Additions and deletions to the forest area
- 2.2.2 — Proportion of the calculated long-term sustainable harvest level that is actually harvested

A.6.3.2.1 General

In the context of forests, mitigation of climate change entails managing forests so they can sequester and store more carbon from the atmosphere. Mitigation is addressed under Clause A.6.3.4. Despite mitigation efforts, some climate change is inevitable in the next few decades. Thus, this Clause focuses on the impacts of climate change on forests and how forests might be managed to adapt to the changes. There is limited knowledge of how forests will respond to a changing climate this century. However, it is known that forest conditions are tightly tied to the prevailing climate, and that the forest management decisions made today commit forest ecosystems to development trajectories that unfold over many decades. Climate change is already affecting forest productivity, water availability, and the rate and extent of forest disturbances such as fires and insect outbreaks. Therefore, it is important for organizations and interested parties to explore conceptually how climate change might help or hinder forest development in the DFA and what options are feasible to cope with undesirable impacts. The differences between active and passive strategies for coping should be considered. For example, managers might consider actively addressing climate change through anticipatory planting (e.g., establishment of drought-resistant subspecies of trees) and maintenance of stands with multiple species and ages.

Disturbances can be seen as both destructive and regenerative processes. For example, while an intense fire can kill whole stands of mature trees, it also can create favourable conditions for tree regeneration. Rapid and intense disturbances can therefore reduce some forest values (e.g., fire destroys valuable timber) and increase others (e.g., fire creates habitats favoured by early-successional species). While disturbances are a key driver of forest change, managers cannot usually predict where and when they will occur. Managers therefore need to engage in risk management. This includes actions such as

- reducing the vulnerability of forests to catastrophic disturbances;
- maintaining preparedness for appropriate responses when disturbances occur; and
- managing human disturbances in such a way that they do not compromise ecosystem condition and productivity.

A.6.3.2.2 Element 2.1 — Forest ecosystem resilience

The concept of resilience, as applied to ecosystems, suggests an ability to rebound after a disturbance such that the characteristics of the pre-disturbance ecosystem are re-established. Direct measures of resilience are rare, although one facet of resilience pertains to allowing natural disturbances to run their course without human intervention. The Standard therefore requires a discussion of the extent of salvage harvesting following forest disturbance. The discussion should address the merits of leaving biomass intact on site following a major disturbance such as a blowdown or insect outbreak. The ecological communities associated with forests immediately following a disturbance (particularly fire) are unique and should be represented within the forest landscape. However, in some provincial jurisdictions there are regulations obliging the organization to undertake salvage harvests at specific rates in specific places. In addition, there could be situations where provincial jurisdictions award licences to others to salvage harvest within the DFA.

SFM is predicated on the principle of maintaining forested landscapes. If forest cover is removed from a site, successful forest regeneration, including reforestation in a timely manner, must be achieved. One method to gauge the success of forest renewal is tracking the proportion of harvest area successfully regenerated within a specific period of time.

The core indicators from Element 1.1 are also relevant to the concept of resilience. Maintenance of the distribution of ecosystem types, forest types, and forest ages within the range of natural variation that can occur through time and across the DFA landscape helps to ensure that the DFA is resilient to disturbance introduced by harvesting or other activities. Regeneration success should be estimated in the context of maintaining this range of natural variation.

A.6.3.2.3 Element 2.2 — Forest ecosystem productivity

Forest ecosystem productivity can be interpreted to mean both net primary production (NPP) and forest (i.e., wood) productivity. This Clause focuses on wood productivity, or the production of wood biomass.

SFM should cover the extent of forest in a landscape, including encouraging additions to the forest ecosystems and discouraging deletions caused by humans. Such additions and deletions to the forest area should be tracked according to cause. It might be sufficient to track area changes to forest ecosystems according to a broad classification of causes (e.g., new infrastructure, industrial or residential development, impoundments or drainage works, agriculture, afforestation). There are circumstances where it can be inappropriate to foster additions to forest ecosystems. For example, the reduction of grassland and savannah conditions in western Canada allows for the suppression of forest fires and the establishment of forest ecosystems where they would not normally occur under natural conditions.

For many people, sustainability involves limiting actual timber harvest to levels within the long-term capability of the forest to grow wood. To track this, managers need data on both harvest levels and long-term production capability to make proportional calculations. In practice, only the actual harvest level can be physically measured. The amount of wood that can be produced in perpetuity from a forest is a theoretical calculation that depends not only on the inherent wood-growing capacity of the forest ecosystem but also on the kinds and intensities of management inputs (e.g., silvicultural treatments). Because the latter inputs are under human control, a forest can have a wide range of potential long-term sustainable wood harvest levels. The organization and interested parties should develop a mutual understanding of how long-term sustainable harvest levels should and will be calculated.

As a precaution, managers might wish to ensure that, over time, wood harvest levels are maintained at or below the calculated long-term sustainable level. However, for a variety of reasons, it might be sensible to harvest above the long-term sustainable level for a few years. These include

- salvaging harvests as a result of insect infestations;
- attempting to accelerate changes in forest composition toward more natural states; and
- correcting undesirable age-class imbalances such as an over-abundance of declining stands caused by the suppression of natural disturbances. It should be recognized that these forest conditions can deliver valuable ecological services.

A.6.3.2.4 Biomass utilization

A key contemporary issue in SFM in Canada is the use of forest biomass (e.g., dead trees, coarse woody debris, fine materials) beyond conventional timber. This issue has arisen largely in response to rising energy prices and the desire for renewable energy sources. The organization and interested parties should examine the issue closely, with initial discussions focusing on the immediate uses of non-timber biomass (e.g., left on site, burned, removed for energy or other purposes). Subsequent discussions should examine future expectations for biomass use, with emphasis on the ecological and cultural impacts of such biomass removals. If the organization intends to remove biomass, it should develop clear operational guidelines for the sustainable removal of biomass from forest ecosystems.

A.6.3.3 Criterion 3 — Soil and water

Conserve soil and water resources by maintaining their quantity and quality in forest ecosystems.

Discussion Items for Criterion 3

The public participation process shall include, but not be limited to, discussion of the following topics:

- Soil productivity (long-term nutrient levels, shallow soils, best management practices for soil protection)
- Seasons of operations (operating windows, impacts on soil during frozen and unfrozen conditions)
- Site rehabilitation in areas of severe soil disturbance
- Water quality in watersheds supplying domestic water
- Healthy watersheds
- Management practices and regulatory requirements that protect water quality and quantity

Element 3.1 — Soil quality and quantity

Conserve soil resources by maintaining soil quality and quantity.

Core Indicators

- 3.1.1 — Level of soil disturbance
- 3.1.2 — Level of downed woody debris

Element 3.2 — Water quality and quantity

Conserve water resources by maintaining water quality and quantity.

Core Indicator

- 3.2.1 — Proportion of watershed or water management areas with recent stand-replacing disturbance

A.6.3.3.1 General

Soil is the foundation of forest ecosystems and the main source of nutrients for all plant species. Most of the fine roots of trees, which are responsible for nutrient uptake, exist in the top 20 cm of the soil (i.e., in the topsoil). It is therefore vital to keep soil in place and to disturb it as little as possible. A common approach is the implementation of best management practices (BMPs), established on the basis of substantial field experience and targeted research. Soil-related BMPs address topics such as appropriate kinds of machine traffic on sensitive sites and appropriate seasons for field operations. Even with careful use of BMPs, some sites can endure severe soil disturbance (e.g., due to machine operations). In such cases, managers might need to take actions to rehabilitate sites.

Fresh water is considered one of the most precious natural resources in the world today. Much of Canada's fresh water moves through forest ecosystems before entering rivers and streams, and is found in wetlands such as swamps, marshes, bogs, and similar areas. These wetlands and water bodies are not only key habitats for all aquatic organisms, but many people rely on them as sources of domestic (potable) water. The way a forest is managed and used can have a profound influence on both water quantity and quality in rivers, lakes, and wetland systems.

A.6.3.3.2 Element 3.1 — Soil quality and quantity

Maintaining soil quality and quantity involves implementing management strategies to minimize and mitigate soil disturbance. Measuring soil conditions, particularly chemical and physical properties, might be feasible at a specific site, but impractical across entire working forests. Established research may be used to identify the links between certain kinds of soil-related forest practices and soil conditions, and forest managers can control their practices accordingly. When monitoring of operations reveals that soil disturbances exceed threshold levels (e.g., through erosion, rutting, displacement, slumping), direct measures of soil condition should be performed.

Dead wood is an important component of a healthy forest ecosystem. While live trees can be blown down and die, often trees die standing. These standing dead trees, or snags, serve as important habitats for a wide range of decomposing organisms, as well as cavity-nesting species such as woodpeckers. Coarse woody debris includes both downed woody debris and standing trees that have been left to allow the woody debris to decompose, resulting in organic matter that eventually becomes part of the soil. Downed woody debris can be managed by leaving both dead and live trees, as well as downed logs, whenever timber harvests are taken.

A.6.3.3.3 Element 3.2 — Water quality and quantity

Water is everywhere in forest ecosystems, so direct measurements of water quality and quantity are largely unfeasible across entire working forests. Established research on the effects of certain field practices on local water quality and flows can be used to establish regulations and guidelines to control field practices. These regulations and guidelines address such topics as fish habitat, stream crossings, and riparian areas.

It is important to understand the risk to water quality and quantity associated with stand-replacing disturbances (human and natural-caused) in a defined watershed or broad water-management area. The effects due to disturbances are normally highest in the initial post-disturbance years and diminish over time as regenerating forest cover is established. The critical threshold at which the disturbance begins to affect water values varies according to a number of factors, including topography, soil properties, vegetation types, and climate. When the extent of the disturbed area approaches threshold levels, appropriate mitigation strategies such as road deactivation and stream crossing removals are necessary. This is particularly important in watersheds such as those used for potable water. Engaging experts who are familiar with local or regional conditions is important when defining the appropriate size of watershed or water management area, critical thresholds, and appropriate mitigation strategies.

Forest ecosystem conditions at the watershed level can have a strong influence on water quality and quantity in rivers, lakes, and wetland systems. Forest ecosystems subject to stand-replacing disturbances such as fire, windthrow, or clear-cutting can temporarily lose their ability to ameliorate water flows associated with large rainfalls and snowfalls. These water flows include both overland flow and the underground flows associated with groundwater recharge and discharge. To maintain water quality and quantity in forest-based rivers, lakes, and wetlands, forest managers might need to restrict, to the degree possible, the proportion of a watershed's forest that has recently experienced stand-replacing disturbances. This will also help ensure that peak flow thresholds are not exceeded due to management actions.

The appropriate scale for measuring the proportion of a watershed's forests that has been recently disturbed differs according to region and conditions. If the order or size of watershed used is too large, disturbance effects will be unmeasurable or diminished by scale. Similarly, if the watershed order or size is too small, the effect of the disturbance will be exaggerated inappropriately by the scale. Watershed features such as slope or soil texture vary, as does the length of time for stands to recover, and these also affect the impact of disturbance on water flows.

Because an organization has little control over natural disturbances, it might be appropriate to distinguish between natural disturbances and the subsequent forest operations when reporting on the proportion of recent disturbances in a watershed.

A.6.3.4 Criterion 4 — Role in global ecological cycles

Maintain forest conditions and management activities that contribute to the health of global ecological cycles.

Discussion Items for Criterion 4

The public participation process shall include, but not be limited to, discussion of the following topic:

- Carbon emissions from fossil fuels used in forest operations

Element 4.1 — Carbon uptake and storage

Maintain the processes that take carbon from the atmosphere and store it in forest ecosystems.

Core Indicators

- 4.1.1 — Net carbon uptake
- 2.1.1 — Reforestation success

Element 4.2 — Forest land conversion

Protect forest lands from deforestation or conversion to non-forests, where ecologically appropriate.

Core Indicator

- 2.2.1 — Additions and deletions to the forest area

A.6.3.4.1 General

Machine operations generate emissions of carbon dioxide and other compounds that contribute to climate change. Thus, the lower that forest managers can make the emissions during forest operations, the better for the environment. In addition, the current prices of fossil fuels and the likelihood that they will continue to rise also makes these reductions economically beneficial.

A.6.3.4.2 Element 4.1 — Carbon uptake and storage

Forests have great potential to sequester and store carbon from the atmosphere. Given the importance today and in the future of the carbon-storage potential of forests, managers should recognize the imperative of keeping forest lands in vigorous tree growth at all times. This includes ensuring prompt tree regeneration following disturbances such as timber harvests. It also includes converting the smallest possible amount of forest land to non-forest land during forest operations (e.g., minimizing roads and landings). Where possible, it can also mean converting non-forest land to forest land by establishing trees — a process known as afforestation. A common example of afforestation is planting trees on abandoned farm fields.

Forest carbon has recently become a key SFM value, especially in light of Canada's international commitment to lower its net carbon outputs to the atmosphere. Models for calculating a forest carbon budget (e.g., the Canadian Forest Service's Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3)) have become widely available and are readily linked to common models used for forecasting forest structures and potential wood supplies. Their use in forest planning can indicate whether a specific forest is expected to be a net carbon source or sink over the period normally used for wood-supply forecasts. In some cases, it can be advisable for the organization to look beyond the DFA and identify the carbon budget using existing data calculated over a broader scale (e.g., from provincial government initiatives devoted to calculating forest carbon budgets).

Two important considerations for determining the scope of carbon-budget analysis are

- whether the fate of timber harvested from the DFA is tracked as part of carbon-budget modelling; and
- whether and how carbon emissions from forest operations will be tracked.

A.6.3.4.3 Element 4.2 — Forest land conversion

Notwithstanding the special circumstances in which forests might not be naturally occurring ecosystems (see Clause A.6.3.2), it is good for the global carbon cycle to have land in forest cover across its natural range. Forests can be turned into other types of ecosystems through a variety of activities, including those that relate directly to SFM (e.g., building roads and landings) and those outside the influence of forest managers (e.g., urban and industrial developments, utility corridors). Forest managers should reduce, as much as possible, the amount of area they convert to non-forest ecosystems and should discourage unwarranted forest land conversions that are beyond their control.

A.6.3.5 Criterion 5 — Economic and social benefits

Sustain flows of forest benefits for current and future generations by providing multiple goods and services.

Discussion Items for Criterion 5

The public participation process shall include, but not be limited to, discussion of the following topics:

- Benefits for local communities and Aboriginal Peoples (cultural, spiritual, economic, health, etc.)
- Fair distribution of benefits and costs
- Proportion of goods and services sourced from local communities (to the extent that they are available and reasonably cost-competitive)

Element 5.1 — Timber and non-timber benefits

Manage the forest sustainably to produce an acceptable and feasible mix of timber and non-timber benefits. Evaluate timber and non-timber forest products and forest-based services.

Core Indicator

- 5.1.1 — Quantity and quality of timber and non-timber benefits, products, and services produced in the DFA

Element 5.2 — Communities and sustainability

Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies.

Core Indicators

- 5.2.1 — Level of investment in initiatives that contribute to community sustainability
- 5.2.2 — Level of investment in training and skills development
- 5.2.3 — Level of direct and indirect employment
- 5.2.4 — Level of Aboriginal participation in the forest economy

A.6.3.5.1 General

While there is limited information on the ecological services and non-timber benefits produced in the DFA, it is important to consider the costs and benefits of a variety of goods and services.

Forests represent not only a return on investment (measured, for example, in dollar value, person-days, donations, etc.) for the organization but also a source of income and non-financial benefits for DFA-related workers, contractors, and others; stability and opportunities for communities; and revenue for local, provincial, and federal governments. Through the public participation process and the implementation of SFM, the organization should address

- timber and non-timber benefits, including
 - outdoor activities, in terms of both quality and quantity;
 - sustainable harvest of timber and non-timber resources;
 - maintenance of viable hunting, fishing, and trapping activities;
 - opportunities for ecotourism;
 - protection, management, and sustainable use of cultural and heritage resources; and

- opportunities for development of ecological goods and services and other non-timber forest products;
- communities and sustainability, including
 - diversification of opportunities;
 - investment in the community and its facilities, through educational opportunities or philanthropic activities; and
 - opportunities for direct and indirect employment both in the DFA and within the community; and
- fair distribution of benefits and costs, including
 - fair and reasonable wages for DFA-related workers, as established by prevailing industry collective agreements or market rates;
 - fair return on investment to the organization and to DFA contractors;
 - local taxation as determined by applicable assessment and appeal procedures;
 - revenues to the Crown and other landlords as determined by applicable stumpage or market rates;
 - cost-sharing of activities;
 - sharing of the economic, social, environmental, and health risks; and
 - educational opportunities for DFA-related workers.

A.6.3.6 Criterion 6 — Society's responsibility

Society's responsibility for sustainable forest management requires that fair, equitable, and effective forest management decisions are made.

Discussion Items for Criterion 6

The public participation process shall include, but not be limited to, discussion of the following topic:

- Development of working relationships with willing Aboriginal communities and/or people

Element 6.1 — Aboriginal and treaty rights

Recognize and respect Aboriginal title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights, and treaty rights.

Core Indicators

- 6.1.1 — Evidence of a good understanding of the nature of Aboriginal title and rights
- 6.1.2 — Evidence of best efforts to obtain acceptance of management plans based on Aboriginal communities having a clear understanding of the plans
- 6.1.3 — Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur

Element 6.2 — Respect for Aboriginal forest values, knowledge, and uses

Respect traditional Aboriginal forest values, knowledge, and uses as identified through the Aboriginal input process.

Core Indicator

- 6.2.1 — Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values

A.6.3.6.1 Element 6.1 — Aboriginal and treaty rights

Section 35 of the *Constitution Act* states "The existing aboriginal and treaty rights of Aboriginal Peoples of Canada are hereby recognized and affirmed". Some examples of the rights that Section 35 has been found to protect include hunting, fishing, trapping, gathering, sacred and spiritual practices, and title. SFM requirements are not in any way intended to define, limit, interpret, or prejudice ongoing or future discussions and negotiations regarding these legal rights and do not stipulate how to deal with Aboriginal title and rights, and treaty rights.

The first step toward respecting Aboriginal title and rights, and treaty rights is compliance with the law. This Standard reinforces legal requirements (see [Clause 7.3.3](#)) for many reasons, including the reality that demonstrating respect for Aboriginal title and rights, and treaty rights can be challenging in Canada's fluid legislative landscape and therefore it is important to identify these legal requirements as a starting point.

This Standard goes beyond legal compliance and includes other methods of respecting Aboriginal title and rights, such as

- making efforts to understand Aboriginal rights;
- seeking acceptance of forest management plans on the basis of Aboriginal communities having a clear understanding of the plans;
- identification of and respect for Aboriginal forest values and uses;
- recognition of Aboriginal Peoples' expertise;
- use of Aboriginal knowledge; and
- development of meaningful and effective working relationships with willing Aboriginal Peoples, which are integral components of involving Aboriginal communities and facilitating acceptance of forest management plans (see [Clause A.6.3.6.2](#), [Element 6.2](#)).

It is important for the organization to have an understanding of applicable Aboriginal title and rights, and treaty rights, as well as the Aboriginal interests that relate to the DFA. The organization should also be aware that the Aboriginal interests or rights of one group can be different than those of another. Several organizations that have applied this Standard have benefited from cross-cultural training and shared community experiences with Aboriginal Peoples.

In order to effectively incorporate Aboriginal rights and interests into SFM plans, a process should be established to identify, address, and protect Aboriginal rights, uses, cultural resources, and values. Examples of management and protection activities might include management and protection of riparian areas and wetlands or establishment of wildlife corridors.

A.6.3.6.2 Element 6.2 — Respect for Aboriginal forest values, knowledge, and uses

Organizations are also required to make special efforts to obtain Aboriginal participation (see [Clause 5.2](#)). A meaningful relationship might include

- a process for engagement and information exchange that already exists or is jointly developed between the organization and willing Aboriginal communities;
- the use of Aboriginal knowledge in planning and management of forest lands and resources;
- encouraging willing Aboriginal communities to identify important cultural resources, sites, and values;
- planning based on the mutually agreeable incorporation of values and management of sites and values; and
- the tracking and fulfillment of agreements and commitments made between the organization and Aboriginal communities.

Agreements based on information sharing and engagement should encourage the dissemination and use of information, respect confidentiality, and specify the parameters for the release of information. In order to address the issues regarding the sharing of confidential and sensitive information from Aboriginal communities, organizations are encouraged to develop information-sharing agreements, such as partnership agreements and memoranda of understanding, that outline ways to protect this information.

Element 6.3 — Forest community well-being and resilience

Encourage, co-operate with, or help to provide opportunities for economic diversity within the community.

Core Indicators

- 6.3.1 — Evidence that the organization has co-operated with other forest-dependent businesses, forest users, and the local community to strengthen and diversify the local economy
- 6.3.2 — Evidence of co-operation with DFA-related workers and their unions to improve and enhance safety standards, procedures, and outcomes in all DFA-related workplaces and affected communities
- 6.3.3 — Evidence that a worker safety program has been implemented and is periodically reviewed and improved

Element 6.4 — Fair and effective decision-making

Demonstrate that the SFM public participation process is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress.

Core Indicators

- 6.4.1 — Level of participant satisfaction with the public participation process
- 6.4.2 — Evidence of efforts to promote capacity development and meaningful participation in general
- 6.4.3 — Evidence of efforts to promote capacity development and meaningful participation for Aboriginal communities

Element 6.5 — Information for decision-making

Provide relevant information and educational opportunities to interested parties to support their involvement in the public participation process, and increase knowledge of ecosystem processes and human interactions with forest ecosystems.

Core Indicators

- 6.5.1 — Number of people reached through educational outreach
- 6.5.2 — Availability of summary information on issues of concern to the public

A.6.3.6.3 Element 6.3 — Forest community well-being and resilience

An economically and socially diverse community is more sustainable. While an organization is not expected to financially support community diversity, it should support efforts to increase diversity and avoid preventing the establishment of other enterprises. Co-operation with other forest-dependent businesses and forest users might include initiatives such as coordinating the timing of activities to accommodate multiple uses.

A.6.3.6.4 Element 6.4 — Fair and effective decision-making

A mechanism such as a survey may be used to determine participant satisfaction with the public participation process, particularly when participants understand that consensus-based decision-making is used to incorporate all interests. The ability of people to share information, discuss and solve problems, and set and meet objectives is key to achieving and maintaining meaningful participation. Many types of initiatives (e.g., two-way information exchanges, educational opportunities) can be used to help promote meaningful participation.

See *Clause 5* for information on the public participation process, which is part of fair and effective decision-making.

A.6.3.6.5 Element 6.5 — Information for decision-making

Organizations and the public provide and receive information through interactions with each other. Information on issues of concern, such as forest inventory educational opportunities (e.g., field trips or school tours) should be made available to both public advisory groups and the public in general. The sharing of learnings and opinions contributes to balanced, more acceptable plans and decisions.

A.7 SFM system requirements

A.7.1 General

7.1 General

The organization shall establish and maintain an SFM system as specified in Clause 7.

SFM system requirements are intended to ensure that an infrastructure (including resources, processes, and controls) that enables an organization to deliver on the overall goal of SFM in the DFA is established and maintained. System requirements are the delivery mechanism of SFM.

The organization is required to establish SFM values, objectives, indicators, and targets for all SFM elements (see Clause 6.3) and develop an SFM plan that describes the methods by which the targets are to be achieved in the DFA. The organization should put in place the resources, processes, and controls necessary to ensure successful implementation of the SFM plan. Progress can be assessed by the regular measurement and assessment of performance against the SFM requirements, including the effects on the forest. Through monitoring, measurement, and management review, the organization can report on its progress and demonstrate that corrective and preventive actions are taken in the event of any unplanned variances.

A.7.2 SFM policy

7.2 SFM policy

Top management shall define and maintain the organization's SFM commitment through policy statements and/or other documented public statements. The statement(s) shall contain a commitment to

- (a) achieve and maintain SFM;
- (b) meet or exceed all relevant legislation, regulations, policies, and other requirements to which the organization subscribes;
- (c) respect and recognize Aboriginal title and rights, and treaty rights;
- (d) provide for public participation;
- (e) provide participation opportunities for Aboriginal Peoples with rights to and interests in SFM within the DFA;
- (f) provide conditions and safeguards for the health and safety of DFA-related workers and the public;
- (g) honour all international agreements and conventions to which Canada is a signatory;
- (h) improve knowledge about the forest and SFM, monitor advances in SFM science and technology, and incorporate these advances where applicable; and
- (i) demonstrate continual improvement of SFM.

The statement(s) shall be documented, communicated, and made readily available.

A.7.2.1

The ongoing commitment and leadership of top management are crucial. An early step in developing or improving an SFM system is obtaining a commitment to the SFM system from the top management of the organization that is responsible for managing the DFA. The responsibility for setting and approving the SFM policy normally rests with the organization's top management, while other levels of management might be responsible for implementing policy and suggesting modifications.

An SFM policy establishes an overall sense of direction for the sustainable management of the DFA and sets out the principles of action for an organization. It also establishes the level of responsibility and performance required of the organization, against which all subsequent actions will be measured. The SFM policy statement is the yardstick for the organization managing the DFA. Therefore, the policy should be documented, communicated both internally and externally, and readily available to any interested party.

This Standard does not require an Aboriginal policy as a stand-alone document; however, it does require Aboriginal-based commitments (see *Clause 7.2*). While efforts to encourage Aboriginal Peoples to become involved may include developing and successfully implementing an Aboriginal policy, this alone does not ensure strong Aboriginal relations. An Aboriginal policy and/or Aboriginal commitments can be more meaningful when they are supported by

- a high-level commitment to build positive Aboriginal relations and partnerships, and encourage Aboriginal input into the SFM planning process;
- appropriate awareness and training at the local level to help employees understand the challenges and opportunities in building or improving Aboriginal relations;
- self-assessment of the status of current Aboriginal relations; and
- a plan for future attainment of corporate goals with respect to Aboriginal relations that includes communication strategies, capacity building, and the goals of the Aboriginal community with regard to corporate relations.

If the certification applicant comprises several organizations, there may be one policy statement for the DFA to which all organizations subscribe, or each organization may have its own policy statement. While the vision, mission, and guiding principles of each organization may be different (and may not directly address SFM), their policies should not contradict each other in terms of a commitment to SFM.

The SFM policy statement should be reviewed periodically as part of the continual improvement process and modified, where appropriate, to reflect changing circumstances and the results of implementing the SFM requirements.

International agreements and conventions to which Canada is signatory include agreements issued by the International Labour Organization, *Convention on Biological Diversity*, and others.

A.7.3 Planning

A.7.3.1 Defined forest area (DFA)

7.3.1 Defined forest area (DFA)

The organization shall designate a clearly defined forest area to which this Standard applies.

The organization shall define the geographic extent and the respective ownership and management responsibilities for the DFA.

One of the first steps in meeting the SFM requirements is to establish the geographical boundaries of the DFA to be managed under the SFM requirements. The DFA may be privately or publicly owned land, or a combination of both.

The SFM requirements should be addressed for the entire DFA. This is a primary consideration in determining the extent of the DFA and the organizations or individuals needed to meet the SFM requirements. There is no specified minimum or maximum size for a DFA: it can range from a few hectares to more than a million hectares, and can be a combination of smaller units or even a combination of non-contiguous operating areas.

In the case of non-contiguous or overlapping areas, all parties needed to address the SFM elements for the DFA should consider the issues associated with isolated parcels and common areas within the overall plan for sustainability of the DFA (see Clause 7.3.2). The organization should attempt to maximize the participation of individual parties that make up the applicant and should demonstrate that the activities of other parties within the DFA do not undermine the achievement of the SFM objectives.

Changes to the geographic extent of the DFA may be made over time without affecting certification, provided that the impacts of the changes are insignificant. Changes to a DFA can result from a variety of circumstances. For example, under volume-based tenure, the operating areas of the organizations that make up the applicant can vary from year to year, and this can influence the geographic extent of the DFA. In this case, historical operating areas of volume-based tenures may be included in the DFA. Where owners or managers of small, non-contiguous parcels of land come together to form the applicant, the addition of new areas to the DFA or the deletion of existing areas from the DFA may occur according to the interests of participants. Even in cases of area-based tenure, factors can arise that result in modifications to the boundaries of a DFA. In all cases, these changes should be documented. Slight changes to a DFA, with no apparent impact on values, objectives, indicators, and targets, might not require changes to the methods of meeting the SFM requirements of the SFM plan.

The organization can be subject to a range of rights and responsibilities related to its operations in the DFA, depending on the pattern of land ownership and the types of activities that are carried out in the DFA. These rights and responsibilities will generally be set out in agreements between the landowner (e.g., the government in the case of public lands) and the organization. There can be other parties in the DFA that are not part of the applicant but whose legal rights and responsibilities should be respected by the organization. These rights and responsibilities, which include all the existing legislative and policy responsibilities assumed and executed by various government agencies, should be documented.

A.7.3.2 Shared responsibilities

7.3.2 Shared responsibilities

The organization shall ensure that all parties necessary to address the SFM elements for the DFA are involved in the process. The organization shall clearly describe the respective roles and responsibilities of the parties involved.

Where there are parties operating within the DFA that are not interested in participating and are not necessary for the achievement of the SFM elements, the organization may proceed without their involvement provided that the objectives and targets can still be achieved.

A.7.3.2.1 General

Certification is specific to the DFA to which the SFM requirements are applied. Any combination of owners and managers can make up the applicant, and any combination of public land and private land can make up a DFA, provided that the SFM requirements of this Standard can be met.

Depending on the pattern of land ownership and the nature of the relationship between governments and licensees or users on public land, there will likely be shared responsibilities for managing forest values in a DFA. These responsibilities should be defined. Where responsibilities related to any of the SFM elements are shared among organizations or individuals, it might be necessary to consider these organizations for inclusion as part of the applicant. An open invitation to participate in meeting the SFM requirements should be provided to those with management responsibilities.

There can be individuals or organizations, in the forest sector or other resource sectors (e.g., mineral or oil/gas) and operating inside or outside the boundaries of the DFA, whose activities can have a significant impact on the ability of the organization to achieve SFM targets within the DFA. Such individuals or organizations should be invited to participate in the process. If they decline, the organization cannot be held responsible for the actions of such individuals or organizations provided that the SFM objectives and targets can still be achieved. The organization should try to anticipate the impacts of these actions in the development of SFM targets, and to co-operate with such individuals or organizations to minimize and mitigate their impacts.

Attempts made to include other organizations, as well as the reasons given for their participation or non-participation, should be documented.

A.7.3.2.2 The role of government

Many DFAs in Canada are situated on public land where governments are responsible for the forest values specified in the SFM elements. Although government may be involved as an applicant, participation in meeting the SFM requirements cannot be made mandatory. This Standard is voluntary and non-regulatory, and meeting the SFM requirements is not dependent on government involvement.

A.7.3.2.3 Volume-based tenure

SFM requirements are intended to achieve performance targets in a DFA, and their implementation will require a significant level of co-operation among organizations operating on volume-based tenures. In such circumstances, individual organizations are unlikely to have sufficient responsibility and control to ensure that all SFM elements are addressed in the DFA. Organizations that operate on a volume-based tenure should determine the extent of their responsibilities related to implementing the SFM requirements in the DFA and identify the responsibilities of other organizations operating in the same area. In this way, the organization can determine the partnerships it might need to establish to become a viable applicant. Each organization within the applicant may have its own “corporate personality” in the form of vision, mission, policy statements, and operating procedures, provided that they meet the requirements of this Standard. All organizations comprising the applicant, however, should agree to the same SFM targets for the DFA and should have the resources, processes, and controls in place to ensure that they are met.

Because the implementation of the SFM requirements is voluntary and non-regulatory, there might be cases where individuals or organizations with management responsibilities are not interested in participating. This does not preclude successful certification to this Standard for the individuals or organizations that are interested in proceeding; it is not necessary for all individuals or organizations with management responsibility to be involved, provided that the operations of those parties not participating do not prevent the applicant from meeting its SFM targets in the DFA.

A.7.3.3 Rights and regulations

A.7.3.3.1

7.3.3 Rights and regulations

The organization shall

- (a) respect the legal rights and responsibilities of other parties in the DFA that are not part of the certification applicant;

Property rights and land tenure arrangements should be clearly defined and documented for the relevant forest area. In addition, legal and traditional rights related to the forest land should be clarified, recognized, and respected.

The organization can be subject to a range of rights and responsibilities, in addition to Aboriginal title and rights, and treaty rights, related to its operations in the DFA and in accordance with the pattern of land ownership and the types of activities carried out in the DFA. These rights and responsibilities will generally be set out in agreements between the landowner (e.g., the government in the case of public lands) and the organization. There can be other parties in the DFA that are not part of the applicant but whose legal rights and responsibilities should be respected by the organization. These rights include

- guide outfitters licences/certificates;
- angling guide licences;
- registered traplines and trapping licences;
- easements and covenants;
- public and private rights-of-way;
- statutory tenures (e.g., licences, permits), including mineral exploration and development;

- customarily or legally permitted uses of public land for gathering of non-timber forest products, hunting, fishing, etc.;
- rights or obligations related to construction, rehabilitation, or maintenance of trails or other recreation facilities;
- rights to use public footpaths or roads (e.g., access to well-known landmarks, features, or viewpoints);
- water-use rights and obligations (licensed and unlicensed); and
- common law rights of riparian owners.

Such rights and responsibilities should be documented. They include all the existing legislative and policy responsibilities assumed and executed by various government agencies.

A.7.3.3.2

7.3.3 Rights and regulations

(b) demonstrate that relevant legislation and regulatory requirements relating to ownership, tenure, rights, and responsibilities in the DFA have been identified and complied with;

The organization should establish and maintain a list of all legal requirements pertaining to the DFA. The organization should be able to demonstrate that it is aware of legal requirements and has a system to ensure legal compliance. Specific legal requirements can be related to various aspects of the organization's forestry activity, including

- the activity (e.g., road construction, resource management, authorizations, licences and permits);
- the organization's products or services; and
- monitoring, measurement, and reporting.

Some issues that should be considered (for legal and other requirements) are the organization's access to and identification of relevant requirements, tracking changes to requirements, and communication of relevant information on requirements to personnel, contractors, and subcontractors.

Several sources can be used to identify legal requirements and ongoing changes, including company legal departments, all levels of government, industry associations or groups, commercial databases, and professional services.

A.7.3.3.3

7.3.3 Rights and regulations

(c) demonstrate that Aboriginal title and rights, and treaty rights have been identified and respected;

See Elements 6.1 and 6.2 in Clause 6.3.6.

A.7.3.3.4

7.3.3 Rights and regulations

(d) demonstrate that the legal and constitutional rights (including those specified in the International Labour Organization (ILO) conventions to which Canada is a signatory [such as "Freedom of Association" and "Protection of the Right to Organize"]) and the health and safety of DFA-related workers are respected, and their contributions to SFM are encouraged;

The right of DFA-related workers to organize and participate in collective bargaining should be respected, including full recognition of unions and their representatives. The organization should refrain from interference in legitimate union activities and organizing efforts.

DFA-related workers should have access to training and awareness programs related to SFM.

A.7.3.3.5**7.3.3 Rights and regulations**

- (e) demonstrate that the acquired and legal rights of private woodlot owners to set the values, objectives, indicators, and targets relating to their properties are respected; and

The values of private woodlot owners should be addressed in the context of important public values. Private woodlot owners have acquired rights and responsibilities, which are recognized by this Standard. While all SFM requirements apply regardless of ownership, this Standard recognizes that private landowners have the right to decide the objectives for their land and limit public access for certain activities.

A.7.3.3.6**7.3.3 Rights and regulations**

- (f) establish and maintain procedures to identify and have access to all legal and other requirements to which the organization subscribes that are applicable to the DFA. This includes requirements related to ownership tenure, rights, and responsibilities in the DFA.

A.7.3.4 Incorporation of public participation requirements

The public participation requirements specified in Clause 5 shall be incorporated into the SFM system.

A.7.3.5 SFM plan**7.3.5 SFM plan**

The organization shall document, maintain, and make publicly available an SFM plan for the DFA. The SFM plan for each DFA shall include

- (a) a comprehensive description of the DFA;
- (b) a summary of the most recent forest management plan and the management outcomes, including the conclusions drawn in the management review;
- (c) a statement of values, objectives, indicators, and targets;
- (d) the current status and forecasts for each indicator, including a description of the assumptions and analytical methods used for forecasting;
- (e) a description of the chosen strategy, including all significant actions to be undertaken and the associated implementation schedule;
- (f) a description of the monitoring program;
- (g) a comparative analysis of actual and expected outcomes; and
- (h) a demonstration of the links between short-term operational plans and the SFM plan.

An SFM plan should be developed for each DFA. SFM plans should cover a 20- to 25-year period and should be revised as necessary. The SFM plan is the principal vehicle for transforming the organization's commitments to SFM into actual actions in the forest. The SFM plan should summarize the current state of the DFA as well as the values, objectives, indicators, and targets of SFM developed through the public participation process. The organization should consider the inclusion of a brief summary of the organization's operating environment, including the SFM plan linkages to higher level plans and other regulatory requirements. Such a summary would provide the public participation process and third parties with an understanding of the organization's planning and practices that goes beyond the information provided in the SFM plan or in a matrix of values, objectives, indicators, and targets developed through a public participation process.

Organizations should ensure that the SFM plan not only contains the right information but also presents the information in a way that makes it readily understandable to interested parties. The complicated technical components of the planning process should be explained in terms of their essential components and implications. Organizations are encouraged to explore alternative forms of communication for SFM plans, including customary print-based media as well as digital options (e.g., websites, compact discs, and videos).

Because of the extended time frame of an SFM plan, specific details about what is to be accomplished in any given year might not be included. As a result, short-term plans, including annual operating plans that prescribe specific activities that will contribute to the overall implementation of the SFM plan, should be developed. Short-term plans should clearly demonstrate how planned activities will lead to the achievement of the SFM targets. One method is to include benchmarks, which represent intermediate milestones along the way to achieving a target.

A.7.4 Implementation and operation

A.7.4.1 Structure and responsibility

7.4.1 Structure and responsibility

Roles, responsibilities, and authority required to implement and maintain conformance with SFM requirements shall be defined, documented, and communicated within the organization.

The organization shall provide resources essential to the implementation and control of the SFM requirements, including human resources and specialized skills, technology, and financial resources.

The organization shall appoint a specific management representative(s) who shall have defined roles, responsibilities, and authority for

- (a) ensuring that the SFM requirements are established and maintained in accordance with this Standard; and
- (b) reporting on the SFM requirements to top management for review and as a basis for continual improvement.

The capabilities and support required by an organization constantly evolve in response to changing requirements. To fulfill its SFM requirements, an organization should focus and align its people, systems, strategies, resources, and structure. The human resources, physical resources (e.g., facilities and equipment), and financial resources required to meet the SFM requirements (including the fulfillment of SFM targets) should be defined and made available to all levels of the organization. The allocation of sufficient resources to ensure the success of the SFM system is a measure of the organization's commitment.

The organizations and individuals responsible for the implementation of each aspect of the SFM requirements should be identified. General and specific responsibilities, authority, and accountability should be assigned to all persons whose activities influence the SFM requirements.

Within an organization there is usually one person who is appointed to be the SFM coordinator or management representative. This person uses the authority and resources given by top management to effect the implementation and maintenance of the SFM requirements.

A.7.4.2 Training, awareness, qualifications, and knowledge

7.4.2 Training, awareness, qualifications, and knowledge

The organization shall identify training needs. It shall also ensure that personnel receive training in accordance with the impact of their work on the DFA and their ability to ensure that SFM requirements are met.

The organization shall establish and maintain procedures to ensure that personnel, at each relevant function and level, have knowledge of

- (a) the importance of conformance with the SFM policy and with the SFM requirements;
- (b) the environmental impacts, actual or potential, of their work, and the benefits of meeting the SFM requirements;
- (c) their roles and responsibilities in achieving conformance with the SFM policy and SFM requirements, including emergency preparedness and response requirements; and
- (d) the potential consequences of deviations from specified operating procedures.

The organization shall ensure that its personnel are qualified on the basis of appropriate training and/or work experience and have opportunities to gain new knowledge. The organization shall also require contractors working on its behalf to demonstrate that their personnel have the requisite training and awareness levels.

The organization shall continually improve its knowledge of the DFA and SFM and shall monitor advances in SFM science and technology, and incorporate them where and when applicable.

Top management has a key role to play in building awareness and motivating personnel by explaining the organization's commitment to SFM and communicating its commitment through the SFM policy. It is the actions of individual personnel, however, that transform the SFM requirements into an effective process, leading to satisfactory on-site performance.

All personnel and contractors should be aware of the SFM requirements and how they are being met. Personnel and contractors should be provided with opportunities to include their input in the ongoing review of the SFM requirements. Motivation for continual improvement is enhanced when personnel and contractors are recognized for achieving SFM targets and encouraged to make suggestions that can lead to improved SFM.

The knowledge and skills necessary to achieve SFM should be identified. These should be considered in personnel selection, recruitment, training, skills development, and ongoing education. Appropriate training should be provided to all personnel within the organization and to relevant contractors. Personnel and contractors should have sound knowledge of the methods and skills required to perform their tasks in an efficient and competent manner, and should be aware of the impact of their activities on SFM. Education and training are needed to ensure that personnel and contractors have appropriate and current knowledge of regulatory requirements, internal standards, and the organization's policies and targets. The level of training will vary according to the task.

Training programs typically include

- identification of qualification requirements for personnel and tasks;
- identification of personnel and contractor training needs;
- development of a training plan to address defined needs;
- verification of conformance of the training program to regulatory or organizational requirements;
- training of target personnel/contractor groups;
- documentation of training received; and
- evaluation of training received.

As a means to achieve continual improvement, the organization should monitor advances in SFM science and technology and incorporate them where and when applicable. The organization should also be engaged in the acquisition of knowledge about the DFA and SFM. This can be achieved through such activities as inventory data collection, gathering of conventional knowledge, and involvement in research.

A.7.4.3 Communication

7.4.3 Communication

The organization shall

- (a) establish and maintain procedures for internal communication between its various levels and functions;
- (b) establish and maintain procedures for receiving, documenting, and responding to relevant communication from external interested parties;
- (c) make the SFM plan publicly available;
- (d) make publicly available an annual report on its performance in meeting and maintaining the SFM requirements; and
- (e) make publicly available the results of independent certification and surveillance audit reports, including, at minimum, the following information:
 - (i) a description of the audit process, objectives, and scope;
 - (ii) the scope of certification;
 - (iii) DFA and tenure description;
 - (iv) a list of the elements audited both off-site and on-site;
 - (v) the name of the certified organization and/or co-applicant(s) that were audited, including their representatives;
 - (vi) the name of the certification body, lead auditor, and audit team members;
 - (vii) the dates the audit was conducted and certification completed;
 - (viii) a summary of the findings, including general descriptions of nonconformities, opportunities for improvement, and exemplary practices/positives;
 - (ix) a statement of corrective actions taken for current nonconformities;
 - (x) the status of nonconformities from previous audits;
 - (xi) the certification recommendation;
 - (xii) the number of sites visited on the ground and activities observed;
 - (xiii) the number of public participation members, government officials, DFA-related workers, and other interested parties that were interviewed;
 - (xiv) the date of the next audit; and
 - (xv) forest areas for the next audit.

A.7.4.3.1 Reporting issues

The following communication and reporting issues should be considered:

- What is the process for communicating with DFA-related workers and contractors?
- What is the process for communicating with external interested parties?
- What is the process for communicating the organization's SFM policy and performance?
- How are the results from internal and external audits communicated to all appropriate people in the organization?
- What is the process for making the SFM policy available to the public?
- Is internal communication adequate to support continual improvement of the SFM?

A.7.4.3.2 Reporting processes

Communication includes establishing processes to report internally and, where desired, externally on the SFM activities of the organization in order to

- demonstrate commitment to the SFM requirements;
- deal with internal concerns and questions about the SFM requirements;
- raise awareness of the public participation process and the organization's SFM policy and plan (see Clause A.7.3.5 for information on the contents of the SFM plan); and
- inform interested parties about the organization's progress in fulfilling the SFM requirements as appropriate and as required by this Standard.

Results from monitoring, measurement, performance checks, audits, and management reviews should be communicated to those within the organization who are responsible for delivering and managing these

functions. In addition, the organization will likely need to develop a number of internal reports and schedules as part of the SFM requirements.

A.7.4.3.3 Annual report

An annual report describing the organization's progress in meeting and maintaining the SFM requirements should be prepared and made available to the public. These annual reports may resemble the annual environmental reports that many organizations produce. The annual report should be open and factual so that the reader can be confident that all of the SFM requirements continue to be met and that the organization is living up to its SFM policy statement and its commitment to continual improvement. Progress, success, shortcomings, emerging issues, future plans, corrective actions, and management commitment are some of the topics an annual report should address. Because some readers of the report might not have been involved in the public participation process, the report should have information regarding all of the major issues related to SFM in the DFA.

The provision of appropriate information to the organization's DFA-related workers, contractors, and other interested parties serves to motivate workers and encourage public understanding and acceptance of the organization's efforts to improve its SFM performance.

A.7.4.4 SFM documentation

A.7.4.4.1 General

7.4.4 SFM documentation

The organization shall establish and maintain documentation, in paper or electronic form, that

- (a) describes the SFM requirements and their interaction; and
- (b) provides direction to related documentation.

Organizations shall ensure that DFA-related workers and contractors have access to the documentation relevant to their responsibilities and tasks.

The primary purpose of SFM documentation is to describe the methods of fulfilling the SFM requirements. The nature of the documentation can vary depending on the size and complexity of the DFA and the organization(s) implementing the SFM requirements. Where SFM requirements are integrated with an organization's overall management system, the SFM documentation may be integrated into existing documentation.

A.7.4.4.2 SFM system manual

Organizations might consider developing an SFM system manual to describe the methods of fulfilling each of the SFM requirements. Such a document would then serve as a reference for the implementation and maintenance of the SFM requirements. The SFM system manual is different from the SFM plan, which focuses on performance requirements.

It is not necessary for all documentation pertaining to the SFM requirements to be duplicated in the SFM system manual. Rather, the SFM system manual could provide direction to relevant documentation. The individual(s) or organization(s) responsible for each document should be clearly identified in the SFM system manual.

A.7.4.4.3 Documentation issues

The following documentation issues should be considered:

- How are documents and procedures identified, documented, communicated, and revised?
- Does the organization have a process for developing and maintaining documentation?
- How is SFM documentation integrated with existing documentation, where appropriate?
- How do personnel and contractors access the relevant documentation needed to fulfill their responsibilities and perform their job activities?

Effective documentation encourages awareness on the part of personnel and contractors of the requirements of the SFM. Documentation also enables the evaluation of an organization's progress towards SFM.

A.7.4.5 Document control

7.4.5 Document control

7.4.5.1

The organization shall establish and maintain procedures for controlling all documents (paper or electronic) required by this Standard, to ensure that

- (a) documents can be readily located;
- (b) documents are periodically reviewed, revised as necessary, and approved as adequate by authorized personnel;
- (c) the current versions of relevant documents are available at all locations where operations essential to the fulfillment of the SFM requirements and the SFM plan are performed;
- (d) obsolete documents are promptly removed from all points of issue and use, or otherwise prevented from unintended use; and
- (e) obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified.

7.4.5.2

Documentation shall be

- (a) legible;
- (b) dated (with dates of revision);
- (c) readily identifiable;
- (d) maintained in an orderly manner; and
- (e) retained for a specified period.

Procedures and responsibilities for the creation and modification of the various types of documents shall be established and maintained.

The purpose of documentation control is to ensure that the organization creates and maintains documents in a manner that is adequate to fulfill the requirements of this Standard.

A.7.4.6 Operational procedures and control

7.4.6 Operational procedures and control

The organization shall

- (a) identify the operational procedures and controls needed to meet the SFM requirements;
- (b) establish and maintain documented procedures to cover situations in which the absence of such procedures could lead to deviations from the SFM requirements;
- (c) stipulate operating criteria, including maintenance and calibration requirements;
- (d) communicate relevant procedures, controls, and requirements to employees, suppliers, and contractors; and
- (e) ensure that contractors working on behalf of the organization have the necessary operational procedures and controls.

Implementation of the SFM requirements and the SFM plan is accomplished through the establishment and maintenance of operational procedures and controls. These are often referred to as best management practices, work instructions, standard operating procedures, etc. Such operational controls are designed to ensure that activities or tasks are completed in a systematic way with desired outcomes. Operational

controls also increase the probability that legal requirements are met and allow for targeted training of new personnel and contractors. Operational controls should be detailed and specific and should focus on operational specifications and thresholds that are easily and clearly understood by DFA-related workers.

When the applicant comprises more than one organization, various operational procedures and controls may be used, provided that they enable each organization to meet the requirements of the SFM plan.

A.7.4.7 Emergency preparedness and response

7.4.7 Emergency preparedness and response

The organization shall

- (a) establish and maintain procedures to identify the potential for, and response to, accidents and emergencies in the DFA;
- (b) establish and maintain procedures to prevent and mitigate the impacts associated with accidents and emergencies;
- (c) review and revise, where necessary, its emergency preparedness and response procedures, particularly after the occurrence of accidents or emergencies; and
- (d) where practicable, test procedures periodically.

Emergency plans and procedures should be established to ensure that there will be an appropriate response to unexpected incidents or accidents. The organization should define the types of emergencies that could occur in the DFA and maintain appropriate response procedures. Emergencies can include fire and spills of hazardous material onto land or into water. Contingency plans should be developed for forest disturbances such as insect and disease outbreaks and blowdown.

Emergency procedures should take into account incidents arising, or likely to arise, as a consequence of both normal operating conditions and abnormal or unique operating conditions.

Emergency plans may include

- a list of types of emergencies;
- identification of emergency organizations and responsibilities;
- a list of key personnel and their contact information;
- details of emergency services (e.g., fire control and spill management services);
- internal and external communication plans;
- actions taken in the event of different types of emergencies;
- information on hazardous materials, including each material's potential impact on the environment and measures to be taken in the event of accidental release;
- provisions for clean up and remediation as necessary; and
- emergency response training plans and testing exercises.

For further information, see CAN/CSA-Z731.

A.7.5 Checking and corrective action

A.7.5.1 Monitoring and measurement

A.7.5.1.1 General

7.5.1 Monitoring and measurement

The organization shall

- (a) establish and maintain documented procedures to monitor, on a regular basis, the key characteristics of its operations and activities that demonstrate progress towards SFM in the DFA. This shall include the recording of performance levels, relevant operational controls, and conformance with the SFM requirements;
- (b) monitor indicators for comparison against forecasts;
- (c) establish and maintain a documented procedure for periodically evaluating compliance with relevant legislation and regulations, and conformance with relevant policies applying to the DFA. If non-compliances or nonconformities are found, the organization shall address these through corrective and preventive actions; and
- (d) assess the quality, validity, and meaningfulness of the locally determined indicators and all of the targets.

A true measure of success in implementing the SFM requirements is comparing the indicator conditions that evolve over time with those that were forecast, and then assessing the acceptability of any variances. The periodic assessment of indicator conditions is key in determining if values are being sustained and SFM targets are being achieved. This includes assessment of actual changes in the forest. Understanding the reasons for variances between the actual and forecast results is essential to continual improvement. Management strategies should be adapted accordingly.

A.7.5.1.2 Assessing the public participation process

At periodic intervals, the organization and those involved in the public participation process should undertake an assessment of the entire public participation process to ensure that it continues to meet SFM requirements and participant expectations.

A.7.5.1.3 Assessing values, objectives, indicators, and targets

SFM is always a work in progress. At each stage of SFM planning, the values, objectives, indicators, and targets should be examined for continuing quality and validity. Values and objectives can lose their validity as public expectations change. Through monitoring experience, some indicators might be deemed less useful and others more so. Management experience might show that previous targets were either easily met (resulting in more rigorous objectives) or impossible to meet (necessitating more realistic goals). Overall assessment of the effectiveness of the values, objectives, indicators, and targets for the DFA should be carried out at the beginning of each major round of SFM planning, with full engagement of interested parties in accordance with requirements for public participation.

A.7.5.1.4 Assessing SFM performance requirements

Indicators should be compared against targets (or short-term benchmarks) according to a defined schedule. Unacceptable variances from any target should be identified, and the reasons determined and explained. Such variances can be caused by

- failure to implement fully the activities specified in the SFM plan;
- deficiencies in the information available when setting targets, leading to false assumptions about the feasibility of their achievement;
- poor choice of indicators; or
- factors beyond the control of the organization. An analysis of variances allows the organization to determine whether progress towards stated objectives is being made.

A.7.5.1.5 Assessing the SFM system requirements

Because the SFM system requirements are the delivery mechanism for the overall SFM requirements, the effectiveness of the SFM system should be assessed regularly and improved as necessary. This is usually achieved through internal audits and corrective and preventive action processes.

A.7.5.1.6 Legal compliance

Compliance with legal requirements is a critical part of the SFM requirements. The key steps to ensuring legal compliance include

- obtaining a thorough knowledge of applicable legal requirements;
- ensuring that all legal requirements are met;
- taking the necessary and appropriate corrective and preventive actions if a legal requirement is not met; and
- maintaining a mechanism for periodically evaluating compliance.

A.7.5.2 Corrective and preventive action

7.5.2 Corrective and preventive action

The organization shall establish and maintain procedures for

- (a) defining responsibility and authority for identifying and investigating nonconformity;
- (b) taking action to mitigate impacts; and
- (c) initiating and completing corrective and preventive action.

Any corrective or preventive action taken to eliminate the causes of actual and potential nonconformities shall be appropriate to the magnitude of problem and commensurate with the impact encountered.

The organization should implement and record any changes in the documented procedures resulting from corrective and preventive action. The findings, conclusions, and recommendations reached as a result of observation, measuring, monitoring, audits, and other reviews of the SFM requirements should be documented, and the necessary corrective and preventive actions identified. Management should ensure that these corrective and preventive actions are implemented and that there is systematic follow-up to ensure their completion and effectiveness.

Note: *Corrective actions are meant to correct a problem or a condition as soon as it is identified; preventive actions are intended to prevent problems or conditions from happening or recurring.*

A.7.5.3 Records

7.5.3 Records

The organization shall establish and maintain procedures for the identification, maintenance, and disposal of SFM requirement records. These records shall include training records and the results of audits and reviews.

SFM requirement records shall be

- (a) legible;
- (b) identifiable;
- (c) traceable to the activity involved; and
- (d) stored and maintained such that they are readily retrievable and protected against damage, deterioration, or loss.

Their retention times shall be established and recorded.

Records shall be maintained, in a manner appropriate to the system and to the organization, to demonstrate conformance to the requirements of this Standard.

Records are evidence of the ongoing maintenance of the SFM requirements and the progress towards targets. The number and types of records will vary greatly among DFAs and organizations. Records should include all the documents necessary to demonstrate conformance with the SFM requirements, including documentation of the public participation process, the SFM performance requirements, and the SFM system requirements.

To fulfill the SFM requirements, the organization should maintain a range of records and information. Effective management of records is essential to the successful implementation and maintenance of the SFM requirements. Documentation procedures should include

- identification;
- collection;
- indexing;
- filing;
- storage;
- maintenance;
- retrieval;
- retention; and
- disposition.

A.7.5.4 Internal audits to the SFM requirements

7.5.4 Internal audits to the SFM requirements

7.5.4.1

The organization shall

- (a) establish and maintain procedures for annual internal audits to ensure that they conform to the SFM requirements of this Standard; and
- (b) provide information on the results of these internal audits to top management.

7.5.4.2

The organization's internal audit program, including any schedules, shall be based on the importance of the specific SFM activity and the results of previous audits.

Audit procedures shall cover the following:

- (a) scope;
- (b) frequency;
- (c) methods;
- (d) responsibilities and requirements for conducting audits;
- (e) auditor qualifications; and
- (f) reporting results.

Internal audits are intended to encourage continual improvement inside the organization. Audits can be carried out by personnel who are internal to the organization and/or by external parties selected by the organization. The person(s) conducting such audits should be properly trained and should strive to be objective and impartial. Audit procedures and protocols should be clearly defined.

The internal audit report should be submitted to

- top management for review; and
- individuals who can and will act on the audit results.

A.7.6 Management review

7.6 Management review

The organization's top management shall, at least annually, review the SFM requirements to ensure that progress towards SFM continues to be suitable, adequate, and effective. The information necessary to allow top management to carry out this evaluation shall be collected. This review shall be documented.

In order to be adaptive, the management review shall address the possible need for changes to policy, targets, and other SFM requirements, in light of audit results, changing circumstances, and the commitment to continual improvement.

An organization should review its performance in meeting the SFM requirements and continually improve its progress in achieving SFM. The organization's top management should, at appropriate intervals, conduct a complete and thorough review. The review should be broad enough in scope to address all dimensions of the SFM requirements and the DFA (see Clause A.6.1.8) and should cover the following:

- the public participation process;
- the values, objectives, indicators, targets, strategies, and forecasts;
- performance in relation to targets;
- changes in the forest in relation to forecasts;
- findings of audits (internal and external);
- corrective and preventive actions;
- the SFM policy and the need for changes;
- changing legislation or other relevant requirements;
- changing expectations, requirements, or responsibilities of interested parties;
- changes in types of forest operations or forest activities;
- changes in the organization or in resource requirements and availability;
- advances in science and technology;
- lessons learned from experience; and
- changes in the DFA.

Annex B (informative)

Certification framework

Note: This Annex is not a mandatory part of this Standard.

B.1 General

B.1.1

Part of the certification process for a DFA involves determining whether the organization has met

- (a) public participation requirements (see Clause 5);
- (b) SFM performance requirements (see Clause 6); and
- (c) SFM system requirements (see Clause 7).

This determination involves an audit undertaken by a third-party independent certification body accredited by the Standards Council of Canada (SCC). This audit includes an on-site audit of the DFA and field inspections of forest sites.

B.1.2

Accredited registrars require that an organization meet the SFM requirements to achieve certification. If a nonconformance is raised, the individual certification bodies define whether it is a major or minor nonconformity. While minor nonconformities do not necessarily prevent certification, major nonconformities will normally disqualify an organization from certification or lead to de-certification. These decisions are made by individual certification bodies, who are guided by the importance and consequences of nonconformities.

While it is up to the certification body to determine nonconformities, a major nonconformity is any one or combination of the following:

- (a) one or more requirements of this Standard have not been addressed;
- (b) one or more requirements of this Standard have not been implemented; or
- (c) several nonconformities exist that, taken together, lead the auditor to conclude that one or more requirements of this Standard have not been addressed.

B.1.3

A list of accredited certification bodies is available from the SCC. The SCC accredits national third-party independent certification bodies who have competent audit teams consisting of auditors and technical experts with the requisite forestry and environmental management system expertise to conduct audits according to Canada's national guidelines.

Organizations and forest owners might wish to obtain third-party independent certification of their SFM system and related DFA to demonstrate conformance with the requirements of this Standard. These SFM certifications are conducted by certification bodies that are accredited by the SCC.

B.1.4

Clause B.2 specifies the steps taken by an organization to obtain certification to this Standard by a certification body.

B.2 Certification process

B.2.1 Application

A formal application for certification is filed by the organization with the certification body.

B.2.2 Preliminary assessment/documentation review

The initial certification audit is conducted in two stages as specified in SCC CAN-P-16. The certification body assigns an audit team leader to the project. The auditor reviews the details of the applicant and the DFA to be certified. All necessary information and documentation from the applicant is provided to the certification body. The assessment also evaluates the organization's state of preparedness for the upcoming certification audit. The preliminary assessment generally takes place in the organization's office, with some time spent in the DFA assessing actual forest conditions, operations, and the organization's field interpretation of values, objectives, indicators, and targets.

B.2.3 Certification audit

The purpose of the certification audit is to verify that the organization meets the requirements of its documentation, its SFM plan, and this Standard, and the requirements of this Standard are effectively implemented. A high proportion of the audit time is spent in the DFA assessing actual forest conditions, operations, and the organization's field interpretation and implementation of values, objectives, indicators, and targets. Auditors also meet with stakeholders about the public consultation process and any concerns related to the certification. The audit team makes a recommendation for certification based on the audit results.

B.2.4 Certification

The certification body staff designated for the decision-making process reviews

- (a) auditors' recommendations;
- (b) audit files;
- (c) nonconformities;
- (d) documents and audit reports;
- (e) auditor's notes;
- (f) records of objective verifiable evidence; and
- (g) justifications for conformity and nonconformities to this Standard, and associated checklists, process and technical reviews, etc.

The certification body then grants or does not grant certification, based on decision-making process results.

B.2.5 Surveillance audits

A surveillance audit takes place on a periodic basis (at least every 12 months) to provide assurance that the organization is continuing to effectively meet the SFM requirements.

B.2.6 Re-certification audit

A full re-certification audit takes place in accordance with the requirements of the SCC, and if the organization passes, it maintains its certification. Regular surveillance audits are conducted by the certification body to ensure that the certified organization meets the requirements on an ongoing basis.

For information regarding specific conformity assessment requirements (e.g., audit frequency, etc.), contact the SCC and/or SCC-accredited sustainable forest management certification bodies.

B.2.7 SFM audit reports (initial certification and surveillance)

The audit report is prepared under the direction of the lead auditor, who is responsible for its accuracy and completeness. The audit report should be signed by the lead auditor. The audit report should contain the audit findings or a summary thereof with reference to supporting evidence. Subject to agreement between the lead auditor and the auditee, the report may also include additional items. See SCC CAN-P-16 for further details on the content of the audit report.

In accordance with the requirements of this Standard, it is the responsibility of the auditee to make the audit report available to the public.

B.2.8 Dispute resolution

Complaints and disputes regarding an organization's accredited certification to this Standard can be filed by any interested party, including those involved in the public participation process. Any party can complain about a certification decision that has been made; however, ISO/IEC 17021 specifies that an appeal can only be launched by a certified organization or its legal council.

If the matter is under appeal in regard to the contents of this Standard, CSA should be contacted. If the matter pertains to a certified client and its implementation of the requirements of this Standard or the SCC accreditation requirements for the certification body, the certification body should be contacted. If the matter is not addressed to the satisfaction of the interested party following this procedure, the SCC should be contacted.

B.2.9 Objectivity, independence, and competence

To ensure the objectivity of the audit process and its findings and conclusions, the members of the audit team should be independent of the activities they audit. They should be objective and free from bias and conflicts of interest throughout the process. The audit team members should possess an appropriate combination of knowledge, skill, and experience to carry out audit responsibilities (see CAN/CSA-ISO 19011).

Certification bodies or any related organization should not be involved in consulting activities that provide

- (a) guidance on obtaining or maintaining SFM system certification; or
- (b) the design, implementation, or maintenance of SFM systems.

The certification body should not offer nor provide consulting services or advice as part of a pre-assessment, an initial assessment, an audit, or a reassessment. The certification body, their employees, their subcontractors, and the agents involved in any SFM system certification activity (assessment, audit, or reassessment) should not have been involved in any consulting relating to SFM systems for a certification applicant or any company related to that certification applicant within two years prior to the beginning of the certification activity. The auditors and their dependants should not have a direct or indirect interest in the DFA or the certification applicant.

The SCC specifies the current requirements for the accredited certification bodies delivering certification to this Standard. Contact SCC for further information on accreditation requirements.

Annex C (informative)

Summary of key changes in this edition of CSA Z809

Note: This Annex is not a mandatory part of this Standard.

C.1 Introduction

This Annex highlights the key changes in this edition of CSA Z809 and provides information about the CSA SFM program.

C.2 Standards review process

National Standards of Canada are subject to a mandatory five-year review. The review of this Standard process was conducted by CSA's Technical Committee on Sustainable Forest Management (SFM TC), a volunteer group consisting of a balanced representation from the following four categories:

- (a) Producers — includes companies, provincial forest product associations, and private woodlot owners;
- (b) Environmental and general interests — includes consumers, public advisory group representatives, the public, and environmental representation;
- (c) Academic and professional practitioners — includes professors and professionals involved with universities and other research organizations; and
- (d) Aboriginal Peoples, governments, and regulatory authorities — includes Aboriginal interests, and provincial and federal governments.

The review process consisted of several meetings of the SFM TC, meetings with public advisory groups, open public consultation, and a public review period.

C.3 Application of this Standard

Although the vast majority of Canada's forested lands are publicly owned, the role of the small private woodlot owner is significant and integral to many communities and the forest industry. This Standard is intended to foster and improve the sustainable forest management of public and private lands of all sizes. Any small, medium, or large organization operating on public or private land can apply for certification to this Standard.

CSA Z804, *Sustainable forest management for woodlots and other small area forests*, applies more specifically to private woodlot owners.

C.4 Revised structure

The structure of this Standard has changed to align with requirements for National Standards of Canada. In this edition, only requirements (without guidance) are found in the main body of the Standard. This Standard includes the following three annexes:

- (a) Annex A repeats the requirements of the main body and specifies the applicable guidance. Requirements are given in the text within boxes, while the guidance text is outside the boxes.
- (b) Annex B outlines the third-party certification (registration) process.
- (c) Annex C highlights the key changes in this edition and provides information about the CSA SFM program.

C.5 Performance and system requirements

C.5.1

This Standard includes rigorous public participation requirements and a performance framework for addressing the CCFM criteria for sustainable forest management at the DFA level. Public participation requirements are specified in [Clause 5](#) and SFM performance requirements are specified in [Clause 6](#).

A strong systems component, aligned with CAN/CSA-ISO 14001 environmental management requirements, ensures the delivery of both the public participation and DFA-specific performance requirements. These systems requirements ensure that performance requirements are met and continually improved over the long term (see [Clause 7](#)).

Both performance and system requirements are subject to a third-party independent audit conducted by an accredited registrar.

C.5.2 Performance requirements

C.5.2.1 Core indicators

A new set of 35 mandatory core indicators has been added under each SFM element to bring a level of consistency to SFM plans developed under this Standard. These indicators include

- (a) forest area by seral stage or age class;
- (b) degree of habitat protection for selected focal species, including species at risk;
- (c) reforestation success;
- (d) proportion of the calculated long-term sustainable harvest level that is actually harvested;
- (e) proportion of watershed or water management areas with recent stand-replacing disturbance;
- (f) net carbon uptake;
- (g) additions and deletions to the forest area;
- (h) evidence of a good understanding of the nature of Aboriginal title and rights;
- (i) management and/or protection of areas where culturally important practices and activities (hunting, fishing, and gathering) occur; and
- (j) availability of summary information on issues of concern to the public.

Other indicators, as well as locally appropriate targets for all indicators, are identified through the local public participation process.

C.5.2.2 Discussion items

At time of publication of this edition, over 55 public consultation groups operate in CSA certified forests across Canada. They participate at the local community level in the development and monitoring of CSA SFM plans and ongoing forestry discussions. They often participate in the development of various forestry plans required under provincial regulations. This high degree of public involvement reflects the Canadian context, where 93% of the forests are publicly owned.

Key topics for discussion during the public consultation process have been added in this edition for each CCFM criterion. These will become part of the two-way education and exchange of information that occurs regarding each forest. For example, topics to be discussed under CCFM Criterion 1, Conservation of biological diversity, include

- (a) forest fragmentation and forest loss;
- (b) management in the context of natural disturbance regimes and patterns, and the range of natural variation;
- (c) maintenance of population and communities over time;
- (d) local and regional protected areas and integrated landscape management;
- (e) silvicultural regimes and tools such as plantations, pesticides (including integrated pest management and pesticide-use regulations), structural retention, and timber harvest practices (including clear-cutting);
- (f) practices to limit the spread of invasive alien species, and the regulatory prohibitions related to adverse ecological effects and the use of exotic tree species;

- (g) the gene pool of native seed stocks, and genetically modified organisms (GMOs) and the associated regulatory/policy requirements;
- (h) management and protection of biological resources of cultural heritage significance;
- (i) management of cultural values and resources;
- (j) locally available processes and methods for identifying sites with special biological and cultural significance;
- (k) conservation of old-growth forest attributes; and
- (l) participation in government programs to protect threatened and endangered species.

C.5.2.3 DFA-specific performance requirements

Information on establishing SFM performance requirements has been moved to [Clause 6.1](#); thus, the background information necessary for setting appropriate values, objectives, indicators, and targets for the SFM elements in [Clause 6](#) is specified right at the start of that clause.

C.5.3 System requirements

System requirements for the development of strategies, forecasting outcomes, and monitoring the effectiveness of indicators and objectives have been clarified.

C.6 Adapting global and national criteria to the local forest area

C.6.1

Certification programs need to be globally and nationally consistent, yet flexible enough to account for different local situations and conditions. At the international level, Canada is involved in the Montreal Process, one of eight intergovernmental processes for developing and reporting on global criteria and indicators for sustainable forest management. As an outcome of that involvement, the CCFM developed a definition of sustainable forest management for Canada that includes a suite of broadly accepted Canadian forest values embodied in a set of CCFM criteria, elements, and indicators. There are six criteria representing high-order forest values, with associated elements that represent specific features of the criteria.

This Standard uses the CCFM criteria and an adaptation of the elements to ensure their applicability at the DFA level. These criteria and elements apply to all of Canada. Local public advisory committees then develop indicators and targets for each element that are adapted to local conditions.

Adoption of the CCFM SFM criteria and elements as a framework for identifying forest values provides vital links between local sustainable forest management and national and provincial forest policy. This edition provides more consistency in the identification of local forest values across Canada through the adoption of a set of mandatory core indicators to be used consistently wherever this Standard is applied. To provide flexibility to address specific circumstances, other local level indicators are set through the public participation process.

C.6.2

The CSA SFM elements address important Canadian forest and sustainability values. The elements (specified in Clause 6.3) address the following criteria:

Criterion 1 — Biological diversity

- 1.1 Conserving **ecosystem diversity**
- 1.2 Conserving **species diversity**
- 1.3 Conserving **genetic diversity**
- 1.4 Protecting **areas and sites of special biological and cultural significance**

Criterion 2 — Ecosystem condition and productivity

- 2.1 Conserving **ecosystem resilience**
- 2.2 Conserving **ecosystem productivity**

Criterion 3 — Soil and water

- 3.1 Conserving **soil resources**
- 3.2 Conserving **water resources**

Criterion 4 — Role in global ecological cycles

- 4.1 Maintaining the processes that take **carbon from the atmosphere and store it** in forest ecosystems
- 4.2 Protecting forest lands from **deforestation or conversion** to non-forests

Criterion 5 — Economic and social benefits

- 5.1 Managing the forest sustainably to produce an acceptable and feasible mix of **both timber and non-timber benefits**
- 5.2 Contributing to the **sustainability of communities by providing diverse opportunities** to derive benefits from forests and supporting local economies

Criterion 6 — Society's responsibility

- 6.1 Recognizing and respecting **Aboriginal title and rights, and treaty rights**
- 6.2 Respecting traditional **Aboriginal forest values and uses** identified through the Aboriginal input process
- 6.3 Encouraging, co-operating with, or helping to provide **opportunities for economic diversity** within the community
- 6.4 Demonstrating that the **SFM public participation process** is designed and functioning to the satisfaction of the participants and that there is general public awareness of the process and its progress
- 6.5 Providing relevant **information and educational opportunities** to interested parties to support their involvement in the public participation process, and increase knowledge of ecosystem processes and human interactions with forest ecosystems

C.6.3

Clauses 5 and 7 specify requirements with regard to the following:

- (a) developing a sustainable forest management plan through a public participation process in which values, objectives, indicators, and targets for forest management are set. Third-party auditors review progress against the SFM plan, and an annual performance report is reviewed with the public group each year;
- (b) respecting the legal rights and responsibilities of other parties in the DFA;
- (c) demonstrating that Aboriginal title and rights, and treaty rights have been identified and respected;
- (d) demonstrating that the legal and constitutional rights and the health and safety of DFA-related workers are respected and their contributions to SFM are encouraged; and
- (e) demonstrating that the acquired and legal rights of private woodlot owners to set the values, objectives, indicators, and targets relating to their properties are respected.

C.7 The public participation process

Given that the vast majority of Canada's forested lands are publicly owned, a key requirement of this Standard is a rigorous public participation process. This is in line with increasingly rigorous and continually expanding government regulation of public input processes for forest management planning in Canada. The public participation process requirements of this Standard are flexible enough to allow organizations to start a new process, build on an existing process where appropriate, or revive a previous process.

Revisions to the public consultation requirements of this Standard were guided by

- (a) results of a survey sent to all public advisory groups across Canada;
- (b) input from public advisory group members of the Technical Committee on Sustainable Forest Management;
- (c) insights from letters received from public advisory groups since publication of the previous edition of this Standard; and
- (d) meetings between public advisory group members and the Technical Committee.

These revisions include, among other things, the addition of a mechanism to measure participants' level of satisfaction with the process, and a transparency section (Clause 7.4.3) that clearly identifies in one location information requiring full public disclosure.

C.8 Aboriginal issues

A separate Aboriginal Working Group was formed within the Technical Committee to review the requirements and guidance relating to Aboriginal Peoples. The group used feedback from Aboriginal organizations, resource documents, and expert advice, and proposed changes that resulted in the following:

- (a) understanding of and compliance with the current legal requirements related to Aboriginal title and rights, and treaty rights;
- (b) clarifying that Aboriginal Peoples can participate in CSA public consultation processes and the development of forestry plans without prejudice to Aboriginal title and rights, and treaty rights;
- (c) understanding Aboriginal forest values, knowledge, and uses, and incorporating them into forestry plans;
- (d) using Aboriginal knowledge to identify and manage culturally important resources and values;
- (e) respecting traditional Aboriginal forest values and uses identified through the Aboriginal input process
- (f) making best efforts to obtain acceptance of management plans based on Aboriginal communities having a clear understanding of these plans;
- (g) promoting capacity development and meaningful participation of Aboriginal communities; and
- (h) focusing on the level of Aboriginal participation in the forest economy.

C.9 Safety, worker protection, and community sustainability

Requirements regarding safety, worker protection, and community sustainability have also been strengthened, and include

- (a) evidence that the organization has co-operated with other forest-dependent businesses, forest users, and the local community to strengthen and diversify the local economy;
- (b) demonstration that the legal and constitutional rights (including those specified in ILO Conventions to which Canada is signatory) and the health and safety of DFA-related workers are respected; and
- (c) evidence that a worker safety program is implemented and periodically reviewed and improved.

C.10 Definitions

Many of the definitions used in this Standard have been revised, and several new terms have been defined. Newly defined terms include

- (a) Aboriginal treaty rights;
- (b) afforestation;
- (c) biomass;
- (d) coarse wood debris;
- (e) focal species;
- (f) invasive alien species;
- (g) genetically modified organisms;
- (h) migratory bird;
- (i) native species;
- (j) old-growth forest;
- (k) plantation;
- (l) seral stage; and
- (m) watershed.

C.11 Transition from the 2002 edition

The transition requirements to move from the 2002 edition of this Standard are set by the SCC.

C.12 Interpretations and clarifications

Registration bodies (certifiers) can provide clarifications of this Standard. Contact the registrar or visit www.scc.ca for a list of registrars accredited to conduct audits to this Standard.

Official requests for interpretations should be directed to the Project Manager of this Standard (Ahmad Hussein at ahmad.hussein@csa.ca). Requests will be put forward to the Technical Committee for their review and vote. They will then be forwarded to the SCC for distribution to the accredited registration bodies who will take the appropriate steps in accordance with their accreditation requirements. For further information, contact the registrar or the SCC, or refer to the contact information provided in [Clause C.15](#).

C.13 Accessibility of this Standard

CSA Z809-08 is available free of charge in an electronic, downloadable format from the CSA Online Store at <http://www.csa-intl.org/onlinestore> under "Environmental" "Sustainable Forest Management", as well as at certifiedwood.csa.ca

C.14 Voluntary programs based on this Standard

C.14.1 Chain of Custody (CoC)

A voluntary next step for organizations wanting to demonstrate their commitment to SFM is certification of a chain of custody for forest products. A chain of custody is a mechanism used to track the origin of raw materials from certified forests and other sources, through each stage of manufacturing and distribution, to the end-user. Characteristics such as the proportion of certified content and the legality of any non-certified raw materials used are verified and accurately reported, and an optional claim label may then be applied to the product.

CSA CoC certification requires conformance with the internationally recognized PEFC Council CoC requirements set out in PEFC *Annex 4*. This document is available at http://www.pefc.org/internet/html/documentation/4_1311_400/4_1208_165/5_1177_452.htm. The CSA chain of custody program is managed and delivered through CSA International (see *Clause C.15*) and requires third-party independent audits.

C.14.2 CSA SFM Product Mark

A voluntary option available to organizations is the licensing and application of the CSA SFM Product Mark, or “on-product label”. The CSA Mark has been applied to billions of consumer products around the world for over 50 years. Now organizations that are using or processing wood that has originated from a forest certified to CSA Z809 and hold a valid chain of custody certificate can be licensed to apply the CSA SFM Product Mark. More information can be obtained from CSA International (see *Clause C.15*).

C.15 Contact information

All questions regarding this Standard can be directed to

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Proposition de modification

N'hésitez pas à nous faire part de vos suggestions et de vos commentaires. Au moment de soumettre des propositions de modification aux normes CSA et autres publications CSA prière de fournir les renseignements demandés ci-dessous et de formuler les propositions sur une feuille volante. Il est recommandé d'inclure

- le numéro de la norme/publication
- le numéro de l'article, du tableau ou de la figure visé
- la formulation proposée
- la raison de cette modification.

Nom/Name: _____

Affiliation: _____

Adresse/Address: _____

Ville/City: _____

État/Province/State: _____

Pays/Country: _____ **Code postal/Postal/Zip code:** _____

Téléphone/Telephone: _____ **Télécopieur/Fax:** _____

Date: _____

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5.1.1.4 Forest management activities will be consistent with Visual Quality Objectives (VQO's)	9-2.1 Compliance with Visual Quality Objectives
5.2.1.1 Level of investment in initiatives that contribute to community sustainability	New Measure with no equivalent from the older plans
5.2.1.2 Amount of stumpage paid in the Fort Nelson DFA	4-3.1 Fees paid by the Forest Industry
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6.1.1 Evidence of good understanding of the nature of Aboriginal title and rights	New Measure with no equivalent from the older plans
6.1.2 Evidence of best efforts to obtain acceptance of management plans based on Aboriginal communities having a clear understanding of the plans	8-1.1 Percentage of cutblocks where information sharing took place 8-2.1 Access to resources for first nations 8-3.1 First nations opportunities to comment 8-3.2 Percentage of archaeological impact assessments sought
6.1.3 Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering, Etc.) occur	8-1.1 Percentage of cutblocks where information sharing took place 8-2.1 Access to resources for first nations 8-3.1 First nations opportunities to comment

6.2.1 Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values	8-1.1 Percentage of cutblocks where information sharing took place 8-2.1 Access to resources for first nations
6.3.1 Evidence that the organization has co-operated with other forest dependant businesses, forest users and the local community to strengthen and diversify the local economy	New Measure with no equivalent from the older plans
6.3.2 Evidence of co-operation with DFA related workers and their unions to improve and enhance safety standards, procedures and outcomes in all DFA workplaces and affected communities	9-4.1 Safe company registration and certification 9-4.2 safety incidences 9-4.3 Number of serious injuries 9-4.4 Number of fatalities
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6.5.1 Number of people reached through educational outreach	7-1.2 Methods used for public communication
6.5.2 Availability of summary information on issues of concern to the public	New Measure with no equivalent from the older plans

Table 1: Dropped Measures from the updated 2004 SFMP

<i>Dropped Measure</i>	<i>Reason for deletion</i>
2-1.1 Site index	This measure was dropped because of the high variability in the methodology of measuring Site Index for any given site. There are three methods for calculating SI, and there is no way of knowing how the original SI was derived. This makes any comparison to a newly calculated SI very difficult to reconcile.
2-4.1 Treatment plans for natural disturbance events	As natural disturbance events are not under the control of the Participants, neither is the management of these events. The treatment of such areas would have to be voluntary. Such losses to natural disturbance would be taken into account by the TSR process
2-4.2 Percent of catastrophic natural disturbance events due to forestry activities	If forestry activities were to result in a catastrophic natural disturbance or to exacerbate a natural disturbance, the Participants would be required to help with the mitigation as a matter of law.
4-2.3 Dollar value of BCTS timber sales and total timber volume advertised by BCTS	This measure did not really fit in with any of the elements from the 6 CSA criteria.
4-3.2 Personal income taxes paid	This measure did not fit in with any of the elements from the 6 CSA criteria, and was considered inappropriate by the Participants as it was reporting personal information.
4-5.1 Perceptions of Canfor and BCTS	This measure did not really fit in with any of the elements from the 6 CSA criteria.
4-5.2 Competitive primary milling facility	This measure was removed as the presence of a competitive primary milling facility is controlled by the lumber market, which is beyond the control of the Participants to influence.
6-1.1 Employments by broad sector	This measure is out of the scope of control of the Participants and as such not appropriate for the SFMP
6-1.2 Employment by industry	This measure is out of the scope of control of the Participants and as such not appropriate for the SFMP
7-1.1 Stakeholder database	This measure did not really fit in with any of the elements from the 6 CSA criteria.



Canadian Forest Products Ltd. Forest Management Group Forest Management System Roles & Responsibilities Matrix

Effective: 22/01/2010

		Management Team				Operations and Supply											Planning							Silviculture				
		Regional Manager FMG	Operations, Planning, Silviculture Managers	Supply Manager and Lean Sigma Coordinator	Timber Pricing Manager	Operations Supt, Senior Operations Supervisor, Operations Coordinator	Forestry Supervisor Operations/Roads	Senior Log Purchase Supervisor	Log Purchase Supervisor, Forestry Supervisor Fibre Supply, Log Rate Analyst	Scaling Coord or Supervisor	Forestry Coordinator and Forestry Supervisor Permits	Forestry Supervisor Valuation and Appraisal Forester	Field Ops Coord or Supervisor	Field Operations Staff	Senior and Woodlands Accountant	Office Manager	Administrative Assistants	Planning Coordinator and Forestry Supervisor Planning	Tenure Manager	Strategic Planning Coord	Certification Coordinator	Safety Coordinator	FIA Coordinator	WIM Coordinator	WIM Tech/Analyst/Developer	Silviculture Coordinator and Forestry Supervisor Silviculture	Silviculture Temporary Staff	
FOREST MANAGEMENT SYSTEM MANUAL ELEMENTS	Policies	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	
	Environmental Aspects	Role	Role	Knowledge	Knowledge	Role	Role	Role		Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Knowledge	Role	Role	Role	Role	
	Legal and Other Requirements	Role	Role	Knowledge	Knowledge	Role	Role	Role	Knowledge	Role	Role	Role	Role	Knowledge	Knowledge	Role	Knowledge	Role	Role	Role	Role	Role	Knowledge	Knowledge	Knowledge	Role	Knowledge	
	Objectives, Targets & Environmental Programs	Role	Role	Knowledge	Knowledge	Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Role	Role	Role	Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	
	Structure & Responsibility	Role	Role	Knowledge		Knowledge	Knowledge	Knowledge			Knowledge		Knowledge		Knowledge			Knowledge	Knowledge		Role		Role			Knowledge		
	Training Awareness & Competence	Role	Role	Knowledge	Knowledge	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Knowledge	Role	Role	Role	Role
	Communications	Role	Role	Knowledge	Knowledge	Role	Role	Role	Knowledge	Role	Role	Role	Role		Role	Knowledge		Role	Role	Role	Role	Role	Role	Knowledge		Role	Role	Knowledge
	Documentation & Document Control	Role	Role	Knowledge	Knowledge	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Knowledge	Role	Role	Role	Role
	Operational Control	Role	Role	Knowledge	Knowledge	Role	Role	Role	Role	Role	Role	Role	Role	Knowledge		Knowledge		Role	Role	Role	Role	Role	Role	Knowledge		Knowledge	Role	Role
	Emergency Preparedness & Response	Role	Role	Knowledge	Knowledge	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Knowledge	Role	Role	Role	Role
	Monitoring & Measurement	Role	Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Role	Knowledge	Role	Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
	Incidents & Corrective & Preventative Actions	Role	Role	Knowledge	Knowledge	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Knowledge	Role	Role	Role	Role
	Records	Role	Role	Knowledge	Knowledge	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Knowledge	Role	Role	Role	Role
	Chain of Custody	Knowledge	Role			Role	Knowledge	Role	Role	Knowledge					Role			Knowledge			Role							
Internal Forest Management System Audit	Role	Role	Knowledge	Knowledge	Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Role	Knowledge	Role	Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	
Management Review	Knowledge	Role	Knowledge		Role	Knowledge	Role			Knowledge		Knowledge		Role			Role (SFM)	Role	Role	Role				Role		Knowledge		
STANDARD WORK PROCEDURES	Training	Role	Role	Knowledge	Knowledge	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	
	Incident Reporting	Role	Role	Knowledge	Knowledge	Role	Role	Role	Role	Role	Role	Role	Role		Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	
	Environmental Aspects	Role	Role	Knowledge	Knowledge	Role	Role	Role	Role	Role	Role	Role		Knowledge	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Role	Knowledge	
	Chain of Custody	Knowledge	Knowledge	Knowledge		Role	Knowledge	Role	Role					Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge				Role				
	Supervisor	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	
	Equipment Operator/ Worker	Knowledge	Knowledge	Knowledge	Knowledge	Role	Role	Knowledge	Knowledge	Role	Role	Knowledge	Knowledge	Knowledge				Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge		Role	Role	
	Internal FMS Audit	Knowledge	Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Role	Role	Knowledge	Role	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	
	MSMA	Knowledge	Knowledge	Knowledge		Role	Role		Knowledge																			
Trucking	Knowledge	Knowledge	Knowledge		Role	Role		Knowledge																				

Role: The position has a role identified in a FMS corresponding procedure

Document Owner: Certification Coordinator

Knowledge: The position does not have a role, but requires knowledge of the corresponding FMS procedure



Chapter 7 Structure and Responsibility

Purpose

To ensure the roles, responsibilities and authorities of the environmental management system (EMS) and sustainable forest management (SFM) programs are defined, documented and communicated in order to facilitate effective environmental and SFM performance.

Scope

This Chapter provides the procedure for the designation of responsibility for all EMS/SFM roles within BCTS, including corporate and BA staff, all BCTS licensees / permittees / contractors and their forest workers.

Roles

- Executive Director (BCTS)
- Timber Sales Manager
- Certification Officer
- CSO Team
- BA CSO
- SFM Teams
- BA SFM Coordinators
- Local Committee
- BA Woodlands Manager / Supervisors
- BA Staff
- Licensees / Permittees / Contractors

Procedure

Executive Director (BCTS) will:

- Ensure that the environmental management system and corporate sustainable forest management requirements are established, implemented and maintained in accordance with the relevant standards
- Document the assignment of BCTS EMS/SFM roles and responsibilities (Table 007-1)

Timber Sales Manager will:



BC Timber Sales
ENVIRONMENTAL MANAGEMENT SYSTEM

- Ensure that the environmental management system and corporate sustainable forest management requirements are implemented in accordance with the relevant standards
- Ensure that local SFMP requirements (if any) are established, implemented and maintained in accordance with relevant standards
- Report on the performance of the EMS and corporate SFM programs to corporate senior management (Executive Director (BCTS), Timber Sales Leadership Team (TSLT) Lead) for review and as a basis for continual improvement of the EMS
- Document the assignment of roles and responsibilities at the BA
- Provide resources necessary to ensure effective environmental management and implementation of the SFMP at the BA as relevant

Certification Officer will:

- Ensure that the environmental management system and corporate sustainable forest management requirements are established and maintained in accordance with the relevant standards
- Provide leadership towards provincial and business area implementation of the EMS and corporate SFM programs
- Update and approve corporately controlled EMS and SFM documents
- Report the progress of the EMS and corporate SFM programs to corporate senior management (Executive Director (BCTS), Timber Sales Leadership Team (TSLT) Lead) for review and as a basis for continual improvement of EMS

CSO Team will:

- Maintain a consistent corporate approach for the BCTS EMS by implementing BCTS policy and direction
- Periodically complete continuous improvement of the EMS under corporate direction

BA CSO will:

- Provide leadership towards business area implementation of the EMS

SFM Teams will:

- Provide BA input for BCTS corporate SFM programs
- Review SFM issues and concerns identified by BA staff
- Make recommendations for the continual improvement of corporate SFM programs

BA SFM Coordinators will:

- Provide leadership in the development and continuous improvement of BA SFMPs and the BA implementation of corporate SFM programs
- Participate on local and/or corporate committees to maintain SFM certification

Local Committee will:

- Maintain a consistent corporate approach for the BCTS EMS and SFMP(s) by implementing BCTS policy and direction



BC Timber Sales **ENVIRONMENTAL MANAGEMENT SYSTEM**

- Periodically complete routine continuous improvement of the local EMS and SFMP(s) under direction of the Timber Sales Manager

BA Woodlands Manager / Supervisors will:

- Communicate the roles and responsibilities to the people that report to them
- Ensure that their workers receive appropriate training according to Chapter 8; Training, Awareness, and Competence

BA Staff will:

- Ensure that operations conform to the SFMP(s), and EMS requirements for environmental field procedures and emergency response plans

Licensees / Permittees / Contractors will:

- Ensure that their operations conform to the SFMP(s), and EMS requirements for environmental field procedures and emergency response plans. They will ensure that their workers receive appropriate training according to Chapter 8, Training, Awareness, and Competence.

The reporting structure for the EMS is illustrated in the BC Timber Sales EMS/SFM Organization Chart (Table 007-1).

ISO 14001-2004 Reference

Clause 4.4.1 Resources, roles, responsibility and authority

Management shall ensure the availability of resources essential to establish, implement, maintain and improve the environmental management system. Resources include human resources and specialized skills, organizational infrastructure, technology and financial resources.

Roles, responsibilities and authorities shall be defined, documented and communicated in order to facilitate effective environmental management

The organizations top management shall appoint a specific management representative(s) who, irrespective of other responsibilities, shall have defined roles, responsibilities and authority for

- a. Ensuring that an environmental management system is established, implemented and maintained in accordance with the requirements of this International Standard,*
- b. Reporting to top management on the performance of the environmental management system for review, including recommendations for improvement*

Related Documents

- EMS Organization Chart (Table 007-1)
- EMS Manual
- Environmental Operating Procedures
- Environmental Field Procedures
- Sustainable Forest Management Plan(s)

FORT NELSON DEFINED FOREST AREA

PUBLIC RESPONSE FOR INFORMED SUSTAINABLE MANAGEMENT (PRISM)

TERMS OF REFERENCE

December 17, 2003
Updated January 29, 2004
Updated March 28, 2005
Updated January 12, 2006
January 4, 2007
Updated February 7, 2008
Updated June 10, 2010

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A. BACKGROUND

Forest management throughout the world has been moving steadily toward multi-value approaches to sustainable development and management. Canadian Forest Products Ltd. (Canfor) has been designing and testing an integrated framework for sustainable forest management across its divisions. Partnerships between licensees, academics, resource specialists, government agency staff and other related organizations have made the Sustainable Forest Management (SFM) Framework a credible alternative to current forest management planning in the Interior of British Columbia. The framework has since been replaced by the Z809-08 CSA Standard

Canfor has partnered with BC Timber Sales with the intent to maintain the achieved third party registration to the CSA – Sustainable Forest Management standard (CSA-Z809-08) for the Defined Forest Area.

The Public Advisory Group will provide advice to the Participants on values, goals, indicators and objectives that will be considered in the development of a sustainable forest management plan for the Defined Forest Area.

1) Description of the Defined Forest Area (DFA)

The Fort Nelson Timber Supply Area (TSA) makes up the DFA for certification. The DFA is situated in the north-easternmost corner of the province of British Columbia. It is bordered by the Alberta border in the east, the Northwest and Yukon Territories to the north, and the summit of the northern Rocky Mountains to the west. At 9.8 million hectares, the Fort Nelson TSA is the second largest timber supply management area in British Columbia.

The eastern part of the TSA, nearest the Alberta border, is a continuation of the Great Plains (or Alberta Plateau). Moving towards the southern portion of the TSA, the plains ascend into the foothills of the northern Rocky Mountains along the TSA's western boundary. In the northern portion, the plains shift into the Liard River basin and the Liard Plateau. About one-half of the Fort Nelson TSA is considered productive forest area.

The main community is the town of Fort Nelson, where three-quarters of the TSA's population live. Other communities include Prophet River, Toad River, and Muncho Lake. The Fort Nelson Forest District encompasses the TSA and includes Muncho Lake Park, Stone Mountain Park, Northern Rocky Mountains Park and part of the Muskwa-Kechika Management Area, as well as several other small parks and protected areas.

B. DEFINED GOALS

1) Maintaining an effective Public Advisory Group

A key objective of the Sustainable Forest Management Plan is to maintain an effective Public Advisory Group which is defined as being able to:

- a. meet regularly in an open and supportive meeting environment that encourages participation by all members,
- b. encourage/maintain a representation of a broad spectrum of interests among its membership,
- c. achieve quorum, and adhere to the operating rules outlined in section c, and
- d. make decisions and recommendations based on informed input.

2) Specific goals of the PRISM

The goal of the **Fort Nelson Public Response for Informed Sustainable Management (PRISM)** Group is to provide input into the development of an SFM strategy for the DFA. In addition, the group will also meet the needs of the SFMS certification process, which includes providing input to help ensure that the participant's forest management decisions "...are made as a result of informed, inclusive, and fair consultation with local people who are directly affected by or have an interest in sustainable forest management"¹. The PAG will represent the diverse range of interests in the Defined Forest Area (DFA) and will:

- a. Ensure that the Participants' forest management decisions, as contained in the sustainable forest management plan, are made as a result of informed, inclusive and fair consultation with local people who are directly affected by or have an interest in sustainable forest management and
 - i.) Review proposed sustainable forest management plans and amendments to sustainable forest management plans and
 - ii.) Review audits
 - iii.) Review annual reports
 - iv.) Review the latest version of the CSA Z809 standard
- b. According to CSA Z809-08, have opportunities to work with the Participants to
 - i) Identify and select Criteria, indicators, measures and targets for sustainable forest management
 - ii) Develop alternative strategies to be assessed;
 - iii) Assess alternative strategies and select the preferred one;
 - iv) Review the SFM plan;
 - v) Design monitoring programs, evaluate results and recommend improvements; and
 - vi) Discuss and resolve any issues relevant to SFM on the DFA.

This Terms of Reference is signed "without prejudice" and the rights of all individuals and groups participating will be recognized and respected.

Canfor and BCTS recognize Aboriginal and treaty rights and agree that Aboriginal participation in the public participation process will not prejudice those rights.

¹ Canadian Standards Association. 1996.CAN/CSA-A808-96 A sustainable forest management system: guidance document. Canadian Standards Association, Etobicoke Ont.

C. OPERATING RULES

1) *Ground rules/ conduct*

The PRISM and its members agree to work under the following ground rules:

- a) Show mutual respect for all meeting participants.
- b) Use a speaker's list approach, managed by the facilitator.

2) *Meeting agenda and dates*

- a) Meeting agenda:
 - i) Input on upcoming meeting agendas will be obtained during the previous PRISM meeting.
 - ii) The Participants will finalize and distribute the meeting agenda and meeting summaries to PRISM members and PAG alternates.
 - iii) Time (10 minutes, unless agreed otherwise) will be allocated on each meeting agenda for public presentations or comments, if desired.

b) Meetings will be held at a minimum quarterly, or more often as required, **except in situations of indefinite operational shutdowns caused by market conditions or events substantially out of the control of the participants.**

- c) Meeting dates will be confirmed jointly between the Participants and the PRISM Meeting notices
 - i) Generally, the next meeting date will be confirmed at each PRISM meeting
 - ii) At least three weeks advance notice of meeting dates will be given
 - iii) PRISM members will confirm attendance of the meetings two weeks prior to the scheduled meetings.

- d) Meeting Location
 - i) Meetings will be held at a time and place most suitable to the PRISM members, and may vary in time or place to satisfy requirements.
 - ii) Suggested meeting location(s) are:

Northern Rockies Regional Municipality Office, Bear Pit
Ministry of Forests and Range District Office, Main Boardroom

e) Material, if available, will be provided for review in advance of meetings

f) Name

The name of the Public Advisory Group is:

PRISM (Public Response for Informed Sustainable Management)

3) *Quorum*

- a) A minimum of three PAG members is required to achieve quorum.

4) *PRISM survey*

- a) A bi-annual survey will be conducted to evaluate the effectiveness of PRISM
- b) The PRISM survey might take the format of a paper survey, questionnaire, personal interviews, online survey (via Survey-monkey or other provider) or similar tools

5) Recruitment of PAG members

- a) PRISM members will participate in the annual review of PRISM membership, if deemed necessary, and make recommendations to recruit new members in order to maintain a broad spectrum of interests.

6) Review of the CSA Standard

- A. PRISM member will be given opportunity by the participants to review the latest version of the CSA Z809 SFM standard on an annual basis to aid in understanding and decision making efforts regarding the standard

D. ROLES AND RESPONSIBILITIES

1) Public Advisory Group

- a) In addition to First Nations participation, the PRISM will solicit PAG members with interests from each of the following areas:

- i. Commercial recreation
- ii. Tourism
- iii. Environment/conservation
- iv. Muskwa-Kechika Management Board
- v. Forest contractors/workers
- vi. Labor
- vii. Oil & gas industry (contractors/producers)
- viii. Non-commercial recreational- fishing/hunting
- ix. Non-commercial recreation- non-consumptive
- x. Cultural and Historical
- xi. Range/agriculture
- xii. Guide outfitting
- xiii. Trapping
- xiv. Communities
- xv. Non Timber Forest Products
- xvi. Commercial non-forestry

- b) In addition to the above PAG members, advisors from the following may participate by contributing information and advice to the PRISM:

- i) Canadian Forest Products Ltd.
- ii) BC Timber Sales, Ministry of Forests and Range - Peace District
- iii) Ministry of Environment
- iv) Ministry of Agriculture and Lands,
- v) Integrated Land Management Bureau
- vi) Ministry of Forests and Range
- vii) Agricultural Land Commission
- viii) Ministry of Transportation and infrastructure
- ix) Ministry of Energy, Mines and Petroleum Resources
- x) Oil and Gas Commission

- xi) Others as required
- c) The Participants are those parties responsible for the implementation of the SFM Plan project and include:
 - i. Canadian Forest Products Ltd.
 - ii. BC Timber Sales
- d) Selection of New PAG members
 - i. The Participants will recruit potential PAG members for each interest area when required– Canfor will utilize its Stakeholder Analysis to recommend participation needs.
 - ii. The Participants will confirm appointments and replacement of PAG members and alternates.
 - iii. The list of interests may be revised based on input from the PAG and with the agreement of the Participants.

2) PAG members

- a) To provide input related to the Defined Goals (see above)
- b) To be willing to inform others in their area of interest
- c) To liaise with the alternate(s), if any, and ensure that they are familiar with the discussions to date in advance of meetings
- d) If necessary, to seek time to caucus with the alternate(s) during a meeting to help clarify information and input to the PRISM
- e) To attend meetings regularly - when more than 2 consecutive meetings are missed by a PAG member, the following process will be implemented. The Participants representative, will contact the individual to check whether that person wishes to continue to participate as a member of PRISM.
- f) To be responsible for reaching consensus on recommendations.
- g) To be willing to participate on the PRISM for a minimum of two years.
- h) PAG members who miss a meeting must become familiar with the discussions they missed prior to attending the next meeting of the PRISM group. Meeting participation via conference call would be acceptable for PAG members unable to physically attend any PRISM meetings.

3) Use of Alternates

- a) Each interest area may identify alternates who will work with the PAG member.
- b) Alternate(s) may be nominated by the relevant PAG member or the PRISM and will be approved by the Participants.
- c) Alternates will be guided by the Terms of Reference and will act as PRISM members when the PAG members cannot attend or chooses to rotate his/her role from one meeting to another. Only one person of the two will serve at each meeting.
- d) Alternate(s) must be briefed by the PAG member prior to meeting to help ensure continuity
- e) Alternates may contribute to discussion in addition to the PAG member but will not take part in reaching consensus or decision-making of the PRISM, unless serving for that meeting.
- f) Alternates are encouraged to attend PRISM meetings as observers even if the PAG member for that interest is in attendance.

4) Input from PRISM members who cannot attend meetings

- a) Where the PRISM requires input from a specific interest and the respective PAG member cannot attend scheduled PRISM meetings, the meeting summaries and all background material will be made available to the PAG member and their input will be solicited in a format acceptable to the PRISM.
- b) Input from non-attending interests will be presented to the PRISM during scheduled meetings for their consideration

5) Observers Role

- a) The general public is welcome to observe PRISM meetings.
- b) Observers may not participate in discussions unless agreed to by the PRISM facilitator and all members
- c) Each meeting will provide for up to a total of 10 minutes (or more if agreed to by PRISM and Participants) for comments or a brief presentation by observer(s).
- d) Observers will not take part in reaching consensus or decision-making of the PAG.

6) Participants' Role

- a) To provide information to the PRISM as related to the Defined Goals
- b) To prepare draft meeting summaries and agendas
- c) To review and consider the recommendations of the PRISM
- d) To make decisions regarding sustainable forest management and certification
- e) To report to PRISM on how PRISM recommendations were addressed
- f) To compile and distribute meeting information, agenda, etc.
- g) Participants will not take part in reaching consensus or decision-making of the PAG

7) Advisor's Role

The PAG may request clarification of technical or legal information from Advisors. Advisors will be invited by the Participants, as required, to attend PRISM meetings and provide technical information and advice to the PRISM. These advisors could be from government agencies, professional organizations, academia, consulting firms or other sources.

The role of Advisors is:

- a) To participate in discussions as requested and provide applicable information in a non-partisan manner that will provide support to the PRISM
- b) To provide and/or clarify technical and legal information for the PRISM
- c) To avoid taking part in reaching consensus or decision-making of the PRISM

Advisory Process

Local advisors from MOFR, MOE and ILMB are considered to have a standing request to attend all PRISM meetings. Participation in PRISM meetings by local advisors from MOE and ILMB may be in person or by telephone.

Participants will distribute information for discussion to the PAG and Advisors at least 2 weeks before scheduled meetings. Information may be distributed by email, internet or

mail. Participants and PAG members will contact Advisors, as required, for clarification of legal or technical issues arising from PAG discussions or review of material distributed to the PAG for comment. If required by request of the Participants or PAG members, Advisors will meet with Participants or PAG members outside of scheduled PRISM meetings to provide clarification of technical or legal issues.

Advisors will provide clarification of legal or technical issues that are within their area of expertise. Where issues are outside of the Advisors' expertise the Advisors may decline comment, seek clarification from qualified professionals or recommend qualified individuals for the Participants to contact.

PAG requests for clarification made outside of PRISM meetings will be forwarded to the appropriate advisors by the participants.

8) Facilitator's Role

- a) To ensure that meetings address agenda topics
- b) To ensure that all PRISM members have an equitable opportunity to participate in the meeting
- c) To ensure that the PAG members, Alternates, Advisors and Participants all participate according to the Terms of Reference
- d) To manage a speaker's list, when required
- e) To provide support in summarizing and clarifying issues, recommendations, etc.
- f) To avoid taking part in reaching consensus or decision-making of the PRISM

9) Conflict of Interest

- a. A conflict of interest is defined as a situation where a PAG member would gain financially directly, and that if that was the case, they would have to declare the conflict immediately at which time the other PAG members will decide how to respond.

E. TIMELINES

The following summarizes key dates for CSA Certification.

- 1) Community awareness meeting/Open house: Sept. 17, 2003
- 2) Introductory meeting: November 20, 2003
- 3) Review of roles, ToR; Begin discussion on DFA Values: Dec. 18, 2003
- 4) PRISM to review and provide input on Economic and Social Criteria & Indicators: Jan. 29, 2009
- 5) PRISM to finish input into Economic and Social C&I and begin Ecological C&I: Feb. 26, 2004
- 6) PRISM to finish input in Ecological C&I and fill in remainder of the Matrix: March, 2004
- 7) PRISM to review and provide input into targets, monitoring and forecasting: April 2004
- 8) PRISM to review SFM Plan Draft: May 2004
- 9) Meeting Prior to Audit to review all changes and audit protocol: June 2004
- 10) Review results of CSA certification audit (within two years of project approval)
- 11) Review results of annual CSA Audits (surveillance, re-registration, document review)
- 12) SFM Plan updated to the new Z809-08 CSA Standard, June 2010

F. COMMUNICATION

1) *Internal to PRISM*

- a) The Participants will ensure the meeting agenda and previous meeting summary are distributed to PRISM members and Alternates at least 2 weeks prior to the next meeting
- b) Internal communication will be by email to those PRISM members with email and by fax for those who cannot be reached by email

2) *External*

- a) Only a spokesperson appointed, and as directed, by the PRISM will speak to the media on the activities and outcomes of the PAG process
 - The Spokesperson will be **Jason Smith** until the PRISM decides otherwise
- b) When reporting to interest areas, the media or external parties, PAG members (and Alternates) and Participants will speak only to their own perspective and will not characterize the interests or roles of other members or the PRISM

3) *Internal to the Participants*

- a) Input from the PRISM will be reported at meetings of the Participants working committee

G. MEETING EXPENSES AND LOGISTICS

- 1) Meeting Expenses for one PAG member from each interest area is available for those PAG members who must travel to Fort Nelson from outside the area:

- a) On request, travel costs from place of residence to meetings will be reimbursed at \$0.35/km.
- b) Hotel accommodations will be covered at the price of a hotel for the evening (only the price of the hotel will be covered). Meals will be provided at \$44.50/day or \$15.00/meal.
- c) Expense forms for the above need to be submitted to the Participants for reimbursement.

H. DECISION MAKING AND METHODOLOGY

- a) The PRISM agrees to work by consensus, defined as no PAG member has substantial disagreement on an issue and that they are willing to move forward.
- b) Every effort shall be made to achieve consensus
- c) Consensus may consist of agreement on a summary of the different perspectives on an issue
- d) Decisions on specific issues will be considered interim consensus, unless agreed otherwise, until there is consensus on the full set of recommendations

I. DISPUTE RESOLUTION

1) Process Issues

1. Process issues will be resolved by the facilitator

2) Technical Issues

1. PRISM members will work to identify the underlying issues and work towards a solution in a positive, friendly environment.
2. The PAG members will seek compromise, alternatives and clarification of information needed.
3. The PAG members will commit to arriving at the best solution possible.
4. If no consensus solution can be reached, then the outstanding issues will be summarized and documented by the PRISM and forwarded to the Participants for their consideration. The Participants will work with the agencies or individuals not in agreement in an attempt to come to a mutually agreeable solution.
5. If a disagreement should arise it will be identified in the meeting summary, the issue will be tabled to a future meeting and the group will move forward.

J. REVIEW OF AND REVISIONS TO TERMS OF REFERENCE

The Terms of Reference will be reviewed annually after adoption or earlier based on consensus of the PRISM to review. The approval and revisions of the Terms of Reference requires the approval of the PRISM and the Participants

Revised:

PRISM

Date: September 16th, 2010

Participants Working Group

Date: June 10, 2010

K. ATTACHEMENTS TO THE TERMS OF REFERENCE

a) CSA Z809-08 Sustainable Forest Management standard



**Canfor and BCTS SFM Plan Public Advisory Group
(PRISM) Meeting
March 11, 2010
Bear Pit, Northern Rockies Regional District, Fort Nelson**

1 Present

1.1 Public Advisory Group

Crumblin, Cheryl – Geoterra
Davidson, Paul – Kledo Construction
Mathias, Tyler - Northern Rockies Regional Municipality
Starr, Aliso - Northern Lights College
Tofte, Doug – Northern Rockies Regional Municipality
White, Angela, Encana (to 6:00)pm

1.2 Defined Forest Area Participants

Bock, Kristine – Canadian Forest Products Ltd.
Regimbald, Darrell - Canadian Forest Products Ltd. (via phone for SFM Update)
Smith, Jason – BC Timber Sales
Smith, Stephanie-BC Timber Sales

1.3 Facilitation and Support

Perry, Jane – J. Perry Resource Communications

1.4 Advisors

1.5 Absent with Notice

Brian Wolfe
Lyle Mortenson
Rod Backmeyer
Sonya Leverkus
Chastity Kerr

1.6 Observers

Mary Viszlai-Beale- Ministry of Forests and Range

2 Introduction

Jane Perry called the meeting to order at 5:00 pm and welcomed those in attendance and she encouraged everyone to think about how the PRISM could keep all members engaged, especially PAG members and how to keep the

meeting meaningful to all members.

Jane reviewed the agenda with group, requesting that the discussion on the SFMP be moved to before the dinner break, as Darrell was calling into the office, and the Terms of Reference Review be moved to where the SFMP discussion was to be held. Jane then opened the floor for any discussion on the agenda items or if there were any additions that needed to be made to the meeting summary. The amended agenda was accepted by the group

3 Review of November 19, 2009 Meeting Minutes

The meeting minutes from the November meeting were reviewed. Kristine stated that the song bird study was recently received, but she had not yet reviewed it. Kristine suggested that the song bird study presentation be tabled. Action item 3 regarding the local business measure was a difficult measure to develop. Jason commented that the measure should be something that the Participants impact, which, for local businesses, can be difficult to measure.

4 Review of Action Items

Jane reviewed action items set out at the November 20th, 2009 PRISM meeting and outlined the progression of each. All action items had been completed with no concerns from PAG members. PAG accepted the completion of actions items and no changes were made to the meeting summary.

ACTION #1: Find out when the next audit will take place.

The off site office audit was completed February 9-11, the summer audit is to occur July 26-27th.

ACTION #2: To prepare a document outlining SFI and CSA certification

Completed and e mailed on February 17 2010

ACTION #3: Contact Holly and Danny regarding further direction on this matter, and contact Darrell about the TSR.-

Completed Nov 23rd. Holly and Danny have no recollection of the intent.

ACTION #4: Jason to send out email to confirm best date for next meeting to PAG. Completed Feb 10 2010

ACTION #5: Jason to look at PDF of the original presentation by Anne Wong – Jason Smith, BCTS- completed February 17 2010

5 Introduction to the new updated SFM Plan and Measures

Jason Smith and Darrell Regimbald (via phone line) discussed the creation of the new Sustainable Forest Development Plan and measures. The Z809-08 CSA

standard is available, but has not been officially implemented. It is not officially implemented because a French version of the document has not been made available. Once this document has been made available, the participants will have 3 years to move to the new standard.

During the 2009 audit programs, the BCTS auditor strongly suggested that, considering we are re-writing the plan, the participants move the SFM Plan to the new standard. Canfor had their internal auditor complete a summary of the deficiencies in the current plan in comparison to the new standard.

The last draft of the SFMP was completed in March 2009. This next draft is forming the basis of the updated plan. A number of new core indicators have been identified as listed within the Standard. Canfor has created a suite of common standards that will be implemented corporately to fulfill the requirements of the new 2008 standard. The new standards identified as elements, indicators, and targets versus the older standard identifying indicators, measures, and targets. In light of the new elements and indicators, some of the measures from the old SFM Plan may be dropped if they are no longer relevant for the new standard.

Any changes to the measures and targets will be discussed with the PAG. There are less deliverables in the new SFMP. The new standard requires discussions to be held with the PAG on certain topics. Many of the discussions were held with the creation of the initial plan. There may not need to be a large number of measures created, but discussions held with the PAG regarding how the PAG feels the topic should be developed and managed.

ACTION 1: Jason to send out a copy of the 08 CSA Standards

ACTION 2: Jason to send out the summary of changes between the 02 and 08 CSA standards that was presented in the *May 5, 2009 meeting*.

Jason expects that he will have the SFMP drafted and ready for presentation in June. Any measures the PAG feels are necessary from the previous meeting, let Jason know. It was suggested that a summary of the changes in the SFMP measures be compiled so the PAG is aware of the history of changes to the original document.

ACTION 3: Compile a summary of the changes to the measures and indicators that have been added, deleted or rewritten. (Jason Smith as part of the new SFMP)

Darrell recognized the PAG for their dedication to the SFMP process and BCTS for keeping the PRISM active. At that time, Darrell left the meeting. With agreement from the attendees, the next item discussed was the meeting dates and location.

6 Discussion of Proposed dates for the upcoming year.

Jane asked the PAG if the venue was meeting everyone's needs. No concerns were raised about continuing to meet at the Bear Pit (NRRM office). The timing of the meetings was discussed. Alison indicated that the first Thursday of the month caused a conflict for her. Tyler indicated the second Thursday as the best date for his schedule. Jason suggested Thursday meetings in June, September, November and December. Questions were raised about having the meetings sooner, as it would be easier for the PAG members to remember the items discussed in the last meeting. No meetings were scheduled during the summer because of people taking holidays during that time.

The following dates are suggested:

June 10- review of the SFMP and criteria

September 9 (tentative)

October 14 (tentative)

November (tentative)

February 2011- Final review and acceptance of the SFM Plan.

The need to have new PAG members including additional members of the Oil and Gas Producers and First Nations was suggested. Jason stated the Horn River Producers group (HRPG) was invited to join PRISM. Half of HRPG invitations had no response, the remaining responses requested updates from PRISM, but no active participation. The First Nations have been invited. Doug suggested that the PRISM send letters to the Councils of the First Nations groups, inviting attendance of the groups. Prophet River and Fort Nelson were invited to this meeting. Prophet River suggested that there would be a representative at this meeting. Lower Post was invited, but no response was provided.

A suggestion was made to have a field tour. PAG members were asked what time would be best- during the week or on the weekend. It was agreed that a Saturday was best, and was most successful in the past. It was suggested that the June 10th meeting be advertised as an open meeting for the public, and the Saturday field day be open to the public. Jane reminded that PAG that all the meetings are open to the public. It was agreed that the PAG would hold a meeting on the Thursday evening, and based on that meeting, the participants would finalize the field tour locations on Friday, and hold the field tour on Saturday. The audience for the tour will need to be confirmed (i.e. PRISM members and family versus the general public), as the scope of the tour will be different for the general public versus the PAG members.

7 Break for Dinner

A dinner break was taken from 6:00 to 6:30.

8 Presentation on Mountain Pine Beetle in the Fort Nelson Forest District

Mary Viszlai- Beale, Stewardship Officer with the MOFR, made a presentation on the mountain pine beetle outbreak in the Fort Nelson District. The outbreak maps for 2009 are based on the forest health flights completed in 2008. The Fort Nelson District extends into the Fort St John Timber Supply Area (TSA), where the beetle has been identified. Mary discussed the life cycle of the beetle, and how it over winters in trees as larvae, with live trees as the preferred host. The blue stain that is characteristic of beetle wood is caused by a fungus on the outside of the beetle. The fungus is introduced into the wood when the adult beetle migrate, and bore into the trees. The fungus can impact the water transport in trees, which makes the trees more stressed. The beetle also will feed on the fungus.

Mary showed examples of significant red attack appearing in stands within 11 months. The Mountain Pine beetle attack has occurred for a variety of reasons. They include; lots of host stands in the province, forest fire suppression activities, moderate spring and summer weather causing low mortality, warmer winters (no extended cold snap of -40 or greater) and no early (September- October) cold weather. The cold weather impacts the beetle the most during the fall when the beetle has not built up it's "anti freeze".

The attack could possibly eventually be extended to Nova Scotia, as the beetle will attack jack pine as well as lodgepole pine. Alberta is no longer accepting any BC pine with bark as an attempt to slow the spread of the beetle infestation. Questions were asked about how other provinces were handling the beetle outbreak. Mary wasn't aware of how other provinces were dealing with the infestation.

Woodpeckers were identified as natural predators for the beetle. No specific species were identified. Woodpeckers are territorial, so their effectiveness as natural predators in this outbreak is not significant.

Treatment options for pine beetle includes pheromones, verbenone (similar to pheromones) snip and skid (falling single trees), blocks (limited use, harvesting areas under 1 hectare in size), and heli burn (heli logged sites with the materials removed and piled at a mill site and burned- rarely used) .

The beetle that have burrowed into the tree below the snow level in the winter experience an increased level of thermal cover so the colder winter temperatures are not as effective at killing them. The best time for a period of -40 weather is early season before their anti-freeze levels have built up (realistically October).

The Emergency Bark Beetle Management Area (EBBMA) has been discussed by

the Mountain Pine Beetle Working Group. The Mountain Pine Beetle working group for the Fort Nelson District held its first meeting on January 27th. A website has been developed and is located here:

<http://www.for.gov.bc.ca/dfn/MPB/index.htm>

Doug asked about the red pine that local airplane pilots have reported in the Toad and Red Fern Lake areas. Mary said that these areas were reviewed in 2009, and that the cause of the red trees was red belt. Red belt is caused when the weather warms up, causing the trees to transpire when the ground is still frozen, and water is unavailable for the trees. This lack of water causes the trees to become stressed, dry out and turn red. The characteristic of red belt is usually in a band along a slope.

The question was posed about when the infestation is no longer a natural phenomenon and considered an epidemic. Jason and Mary responded to the question. It depends on the expansion rate of the attack- the number of trees that have red attack versus the number of trees that have green attack. Once the infestation reaches a certain level, it cannot be stopped by human management activities, a large forest fire is the one effective method. Management activities such as baiting, fall and burn and prescribed burn could be used to slow the infestation. When the population is high and there are strong winds that could move the beetle beyond its normal movement, the removal of bridge stands is an option. Bridge stands are those stands that would be the uninfected candidate stands the beetle would potentially infect in the near future. The removal of these stands would impact the ability of the beetle to spread.

The Muskwa-Kechika has an area that can be impacted, but treatment is not an option. The cost of treatment is prohibitive at this time. Mary suggested that coordinating burns with the Range Tenure holders is an option. Jason observed that the infestation appears to be spreading along the river corridors and associated ridges.

9 Review of the Terms of Reference

Jason and Jane reviewed the Terms of Reference (TOR) earlier in the day, and highlighted what changes were suggested, as well as discussion points for the group. The TOR were reviewed at this meeting, with the agreed upon changes made, and then presented for approval at the next meeting.

- The background will be updated to remove early references to the process, as we are now using the CSA standards and not the Framework.
- The goals of the PAG were reviewed, and no changes were required
- The specific goals of the PRISM will be updated to reflect the 2008 CSA standards.

- Jane pointed out that the only change between the 07 and 08 TOR was the rewording of 2(b) of the operating rules.

The PAG was asked if the quorum number of 3 was satisfactory. The PAG felt that given the agendas and meeting requests were sent out well ahead of the meeting, the quorum should remain the same. If members were interested in a topic on the agenda, there should be an effort made for the PAG member to attend.

- Tyler suggested that the bi-annual survey be done as an on line survey, as an option to the paper format.

ACTION 4: Explore the use of survey monkey as an option for the bi annual survey. Add “on line” as an option for the bi annual survey.

- The roles and responsibilities were discussed. Under Section 1- Public Advisory Group the following Discussions were held:
- It was decided to add the Muskwa- Kechika Board under Environment/ Conservation.

ACTION 5: Check on the Land Reserve Commission title, does it manage the Agriculture Land Reserves?(1b(vi) of the roles and responsibilities)

Discussion was held on what groups should be identified as advisors. Although the OGC has indicated that they do not have an advisory role, the PAG members wanted the organization added. It was decided that the MOTSA, OGC and MEMPR should be added as advisors, before the “others as required

Update: Add “MOTSA, OGC and MEMPR as advisors, before the “others as required”

- The selection of PAG members was reviewed. Members felt the wording on the title should be “ new PAG members” in the title. Remove the word “initials , and add when required” to d (i)), delete d(ii) and d(iii), update iv to state PAG members.
- Under section 2 of Roles and Responsibilities, PAG members, it was decided to strike specific names from 2(e), and change it to “a Participant representative”, given the mount of change that has happened in the last couple of years. The statement in 2(h) “There should be flexibility to bring new groups into the process” will be removed.
- Under section 5 (b) Participants will be changed to all members.
- Under Section 7, the last line regarding the PAG requests for clarification

will be re-worded to indicate that the participants must forward all advisor information requests from PAG members to the appropriate advisors.

- The Timeline (Section E) will be updated to reflect the updating of the plan to the new standards.
- The Meeting Expenses and Logistics was discussed. It was felt that it should be left in, as participation in the PRISM is voluntary for the PAG members, and should not have any costs associated with the attendance.. The participants will have to review their budgets internally to see if this can be done.

10 Verbal PAG survey

All attendees were asked how they felt about the meeting. Responses were positive. Alison is looking forward to the June field trip. Doug requested that First Nations Councils be contacted by PRISM, requesting participation. Kristine suggested that the Mountain Pine Beetle Working Group update could be a standing item on the agenda. Upcoming technical topics that can be discussed at the meetings include, VRI (Vegetation Resource Inventory), Archaeological Overview Assessment(AOA) and the Songbird study.

11 Action Summary

ACTION 1: Jason to send out a copy of the 08 CSA Standards

ACTION 2: Jason to send out the summary of changes between the 02 and 06 CSA standards that was presented in the *May 5, 2009 meeting*.

ACTION 3: Compile a summary of the changes to the measures and indicators that have been added, deleted or rewritten.

ACTION 4: Explore the use of survey monkey as an option for the bi annual survey. Add "on line" as an option for the bi-annual survey.

ACTION 5: Check on the Land Reserve Commission title and if it manages the Agriculture Land Reserves? (1b(vi) of the roles and responsibilities)

The meeting was adjourned at 8:15 pm.

**Canfor and BCTS SFM Plan Public Advisory Group
(PRISM) Meeting
September 16, 2010
Bear Pit, Northern Rockies Regional District, Fort Nelson**

1 Present

1.1 Public Advisory Group

Davidson, Paul – Kledo Construction
Mattheis, Tyler - Northern Rockies Regional Municipality
Starr, Alison - Northern Lights College
Tofte, Doug – Community Member at Large
White, Angela - Encana

1.2 Defined Forest Area Participants

Regimbald, Darrell - Canadian Forest Products Ltd.
Smith, Jason – BC Timber Sales
Smith, Stephanie-BC Timber Sales

1.3 Facilitation and Support

Perry, Jane – J. Perry Resource Communications

1.4 Advisors

Leverkus, Sonja MoFR

1.5 Absent with Notice- who?

Rod Backmeyer

1.6 Observers

Geertsema, Marten- Ministry of Forests and Range
Sakals, Matt- Ministry of Forests and Range
Edwards, Michelle, BC Timber Sales

2 Introduction

Jane Perry called the meeting to order at 5:00 pm and welcomed those in attendance. She encouraged everyone to think about how the PRISM could keep all members engaged, especially PAG members, and how to keep the meeting meaningful to all members. The agenda was reviewed and accepted.

3 Review of March 11 2010 Meeting Minutes

The meeting minutes from the March meeting were reviewed in depth. Several errors in the name spelling were identified, and corrected.

4 Review of Action Items

Jane reviewed action items set out at the March 11, 2010 PRISM meeting and outlined the progression of each. All action items had been completed with no concerns from PAG members. The PAG accepted the completion of actions items.

ACTION #1: Send out the new CSA Z809-08 standards for Review- Jason Smith- completed Aug 19, 2010.

ACTION #2: Send out the summary of changes between the 02 and 08 CSA standard that was presented at the May 5, 2009 Meeting- Jason Smith- Completed August 19 2010

ACTION #3: Compile a summary of the changes to the measures and indicators that have been added, deleted or re written – Completed- added to this agenda.

ACTION #4: Explore the use of Survey Monkey as an option for the bi annual PRISM survey- Jason Smith- completed July 23, 2010.

ACTION #5: Check on the Land Reserve Commission to see if they are in charge of the Agriculture Land Reserve – Completed Aug 19 2010. Discussion incurred to invite the Land Reserve Commission to sit on the PRISM as a rep, as part of our terms of reference.

5 Results of the Annual Review of the Terms of Reference (TOR) for the PRISM

Jason reviewed the changes to the Terms of Reference that were suggested at the last meeting. He highlighted the use of observers as an opportunity to introduce people to the PRISM. He also highlighted the fact that alternate members can be used if a PAG member cannot attend a meeting.

The list of advisors who may participate in the PRISM was discussed, as part of the conclusion of Action 5 from the previous meeting. Members indicated that it would be a good idea to have a member of the Land Reserve Commission as an advisor to the PRISM.

ACTION 1. Tyler to provide the name of the Land Reserve Commission representative for the NRRM to Jason.

Jason highlighted that after the Participants discussed the TOR, and spokesperson duties, that Jason should take that role, which is different from what was presented in March.

Discussions were held in regards to how PRISM membership could be increased. The public's lack of awareness with no advertising regarding the PRISM and what it involves were identified as the central issues for membership initiatives. Suggestions were made to increase the awareness of the SFM Plan and PRISM.

An option discussed was to create a Facebook page for the SFMP. The one concern raised regarding the issue of this social media site is the possibility for inappropriate content and the expectation for the site to be constantly updated and monitored. Another option is to post on the local website www.fortnelsonstuff.com, as a community event.

A newspaper ad with an invitation to attend a meeting was suggested. Concerns were raised around how to manage numbers for the dinner, and the possibility of people attending for the meal, and not interested in being a member of the PAG. It was decided that the advertisement would not indicate that dinner is provided, and to request a RSVP from people who were interested in attending. The dinner for members and participants would be held from 5-5:30, and the PRISM meeting would begin at 5:30. This would be a change from the current schedule, but would resolve the issue of ordering enough food for the confirmed attendees.

ACTION 2. Jason to post an advertisement on the Fort Nelson Facebook page and www.fortnelsonstuff.com

ACTION 3. Jason to create a PRISM Facebook page.

6 Discussion the Bi Annual Survey Results.

This year's Bi Annual Survey was completed using the on line program " Survey Monkey", as suggested in the March Meeting. Only 3 responses were received. (See attachment 1)

The lack of field trips was discussed by Jason. There were 2 attempts made to try to organize field trips, however most PAG members were not available to attend.

Specific questions from the survey were discussed. The question regarding the facilitator tolerated and smoothed conflict was given an average rating. PAG members indicated that the questions were rated as average because they had not seen any conflict in the meetings, and it was not a reflection on the facilitator's skills.

Jason requested feedback on the question regarding member's involvement in the meeting, which received an unsatisfied response from one person. The scope of this question was discussed, as the response could indicate that there is a lack of participation (i.e. attendance) by members.

At this time, a PAG member suggested that the Participants may be reading too much into the survey results. The survey results should be used as a baseline, and the trend should be discussed with the PAG. The small (3) sample size for this survey was also used as a reason to not spend too much time trying to interpret the results of the survey. Overall, the survey results had an average of 4.5, which indicates that PRISM is a well-functioning group.

7 Survey Monkey Feedback (Bi Annual Survey)

- The survey website went out to all members, not just those who attended the March meeting
- Darral suggested that only those PAG members who attended the meetings receive the survey website
- The digital survey is built, so it is not difficult to send out the survey
- One PAG member suggested that the survey be sent out immediately after the meeting
- This a BI ANNUAL Survey
- Suggested that a reminder to complete the survey be sent to the PAG members
- Add an area that will allow the members to insert their name so that who has responded can be tracked (with no link to their response)
- The compilation of the results is done anonymously.
- The link will only be sent out to those who have been attending meetings for the bi annual survey period.

Survey Question Feedback/ Clarification

Clarification was requested regarding the question #2- participants decisions rationalized. Jason responded that it is to ensure that the Participants provide a rationale for the changes requested to the SFMP.

The PAG members requested that they be provided more time to review the questions.

ACTION 4. PAG members to review the bi annual survey questions and provide feedback to Jason by October 1 2010. This feedback can include what the PRISM wants to know and what the PAG wants to ask.

8 Break for Dinner- 6:00-6:30

Marten Geertsema (MoFR) and Matt Sakal (MoFR) joined us at 6pm

9 PRISM Membership

9.1 Stakeholder Analysis

BCTS will be trying to update the original stakeholder analysis. The participation of the stakeholders in the Public Advisory Group will be updated to active, inactive and current stakeholders.

ACTION 5. Jason to complete the stakeholder analysis and review it at the November 18th meeting.

The lack of Oil and Gas presence in the PRISM was raised. There have been several requests made, but no new members have been added. Angela White is included on the PAG interest list as a representative for Oil and Gas. Darrell mentioned that during the establishment of the SFM Framework, there was a person who sat in on the meetings as an Oil and Gas representative; however, he stopped attending the meetings.

Suggestions were made to try to increase Oil and Gas representation included:

- Place something about PRISM at the Energy Expo this weekend
- Invite the Representatives from the Horn River Producers Group (invitations sent in the past, the response that they were interested, and keep them informed)

Angela's insight was that many of the companies have a small local presence, so it is difficult to get people. There is also the issue of the perception of the PRISM, and the lack of knowledge around the purpose of PRISM in regards to Oil and Gas.

The Master License to Cut is now owned by the Oil and Gas Commission- it would be nice to have them involved with a group dealing with sustainability. Darrell indicated that the Oil and Gas Activity Act (OGAA) will have an impact on sustainability

ACTION 6. Sonja will place the PRISM Terms of Reference at the Resource Road Safety Booth, along with the invasive Plant information

Other options to increase the knowledge/ participation of the general public include:

- Put an advertisement in Fort Nelson Stuff.com and the Fort Nelson Facebook page
- Word of mouth from current members
- Darrell suggested setting a table at the arena during a busy weekend at the arena- Canfor's experience was quite positive

- Trade Fair Table with a representative at the table.
- Have a Table at the Whatchamacallit (would be for Sept 2011)
- Have a Table at the Science Fair (November 2011)
- Recruit from the Forestry Roundtable

ACTION 7. Tyler to contact the Forestry Roundtable to request that a member of the PRISM speak to the group about the PRISM and the SFMP. It is possible that it could be included on the agenda for the next Forestry Round Table Discussion.

10 Presentation of the New 2010 Sustainable Forest Management Plan

10.1 Discussion of Changes

- Indicators and Targets referenced in 2010 were referenced as measures and targets in the old plan. This change was done to keep the terminology used in line with the 2008 CSA standards.
- Jason requested that the bound copy of the 2010 SFMP become everyone's working copy and that while we are working on the document, they bring it to each meeting.
- The number of Criteria was reduced to 6 in the 2008 standard; previously there were 9 Criteria (page 3 of the SFMP shows the changes).
- There are local and core measures, which are our original measures. There are 60 measures in the old SFMP, presently, there are 42 being proposed for the new plan.
- The reduction in the number of aspects is due to removing the the measures that duplicated and those that are not controlled by the participants.
- For many of the criteria, core indicators must be addressed in the new SFMP. The in the previous CSA standard, there were no mandatory core indicators, everything was locally developed.
- The core indicators were developed to address the variation of plans across the country and build consistency in the plan.
- The plan that was developed in 2009 was assessed by a consultant. He indicated that the plan was meeting most of the core indicators, but it was difficult to assess if we were meeting all the requirements due to the nomenclature and format of the original SFMP, which followed the SFM Framework, not the CSA framework.

10.1.1 Measures that are proposed to be dropped from the plan (Table 3)

Measure 2-1.1- Site index. Site Index is a surrogate to show that we are not impacting the ability to grow trees because of soil disturbance. There are a number of methods to measure site index, and the comparisons can be difficult. The issue of soil disturbance and compaction is now covered under the CSA requirements for soil disturbance levels. **PAG Approved removing the measure**

Measure 2-2.4- Information requests- oil and gas industry. This measure is a local measure and is not covered under the CSA core requirements. It was intended to initially measure cooperation, as there are struggles to manage the cumulative effects of oil and gas activities. There is a standard information exchange between the participants and the oil and gas companies. Tracking for this measure, as it is written, is a paper exercise, and does not add value. The impacts of the Oil and Gas activities are outside the Participants ability to manage. The measure was originally developed because of a lack of other options. Measures 6-4.2 and 6-4.3 in place. PAG members suggested that the indicator is valuable, and that the participants should try to create some type of measure, as oil and gas are impacting the forests. Jason indicated that the impacts of the oil and gas activities will be recognized in the next Timber Supply Review.

ACTION 8. Jason and Darrell to suggest another measure to reflect the oil and gas activity

Measure 2-4.1- Treatment plans for natural disturbance events. This measure is out of our control. **PAG agreed with the removal of the measure.**

Measure 2-4.2- Percent of catastrophic natural disturbance events due to forestry activities. If the participants activities caused a disturbance, the participants would be legally responsible for mitigating those impacts. For those reasons, it is requested that the measure be removed. A PAG member asked if the participants would be interested in knowing if our activities have caused slides. It was asked if forest fires can be considered a catastrophic natural event. Darrell indicated that an example of this measure is in Fort St John where a slide initiated outside the block, but impacted an opening. The measurement of this measure is difficult, because it can require the participants to review their openings on an annual basis specifically for that purpose. This is not done, the only way a catastrophic natural event is identified presently, is if is seen while completing other work in the area. The participants felt that the intent of this measure is covered in other measures. **The PAG agreed to remove this measure.**

Measure 4-2.3- Dollar value of BCTS timber sales and total timber advertised by BCTS. This was originally an economic measure. BCTS does report the information on the sales external to this report. The information is

available on the BCTS website and BC Bid, where BCTS posts its TSL auctions. **The PAG members agreed to the removal of this measure.**

Measure 4-3.1- Stumpage paid by Fort Nelson TSA licensees. Stumpage is paid when wood is logged. Revenue goes to the crown, and benefits the province, not necessarily the local community. The CSA indicators are trying to focus on local measures. A PAG member asked if there is a District report showing the stumpage received by the District? NRRM has requested that information from oil and gas sales, can this information be made available from the MOFR? It would be a convenient method for the community to receive the information. Jason stated that the information could be made available under FOIPPA (Freedom of Information and Privacy Protection Act). It was suggested that the participants try to find the information on line, and then trend the TSA stumpage. **PAG members agreed to remove this measure.**

ACTION 9. Jason to investigate getting the TSA stumpage information for the town.

Measure 4-3.2-Personal income taxes paid. This measure involved personal information which the Federal government would not provide. **The PAG agreed to remove the measure.**

Measure 4-5.1- Perceptions of Canfor and BCTS. The management survey was created to reflect management's view on how capable the operations were to compete with other parts of the province. This measure did not fit in with any of the Core Indicators. The participants do not have any influence on the survey results. The responses to the survey were reflective of the conditions of the day-presently it is a negative response, 5 years ago, it would have been very positive. **The PAG members agreed to remove the measure.**

Measure 4-5.2- Competitive primary milling facility. This measure has a similar rationale to measure 4-5.1. **The PAG agreed to drop the measure.**

Measure 4-6.1- Assessment of damaging events or agents This measure is out of our control. The alternate is to reduce the scope of the measure to those openings that we manage.

ACTION 10. ACTION: Propose alternate measure to 4-6.1 for the next meeting.

Measure 4-6.2 Management strategies for damaging events or agents. The question was raised regarding the definition of a damaging agent. Is an invasive plant a damaging agent? No, it is not considered a damaging agent. If the Timber Supply area is impacted, it is automatic to make a plan. If the measure is recognizing the Timber Supply Area, then it would identify the potential impact on the future timber supply and harvest land base. No agreement on the removal of

the measure was made, given that the management plan is in reference to Measure 4-6.1, which is being re worded and presented at the next meeting.

ACTION 11. Jason and Darrel to discuss measure 4-6.2 and present an alternative to the PAG at the next meeting.

Measure 6-1.1 – Employment by broad sector. The Participants do not control the employment by sector. This information can only be collected with the Census, taken every 5 years, and is an expensive custom report. This measure will be replaced with a CSA Core Indicator. **The PAG agreed to remove this measure.**

Measure 6-1.2 Employment by Industry. This gathering and reporting of this information is not easily obtained. **PAG members agreed to remove the measure.**

Measure 7-1.1- Stakeholder Database. This measure is not applicable to the new CSA standards, and the requirement is to have database, which was achieved in 2006. **PAG agreed to removing the measure.**

Measure 9-1.1 Number of Forest Recreation Sites/ facilities maintained
Participants have no control over the establishment and maintenance of Forest Recreation Sites, and do not set up sites as a part of their business. A PAG member asked if it can be changed to indicate the facilitation of recreational opportunities- to reflect the interface of the recreational opportunities provided by the Participants through the use of their road systems and cut blocks.

The concern with this type of measure is what type of data to collect and how to collect it. The Recreational Opportunity Spectrum (ROS) was previously in the SFMP, but the participants had it removed because of the problems with interpreting the data and the data sources. A question was raised if the measure could be included under social benefits. Have Canfor and BCTS considered creating recreation sites? Darrell and Jason stated that although companies in southern BC have created recreation sites, it is not something that has been considered in the north. Darrell suggested that the Participants' establishment of recreation sites was the original thought process for the measure, which came from the SFM Framework, and that it is now a relic of that Framework.

ACTION 12. PAG members asked to have the Participants consider this measure (9-1.1) further and discuss it at the next meeting.

Measure 9-2.1 Compliance with Visual Quality Objectives. It is requested to be dropped from the SFMP because this is a legal requirement for all openings. PAG members indicated that regardless if it is a legal requirement, and possibly a redundant measure, it indicates if the areas are being managed sustainably,

and within legal requirements. Suggestions were made to include it in Section 5.1.1.1 as a local measure. **PAG did not agree to drop the measure.**

Jason indicated that in the upcoming meetings, the elements and indicators need to be reviewed and PAG input on the content is needed for additional measures. The Participants are interested in keeping the number of measures to a reasonable amount to allow for efficient reporting. The one lesson learned from the original SFMP was that there were too many measures, and some of them were not measureable, once the plan was implemented.

ACTION 13. Table 3 is to be updated for the next meeting and will be provided to everyone for insertion into the plan.

10.2 Discussion of Criteria 1 to be tabled. This Criterion will be discussed at the next meeting.

10.3 Use of this plan for the 2010 reporting Period.

Jason proposed that if the plan can be updated by March 31 (the end of the reporting period), that the Participants would be interested in using it for the current reporting period. Darrell indicated that this is something that the auditors may have concerns about because the measures are supposed to be implemented at the start of a reporting period, not during the reporting period. Darrell indicated that he would like to get an interpretation from the auditors, prior to attempting to implement the plan. Jason said that using it in the 2010 reporting period would be an opportunity to test the reporting of the measures.

11 Upcoming Meetings

Jason suggested that the PRISM try to complete the SFMP review over the next 3 months, with the completion date targeted for Dec 31. Darrell suggested that if we could get the SFMP finalized in early March, it would be available for the 2011 reporting period. The PAG agreed to the idea of completing it over 3 months, which would allow the members to stay current with what is occurring with the Plan and what was discussed at the meetings. A suggestion was made that the participants create a schedule of what has to be done to have to the plan completed in the 3 months, and that schedule be followed, regardless of the meeting length. Darrell's presence for the meetings was requested because of his history with the SFMP development.

The dates proposed are:

Oct 14, 2010

Nov 18, 2010

Dec 16, 2010

The PAG agreed to those dates. Some members may be late due to scheduling conflicts.

ACTION 14. Participants to develop a schedule for each meeting that will allow for the completion of the SFMP review by Dec 16. It was suggested that 2 criteria/ meeting be reviewed.

12 PAG survey results

All attendees were asked how they felt about the meeting. Responses were positive. No issues brought forward. Meeting questionnaire summary attached.

13 Action Summary

ACTION 1. Tyler to provide the name of the Land Reserve Commission representative for the NRRM to Jason.

ACTION 2. Jason to post an advertisement on the Fort Nelson Facebook page and www.fortnelsonstuff.com

ACTION 3. Jason to create a PRISM Facebook page.

ACTION 4. PAG members to review the bi-annual survey questions and provide feedback to Jason by October 1 2010. This feedback can include what the PRISM wants to know and what the PAG wants to ask.

ACTION 5. Jason to complete the stake holder analysis and review it at the Nov 12th meeting.

ACTION 6. Sonja will place the PRISM Terms of Reference at the Resource Road Safety Booth, along with the invasive Plant information

ACTION 7. Tyler to contact the Forestry Roundtable to request that a member of the PRISM speak to the group about the PRISM and the SFMP. It is possible that it could be included on the agenda for the next Forestry Round Table Discussion.

ACTION 8. Jason and Darrell to suggest another measure to reflect the oil and gas activity

ACTION 9. Jason to investigate getting the TSA information for the town.

ACTION 10. Propose alternate measure to 4-6.1 for the next meeting.

ACTION 11. Propose alternate measure to 4-6.2 for the next meeting.

ACTION 12. PAG members asked to have the Participants consider this measure (9-1.1) further and discuss it at the next meeting.

ACTION 13. Table 3 is to be updated for the next meeting and will be provided to everyone for insertion into the plan.

ACTION 14. Participants to develop a schedule for each meeting that will allow for the completion of the SFMP review by Dec 16. It was suggested that 2 criteria/ meeting be reviewed.

The meeting was adjourned at 8:30 pm.

Canfor and BCTS SFM Plan Public Advisory Group (PRISM) Meeting

October 14, 2010

Bear Pit, Northern Rockies Regional District, Fort Nelson

1 Introduction

1.1 Public Advisory Group

Davidson, Paul – Kledo Construction
Mattheis, Tyler - Northern Rockies Regional Municipality
Nicholson, Dan - Geoterra Integrated Resources Ltd
Starr, Alison - Northern Lights College
Tofte, Doug – Community Member at Large
Wolf, Brian - Prophet River First Nations

1.2 Observers

Lawrence, Jamie - Quicksilver
Teske, Carla- Quicksilver
Edwards, Michelle - BC Timber Sales

1.3 Defined Forest Area Participants

Regimbald, Darrell - Canadian Forest Products Ltd.
Smith, Jason – BC Timber Sales
Smith, Stephanie - BC Timber Sales
Sullivan, Shawn - BC Timber Sales

1.4 Facilitation and Support

Perry, Jane – J. Perry Resource Communications

1.5 Advisors

Leverkus, Sonja – MFR

1.6 Absent with Notice

Backmeyer, Rod- ILMB
Bock, Kristine - Canfor
Metchooysa, Rob - PAG member
Van Tassel, Mark - BCTS
White, Angela - Encana

1.7 Introduction

Jane Perry called the meeting to order at 5:05 ☺ pm and welcomed those in attendance. The agenda was reviewed and accepted, with the addition of the survey under # 8 of the agenda.

2 Review of September 16 2010 Meeting Minutes

The meeting minutes from the March meeting were reviewed and accepted as presented.

3 Review of Action Items (This is not the action item list that is in the meeting minutes provided to the PRISM)

Jane reviewed action items set out at the September 16, 2010 PRISM meeting and outlined the progression of each with Jason Smith.

ACTION 1. Tyler to provide the name of the Land Reserve Commission representative for the NRRM to Jason.
Complete; September 20th, Colin Fry could be used as an LRC contact.

ACTION 2. Jason to post an advertisement on the Fort Nelson Facebook page and www.fortnelsonstuff.com
Delayed pending approval of the SFM plan; Discussion between the participants has led to the decision to delay taking this action until such time as we have an approved plan in place to give to new members for their orientation.

A concern was raised regarding not supporting a membership drive now, given the past issues with the lack of quorum at some meetings and failed attempts at organizing field trips. If we have observers at the meeting, we should be open to accepting those people as potential new members. Jason clarified that the Participants would not prevent any observers from becoming members, but are not currently recruiting new members.

ACTION 3. Jason to create a PRISM Facebook page.
Delayed; Creation of a Facebook page must wait for Public Affairs to complete the government guidelines for Facebook and then must have a business case approved. Release date for the guideline was not specified.

ACTION 4. PAG members to review the bi-annual survey questions and provide feedback to Jason by October 1, 2010. This feedback can include what the PRISM wants to know and what the PAG wants to ask.
Completed; October 1st, To be discussed on the agenda

ACTION 5. Jason to complete the stakeholder analysis and review it at the Nov 12th meeting.
Ongoing; Phone calls will start October 4th and conclude October 29th. This will

be completed Nov 5th and presented at the Nov 18th meeting.

ACTION 6. Sonja will place the PRISM Terms of Reference at the Resource Road Safety Booth, along with the invasive Plant information Complete; September 17th and 18th.

Stephanie was at the table Saturday morning. We did have the Executive Director of the Chamber of Commerce offer to put a request in the Chamber newsletter regarding the SFMP and PRISM as a method to reach potential members.

ACTION 7. Tyler to contact the Forestry Roundtable to request that a member of the PRISM speak to the group about the PRISM and the SFMP. It is possible that it could be included on the agenda for the next Forestry Round Table Discussion.

Complete, October 5. Tyler has added the PAG to the October 20 Forestry Round Table (FRT) agenda. Jason Smith will make the presentation to the FRT, and will invite the Round Table to speak to the PAG regarding the activities of the Forestry Round Table.

ACTION 8. Jason and Darrell to suggest another measure to reflect the oil and gas activity

Complete, October 5. To be discussed later in the agenda

ACTION 9. Jason to investigate getting the TSA stumpage information for the town.

Complete, October 6 – Unable to find information on websites available to the public. Upon request, District staff supplied the information. Received Oct 6.

ACTION 10. Propose alternate measure to 4-6.1 for the next meeting.

Complete, October 6 – To be discussed later in the agenda

ACTION 11. Propose alternate measure to 4-6.2 for the next meeting.

Complete, October 6 – To be discussed later in the agenda

ACTION 12. PAG members asked to have the Participants consider this measure (9-1.1) further and discuss it at the next meeting.

Complete, October 6 – To be discussed later in the agenda

ACTION 13. PAG members asked to have the Participants consider this measure (9-2.1) further and discuss it at the next meeting.

Complete, October 6 – To be discussed later in the agenda

ACTION 14. Table 3 is to be updated for the next meeting and will be provided to everyone for insertion into the plan.

Complete, October 7 – New table provided in this meeting's handouts.



Table 3.doc

ACTION 15. Participants to develop a schedule for each meeting that will allow for the completion of the SFMP review by Dec 16. It was suggested that 2 criteria/ meeting be reviewed.

Complete, October 5, - Going to continue with the 2 criteria per meeting and see how much progress we make.

ACTION 1. Advertise for new PAG members in the local newspaper, rather than wait for the government Facebook guidelines.

3.1 Background of PRISM

To assist the observers in understanding the history of Public Response for Informed Sustainable Management (PRISM), Darrell provided a brief explanation of the purpose of the Sustainable Forest Management Plan and PRISM for the benefit of all meeting attendees.

3.2 September Survey Summary

No issues identified. Everything was rated good to very good.

4 New Indicators and Targets derived from last meeting

4.1 New Oil and Gas indicator and target

INDICATOR: Evidence of efforts to coordinate forest management activities with the oil and gas industry.

TARGET: Share 100% annual planned block and road construction activities with the Oil and Gas Commission.

Discussion

In the past, the Participants have not been diligent with sharing their plans with representatives in the oil and gas sector. The Oil and Gas Commission was expected to enforce the requirement for their licensees to provide the Participants with a Major Licensee Comment Sheet when the proposed activities appeared to impact the area under management by the Participants. By providing the plan upfront annually, it can be expected that some smoothing and efficiency of activity planning can occur between the licensees and the oil and gas companies.

A question was asked regarding current sharing given that there is no harvesting occurring. Darrel indicated that with no harvesting planned, there is no information sharing done by Canfor. Once harvesting is planned, the information

would re-shared.

In the past, activities that were coordinated with oil and gas (when plans were provided) included road and seismic use, and log purchase. Presently, BCTS has the oil and gas wood opportunities website to assist in coordinating wood availability.

A PAG member commented that this measure seems to be a proactive way of using the process. The question of how the information sharing would occur was raised. Shape files would be provided to the oil and gas companies, so that our plan could be placed on their maps, and cumulative effects could potentially be tracked. The access to areas could be coordinated to allow for safe passage of equipment. Coordination of the plans and harvesting would be a positive move given the speed of oil and gas development.

This indicator and target were endorsed by the PAG.

4.2 Replacement of old measure 4-6.1 assessment of damaging events (action item 10)

INDICATOR: Percentage of silviculture obligation areas with significant detected forest health damaging agents which have treatment plans

TARGET: 100% of sites with significant forest health damaging agents will have treatment plans developed and initiated with 1 year of detection.

Discussion

This indicator removes the reliance on the MFR forest health surveys, and focuses on the landbase that the licensees have under obligation. The question was of how the pine beetle was going to be managed given that the mills are currently closed. Darrell responded that harvesting is the only economical method to manage the pine beetle. Government funding for other treatments, such as Fall and Burn, is no longer in place. Fall and Burn is a treatment method where candidate trees are scented with pheromone prior to harvest. The pheromone attracts the beetle during flight. After the flight occurs, and during harvesting, the baited trees are felled and burned at that location.

For a forest health issue to be considered significant it would have to threaten the Participants' ability to declare the opening as Free-Growing. The data would be collected from silviculture surveys and walkthroughs of openings. Treatment plans could be as simple as monitoring the site, depending on the forest health issue involved. The treatment plan would be developed within 1 year of detection.

This indicator and target were endorsed by the PAG.

4.3 Replacement of old measure 4-6.2 assessment of damaging agents (action item 11)

INDICATOR: Evidence of efforts being made to manage known significant forest health damaging agents

TARGET: Annually report out on percentage of harvest activity that is focused on the treatment of stands damaged or susceptible to damage by natural events or damaging agents.

Discussion

The target identifies the efforts to aid in the management of forest health issues. No issues were raised with this measure, with the exception of minor wording change (completed in the above target).

The indicator and target were endorsed by the PAG.

4.4 Replacement of old measure 9-1.1 Number of forest recreation sites/facilities maintained

INDICATOR: Participants' forest management activities will not negatively impact established recreational sites and trails

TARGET: Participants will not conduct harvesting or road building within established recreation sites and trails (with a variance that we may do so if there is a compelling forest health or safety concern and we have MFR permissions).

Discussion

The variance is to allow for salvage logging of a recreation site, for safety or forest health reasons, if permissions are provided by MFR.

The indicator and target were endorsed by the PAG.

4.5 Replacement of old measure 9-2.1 compliance with visual quality objectives

INDICATOR: Forest management activity consistency with visual quality objectives (VQO's)

TARGET: Participants forest operations will be consistent with the established VQO's (with a variance that we may do so if there is a compelling forest health or safety concern and we have MFR permissions).

Discussion

The variance for harvesting in VQO's is for special situations such as forest health or safety concerns. The District Manager would provide permission to harvest in a VQO. A PAG member asked who would contact the recreation and tourism operators who may be impacted by the harvesting. The Tourism, Culture and the Arts, Recreation Officer would be responsible for contacting the people impacted directly, and the harvest would be part of the logging plan, which would

be made available for public review and comment. The VQO's were set a numbers of years ago. It was done based on an inventory of scenic landscapes, and quality objectives were set for the quality objectives for the specified viewsapes. The quality objectives (partial retention, modification, maximum modification) identify the amount of harvest that can occur.

The indicator and target were endorsed by the PAG.

5 Break for Dinner- 6:06-6:36

6 Discussion of Criteria 1 and 2

6.1 SFM Plan Overview

The new plan will have some of the old indicators. The indicators in the current SFM may be revised and other indicators will be deleted. The indicators that are being developed tonight will craft a new plan. The old plan and indicators are being replaced, and we are starting with the new indicators for the new plan tonight.

6.1.1 Criteria 1

Indicator 1.1.1 Ecosystem area by type

Target and Variance

Based on a percent representation of ecosystem groups in the non harvestable land base across the DFA:

- A) 100% of rare and uncommon ecosystems will have special management strategies associated with them (variance of 0%)
- B) 100% of the strategies for rare and uncommon ecosystems will be followed (variance of 5%)

Discussion

This indicator is a refinement of the current plan measure to dovetail closer to the CSA Core Indicator requirements. Road building and harvesting activities do not impact this indicator. The Non Harvest Landbase (NHLB) is taken out of the area considered harvestable due to the operability or reserve issues. The thresholds identified are the same as what is in the current plan. Table 2 in the SFM working document identifies the measures in the old SFM Framework versus the new SFM plan and measures. Most of the refinements are the reduction in the number of indicators by combining similar measures in the old plan.

A PAG member asked how this measure relates to what we have currently. This reduction in the number of indicators has not changed our management, and the

target is based on our previous performance. The Participants have never operated in a rare ecotype. The rare and uncommon types would be placed in a Wildlife Tree Patch (WTP). The identification of these types is based on BEC Zones, and the requirements have remained largely unchanged.

ACTION 2. Jason to supply the Field Guides showing the rare plant communities for PAG members to review at the next meeting.

The PAG endorsed the indicator and target.

1.1.2 Forest area by type or species

Target and Variance

Percent distribution of Forest Type (treed conifer, treed broadleaf, treed mixed) >20 years old across the DFA. Maintain baseline ranges and distribution into the future (5%).

Discussion

This is a refinement of 5 measures in the current SFMP. The auditors have in the past indicated that there are too many indicators, and suggested reducing the number of measures. By following the new standards, we seem to have reduced the number of measures.

This measure required baseline information from the participants. An analysis of the current state of the DFA is needed. The target is to maintain that mix over time. It doesn't change much from the original analysis. The Participants are trying to tie the analysis into the Timber Supply Analysis. Minor typing error in the target and variance were corrected.

The PAG endorsed the indicator and measure.

1.1.3 Forest Area by Seral Stage or Age Class

Target and Variance

Percent of late seral stage (old growth) distribution by natural disturbance type across the DFA is maintained at the legal target for old growth as set out by the NSOGO and spatially established OGMA's or to trend positive each year towards meeting the legal target

Discussion

This measure is almost directly from measure 1.1.2, except with a seral stage analysis for the DFA. Darrell indicated that the Participants may want to reference the Natural Disturbance Unit (NDU) rather than the Natural Disturbance Type (NDT). This measure follows the legal targets set by the government. The non spatial old growth order (NSOGO) is thought to reference NDU, not NDT. The spatial old growth order (SOGO) is expected to be

completed in the next 2-3 years. There is no significant difference between this indicator and the current plans measure. A PAG member asked if this was a difficult measure to report on in the past because of the number of landscape units.

Darrell indicated that this was a difficult measure to report in the past, but the landscape units (LUs) have been combined, reducing the number of LUs and increasing their size. The increased size makes it easier to reach the targets when natural disturbances occur in the LU. We are one of the last areas to not have a SOGO. A SOGO will require recruitment stands to be identified for the situations where there is a loss of old growth areas due to natural disturbances such as fire, disease, pests and landslides.

A PAG member asked if there are any maps showing old growth areas. Darrell indicated that there are Forest Inventory (age) maps of the stands, but there are no legally identified stands. When the stands are identified, they will be managed as such. A GIS analysis of the DFA is needed to determine the percentage of old growth stands and compare the percentages to the current targets. A PAG member requested that a map of the DFA showing the LUs, highways, major waterways, and town be made available at the meeting.

ACTION 3. Provide Carla Teske with the contact information of Rod Backmeyer for the Old Growth information

ACTION 4. Provide the PAG members with a 11x 17 overview map of the DFA showing the new LU's, town, highway and major waterways, as well as post a larger scale wall map for reference during meetings.

A PAG Member asked what happens when Oil and Gas takes out Old Growth stands. There is the use of identified retention stands. The area that is impacted by Oil and Gas is taken out of the analysis for the Old Growth retention assessment.

ACTION 5. Darrell to confirm the change of the reference in the measure from Natural Disturbance Type to Natural Disturbance Unit in the measure.

Indicator 1.1.4.1, 1.1.4.2 and 1.1.4.3 have basically been brought into this plan from the current SFM Plan. **The PAG endorsed this indicator and target.**

1.1.4.1 Degree of within-stand structural retention

Target and Variance

Percent of within- stand structure retained across the DFA in harvested areas

A) 100% conformance with Landscape Level (LU) target of 7% set by FRPA for all new harvesting (variance of 0)

B) Positive trend toward the FRPA baseline 7% in LU's where the current level of

retention is deficient

Discussion

Within-stand retention on a cutblock provides benefit to some wildlife within the confines of a cutblock. These benefits can include denning, roosting and nesting, and coarse woody debris recruitment which can provide soil nutrients, cover and shade.

A PAG member suggested that “within-stand” be used in the measure to make the indicator more clearly defined. The Participants indicated that there is no difference from the current plan, and that the retention levels are a legal requirement in the *Forest and Range Practices Act*, and are specified in the Participants’ individual Forest Stewardship Plans.

(The difference between the SFMP and the FSP is that the FSP is a legally required document, and the Participants cannot operate on Crown land without an approved FSP. The Participants can operate without an SFMP.)

A PAG member asked what the 6 key habitat elements are that are referenced in the SFM Plan. The 6 key habitat elements are wildlife tree patches (WTP), individual wildlife trees, coarse woody debris, riparian vegetation, snags (dead standing) and shrubs. Doug suggested that the habitat elements would be a good field tour theme.

The PAG endorsed this indicator and target.

ACTION 6. Future field tour highlighting the various habitat elements.

1.1.4.2 Degree of within-stand structural retention

Target and Variance

Percent of blocks meeting dispersed retention levels as prescribed in the site/logging plan. Target of 100% of blocks meeting prescribed levels (variance of 0).

Discussion

This measure references individual tree retention. The target is a combination of 7 or more trees and/ or snags. These retained trees are a structural element across the landscape, and is especially important for song birds. It is unchanged from the measure in the current SFMP. **The PAG endorsed this indicator and target.**

1.1.4.3 Degree of within stand structural retention

Target and Variance

Number of Non-conformances where forest operations are not consistent with riparian management requirements as identified in operational plans target of 0 non-conformances (variance of 0)

Discussion

This indicator revolves around not violating the prescribed recommendations in individual riparian prescriptions. Jason described some of the retention measures on an S3 stream, that would include a 20m reserve, as well as a 20m management zone to protect the integrity of the reserve. One strategy to protect the reserves is to add a 10m reserve or Basal Area Retention (a percentage of trees retained) or vertical height reserve to force the winds up and over the reserve.

Tyler indicated that the text of the SFMP for this indicator should have the reference to the previous plan removed, as the plan is not available for comparison.

PAG endorsed this indicator and target.

Brian Wolf left at 7:30. He indicated the Prophet River First Nations have entered an Economic Benefits Agreement and is unsure how it impacts their role with the SFMP. He indicated that he was particularly interested in the first nations issues, and requested that we delay that discussion until the next meeting, when he would be present, Jason indicated that these indicators would not be discussed possibly until the December meeting.

After Brian left, Darrell briefly expanded on the Economic Benefits agreement, It is an agreement signed between some of the Treaty 8 First Nations and the government, and deals with legally required plans. Plans such as the DFMP are non legal plans. The tie for First Nations with the SFMP is the requirement in the standards for First Nations input.

1.1.5 Shrub Habitat

Target and Variance

- A) Sustain current baseline shrub habitat % in the THLB (variance of 0.5%)
- B) Monitor shrub habitat % in the NHLB

Discussion

This indicator is the same as what is in the current plan. Not much change has happened. Table 20 in the report is blank because the Participants are awaiting for analyses to be completed. The **PAG endorsed this indicator and target.**

ELEMENT 1.2 SPECIES DIVERSITY

1.2.1 Degree of habitat protection for selected focal species including species at risk

And

1.2.2 Degree of suitable habitat in the long term for selected focal species including species at risk

Target and Variance

Percentage of forest management activities consistent with management strategies for species of management concern. 100% conformance with management strategies (variance of 0).

Discussion

Management strategies need to be in place for specific wildlife species, especially Schedule 1 Species at Risk. This measure brings together that we need to manage for these legal requirements for the species. A PAG member asked what were the differences between the 2 indicators. Darrell indicated that there are certain strategies for immediate protection for the species, versus long-term protection. For instance, with Caribou, the protection of rearing areas is an immediate protection strategy, versus a long term strategy of developing connectivity across the landscape. There are 2 different management strategies for the species. All we have done is wrap the old measures into the new indicator, rather than have several indicators. The first measure identifies that we require habitat protection for specific species, the second measure indicates that when harvesting in areas where wildlife habitat is critical to the survival, we implement strategies to mitigate those impacts. The **PAG endorsed this indicator and target.**

1.2.3 Proportion of regeneration comprised of native species

Target and Variance

Regeneration will be consistent with provincial regulation and standards for seed and vegetative material use. 100% conformance with the standards.

Discussion

This indicator is a combination of 2 old measures. There is no variance allowed because the provincial standards and regulations have a variance established. Some members of the PAG (and Participants) were confused on the wording of the indicator.

ACTION 7. Reword the indicator to reflect that the Participants will meet the legal standards, with no variance.

ACTION 8. Re write the discussion in the Plan that is associated with the indicator to make the relationship of the variance and the regulations clearer.

6.1.2 ELEMENT 1.3 GENETIC DIVERSITY

1.3.1 Percentage of stands artificially regenerated that are free of

genetically modified organisms (GMO's)

Target and Variance

100% of stands free of GMO's (0%)

Discussion

There is only one GMO seedling available- this is a "Round Up" ready aspen clone. This clone is not used in the DFA, as the Participants rely on natural regeneration of aspen. **The PAG endorsed this indicator and target.**

6.1.3 ELEMENT 1.4 PROTECTED AREAS AND SITES OF SPECIAL BIOLOGICAL AND CULTURAL IMPORTANCE

1.4.1 Proportion of identified sites with implemented management strategies.

Target and Variance

100% of forest management activities consistent with management strategies for protected areas and sites of biological significance

Discussion

This measure is based on what was previously reported in a number of measures. No concerns were raised. **The PAG endorsed this indicator and target.**

1.4.2 Protection of identified sacred and culturally important sites

Target and Variance

% of identified Aboriginal forest values, knowledge and uses considered in forestry planning processes

Discussion

This measure is drawn from the current plan. The sites are not only archaeological sites, but can also include sacred sites. BCTS did work around a block where a stone was identified as sacred - the stone was consequently fenced. The target should be 100%, not just "%".

The Participants were asked how this target was going to be measured. It is going to take into consideration the information provided by the First Nations, and is based on the CSA core requirements. We would track the number of instances where sites are identified in a spatial layer, and overlay the information on proposed blocks. It would be calculated based on the number of instances a site is identified versus the # mitigating activities completed.

A PAG member requested that the wording should be changed to site in the target and variance, as the wording on the target seems vague. Concerns were raised regarding who was identifying the sites and identifying where the mitigating activities occurred - the Participants or the First Nations.

A PAG member identified a wording discrepancy between the Indicator and measure in the use of “sites” in the indicator, but the lack of a reference in the target. The Participants indicated that to meet the target at 100%, when a concern is raised, wither a mitigating activity would have to occur or a rationale as to why no mitigation could occur would have to be provided. If you didn't have an agreed rationale, you would not meet 100%. **The PAG requested that this measure be tabled to the next meeting, when Brian could be present, and that the Participants review this measure for tighter wording around the mitigation and the use of sites.**

ACTION 9. Participants review this measure for tighter wording around the mitigation and the use of sacred and culturally important sites.

6.2 CRITERIA 2.0 ECOSYSTEM CONDITION AND PRODUCTIVITY

ELEMENT 2.1 FOREST ECOSYSTEM RESILIENCE

2.1.1 Reforestation Success

Target and Variance

Average regeneration delay for stands established annually 3 years or less (variance plan specific)

Discussion

This measure is a combination of 3 measures in the current SFMP, but Jason was unsure how the Free Growing measure was referenced into this new measure. This measure is from the regeneration delay measure, and is set at 3 years or less, except those site specific plans that have longer delay periods.

A PAG member asked where Free Growing requirements were addressed. Jason indicated that it did not appear to be addressed anywhere else in the plan. PAG members indicated that they felt that both the 3 year regen delay check and the free growing reporting was important. The 3 year regen delay ensures that there are no issues on the site. To show that there are issues with the site at free growing, is too late for action. **The PAG endorsed the indicator and target.**

ACTION 10. Participants to add a measure dealing with Free Growing (possibly in Section 4.1.2)

ELEMENT 2.2 FOREST ECOSYSTEM PRODUCTIVITY

2.2.1 Additions and deletions to the forest area

Target and Variance

Percent of gross forested landbase in the DFA converted to non-forest land use through forest management activities. Target of less than 3% of gross forested landbase.

Discussion

This is an amalgamation of previous measures. It does not differ from the existing indicator, as far as deletions are concerned. A PAG member asked how the target was going to be measure; is it based on the current land base? The expectation is that the measure will be reported on a 5 year period, using the Timber Supply Review (TSR). The baseline would be the landbase at the time of the TSR. **The PAG endorsed the indicator and target.**

2.2.2 Proportion of long term sustainable harvest level that is actually harvested

Target and Variance

% of volume harvested compared to the long term harvest level (AAC) with a target of 100% over 5 years (variance of 10%)

Discussion

Darrell questioned the wording of the measure and target because it requires 100% of the AAC to be harvested. Some discussion occurred around changing the target to “not exceeding 100% of the AAC.” Jason indicated that market conditions impact the ability to meet the AAC, but not meeting the AAC requirements impacts the modeling of timber growth in the TSA because the Mean Annual Increment (MAI) produced by the trees is not being removed. The PAG agreed that not more than 100% of the AAC is to be harvested. **The PAG endorsed this indicator and target.**

ACTION 11. Jason and Darrell are to re-word the target for Measure 2.2.2

7 Upcoming Meetings

The dates proposed are:

Nov 18, 2010

Dec 16, 2010

The PAG agreed to those dates. Some members may be late due to scheduling conflicts. The next meeting will have a presentation from the Forestry Round

Table.

8 PAG Survey Results

All attendees were asked how they felt about the meeting. Responses were positive. No issues were brought forward. Jason will have an amended questionnaire for the next meeting. A verbal summary was given by members;

Good food

good discussion

Difficult for some of the observers to follow the flow of the meeting and intent because of the process that we are currently in, but once the plan is in place, the participation would be a possibility.

9 Action Summary

- ACTION 1. Advertise for new PAG members in the local newspaper, rather than wait for the facebook guidelines.
- ACTION 2. Jason to supply the Field Guides showing the rare plant communities for PAG members to review at the next meeting.
- ACTION 3. Provide Carla Teske with the contact information of Rod Backmeyer for the Old Growth information
- ACTION 4. Provide the PAG members with a 11x 17 overview map of the DFA showing the new LU's, town, highway and major waterways, as well as post a larger scale wall map for reference during meetings.
- ACTION 5. Darrell to confirm the change of the reference in the measure from Natural Disturbance Type to Natural Disturbance Unit in the measure.
- ACTION 6. Future field tour highlighting the various habitat elements.
- ACTION 7. Reword the indicator to reflect that the Participants will meet the legal standards, with no variance.
- ACTION 8. Re write the discussion in the Plan that is associated with the indicator to make the relationship of the variance and the regulations clearer.
- ACTION 9. Participants review this measure for tighter wording around the mitigation and the use of sites.
- ACTION 10. Participants to add a measure dealing with Free Growing (possibly in Section 4.1.2)
- ACTION 11. Jason and Darrell are to re-word the target for Measure 2.2.2

The meeting was adjourned at 8:30 pm.

Canfor and BCTS SFM Plan Public Advisory Group (PRISM) Meeting

November 18, 2010
Bear Pit, Northern Rockies Regional District, Fort Nelson

1 Introduction

1.1 *Public Advisory Group*

Davidson, Paul – Kledo Construction
Starr, Alison - Northern Lights College
Tofte, Doug – Community Member at Large
White, Angela - Encana

1.2 *Observers*

1.3 *Defined Forest Area Participants*

Regimbald, Darrell - Canadian Forest Products Ltd.
Smith, Jason – BC Timber Sales
Smith, Stephanie - BC Timber Sales

1.4 *Facilitation and Support*

Perry, Jane – J. Perry Resource Communications

1.5 *Advisors*

1.6 *Absent with Notice*

Bock, Kristine
Lawrence, Jamie
Mattheis, Tyler

1.7 *Introduction*

Jane Perry called the meeting to order at 5:05 pm and welcomed those in attendance. The agenda was reviewed and accepted.

2 Review of November 18, 2010 Meeting Minutes

The meeting minutes from the November 18 meeting were reviewed and accepted as presented.

3 Review of Action Items

Jane reviewed action items set out at the November 18 PRISM meeting and outlined the progression of each with Jason Smith.

ACTION 1. Advertise for new PAG members in the local newspaper, rather than wait for the facebook guidelines.

Complete; Participants will place an advertisement in the paper inviting new PAG members to the first PAG meeting after the approval of the SFM Plan (Likely February or March meeting)

ACTION 2. Jason to supply the Field Guides showing the rare plant communities for PAG members to review at the next meeting.

- Complete;** Field guides are available for review this meeting
- ACTION 3. Provide Carla Teske with the contact information of Rod Backmeyer for the Old Growth information
Complete; Email with information sent October 19th.
- ACTION 4. Provide the PAG members with a 11x 17 overview map of the DFA showing the new LU's, town, highway and major waterways, as well as post a larger scale wall map for reference during meetings.
Complete; 11x17 maps e-mailed out October 27th. Wall map printed and on display this meeting.
- ACTION 5. Darrell to confirm the change of the reference in the indicator from Natural Disturbance Type to Natural Disturbance Unit in Indicator 1.1.3 Forest area by seral stage or age class
Complete; It is to be tracked by NDU
- ACTION 6. Future field tour highlighting the various habitat elements.
Complete; To be discussed later in the agenda
- ACTION 7. Reword indicator 1.2.3, Proportion of regeneration comprised of native species to reflect that the Participants will meet the legal standards, with no variance.
Complete; To be discussed later in the agenda
- ACTION 8. Re write the discussion in the Plan that is associated with indicator 1.2.3 Proportion of regeneration comprised of native species to make the relationship of the variance and the regulations clearer.
Complete; To be discussed later in the agenda.
- ACTION 9. Participants review indicator 1.4.2 Protection of identified sacred and culturally important sites for tighter wording around the mitigation and the use of sites.
Complete; To be discussed later in the agenda
- ACTION 10. Participants to add a indicator dealing with Free Growing (possibly in Section 4.1.2)
Complete; To be discussed later in the agenda
- ACTION 11. Jason and Darrell are to re-word the target for Indicator 2.2.2
Complete; To be discussed later in the agenda

4 New and Modified indicators and targets derived from last meeting

4.1 *Indicator 1.1.3 -Forest Area by Seral Stage or Age Class*

Target and Variance

Percent of late seral stage (old growth) distribution by natural disturbance UNIT across the DFA is maintained at the legal target for old growth as set out by the NSOGO and spatially established OGMA's or to trend positive each year towards meeting the legal target

Discussion

PAG member asked why "or" was in the target. This has been put into the target because with the natural disturbance there may be some Landscape Units (LU's) that don't currently meet the target based on disturbances such as wildfire. It is possible to use recruitment stands in those LU's that don't meet the target. There is a multi-step process to identify specific stands for Old Growth Recruitment. No endorsement is required for this indicator- it was clarification that was required from the last meeting.

- ACTION 1. Invite Rod Backmeyer to the meeting to make a presentation on OGMA's and old growth.

4.2 Indicator 1.2.3- Proportion of regeneration comprised of native species

Target and Variance

Regeneration will be consistent with provincial regulation and standards for seed and vegetative material use. 100% conformance with the standards (0% variance)

The Chief Foresters Standards for seed use allows for up to 5% of the seedlings planted in a year to be outside the seed transfer guidelines. This built-in 5% variance is the reason that a 0% variance is used for the target in the SFM Plan.

Discussion:

The only change for this indicator was the clarification of the variance in the Chief Foresters Standard for Seed Use and its influence on the variance level for this indicator. This indicator and target were?? endorsed by the PAG.

4.3 Indicator 1.4.2 -Protection of identified sacred and culturally important sites

Target and Variance

100% of identified sites of Aboriginal forest values, knowledge and uses considered in forestry planning processes (0% variance).

Discussion

A PAG member asked how the MOU (Memorandum of Understanding) system works with arbitration. When concerns are raised, additional information is requested, and the concern is assessed and attempts are made to mitigate the concerns (if possible). There is a dispute resolution method within the MOU. The consultation process has not changed. The legal responsibility for consultation rests with the government, but the government has passed on some duties onto the licensees to try to get information sharing up front, and try to mitigate the impacts. The MoFR assess the information provided by the licensees and First Nations to determine of the actions effectively mitigate the concerns. A PAG member stated that the wording for "identified sites" is an important change from the previous approved of the indicator. PAG requested to table the endorsement of the indicator until Brian Wolf can review the indicator for the next meeting.

ACTION 2. Provide Brian Wolf with a copy of the indicator and ask for his feedback for the December meeting.

ACTION 3. Re-present Indicator 1.4.2 at the December meeting for PAG endorsement.

4.4 Indicator 2.2.2 Proportion of long term sustainable harvest level that is actually harvested

Target and Variance

% of volume harvested compared to the long term harvest level (AAC) with a target of 100% over 5 years (variance of 10%)

Discussion:

This indicator was tabled at the last meeting because of concerns with the cut control legislation. The legislation was reviewed and the indicator is consistent. It was requested by the Participants that, in the discussion associated with the indicator, it be specified that this indicator would not take effect until harvesting starts again in Fort Nelson. A comment was made regarding the error message in the text of the agenda. The error message in the agenda text is due to a Responsibility Action Matrix hyper link error. The Participants were asked why the "maximum" reference that was suggested at the last meeting was not included. This was because the cut control regulation allows for more than the annual allowable to be cut in one year, as long as the 5 year cut period volume is met.

This indicator and target were endorsed by the PAG.

4.5 Indicator 4.1.2 Reforestation success

Target and Variance

100% compliance with free growing time frames prescribed in site plans. (0% variance)

Discussion

This indicator is from the current SFMP. This indicator and target were endorsed by the PAG.

4.6 Replacement for old measure 4-6.1 assessment of damaging events

INDICATOR:

Percentage of silviculture obligation areas with significant detected forest health damaging agents which have treatment plans

TARGET:

100% of sites with significant forest health damaging agents will have treatment plans developed and initiated with 1 year of detection.

CURRENT CONDITION:

Canfor and BCTS implement a survey program that covers the blocks that are coming up on their free growing dates and regeneration delay dates. In the course of completing these surveys, a summary of damaging agents found within the block is generated. The definition of “significant” for the purposes of this indicator will be based on the potential impact to the stand by the damaging agent and any agent whose presence places the declaration being surveyed (regen delay, or Free growing) in danger of being missed. There are a great many different damaging agents, the impact of which will vary in severity. The overall impact will also depend on the state of the stand (overall numbers of stems, and preferred or acceptable species numbers). The following table ranks the most common local plantation pests and their potential severity:

Plantation Pests	Code	Ranking
Eastern spruce budworm	IDE	Very High
White pine weevil	IWS	Low-Medium
Venturia spp.	DLV	Low
Harwood Truck Rot	DDH	Very low
Red ring rot	DDP	Very low
Aspen Truck Rot	DDT	Very low
Tomentosus root rot	DRT	Very low
Stem Disease	DS	Very low
Warren’s root collar weevil	IWW	Very low (due to small % of planted PI)

Discussion

This indicator was tabled at the last meeting because the definition of significant was needed. The Participants developed a definition based on the potential of a pest to prevent an opening from meeting free growing or regen delay requirements, forcing the Participants to create a plan to meet free growing or regen delay. A PAG member asked where this indicator would be placed in the plan. Darrell indicated there would have to be further discussion by the Participants, but it appears that it would fit with Criteria 1.

A PAG member asked why reforestation success was under the Carbon indicator, but this indicator would not be placed there. The rationale was because the majority of the Canfor

divisions do not have carbon modeling completed- however, Fort Nelson is not in that situation. When developing the core indicators with Canfor, it was felt that the reforestation success could be a replacement indicator for the carbon modeling. Darrell suggested that we could place the indicator under 2.1.2 with the other reforestation success indicators because carbon modeling is completed.

This indicator and target were endorsed by the PAG?

4.7 Replacement of old measure 4-6.2 management strategies for damaging events

INDICATOR:

Evidence of efforts being made to manage known significant forest health damaging agents

TARGET:

2 targets;

- 1) Annually report out on percentage of harvest activity that is focused on the treatment of stands damaged or susceptible to damage by natural events or damaging agents
- 2) Annually report out on participation in management efforts (committees, task forces, etc.) for significant forest health damaging agents

Current Condition:

Canfor and BCTS both have strong commitments to manage forest health issues. Depending upon the pest involved and the market conditions at the time, harvesting may be based on treating or eliminating the current damaging agents within the DFA. Target 1 will reflect these harvesting activities. Target 2 will be based upon participation in collective actions within the district to control pests that are not directly affecting areas under Canfor or BCTS Permit. The judgment of severity will be based upon the risk rankings in the following table:

Damaging Agent	Code	Ranking
Eastern spruce budworm	IDE	Very high
Spruce bark beetle	IBS	High
Balsam bark beetle	IBB	Medium
Large wood borers	No code	Medium
Mountain pine beetle, lodgepole pine beetle	IBM/IBL	Medium
Large aspen tortrix	IDX	Low
Forest tent caterpillar	IDF	Low
Venturia spp.	DLV	Low
Birch leaf miner	IDN	Very low
Conifer sawfly	IDS	Very low
Variegated cutworm	IDV	Very Low

Discussion

This indicator had clarification added regarding the harvesting and participation levels. A PAG member asked how participation was going to be measured. At this time, participation on the committees would be considered meeting the target, as funding is not currently in place for government supported activities. A PAG member asked where this indicator was going to be placed in the SFMP. The location of the indicator in the SFMP would have to be discussed by the Participants. This indicator and target were endorsed by the PAG

5 Dinner Break- 5:55 to 6:30

6 Discussion of Criteria 3

6.1 CRITERIA 3.0 SOIL AND WATER

6.1.1 ELEMENT 3.1 SOIL QUALITY AND QUANTITY

6.1.1.1 Indicator 3.1.1 Level of soil disturbance

Target and Variance

% of harvested blocks meeting soil disturbance objectives identified in plans. Target of 100%

Current Condition

Currently both Canfor and BCTS have identified levels of allowable soil disturbance set out within their respective forest stewardship plans. These are the levels which will be applied in all new operational level plans.

Discussion:

The wording of this indicator is slightly different from the current measure, but the intent is the same. PAG member suggested that the FSP soil disturbance levels should be identified in the text of the document, rather than have to readers look in another document for the information. This indicator and target was endorsed by the PAG

ACTION 4. Add the FSP soil disturbance levels to the text of the SFMP document.

6.1.1.2 Indicator 3.1.2 Level of downed woody debris

Target and Variance

Percent of audited cutblocks where post harvest coarse woody debris (CWD) levels are within the targets contained in plans. Target of 100% (variance of 10%)

Current Condition

The interim target for coarse woody debris (CWD) is set as per the current FRPA Forest Planning and Practices Regulation default requirements. Although the PRISM members felt that this number was inadequate, they recognized that documented information does not currently exist on either the amount of CWD left behind after harvesting, or on the amount of CWD that occurs in natural pre-harvest stands. It was also recognized that Canfor and BCTS will not simply manage down to this target, and it is likely that significantly more CWD is currently retained after harvest. Canfor and BCTS have committed to developing a more comprehensive CWD strategy. The FRPA default level is currently ≥ 4 logs (2 m or greater length; 7.5 cm or greater top diameter)/ha after harvesting.

Discussion

Targets have not been specified because the individual site plans will show the targets, and the measurements will be done for each site. Jason corrected the type in $>- 4$ logs to read $\geq ??$ logs. PAG members were un???able to read the comments Jason made regarding a report referenced in the SFMP document and questioned his comment. Jason indicated that it was a reminder for internal discussion and that he was having difficulty interpreting the report WTR??? and CWD baseline data and procedural considerations for the Fort Nelson TSA”

This indicator and target were endorsed by the PAG

6.1.2 ELEMENT 3.2 Water Quality and Quantity

There were 2 indicators created for this element because there are slightly different targets for the indicators.

6.1.2.1 Indicator 3.2.1.1 Proportion of watershed or water management areas with recent stand replacing disturbance

Target and Variance

Sensitive watershed that are found to be above the peak flow targets will have further assessment done and strategies created for water management. Target of 100% (variance 0%)

Current Condition

Sensitive watersheds are a subset of total watersheds defined on a DFA basis. In the absence of a sensitive watershed list, the default will be described within FRPA/GAR orders. Usual indicators of Sensitivity would be high fisheries value, high terrain sensitivity or % of (ECA / Peak Flow) over an identified target. Currently the Ft Nelson DFA has no watersheds that would be assessed as sensitive. For further guidance on this Canfor and BCTS will default to the "Interior Watershed Assessment Guidebook", version 2.1, April 1999, Appendix 2.

Discussion

To fully implement the indicator a peak flow analysis will have to be done. The Timber Supply Area (TSA) would be broken into watershed assessment areas based on slope, vegetation and vegetation height. For example, a clearcut watershed would have a higher peak flow than an area that is 50% harvested.

For individual watersheds the targets would need to be set for peak overland flow. This would involve the participation of a professional hydrologist. If the flow is over the target, the watershed would be identified as sensitive. If harvesting is planned for a sensitive watershed, additional analysis would have to be completed to determine the best harvest without negatively impacting the watershed flow. Currently, there are no watersheds designated as sensitive.

The Participants were asked why this is necessary if nothing has been identified. The identification of flow-sensitive watersheds has been completed in other parts of the province, and is similar to process the MoE has done in completing the identification of the fisheries sensitive watersheds. The Participants intend to identify the sensitive watersheds as part of this indicator.

6.1.2.2 Indicator 3.2.1.2 Proportion of watershed or water management areas with recent stand replacing disturbance

Target and Variance

% of high hazard drainage structures in sensitive watersheds with identified water quality concerns that have mitigative strategies implemented. Target of 100%.

Current Condition

Currently there are no identified "sensitive watersheds" within the Ft. Nelson DFA.

Discussion

This indicator is focused on drainage structures within sensitive watersheds. It is similar to the current SFMP measure, but refines the population to roads within watersheds identified as sensitive by a professional analysis. The drainage structures that will be identified include culverts and bridges. Not all the structures will have a high hazard because of actions such as ditching and revegetation that have reduced the sediment delivery.

The title of the indicator is the same as 3.2.1.1 because the indicator deals with watershed management. This core indicator could be completed using 1 indicator, but the auditors that reviewed the proposed indicators felt that 2 indicators would be more effective. A stand replacing disturbance referenced in the title of the core indicator can include right of way development for a road.

ACTION 5. Rename the core indicator titles of 3.1.1. and 3.1.1.2 to make them distinctive titles.

ACTION 6. Specify that the roads in the population are Road Permit roads.

6.2 CRITERIA 4.0 ROLE IN GLOBAL ECOLOGICAL CYCLES

6.2.1 ELEMENT 4.1 CARBON UPTAKE AND STORAGE

6.2.1.1 *Indicator 4.1.1.1 Net Carbon Uptake*

Target and Variance

Maintain or increase the CFS-CBM derived baseline of 1.75 mega tonnes total ecosystem carbon on the productive CFLB (+/- 10%)

Discussion

This indicator was continued directly from the current plan. Modelling has been completed in Fort Nelson by Forest Ecosystem Solutions Ltd (FESL). The storage and sequestration will be completed as part of the Timber Supply Review and then if needed, a revision will be completed at that time. A PAG member asked if we have met the targets. The participants indicated that we do not know if we met the targets until the analysis is run with the TSR.

Specify CFS-CBM and CFLB acronyms in Section 4.1.1.1.

Reword and clarify pg. 86 paragraph 6, second last sentence in the paragraph.

This indicator and target were endorsed by the PAG

6.2.1.2 *Indicator 4.1.1.2 Net Carbon Uptake*

Target and Variance

Maintain or increase the CFS- CBM derived baseline sequestration rate of 0.93 MT carbon per year in the THLB and 0.55 MT carbon per year in the NHLB. (+/- 10%)

Discussion

This indicator is the same as the current SFM Plan. This indicator references the sequestration rate versus the earlier indicator.

This indicator and target were endorsed by the PAG

6.2.1.3 *Indicator 4.1.2 Reforestation success*

Target and Variance

Defer to 2.1.1 Reforestation Success: Average regeneration delay for stands established annually 3 years or less (variance plan specific)

Discussion

Covered off in the Criteria 2 section of the plan.

6.2.2 4.2 ELEMENT 4.2 FOREST LAND CONVERSION

6.2.2.1 Indicator 4.2.1 Additions and deletions to the forest area

Target and Variance

Defer to 2.2.1 Additions and deletions to the forest area: Percent of gross forested landbase in the DFA converted to non-forest land use through forest management activities. Target of less than 3% of gross forested landbase.

Discussion

This element has been addressed by the indicators in Criteria 2.

6.3 CRITERIA 5.0 ECONOMIC AND SOCIAL BENEFITS

6.3.1 ELEMENT 5.1 TIMBER AND NON TIMBER BENEFITS

6.3.1.1 Indicator 5.1.1.1 Quantity and Quality of timber and non-timber benefits, products and services produced in the DFA

Target and Variance

Defer to 2.2.2 Proportion of long term sustainable harvest level that is actually harvested: % of volume harvested compared to the long term harvest level (AAC) with a target of 100% over 5 years (variance of 10%)

Discussion

This indicator has been addressed by the indicators in Criteria 2.

6.3.2 Indicator 5.1.1.2 Quantity and Quality of timber and non-timber benefits, products and services produced in the DFA

Target and Variance

Conformance with strategies for non-timber benefits identified in plans. Target of 100% compliance.

Discussion

WTP's and Riparian Reserves will produce habitat for furbearers, because it retains shrubs, and will produce berries. The range of habitat values will be by default (i.e without specific management) and will allow the use of Non Timber Forest Products.

This indicator and target were endorsed by the PAG.

ACTION 7. Add the variance of 0 after the word compliance to the target statement.

ACTION 8. Rename the 2 indicators (5.1.1.1 and 5.1.1.2) to reflect timber on one and non timber in the other, respectively.

6.3.3 ELEMENT 5.2 COMMUNITIES AND SUSTAINABILITY

Contribute to the sustainability of communities by providing diverse opportunities to derive benefits from forests and by supporting local community economies.¹

6.3.3.1 Indicator 5.2.1 Level of investment in initiatives that contribute to community sustainability

Target and Variance

% of total budget spent in local communities on a 5 year rolling average. This will be a report out indicator until the PRISM decides on an acceptable % and variance.

Discussion

This indicator should be considered as a “report out” the indicator initially to build a baseline. It is possible that a new contractor base will have to be developed and it may not initially exist. A PAG member raised the issue of the similar indicators having a lack of information availability. Darrell stated that Canfor Fort St John has a similar indicator in their SFMP, and there is no reluctance to release this information. The Participants were asked if the use of other Canfor division information could be used to develop the targets and variances. Based on the history of the similar indicators, we know that 100% would not be a reasonable target.

ACTION 9. Investigate if results from other plans (eg. Fort St John) can be used to assist in identifying a target for 5.2.1.

The impacts of a rolling average versus an annual average were discussed. The annual averages can be shown in the report, with the rolling average be reported on.

6.3.3.2 Indicator 5.2.2 Level of investment in training and skills development

Target and Variance

Training in environmental and safety procedures in compliance with company training plans. Target of 100% of company employees and contractors will have both environmental and safety training. (variance of 5%)

Current Condition

Currently it is the policy of both Canfor and BCTS to ensure their employees are trained in company approved levels of environmental management (EMS or FMS) and safety (SAFE company certification). These are considered to contribute to the sustainability of communities by protecting the environment in which resources are harvested, and ensuring that workers continue to be able to work safely and not be sidelined by injury or industrial illness.

Discussion

Clarify that the target for indicator 5.2.2 applies to Woodlands Staff and field contractors
ACTION 10. Re word the statement “ it will be based on provided company records” found in the Monitoring Section of the text. In 5.2.2.
The PAG endorsed the Indicator and targets for 5.2.1 and 5.2.2.

6.3.3.3 Indicator 5.2.3 Level of direct and indirect employment

Target and Variance

Level of direct and indirect employment as a factor of AAC

Current condition

Table 1 Current level of direct and indirect jobs in the DFA (to the nearest whole number)

Canfor Direct jobs (full time jobs on payroll)	
Canfor Indirect jobs (direct jobs X TSR 3 Multiplier 0.25)	
BCTS Direct jobs	3
BCTS Indirect jobs (direct jobs X TSR 3 Multiplier 0.19)	1
TOTAL JOBS FOR THE FT NELSON DFA	

Discussion

The indicator represents what is currently 2 measures in the SFMP. This indicator is looking at the number of full time jobs on the payroll, and tracks the trend. The TSR has a social impact analysis completed, which looks at the AAC, mill capacity and other factors to provide the multiplier listed in the table. Presently the table only reflects the woodlands staff, but could include the mill employment.

A PAG member asked why the logging and contracting employment was excluded from the indicator. The Participants responded that because the contractors are seasonal and that the number of contracts varied with each season, it was difficult to get a true number of employees, and that this population was included in the multiplier. The multiplier is calculated every 5 years.

ACTION 11. Review the multiplier to insure it is reflective of the status of the community currently.

ACTION 12. Darrell to review the socio-economic analysis of the TSR to confirm that it is reflecting the logging and contracting employment and report at the next meeting.

ACTION 13. Indicator 5.2.3 was tabled to the next meeting for further clarification.

6.3.3.4 Indicator 5.2.4 Level of Aboriginal participation in the forest economy

Target and Variance

Number of opportunities from the baseline assessment (multi-year rolling average), variance of 10% from baseline.

Current Condition

A summary of the data for the last 3 years (2007 to 2009) is contained in table 23.

Table 2 Baseline data for Number of Opportunities offered to First Nations

Participant	Year	Opportunities offered	3 year average
Canfor	2007		
	2008		
	2009		
BCTS	2007	2 contracts, 1 MOU	4 opportunities baseline
	2008	6 contracts, 1 MOU	
	2009	1 contract, 2 MOU	

The need for the Participants to try and maintain or increase the baseline of opportunities available to First Nations is of great importance as First Nations are traditional users of the land base. BCTS and Canfor operate on lands claimed as traditional territories by the First Nations within the DFA, as well as Treaty Lands.

Discussion

The variance for the indicator would not be appropriate, given the small number of opportunities that BCTS provides. The target should be identified before a variance is developed, and whether the unit of the variance is a number rather than a percentage should be determined.

ACTION 14. Participants to review indicator 5.2.4 target and variance and present at the next meeting.

7 Forestry Round Table Discussion

Doug Tofte did a brief discussion regarding Fort Nelson’s Round Table for the Future of the Forest Industry in Fort Nelson (Forestry Round Table) and presented their Terms of Reference.

8 Upcoming Meetings

The dates agreed upon is : Dec 16, 2010 (3 PAG members confirmed attendance).

Discussion was held regarding the PAG holding a field trip. Jane strongly encouraged the PAG members to participate in the trip. Habitat Elements is the suggested theme (for obvious reasons, harvesting is not available). June 11 and 18th (Saturday) were suggested dates.

ACTION 15. Jason to send out a Survey Monkey poll to PAG members for dates.

9 PAG Survey Results

All attendees were asked how they felt about the meeting. Responses were positive. No issues were brought forward. Jason will have an amended questionnaire for the next meeting. A verbal summary was given by members;

- Different [perspectives appreciated
- Members appreciated how issues were resolved and reported back to the PAG
- Measures for multiple indicators is a good step
- The quantification of some indicators targets and variances is a concern, but time will tell.
- Feedback from the Participants based on PAG response is good to see
- Early agenda and action items is nice
- Feedback from the PAG is appreciated by the Participants
- Suggested presentation for the winter (2011) meeting includes presenting the revised plan, annual reports, etc.

The PRISM Meeting Group Questionnaire was completed by all attendees.

The meeting was adjourned at 8:25 pm.

10 Action Summary

- ACTION 1. Invite Rod Backmeyer to make a presentation on OGMA's and old growth stands.
- ACTION 2. Provide Brian Wolf with a copy of the indicator and ask for his feed back for the December Meeting.
- ACTION 3. Re-present Indicator 1.4.2 at the December meeting for PAG endorsement.
- ACTION 4. Rename the core indicator titles of 3.1.1.1 and 3.1.1.2 to make them distinctive titles.
- ACTION 5. Specify that the roads in the population are Road Permit roads.
- ACTION 6. Add the variance of 0 after the word compliance to the target statement.
- ACTION 7. Rename the 2 indicators (5.1.1.1 and 5.1.1.2) to reflect timber on one and non timber in the other, respectively
- ACTION 8. Investigate if results from other plans (eg. Fort St John) can be used to assist in identifying a target for 5.2.1.
- ACTION 9. Clarify that the target for indicator 5.2.2 applies to Woodlands Staff and field contractors
- ACTION 10. Re word the statement " it will be based on provided company records" found in the Monitoring Section of the text. In 5.2.2.
- ACTION 11. Review the multiplier to insure it is reflective
- ACTION 12. Darral to review the socio economic analysis of the TSR to confirm that it is

reflecting the logging and contracting employment and report at the next meeting.
ACTION 13. Indicator 5.2.3 was tabled to the next meeting for further clarification.
ACTION 14. Participants to review indicator 5.2.4 target and variance and present at the next meeting.
ACTION 15. Jason to send out a Survey Monkey poll to PAG members for dates.

Canfor and BCTS SFM Plan Public Advisory Group (PRISM) Meeting

December 16, 2010
Bear Pit, Northern Rockies Regional District, Fort Nelson

1 Introduction

1.1 *Public Advisory Group*

Davidson, Paul – Kledo Construction
Starr, Alison - Northern Lights College
Tofte, Doug – Community Member at Large
White, Angela – Encana (to 6:55)

1.2 *Observers*

Michelle Edwards, FNFN
Matt Pilszek (Geoterra)

1.3 *Defined Forest Area Participants*

Regimbald, Darrell - Canadian Forest Products Ltd. (via phone)
Smith, Jason – BC Timber Sales
Smith, Stephanie - BC Timber Sales

1.4 *Facilitation and Support*

Perry, Jane – J. Perry Resource Communications

1.5 *Advisors*

1.6 *Absent with Notice*

Mattheis, Tyler
Metchooyeah, Baptiste
Mortenson, Lyle
Wolf, Brian

1.7 *Introduction*

Jane Perry called the meeting to order at 5:16 pm and welcomed those in attendance. (The delayed start was due to projector set-up problems.) The agenda was revised to have item 5 and 7, Discussion of Criteria 6 move to the first point of discussion to allow Brian Wolf to attend the meeting via phone. Jane highlighted that the agenda has been changed since it was sent out to PRISM members. This change was accepted by the PAG. (Note- Brian was unable to attend the meeting to a scheduling conflict)

2 Review of November 18 2010 Meeting Minutes

The meeting minutes from the Nov 18 meeting were reviewed and accepted as presented.

3 Discussion of Criteria 6.

This criteria has 12 indicators

ELEMENT 6.1 ABORIGINAL AND TREATY RIGHTS

Recognize and respect Aboriginal title and rights, and treaty rights. Understand and comply with current legal requirements related to Aboriginal title and rights and treaty rights

3.1.1 6.1.1 Evidence of good understanding of the nature of Aboriginal title and rights

Target and Variance

100% of Canfor Forest Management Group and BCTS Ft Nelson field team staff will receive First Nations awareness training (variance of 0)

Current Condition

All forestry staff is given some level of First Nations awareness training as a part of on the job training or via a formal course like "Working Effectively with Aboriginal People". As Aboriginal peoples are given a greater role in forest managing forest resources, the need to formalize the training requirement to meet the Z809-08 standard becomes more important.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

This indicator will be reported out on an annual basis and will apply to all full time and temporary staff employed during the reporting year. Acceptable training for meeting this indicator will be determined by the participants varied by what level of understanding is required for the position being assessed.

Discussion

Contractors are not included in the target population for this indicator. All field and planning staff have received First Nations training. Having staff in the field able to recognize the values and sites would be desirable. A PAG member asked what level of training was considered adequate. Jason indicated that the ABCFP on-line course "Working Effectively with Aboriginal Peoples," would be adequate. Darrell stated that Canfor has developed an internal training program for First Nations title and rights awareness that could be shared with BCTS. This training would be a one-time training requirement, with updates completed as significant changes in title and rights or legislation has changed. However, the training would not be an annual training requirement.

The PAG endorsed the indicator and target.

3.1.2 6.1.2 Evidence of best efforts to obtain acceptance of management plans based on Aboriginal communities having a clear understanding of the plans

Target and Variance

100% of management plans exhibit evidence of best efforts to obtain acceptance by Aboriginal communities (variance of 0%)

Current condition

All major management plans require an effort to be made to show accommodation of First Nations concerns. This indicator goes beyond accommodation to show that extra effort is being made to give First Nations all the tools and information necessary to make an informed decision regarding acceptance of management plans.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

This indicator will report out for all major management plans released during the reporting year. Reporting will rely upon meetings held, materials provided for consideration, evidence of effort to provide time and resources, formal training opportunities, and responses to requests for input.

Management plans considered are Forest Stewardship Plans (FSP), Pest Management Plans (PMP), Archaeological Overview Models (AOM) and Sustainable Forest Management Plans (SFMP). Also considered would be information sharing on site level plans. Indicator will be considered to have been met where at least two initiatives to exchange information and obtain acceptance have been made for a given plan.

Discussion

This indicator ensures that the Participants deal with concerns identified by the First Nations communities and individuals identifying the impacts on rights and interests. It involves the FSP, Pest Management Plan (PMP) and possibly the Archaeological Overview Assessment (AOA) and SFMP. A PAG member asked if accommodation means a monetary contribution. The Participants would accommodate the concerns by revising the activity to eliminate or minimize the activity's impact.

The PAG endorsed the indicator and target.

3.1.3 6.1.3 Level of management and/or protection of areas where culturally important practices and activities (hunting, fishing, gathering) occur

Target and Variance

100% of forest operations in conformance with operational/site plans developed to address Aboriginal forest values, knowledge and uses. (Variance of 0)

Current Condition

All operational and site plans that are in use will have had efforts made to address Aboriginal forest values in every case where meaningful input has been received by the plan participants. Both Canfor and BCTS make an effort to accommodate Aboriginal forest uses when specific, actionable data is received from First Nations regarding traditional land use.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

This indicator will report out for all operational and site plans released during the reporting year. The reporting will be based upon the percentage of conformance with plans where input from Aboriginal communities was given and the plan was changed to accommodate the input. The measure will be considered met for a plan only if the accommodating measures have been followed during the implementation phase.

Discussion

This indicator measures if the Participants followed their plans that have been developed in response to treaty rights and concerns. A PAG member asked if a harvesting trespass would be considered a failure to meet the measure. Darrell indicated that if Participants fail to protect an identified area because of the trespass, they would not meet this measure. The contractors will receive specific information regarding the sensitive areas prior to harvesting the area. If Participants have a trespass into an area of concern, the issue would be brought forward to the family and community who expressed the concern.

A PAG member requested a definition of "meaningful input", as it was referenced in the current condition section of the indicator. Darrell responded that the input would have to be site-specific, i.e. something that can be located on the ground, versus comments such as being opposed to all logging, herbicide application, or road building. The concern/input would have to be something that can be identified, so efforts can be made to mitigate the treaty right in question.

The PAG endorsed this indicator and target.

3.2 ELEMENT 6.2 RESPECT FOR ABORIGINAL FOREST VALUES, KNOWLEDGE AND

USES

3.2.1 6.2.1 Evidence of understanding and use of Aboriginal knowledge through the engagement of willing Aboriginal communities, using a process that identifies and manages culturally important resources and values.

Target and Variance

100% of identified Aboriginal forest values, knowledge and uses considered in the forestry planning process (variance of 0%)

Current condition

BCTS and Canfor have dealt with Aboriginal forest values as identified through the consultation process, information sharing, Archaeological Impact Assessments, Traditional Use Studies and various other methods. Consideration usually takes the form of enhanced protection of identified resources or values, or full protection where the value at stake is of great importance.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

This indicator will be reported out annually and will be based upon all plans of every level released in the reporting year. Reporting will be based upon all plans which received input from Aboriginal communities regarding forest values and resources, and whether there were any actions taken or responses to that input. Indicator will be considered to have been met for a plan where the input on an Aboriginal forest value, knowledge or use has been addressed in some manner by the Participant receiving it. This consideration may take the form of a response letter, partial or complete protection, or any other modification of the plan from its original form made to accommodate the input given.

Discussion

This measure will track how operational site plans are adjusted to prevent any impact on the identified sites with First nations values. A question was raised regarding the adequacy of a response letter when acknowledging the identified values and resources. Jason replied that the adequacy of the letter will depend on the information provided; if general statements are provided in response to the information request, a general response is all that can be given. For example, if the First Nations identify the presence of medicinal plants in the area being developed, the information will be shared with the contractor to ensure they are aware of the possible presence of the plants, and to identify those areas for further discussions with the people involved.

Michelle asked if the quality of information will impact the response. Detailed information will allow the Participants to develop a better mitigation strategy, and potentially protect the resource or value identified. The most appropriate response to general information would be a letter explaining the difficulty with the managing or protecting the values or resources when general statements are provided. A PAG member asked if further consultation requests would be made if general statements are made. The response was that the Participants would request further discussions regarding the protection of resources and values.

A PAG member pointed out that the indicator does not indicate if the actions are considered satisfactory to all parties involved. The issue with measuring the satisfaction rate of the First Nations is that the Participants may consider the **First Nations values and concerns when developing plans, but the final proposal may not satisfy all the individuals concerned, so rating satisfaction may be difficult.**

Canfor has a map of some the important First Nations sites in Fort Nelson. Darrell suggested that if the PAG considers indicator 6-1.3, , in conjuncton with this indicator, coupled with First nations providing site specific information the development of plans to address the features,shows:

- a. The Participant’s understanding of the nature of the concern
- b. The Participant’s understanding of the mitigation of the concern
- c. The Participant’s implementation of the plan.

Jason indicated that he was hesitant to use the word satisfactory in the indicator because “satisfactory” will not meet some First Nations expectations, based on experience regarding activity on the land base. Darrell reminded everyone that the responsibility for consultation with First Nations is with the government, and the government decides if the consultation and actions to mitigate concerns that were completed by the licensees were adequate. If the government doesn’t feel that the actions were adequate, the licenses and permits are not provided. Jason asked the PAG if adding a statement indicating that the consultation process is an information sharing process with two-way communication between the licensee and First Nations would improve the intent of the indicator. Darrell re-iterated that general comments regarding an activity usually trigger requests for specific details.

ACTION 1. Remove the reference “In some manner” in the monitoring and reporting section of Indicator 6.2.1.

The PAG endorsed the indicator and target.

4 Dinner Beak- 6:10 to 6:40

5 Continuation of Criteria 6 Indicators

5.3 *ELEMENT 6.3 FOREST COMMUNITY WELL-BEING AND RESILIENCE*

Encourage, co-operate with or help to provide opportunities for economic diversity within the community

5.3.1 **6.3.1 Evidence that the organization has co-operated with other forest dependant businesses, forest users and the local community to strengthen and diversify the local economy**

Target and Variance

Number of purchase/sale/trade relationships with local forest dependant businesses where primary forest products and by products are bought sold or traded (variance not applicable).

Current Condition

At the time of SFMP updating, the economy is such that Canfor has no operational mills in Ft. Nelson, and as such no active trade relationships in place. Likewise, with no active mills BCTS has no active trade relationships in place with Canfor. Consequently, this indicator is irrelevant until one or more mills is operational in the Fort Nelson area.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

This is a report-out indicator, with no targets or variances associated with it. Reporting out will take place on an annual basis. Primary products will be considered un-harvested cutblocks, logs, and dimensional lumber. By-products shall be considered as wood chips, peeler cores and biomass left after primary harvesting has taken place. Trade relationships will be considered as either external (i.e. trade relationships with businesses outside of Canfor) or internal (trading

within the company). The trade relationships shall take the form of a Memorandum of Understanding, Contracts, Letters of Agreement or other informal agreements. The indicator will be considered to have been met as long as these agreements are in place between the Participants and other forest-dependant businesses. Success is not dependent upon such agreements being active, only that they are in place to help with economic diversity in the community when the Participants are active in the forests.

Discussion

This indicator references log trade, secondary use (bio energy) and the trade, sale or purchase of fibre. This indicator will be reported annually, with no minimum number of relationship targets identified. The trades can occur when licensees trade cutblocks with each other. Licensees would be interested in trading cut blocks when the timber profile of the block doesn't meet the needs of one licensee (i.e. Canfor), but the other licensee (i.e. BCTS) feels that it can sell the block. The idea is that what one licensee may consider as a low value block can be seen as a high value block by another licensee. This indicator also includes wood purchases from oil and gas companies by the Participants. An example of a trade would be the supply of chips to a pulp mill (if one existed in Fort Nelson). A PAG member asked if Fort St John is considered local. The definition of local is within the Defined Forest Area, which excludes Fort St. John.

The PAG endorsed the indicator and target.

5.3.2 6.3.2 Evidence of co-operation with DFA related worker and their unions to improve and enhance safety standards, procedures and outcomes in all DFA workplaces and affected communities

Target and Variance

100% of Participants and their contractors and licensees (in the case of BCTS) will implement and maintain a certified safety program (variance of 10%)

Current Condition

Both BCTS and Canfor hold certified safety programs under the SAFE company certification standard. All Forestry contractors are also required to hold some level of safety certification as well, (SAFE Company, ENFORM, etc.). BCTS has the requirement that either the licensee holding a timber sale license or the contractor harvesting the TSL must hold SAFE Company certification as well.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

Monitoring and reporting will take place on an annual basis for this indicator. The indicator will be considered met for each Participant if they are able to successfully maintain their certification during the reporting year. The indicator shall be considered met for contractors and licensees if they are able to maintain their certification for the duration of their contract or license completed within the reporting year. The 10% variance was added to take into account new employees who have not had opportunity to run through the safety program during the reporting year, new contractors and licensees who have just enrolled in safety certification, and contracts for which safety certification is not required (non-field-related contracts). Maintaining the safety certification covers off the fact that the businesses and workers are jointly adhering to and improving their safety standards, procedures and outcomes within their workplaces.

Discussion

This indicator replaces four measures in the current SFMP that deal with safety and injury prevention. The population for this indicator includes the employees, contractors, and licensees. The variance allows those companies that are SAFE Company registered, but not certified, to bid on contract opportunities. Once registered, a company must have a successful audit completed to be registered. This indicator has BCTS and Canfor's Safety programs implemented as well as

requiring that the harvesting and silviculture contractors maintain their own safety programs. The Canfor and BCTS safety programs are audited annually, as part of the Safe Company certification program.

An observation was made that most of the workers described are not unionized, and it was questioned if the reference to union should be made. Darrell responded that the measure is tied to those staff working in the field, not those working in the mills. However, there is a movement to certify the mill safety programs. There does need to be a description of the indicator and current condition which groups will be specifically involved.

ACTION 2. In the title of indicator 6.3.2, remove the reference to unions and make the word workers plural.

The PAG endorsed this revised indicator and target.

5.3.3 6.3.3 Evidence that a worker safety program has been implemented and is periodically reviewed and improved

Target and Variance

0 non-conformances with the safety certification programs external audits and completion of annual management review of safety program (variance of 3 non-conformances)

Current Condition

BCTS and Canfor both have SAFE Company Certification which calls for external auditors to assess the effectiveness of the safety programs.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

This indicator will be reported out on an annual basis. By having a target of 3 non-conformances emphasis is put on having an effectively implemented program. Completion of the Management review of the program will meet the conditions of periodic review and program improvement. The target will be considered having been met if the annual review has been completed, and the non-conformances with the safety program are within the variance. This Indicator will apply to the Participants only.

Discussion

This indicator emphasizes the results of the SAFE company audits. A variance to the target is being suggested because non conformances can occur due to administrative reasons, not because of injuries or issues that directly impact the safety of staff. The Participants were asked why the variance is 3 non-conformances, as more than 3 non-conformances can be found during an audit, but the overall audit result is successful. A PAG member suggested that the Participants may be setting themselves up for failure with the target. A suggestion was made that the target be changed to passing the audit, as that is the WCB expectation, and that the reference to the external audit be removed.

ACTION 3. Update the TARGET of Indicator 6.3.3 to “Where deficiencies are found in an audit, an action plan will be developed and implemented”

The PAG endorsed this indicator and revised target.

5.4 ELEMENT 6.4 FAIR AND EFFECTIVE DECISION MAKING

Demonstrate that the SFM public participation process is designed and functioning to the

satisfaction the participants and that there is general public awareness of the process and its progress.

5.4.1 6.4.1 Level of participant satisfaction with the public participation process

Target and Variance

80% or greater level of satisfaction indicated by a PAG established and maintained satisfaction survey, and 80% or greater average level of satisfaction indicated by the climate goal assessments from PAG meetings.

Current Condition

Satisfaction surveys have been done at least once per year as well as with the active PAG members as along with climate goal assessments at most meetings. In previous years the acceptable success for satisfaction was 60% for 80% of those members who chose to respond.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and reporting.

This indicator will be reported out on annually, based on the results of the PAG satisfaction survey (administered annually) and the average result of the climate goal assessments given out at the end of most PAG meetings. The target will be considered to have been met if the average overall satisfaction for the satisfaction survey is equal to or greater than 80% and the average climate goal assessment for meetings in the reporting year is equal to or greater than 80%.

Discussion

This indicator is geared towards the public advisory group. The reference to Participants in the indicator statement should be PRISM and Participant members. Some discussion was held regarding the completion of the climate goal assessments, as the documents are not always completed at the end of the meeting. The PAG members were asked if only 1 survey would be preferred. The general response was that a simplified process was easier. Jane suggested keeping the PAG survey, as it measures the public member's satisfaction with the process. An observer would have difficulty with the process at the meetings because the Terms of Reference limits their ability to respond to the process.

ACTION 4. Change indicator 6.4.1 title to reflect the PRISM and Participant members

ACTION 5. Remove the reference to the climate goal assessments and PRISM from the text of the document in indicator 6.4.1

ACTION 6. Ensure that future PAG survey summaries are specific to the PAG

ACTION 7. Include a 10% variance to the target for 6.4.1.

This indicator and target were endorsed by the PAG.

5.4.2 6.4.2 Evidence of efforts to promote capacity development and meaningful participation in general

Target and Variance

1 or more educational opportunities for information/training are delivered to the PAG (variance 0).

Current Condition

BCTS and Canfor make every effort to try and schedule at least one educational session for the PAG members over the course of a year's meetings. These usually take the form of a presentation during a PAG meeting by a contracted expert, a PAG advisor or a Participant representative. The subject of these presentations is either based upon reporting upon a project with bearing on the SFMP indicators (formerly measures) or on subjects where the PAG has requested information.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and reporting

This indicator will be reported out on an annual basis. Reporting will be based upon opportunities for information/training that are delivered to the PAG either during the PAG meetings that take place in the reporting year, or during field tours or educational events put on by the Participants for PAG members. The target will be considered to have been met if the participants are able to provide one or more educational/training opportunities, as described above, to the PAG members in a reporting year.

Discussion

This indicator references educational opportunities that will expand the PAG's understanding and knowledge. These opportunities can include field trips, presentations, and reference material presented to the PAG. The target appears to be low, but in the last couple of years, the PAG has met only 3 times in a year. Upon the suggestion of a PAG member, Jason removed the reference "to try and" from the current condition statement.

The PAG endorsed the indicator and target.

5.4.3 6.4.3 Evidence of efforts to promote capacity development and meaningful participation for Aboriginal communities

Target and Variance

Defer to core indicator 6.1.2 "Evidence of best efforts to obtain acceptance of management plans base on Aboriginal communities having a clear understanding of the plans"
Covered off by Element 6.1 "Aboriginal and treaty rights"

Discussion

This measure has been deferred to Indicator 6.1.2, which was endorsed earlier in the meeting. A PAG member asked why that indicator was in the Plan if there is a previous indicator in the Plan that is being used to meet this part of the element. Darrell stated that in BC, the government is the owner of Drown land, and that makes consultation with the First Nations the government's responsibility. Information sharing is completed by the licensees as part of the consultation process. Capacity for plan review and comment is provided to First Nations through the Economic Benefit Agreement. It is difficult for licensees to show capacity building because the licensees pay a stumpage to the Crown. Part of the stumpage is then given to the First Nations by the Crown for capacity development. There is no direct line between the licensees and the capacity funding. In the past, Canfor and BCTS have made staff available for capacity building with the First Nations. It is not sufficient for the Participants to drop a plan and expect comments from the First Nations. Communication is expected by the licensees to the First Nations outside of the initial plan delivery.

The PAG endorsed this deferred indicator.

5.5 ELEMENT 6.5 INFORMATION FOR DECISION MAKING

Provide relevant information and educational opportunities to interested parties to support their involvement in the public participation process, and increase knowledge of ecosystem processes and human interactions with forest ecosystems.

5.5.1 6.5.1 Number of people reached through educational outreach

Target and Variance

50 or greater people to whom educational opportunities have been provided by the Participants or

their representatives (variance of -10 people)

Current Condition

BCTS and Canfor staff provide many educational opportunities, both at the request of their employer and of members of the educational community in Fort Nelson. The Participants hold open houses for all major management plan releases. Many staff also provide field tours and in-class presentations for local elementary and secondary schools.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

This indicator will be reported out on an annual basis. Reporting will be based upon number of educational opportunities presented and the numbers of people attending each event as confirmed by attendance records, signup sheets or best estimates of numbers by the presenter. The indicator will be considered to have been met when the number of people provided with a learning opportunity has equaled or exceeded 50 in the course of the reporting year.

Discussion

This indicator goes beyond indicator 6.4.2 which references only the PAG. There are a number of methods that can be used as educational opportunities; PAG field trips extended to the public, open houses for plans, articles published in the paper. A PAG member asked if 50 people is a target presently achieved, given the lack of logging activity. Jason responded that that target is achieved based on the number of students met with during the annual Grade 5 field tour.

The PAG endorsed this indicator and target.

5.5.2 6.5.2 Availability of summary information on issues of concern to the public

Target and Variance

Previous years' Annual Report must be made available to the public via the web prior to March 31st of the current reporting year (no variance).

Current Condition

BCTS and Canfor make every effort to have their SFMP Annual Report completed and posted in as timely a manner as possible. However, both Participants have experienced challenges in completing the reports and are currently behind in releasing the documents.

These difficulties have been the result of many issues confronting both Participants. Canfor experienced significant scaling back in both personnel and time allotted for the completion of documentation in Fort Nelson. These were economically strategic moves decided at a corporate level and as such were unavoidable. BCTS also had a reduction in staff, and due to insufficient resources to do some of the joint reporting analysis, has also had unavoidable hurdles to report completion.

The Participants are currently working together to remedy some of the challenges slowing their reporting processes. The 2008 reports for both companies are complete as of July 31, 2010 and the 2009 report is on schedule to be completed within the appropriate reporting window.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

This indicator will be reported out on an annual basis. Reporting will be based upon the previous year's Annual Report being posted on the web on each Participant's specified website prior to the end of the current reporting year. The measure will be considered met if the previous year's report is posted prior to March 31 of the current reporting year.

Discussion

Posting the Annual Reports to the internet will allow a wider audience to view them. These

reports will be posted to the Participants respective websites. After some discussion, the indicator was reworded to “Annual Report must be made available to the public via the web within one year of the end of the reporting period”

“The PAG endorsed this indicator and measure.

6 Review of Action Items from last meeting

Due to time constraints, Jane quickly reviewed action items set out at the November 18 PRISM meeting and outlined the progression of each with Jason Smith.

- ACTION 1. Invite Rod Backmeyer to make a presentation on OGMA’s and old growth stands. COMPLETE – E-mail request sent December 7
- ACTION 2. Provide Brian Wolf with a copy of the indicator and ask for his feedback for the December Meeting. COMPLETE – E-mail request sent December 7th
- ACTION 3. Rename the core indicator titles of 3.1.1. and 3.1.2 to make them distinctive titles. COMPLETE – See Appendix 1
- ACTION 4. Specify that the roads in the population are Road Permit roads. COMPLETE – See Appendix 1
- ACTION 5. Add the variance of 0 after the work compliance to the target statement- COMPLETE- See Appendix 1.
- ACTION 6. Rename the 2 indicators (5.1.1.1 and 5.1.1.2) to reflect timber on one and non timber in the other, respectively Add the variance of 0 after the word compliance to the target statement. COMPLETE – Changes made within the plan December 7th
- ACTION 7. Investigate if results from other plans (e.g. Fort St John) can be used to assist in identifying a target for 5.2.1. COMPLETE-Darrell to present information at this meeting.
- ACTION 8. Clarify that the target for indicator 5.2.2 applies to Woodlands Staff and field contractors- Complete- See Appendix 1
- ACTION 9. Re word the statement “it will be based on provided company records” found in the Monitoring Section of the text. In 5.2.2.- COMPLETE-See Appendix 1
- ACTION 10. Review the multiplier to insure it is reflective- COMPLETE- Darrell to discuss at this meeting.
- ACTION 11. Darrell to review the socio economic analysis of the TSR to confirm that it is reflecting the logging and contracting employment and report at the next meeting. COMPLETE- Darrell to discuss at this meeting
- ACTION 12. Indicator 5.2.3 was tabled to the next meeting for further clarification. - To be reviewed at this meeting. COMPLETE- to be reviewed at this meeting.
- ACTION 13. Participants to review indicator 5.2.4 target and variance and present at the next meeting. COMPLETE- See Appendix 1
- ACTION 14. Jason to send out a Survey Monkey poll to PAG members for dates. COMPLETE- Survey sent out Dec 12 by e mail.

7 New and Modified indicators and targets derived from last meeting

7.1 Add the FSP text to Indicator 3.1.1 (not listed in Section 6 actions items, but in the November meeting minutes)- Completed.

7.2 ACTION 4

ACTION 4 Specify that the roads in the population are Road Permit roads.

Indicator 3.2.1.2 Proportion of watershed or water management areas with recent stand replacing disturbance – Roads and Road Structures

Target and Variance

% of high hazard drainage structures on Road Permits in sensitive watersheds with identified water quality concerns that have mitigative strategies implemented. Target of 100%.

7.3 ACTIONS 5 and 6

ACTION 5. Add the variance of 0 after the work compliance to the target statement

Indicator 3.2.1.1 Proportion of watershed or water management areas with recent stand replacing disturbance - Watersheds

Target and Variance

Sensitive watershed that are found to be above the peak flow targets will have further assessment done and strategies created for water management. Target of 100% (variance 0%)

ACTION 6 – Rename the 2 indicators (5.1.1.2 and 5.1.1.2) to reflect timber in one and non timber on the other, respectively.

Indicator 5.1.1.1 Quantity and Quality of TIMBER and non-timber benefits, products and services produced in the DFA

5.1.1.2 Quantity and Quality of timber and NON-TIMBER benefits, products and services produced in the DFA

7.4 ACTION 3. Rename the core indicator titles of 3.1.1 and 3.1.2 to make them distinct titles.

Target 3.2.1.1. Report the number of sensitive watersheds where peak flow targets were exceeded and harvesting occurred. Identify the watershed(s) and for each, whether a further detailed assessment was conducted prior to harvest.

Target 3.2.1.2. Report the number of high risk drainage structures within the sensitive watersheds. Further report whether each had a mitigation strategy and whether that strategy was implemented as planned.

The position/person responsible for ensuring the information needed is gathered and placed in the information management system will be identified in the Responsibility and Action Matrix.

7.5 ACTION 9. Re word the statement “it will be based on provided company records” found in the Monitoring Section of the text. In 5.2.2

Target and Variance

Training in environmental and safety procedures in compliance with company training plans. Target of 100% of company employees and contractors will have both environmental and safety training. (variance of 5%)

Strategy & Current Condition

Sustainable forest management provides training and awareness opportunities for forest workers as organizations seek continual improvement in their practices. Investments in training and skill development generally pay dividends to forest organizations by way of a safer and more environmentally conscious work environment. Assessing whether forest contractors have received both safety and environmental training is a direct way of measuring this investment. Additionally, training plans should be in place for employees of the forest organizations who work in the forest. Measuring whether the training occurred in accordance with these plans will confirm an organizations commitment to training and skills development. Currently it is the policy of both Canfor and BCTS to ensure their employees are trained in company approved levels of environmental management (EMS or FMS) and safety (SAFE company certification). These are considered to contribute to the sustainability of communities by protecting the environment in which we harvest resources and ensuring that workers continue to be able to work safely and not be sidelined by injury or industrial illness.

Forecasting

Forecasting does not apply to this indicator.

Monitoring and Reporting

Report the total number of company employees and forest contractors and identify the number of those that had received both environmental and safety training in accordance with training plan expectations.

This indicator will be applied to all directly employed woodlands staff and field contractors of Canfor and BCTS who require this specific environmental and safety training. In the case of contracted employees, it will apply to the company that is hired only and not every employee of the company.

This will be target will be reported out annually with the information being stored in the training plans of both Canfor and BCTS. Reporting will be based on the information supplied by company records.

7.6 ACTIONS 10 and 11- Indicator 5.2.3

ACTION 10. Review the multiplier to ensure it is reflective.

ACTION 11. Darrell to review the socio-economic analysis of the TSR to confirm that it is reflecting the logging and contracting employment and report at the next meeting.

Darrell presented the following information and proposed changes to the indicator.

Background Information taken from TSR3 report

Two types of employment multipliers used in TSR analysis:

Local area dependence based on direct employment

Reflects the dependence of one sector on the spending of another. For example, the forest industry may make local purchases of goods and services that lead to employment in other sectors. These goods and services may be supplies from retail stores, consultation with accountants and lawyers, or contracts with other tradespeople for special jobs which forest

industry employees are not trained to do.

Employment multipliers illustrate this spending effect. A larger multiplier indicates that the business activity supporting each direct job will subsequently support more business activity at supply and service companies. For example, estimates by the Ministry of Management Services, indicate that every 100 full-time direct forestry jobs in the Fort Nelson TSA support another 25 to 35 indirect and induced jobs within the TSA, depending on whether the forestry jobs are in logging or wood manufacturing (Table 1). Every 100 mining, oil and gas jobs support an additional 34 positions. In contrast, every 100 public sector jobs support 19 indirect and induced jobs, and every 100 tourism jobs support 12 additional jobs.

Table 1: Fort Nelson TSA employment multipliers

	Indirect and Induced Employment Ratio	Indirect Employment Ratios
Logging	1.25	1.15
Wood Manufacturing	1.35	1.20
Mining	1.34	1.25
Agriculture	1.17	1.11
Tourism	1.12	1.09
Public Sector	1.19	1.13
Construction	1.22	1.14

BC Stats. 2001a. The indirect and induced employment ratio assumes no migration with safety net in place.

Table 1 shows a multiplier that can be used when harvesting is not occurring, and the impacts of various industries.

Employment as a factor of harvest level

During TSR3, coefficients have been calculated at the TSA and provincial level to highlight the importance of the forestry sector within the Fort Nelson TSA and to identify the contribution that the Fort Nelson TSA's forestry sector makes to the provincial economy.

The two TSA employment factors are defined as follows:

- TSA employment comprises of residents of the Fort Nelson TSA whose employment is dependent on the forestry sector within the Fort Nelson TSA directly or indirectly and who rely on the Fort Nelson TSA timber supply; and,
- Provincial employment comprises of all forestry sector employment in the province that relies on the Fort Nelson timber supply, including both residents of the Fort Nelson TSA and those who live elsewhere.

Employment is divided into direct, indirect and induced components; the sum of the components is the total impact. The coefficients are expressed as the number of full-time jobs, or person years, per 1000 cubic metres of timber harvested. Indirect and induced employment figures were derived using employment multipliers developed by the Ministry of Management Services.

Darrell highlighted that this set of multipliers can be used when harvesting is occurring, as it is tied to the amount being harvested. These multipliers were released in 2005, as part of TSR 3.

Table 2: Fort Nelson TSA average forest sector employment and employment coefficients, 2004

Activity	Fort Nelson TSA employment (persons-years)	Fort Nelson TSA coefficients (person-years/'000 cubic metres)	Provincial employment (person-years)	Provincial coefficients (person-years/'000 cubic metres)
Harvesting, Hauling and Administration	94	0.07	237	0.16
Silviculture	15	0.01	165	0.11
Timber Processing	631	0.44	648 ¹	0.45
Total Direct	740	0.50	1,050	0.73
Indirect/Induced	298	0.20	1,233	0.86
Total	1,038	0.72	2,283	1.58

Note: The employment estimates are in person-years based on 2004 employment and the 2004 annual harvest of 1.441 million cubic metres.

¹ A survey was conducted to estimate the employment for the TSA but not for the province. In TSR 2, a survey for both the TSA and provincial employment was conducted. The TSR 2 timber processing provincial coefficient was 0.45 PY/1000 m³, which was used to estimate the provincial employment (0.45 PY/1000 m³ X 1,441,000 m³ = 648 PY)

Previous Proposed Indicator

Indicator 5.2.3 Level of direct and indirect employment

Target and Variance

Level of direct and indirect employment as a factor of AAC

Suggested Indicator - Indicator 5.2.3 Level of direct and indirect employment

Target and Variance

Maintain or increase the current level of direct and indirect employment

Variance of 10% - to account for swings in harvest level due to economic factors beyond control of the participants.

Strategy & Current condition

Forests represent not only a return on investment (measured, for example, in dollar value, person-days, donations, etc.) for the organization but also a source of income and non-financial benefits for DFA-related workers, local communities and governments.

While employment levels have been declining in many manufacturing industries including the forest industry, there remains a very direct relationship between direct and indirect employment and annual harvest levels. Using 2004 harvest data and 2004 employment data acquired from the Ministry of Natural Resource Operations (MNRO) TSR3 process the multiplier is approximately 0.72 direct and indirect jobs per 1000 m3 of harvest.

Organizations that harvest at sustainable harvest levels in relation to the allocated supply levels determined by government authorities continue to provide direct and indirect employment opportunities. The harvest level is set using a rigorous process that considers social, economic and biological criteria.

Table 3 Current level of direct and indirect jobs in the DFA (to the nearest whole number)

Canfor Direct jobs (full time jobs on payroll)	1.25
Canfor Indirect jobs (direct jobs X TSR 3 Multiplier 0.25)	0.3
BCTS Direct jobs	3

BCTS Indirect jobs (direct jobs X TSR 3 Multiplier 0.19)	0.6
TOTAL JOBS FOR THE FT NELSON DFA	5.15

Monitoring and Reporting

The indicator will be reported on a 3 year rolling average.

During the period of the harvesting shutdown, the Participants will use the TSR3-derived Fort Nelson TSA employment multipliers noted in Table 1 above, until replaced by TSR4 coefficients. These employment multipliers will be used to report the annual condition for this indicator until harvesting activities are resumed by the participants. Current condition will be updated upon resumption of harvest activities by the Participants. At the time of resumption of harvest activities, the target will be revised to use the harvest level employment multiplier derived from the most current TSR analysis for the Fort Nelson TSA and will be expressed as:

Target - Maintain the current level of direct and indirect employment expressed as a factor of the current harvest level

Variance of 10% - to account for swings in harvest level due to economic factors beyond control of the participants.

The PAG endorsed the revised indicator and target.

7.7 ACTION 13. Participants to review indicator 5.2.4 target and variance and present at the next meeting.

5.2.4 Level of Aboriginal participation in the forest economy

Target and Variance

Number of opportunities for First Nations to participate in the forest economy reported as a 3 year rolling average. There will be no set target for this indicator as the objective is to ensure that some opportunities are being made available to first nations within the plan area after resumption of harvest activities by the participants. The number of opportunities can vary widely based on current priorities and economic factors. As such there is no variance associated with this indicator.

Strategy & Current Condition

Forests represent not only a return on investment (measured, for example, in dollar value, person-days, donations, etc.) for the organization but also a source of income and non-financial benefits for DFA-related workers, local communities and governments.

This indicator and related target looks specifically at First Nation participation in the forest economy, evaluating Licensees' efforts to build capacity within First Nations on matters related to the forest industry. The target recognizes that there are occasions when First Nations after being given the opportunity, elect not to participate and is respectful of those decisions.

A summary of the data for the last 3 years (2007 to 2009) is contained in table 3.

Discussion

The variance, as it was presented in the November meeting was not appropriate. The Participants want to ensure that there is an effort being made. The Participants may be able to revise the opportunities when harvesting resumes.

The PAG endorsed the indicator and target

8 Field trip topics and possible dates

Discussion was held regarding the PAG holding a field trip. The on-line survey results for the field trip were reviewed. A wide variety of topics were presented for the trip. The best date was June 11th or 18th which will be confirmed at the next meeting.

9 Upcoming Meetings

The intent of the Participants is to have the SFMP fully drafted for the next meeting. The indicators will not be changed, but text will be developed. The Participants are going to work towards finalizing the draft for Feb 10th.

ACTION 8. Send paper copies of the final draft SFMP to all PAG members

Next Meeting Date: March 10 2011

10 PAG Meeting Wrap up

All attendees were asked how they felt about the meeting. Responses were positive. No issues were brought forward. A verbal summary was given by members;

- Matt would like to be considered as an alternate to Dan Nicolson
- Great minutes by Stephanie
- Nice to have Darrell join by conference call and Live Meeting
- PAG members are looking forward to the field trip
- Thanks to Alison for helping with the re-wording of text during the process
- The PAG's ability to put some realities to the Participants' lofty targets and indicators was appreciated
- Darrell recognized the efforts of Stephanie and Jason for preparing the meeting minutes and the efforts of the PAG in preparing the SFM Plan

ACTION 9. Michelle to be approached formally to become a member of the PAG and represent FNFN.

The meeting was adjourned at 8:30 pm.

11 Action Summary

ACTION 1. Remove the reference "In some manner" in the monitoring and reporting section of Indicator 6.2.1.

ACTION 2. In the title of indicator 6.3.2, remove the reference to unions and make the word workers plural.

ACTION 3. Update the TARGET of Indicator 6.3.3 to "Where deficiencies are found in an audit, an action plan will be developed and implemented"

ACTION 4. Change indicator 6.4.1 title to reflect the PRISM and Participant members

ACTION 5. Remove the reference to the climate goal assessments and PRISM from the text of the document in indicator 6.4.1

ACTION 6. Ensure that future PAG survey summaries are specific to the PAG.

ACTION 7. Include a 10% variance to the target for 6.4.1.

ACTION 8. Send paper copies of the final draft SFMP to all PAG members

ACTION 9. Michelle to be approached formally to become a member of the PAG and represent FNFN.



**Meeting minutes Management Review Fort Nelson FMS
(ISO14001 and CSA Z809-02)**

Fort Nelson Woodlands

Liard Division

June 11th, 2008 3:00 pm to 4:30 pm

Conference call

Present: Mike Breisch, Darrell Regimbald, Doug Tofte, Brad Mitchell, Alliette Seigel

Documents provided (attached):

- o Agenda
- o Incident summary
- o SFM/FMS recommended activity schedule 071205
- o Objectives_targets_environmental_program_071003 (attached)

1. Purpose of Management Reviews (section 17 FMS manual)

Evaluate trends toward or away from the Canfor Environment Policy, the Forestry Principles, SFM commitments, Chain of Custody and objectives and targets. Management Reviews look backward at progress to date, and look forward to anticipate the need for changes to the FMS. Management Reviews also evaluate the effectiveness of the FMS itself. Management Review is the Act in Plan-do-check-act continual improvement cycle, comparing actual results with the original objectives and targets to determine where further improvement is needed.

Alliette pointed out that some sections that are required to be reviewed during a management review as per FMS manual section 17 (Dec. 20/07 version) will not be covered in this review. The following items will be reviewed at the next management review scheduled for Oct. 15th, 2008 (those items have been entered in GENUS ITS)

Action 1 (GENUS/ITS: APN-FN-2008-0088)

Alliette is to review topics that were not discussed at June 11/08 management review at the next management review scheduled for Oct. 15/08.

Action includes the review of following topics:

- a) Review of SFM performance, Annual Report 2007, review of actual results versus targets
- b) Evaluation of compliance to legal and other requirements
- c) The status and effectiveness of corrective and preventative actions
- d) Chain of Custody procedures and results

FMS/SFM MANAGEMENT REVIEW



2. Review of Action Items from August 24th, 2006 and October 3rd/2007 Fort Nelson Management Review Minutes

Outstanding action items were reviewed, as per table shown below (table 1 summary of action items Aug.06 and Oct. 07 management review);

Action 5: APN-FN-2007-0048/ id # 6 :

Alliette to update GENUS/ITS APN-FN-2007-0048 on the status of the measure and close it off. Measure 1-2.1 b will not change, but a reference will be included in the SFMP/future FSP and SFM Annual Report.
Completed; action item closed off June 16, 2008.

Action 6: APN-FN-2007-0048/ id # 8:

Propose a variance to SFM measure 2-3.3 the PAG at June 12th/08 meeting to allow for approval time of amendment. It was discussed that this measure has continuously not being met since the development of the SFMP. However, an improvement from 2005 with 76 % to 82% in 2006 was noticeable. A variance to the measure would alleviate some uncertainty around meeting the target, e.g. some amendments were submitted to MOFR at the end of the SFM reporting period, but no determination has been made as to the approval status at that time.

Action 2 (GENUS/ITS: APN-FN-2008-0089)

Brad Mitchell is to initiate discussion on variance of Free Growing measure (2-3.3) at next PAG meeting on June 12, 2008.

Table 1: Summary of action items Aug. 06 and Oct. 07 Management review

<i>MTG</i>	<i>#</i>	<i>ACTION</i>	<i>STATUS</i>
Oct. 3/07	1 APN-FN-2007-0042	Change the rating of these incidents (ITS-2007-002 and ITS-2007-0016) from a moderate to low significance. Assigned to Alena Terry; due Oct 15/07.	Completed
Oct. 3/07	2 (APN-FN-2007-0043)	Re-inform staff on the definition of what constitutes a low, moderate and high incident. Assigned to Alena Terry; due Oct 30/07.	Completed Oct. 31/07
Oct. 3/07	3 APN-FN-2007-0045	Review 2007 ITS harvest incidents at the harvest contractors meeting (currently tentatively scheduled October 30/07) and inform staff and contractors that they need to walk boundaries on blocks with older layout. Assigned to Dawn Griffin; due Nov 30/07.	Completed Nov. 6/07
Oct 3/07	4 APN-FN-2007-0046	Review details ITS-FN-2006-0017 to confirm whether it should be classified as 'Other' or as a conformance or compliance issue. Assigned to Alena Terry; due Oct 30/07.	Completed Nov. 6/07
Oct 3/07	5 APN-FN-2007-0047	Update the progress report of the 2006/2007 environmental program for action #3 with the culverts, to show a list and percentage of the roads surveyed to date. Assigned to Ken Walsh and Bill McKenzie; due Oct 30/07.	Completed Oct. 30/07
Oct. 3/07	6 APN-FN-2007-0048	Measure 1-2.1 b) – Stand Level Retention (also not met in 2005) Revise measure to report out stand level retention numbers from cutting permits submitted instead of cutblocks harvested for the reporting period. Assigned to Alena Terry, due Dec 6/07.	Redundant; measure has not been changed, but PAG agreed to reference in future FSP/SFMP update to indicate balancing of retention on a CP level



FMS/SFM MANAGEMENT REVIEW

MTG	#	ACTION	STATUS
			(Feb/08)
Oct. 3/07	7 APN-FN-2007-0049	Measure 1-3.2 – Management Strategies Review BCTS species at risk SOP. Review and revise current measure. Assigned to Brad Mitchell, due Feb 15/08.	Completed Dec. 12/07
Oct 3/07	8 APN-FN-2007-0050	Measure 2-3.3 – Free Growing (also not met in 2005) Determine a reasonable variance to the current target and revise. Assigned to Doug Tofte, due Feb 15/08.	Proposed to discuss at June 12 th PAG meeting; add a variance of 10% to allow for processing time of amendment
Oct 3/07	9 APN-FN-2007-0051	Measure 5-1.1 – Potential for Marketed Non-timber Benefits. Change the target met from 'no' to 'pending'. Assigned to Alette Seigel, due Oct 15/07.	Completed Nov. 10/07
Oct 3/07	10 APN-FN-2007-0052	Measure 3-2.1 – Carbon Pool – Forest Products: Re-evaluate measure. Assigned to Darrell Regimbald, due Dec 30/07.	Completed Nov 10/07
Oct. 3/07	11 APN-FN-2007-0053	Ensure new accountant has been trained on coc. Assigned to Alena Terry, due October 30/07.	Completed Nov. 10/07
Aug/06	4	Silviculture department to develop action plans for areas of lower stocking in naturally regenerated blocks and where required submit amendments to extend regen delay date at least 6 month prior to expiry date.	Ongoing GENUS entry seems ineffective as tracking would have to occur on a block by block basis
Aug/06	7	Silviculture department to develop action plans for areas that are likely to not meet late free growing requirements and where required submit amendments to extend late free growing dates at least 6 month prior to expiry date.	Ongoing GENUS entry seems ineffective as tracking would have to occur on a block by block basis

3. Summary of Results from December 17- 21st, 2007, External Audit

Review of external PWC Audit Dec. 17th – 21, 2007 (surveillance audit)

- o Nonconformities
- o 3 Opportunities for Improvement
- o Corrective action plans for the OFI's have been accepted by PWC and entered into GENUS Action planning tool.
- o 1 open NC and 1 open OFI from previous audits

OFI1: Future Annual Reports will include "next steps to achieve targets" for those that were not met or were pending (APN-FN-2008-0108)

OFI2: Knowledge gap and Action plan matrix did not consistently identify when and who is responsible for completing the action (APN-FN-2008-0107); action



completed, matrices **have been updated** and section included who is responsible by when. Updated matrices have not yet been reviewed with PAG;

OFl3: Fire extinguisher tags missing for harvesting equipment on TSO239 (winter07/08) (ITS-FN-2008-0042); action completed; contractor discussions and documented in ITS.

Open NC (2005) S2005-229-IA-NV-03:

Two measures (social indicators) relating to First Nations were not fully implemented and required action plans (access to resources for First Nations and Consideration and Accommodation of First Nations Rights and Interests of Non Timber Forest Products (NTFP)); since then Canfor Fort Nelson developed a SOP that deals with NTFP and a cultural heritage SOP; however PWC found the effectiveness of the corrective action incomplete (in their opinion the SOP has not been properly implemented); PAG has revised and accepted new First Nation measures in 2007 and the NTFP SOP has been revised accordingly. No more issues are anticipated by Canfor Fort Nelson.

Open OFI (229-A1-OFl-03)

Errors in survey data were found in two stands that were declared free growing (wrong data and could not located the plots); Canfor's corrective action was to conduct a 10% audit on surveys completed as per contract specifications. Prior to free growing submission an office review is done and Silviculture department will internally discuss the survey procedures and results in order to catch obvious mistakes prior to free growing declaration. PWC indicated follow-up at time of next audit.

Doug updated that the contractor and Canfor staff revisited the block after the audit and that the "missing" plot has been located. Blocks surveyed for free growing were all visually inspected and some inspection reports do exist. However, it is not clear if actual 10% of plots were physically audited and it is questionable that with current curtailment conditions and low staffing that the target will be achievable.

4. Environmental Non-conformances and Non-compliances
ITS summaries for 2007 and 2008 (see attachment) and general trend in non-conformances and non-compliances

In order to compare a trend, a summary of reported incidents has been compiled that follows the SFM reporting year (April 1 to March 31 annually). The information has been compiled for the 2006 year (April 1, 2006 to March 31, 2007) and 2007 year (April 1, 2007 to March 31, 2008).

Table 2: Summary of 2006 incidents report

#	2006 year Date	Compliance/Conformance	Program	Description
1	07/01/05	Compliance	Roads	Temp log fill in S3 instead of temp bridge
2	07/01/11	Compliance	Harvesting	Trespass
3	07/01/29	Compliance	Harvesting	Trespass
4	07/02/08	Compliance	Harvesting	Trespass
5	07/02/14	Conformance	Harvesting	Spill – leak at stationary tank, quantity not known
6	07/02/19	Conformance	Roads	Buncher cut outside ROW (not trespass, didn't follow procedures)

02/11

#	2006 year Date	Compliance/Conformance	Program	Description
7	07/03/01	Compliance	Planning	Terrain issues not identified LAS
8	07/03/07	Compliance (changed to Conformance since no damage done to creek and to do with SOP)	Harvesting	Layout MFZ done wrong, machine entered 1.8 m into MFZ – no damage (not reported)
9	07/03/08	Compliance (changed to conformance since only actual spills have to be reported)	Roads	Antifreeze stored in MFZ
10	06/07/10	Compliance	Silviculture	Herbicide
11	06/08/24	Compliance	Silviculture	Herbicide
12	06/08/30	Compliance	Harvesting	Antifreeze
13	06/08/31	Compliance	Silviculture	Herbicide
14	06/08/31	Compliance	Silviculture	Herbicide
15	06/08/31	Compliance	Silviculture	Herbicide
16	06/08/31	Compliance	Silviculture	Herbicide
17	06/08/31	Compliance	Silviculture	Herbicide
18	06/08/31	Compliance	Silviculture	Herbicide
19	06/08/31	Compliance	Silviculture	Herbicide
20	06/08/31	Compliance	Silviculture	Herbicide
21	06/11/18	Conformance	Roads	Excavator slid off temp. bridge
22	06/12/28	Compliance	Silviculture	Herbicide
23	06/12/28	Compliance	Silviculture	Herbicide
24	06/12/28	Compliance	Silviculture	Herbicide
25	06/12/28	Compliance	Silviculture	Herbicide
26	06/12/28	Compliance	Silviculture	Herbicide
27	06/12/28	Compliance	Silviculture	Herbicide
28	06/12/28	Compliance	Silviculture	Herbicide
29	06/12/28	Compliance	Silviculture	Herbicide
30	06/12/28	Compliance	Silviculture	Herbicide

Summary of 2006 (April 1/06 to March 31/07):

- o 30 incidents 24 compliances and 6 non-conformance (6 harvesting, 4 roads, 19 silviculture, 6 harvesting, 4 roads, 1 planning)
- o Silviculture (19) All 19 incidents that occurred in Silviculture related to herbicide applications; due to amount and nature of incidents objectives and targets were developed for the 2007/08 FMS Environmental Program.
- o Roads (4): 3 related to not following procedures (no map, wrong crossing, antifreeze stored in MFZ), 1 – machine slid off bridge
- o Harvesting (6): 3 trespasses, 1 layout MFZ, 2 fuel related,
- o Planning (1): Terrain issues not identified by LAS contractor (should be operations)

Table 3: Summary of 2007 incidents report

#	2007 year Date	Compliance/Conformance	Program	Description
1	07/05/10	compliance	Facilities	Leak Jet A drum, reported to PEP
2	07/06/11	compliance	Silviculture	Leak Jet A drum, cat punctured
3	07/06/18	Natural event	Roads	Washout along ditchline
4	07/06/18	Other (as not part of any SOP)	Planning	Slash burning reported as fire (not communicated internally)
5	07/08/27	Natural Event	Other	Debris Torrent
6	07/08/27	Natural Event	Other	2 slides
7	07/09/10	Other	Planning	Burning brush piles reported to DO and MOFR
8	08/01/02	Compliance	Harvesting	Machine went into MFZ (mapping mistake)
9	08/01/06	Compliance	Harvesting	No inspection tag on fire ext.
10	08/01/09	Compliance	Harvesting	trespass
11	08/01/06	Conformance	Harvesting	Machine enters MFZ
12	08/01/16	Compliance	Harvesting	Roads trespass
13	08/01/24	Compliance	Harvesting	trespass
14	08/02/01	Compliance	Harvesting	Trespass into WTP
	08/05/22	Public or Client Issue	Roads	Siltation Pipeline Km 16 Walsh Rd.
	07/06/08	Public or Client Issue	Roads	Siltation Pipeline Km 16 Walsh Rd.



FMS/SFM MANAGEMENT REVIEW

#	2007 year Date	Compliance/Conformance	Program	Description
	07/10/18	4 - Findings and actions related to internal audit	various	Actions completed

Summary 2007 (April 1/07 to March 31/08):

- 14 incidents plus one client issue (07/06/08 – Walsh Road) plus 4 audit findings (pertain to procedures - not included in summary table to maintain comparability)
- 8 compliances, 1 nonconformance, 3 natural events and 2 other (7 harvesting, 1 roads, 1 silviculture, 1 planning, 2 other)
- Harvesting (7): 4 trespasses, 2 MFZ, 1 fuel related (fire extinguisher),
- Planning (1): ‘Other’ reporting fire
- Roads (1): natural event (washout)
- Facilities (1): Jet A leak
- Silviculture: (1): Jet A leak
- Other (2): Natural events

Trend:

- No herbicide incidents reported in 2007. Doug confirmed that contractors dealt with previous year’s issues.
- Less compliance issues (57% in 2007 versus 80% in 2006)
- Slight increase in trespasses in harvesting (2006 – 50% in 2007 – 57%)
- More natural events reported in 2007
- First reported fuel drum leaks (higher awareness)

Overall, there seems a slight trend of improvement towards less compliance issues.

Preventative and Corrective Actions taken

- (a) Status on Actions Taken (and outstanding).
- (b) Lessons learned; continuous improvement.
- (c) Further actions required.

Detailed review of the above a – c will be discussed at the Oct. 15th, 2008 Management review (APN-FN-2008-0088; same action as under section 1).

Inconsistencies in reporting were noticed during the review of the incidents, which were the following:

- Actions/incidents not closed off once done
- Occur date not entered, might result in not pulling reports correctly
- Government involvement mentioned in general description, but not entered into government section
- Progress/corrective action often not updated
- Email function not used correctly, which means Action tracking and Incident reporting EOP not followed
- Attachments should have file names
- Descriptions should be more specific around dates and who was involved
- Inconsistency with reporting to government/PEP, i.e. compliance issues, but not reported and vice versa, conformance issue and has been reported to government
- Actions are not always adequate, i.e. employees causing/contributing to incidents left contractor or were laid off, but no further action for contractor required



- o Proof of completed actions, such as sign off with employees/foremen need to be verified and attached into GENUS
- o It should be related to contractor's what the potential impact on the environment could be
- o Have WIM delete ITS# 2007-0040 and ITS- 2008-0043 – wrong entries (test) – clean up (completed June 24th/08)

Action 3 (ITS: APN-FN-2008-0091)

SFG/SFM Rep is to schedule and conduct ITS training with staff; review the FMS/ITS Best Practices (PDD); focus on main mistakes made during ITS entry.

Action 4 (ITS: APN-FN-2008-0092)

Operations Superintendent is to include the review of FMS incidents as a regular agenda item during monthly safety meetings to ensure incidents are reviewed with staff. *Update: Incidents were reviewed during FMS staff training on June 23/08.*

5. Trends from Corrective & Preventative Action, and Lessons learned from Experience

Refer to agenda item 4 (Environmental non-conformances and non-compliances).

6. Status of 2007/2008 Objectives & Targets, and Significant Environmental Aspects

The majority of the 2007/2008 Environmental Program has been a continuation of the outstanding actions from the 06/07 year's environmental program (06/07). Focus was (and is) the development of the maintenance schedule for culverts, business process on the reporting on culverts in GENUS, a drainage management and maintenance SOP and training to staff. Those actions have only partially being completed. Since staff reductions after August 2007 and mill closure announcement on Jan. 18th/08 no more work was done and program came technically to a halt. Some information has been collected in data loggers; the date resigns currently with Rob Blain (IT) and he has submitted a task to WIM (K. Verbruggen) for further uploading in GENUS.

Issues of 07/08 Environmental Program:

- o Staff responsible to complete actions left to other divisions/company and unable to complete assigned action items
- o Uncertainty after indefinite mill closure announcement in Jan. 08 resulted in halt of activities and re-prioritizing of tasks
- o No re-assignment of tasks occurred
- o Unclear what has been done
- o Only 5-6 people left in the office with current focus on chore business, incl. silviculture (status April 07: 25 Woodlands staff, excl. WIM/IT; status June 08: 5-6 staff left)

Completed action items:

- o Development of Biological Significance SOP completed in Dec. 07
- o Staff training on the SOP on Dec. 12, 2007

Not yet completed:

- o Update of herbicide application SOP (to incorporate new procedures to minimize potential of incidents regarding herbicide)
- o Training to staff and contractors of updated



Recommendations/Issues

- o Complete herbicide SOP prior to start up of spray program
- o Assign names to the actions (not positions) and schedule/enter in GENUS (if responsible person leaves it can be easily re-assigned and tracked) – completed (see posted Environmental Program 08/09; APN # listed)
- o Usual schedule (as per FMS recommended activities schedule) is to re-rank the environmental aspects in July and to conduct a management review in August after completion of the Annual Report and the environmental program for a given year. Based on the outcome of the aspect ranking a new program should be developed and management would then approve the new Significant Environmental Aspects and the program, preferably at time of the management review; therefore a decision needed to be made by management if re-ranking of Environmental Aspects and development of a new program should be done in July, or if the existing program should be extended for another year.

Decision has been made by management to continue with the 07/08 environmental program for another year (program will be re-named 08/09 program) since Canfor is still under curtailment.

Action 5

Ailette to update the 07/08 Environmental Program by June 25th/08; the herbicide SOP related action item will be scheduled for completion prior to June 30th/08 (**APN-FN-2007-0078**) and the culvert related action items will be extended by a year. Completed – Environmental Program action items were updated June 16, 2008.

Changing Circumstances Related to SEA's:

- o No changes.

7. a) Public Process for SFM

- o The revision of all measures for the SFM plan was completed in Feb. 2008 (one minor change in variance to be discussed during June 12th/08 PAG meeting – measure 2-3.3 - Free Growing (APN-FN-2008-0089)
- o Comparison (includes sub-measures):
 - o 48 ecological measures March 16th/05 – Feb 8th/08 - 33 measures (reduction of 31% of ecological measures);
 - o 20 economic measures Nov. 17/05 – Oct. 25th/07 – 14 measures (reduction of 30 % of economic measures);
 - o 38 social measures Dec. 9th/04 – 16 measures Dec. 6th/07 (reduction of 58%!! of social measures)

Overall: 106 measures were reduced to 63 measures (reduction of 59%) – GREAT IMPROVEMENT – SFMP and Annual Report is MORE MANAGEABLE

- o Next PAG meeting is June 12th/08; BCTS has offered to take on more responsibility and due to Canfor's difficult economic situation and staff shortage, BCTS is leading the PRISM meeting
- o BCTS is also taking on the re-write of the SFM plan (utilizing FIA funding); should be prepared by the end of this year (2008)



- o Current focus is to maintain the process: keep matrices and documents current; and to increase PAG membership (PAG membership greatly reduced due to people moving out of town or to different jobs)
 - o Changes to TOR were made Feb. 2008 to address indefinite closure of mill shutdowns (reduced # of meetings, e.g. 2/year might be adequate based on the curtailment condition)
- b) 2006 SFM Annual Report**
- o Write up of the Annual Report has not been started (anticipate start up in last week of June)
 - o Anticipate that completing the Annual Report will be a challenge, due to people leaving to other divisions and possible misfiling of documents/records.
 - o Focus is to keep the report basic and to include a section showing 'next steps' for measure not been met or pending

8. Communications from External Interested Parties & First Nations, including complaints

- o Two public complaints from the same person about the same issue (Jason White - 07/06/08 and 08/05/22- see FMS Incident summary provided page 1 and 2); the issue was the washout of culverts on private driveway and siltation of creek on private property assumed to be caused by Canfor activity. The public client suspected Canfor did not properly install/maintain creek crossing at 18 km on the Pipeline M/L. MOFR was informed. The public client seemed to be satisfied with the field visit; information and the photos that Allan Manchuck provided. The field visit showed that Canfor was not responsible for the siltation of the creel. Jason White indicated that he directed his concerns to the MOFR and that he would not pursue the issue any further.
- o Verbal comments were received from a local registered trapline holder (TRO756T011 – Vance Parson) during an information sharing meeting at the Fort Nelson First Nation Lands and Resources Department Office on July 23, 2007 (and other correspondences held during the fall of 2007). Comments were in relation to Canfor's plans to harvest the SNK5997 cut block (accessed by the proposed Snake Winter Access Road). Vance's comments were in opposition of the proposed developments based on perceived impacts to the viability of his trapline. No site specific impacts or comments were brought to Canfor's attention by Vance at and/or since the meeting. As Vance's comments were general in nature ("No logging in my trapline"), mitigative measures could not be developed by Canfor to address his concerns (more specific information required). Efforts to work with MOFR representatives to address these comments are ongoing at this time. Canfor is currently seeking MOFR direction and assistance on this matter before moving forward with the development of the SNK5997 development.
- o 2008 FSP Block and Road Referral Packages were distributed to affected First Nations, Registered Trapline Holders, and Guide outfitters on June 13, 2008 (sent via registered mail)
- o No other formal complaints noted since the last Management Meeting



9. Need for modifying the FMS in response to:

- (a) Changing Legislation or other environmental requirements
 - o No
 - o Environment Policy was updated (new signature and Date), the scope of the Silviculture EI has been corrected and re-printed; those updated inserts were distributed to staff and contractors;
 - o New version of the FMS manual was posted in Dec. 2007 (some changes earlier to that were that mock drills are to be conducted periodically (not annually); ensuring evaluation of compliance and recording of the results (i.e. through management review or internal/external audits; one of the latest changes was the refinement of the high significant incident definition, which includes now that major non-conformances resulting from an audit are to be reported to corporate environmental management committee as well.
- (b) Changes in the operation or the DFA
 - o Fort St. John and Fort Nelson Woodlands amalgamation could provide opportunity to combine the two FMS systems (or aspects of it, such as the FMS EI booklets, sections of the EPRP, environmental procedures)
- (c) Advances in science and technology
 - o VRI is currently in progress; once VRI is updated and project completed, the new and improved data will have an effect on SFM baseline information.
- (d) Input from parties with an interest in Canfor's environmental performance and SFM
 - o No additional input from outside parties besides the Public Advisory Group.
 - o Public Advisory Group members commented on waste left in the field during the 07/08 logging season; Canfor/BCTS responded to their concerns with a field tour on Feb. 19th/08 to allow for discussions and to verify their perceptions. The attending PAG members expressed that they gained a better understanding of the challenges that the forest industry is currently experiencing. Bearing in mind, that sustainability is tied to ecological, economic and social values at the same time, the group came to realize that although the amount of waste was high on a small number of blocks, a certain tradeoff was required in order to satisfy other values that were of higher priority.

10. Recommendations for Improvement

- o Enter all FMS/SFM related actions into GENUS (including Environmental Program and assign person/ not position)
- o Prior to people leaving to other positions/divisions etc. open actions that the person is responsible for should be queried and actions re-assigned
- o Have one FMS program (e.g. contractors/ summer students trained in FSJ do not to be retrained in FN)
- o Since the revision of the SFM measures was completed and the revision of the SFM Plan is underway, utilizing the SFM reporting tool could make reporting more manageable. The SFM tool was developed prior to the first SFM Annual Report, but due to constant changes of the measures the reporting tool seemed cumbersome to use (ongoing update of the web tool would be required, further involvement of WIM). Since the measures are currently relatively stable (no more changes anticipated) updates can be made and responsible people can report directly into the system. Since crystal reports are automated and the status of

reporting is traceable, the utilization of the report would help to share the workload and increase awareness.

11. Records and Documentation

- o Staff has completed a review of various FMS/SFM documents in December 2007.
- o There is a need to review incidents and corrective actions during staff meetings and to communicate mistakes made (operational, as well procedural, e.g. entry of incident into ITS); issue has been dealt with in section 4: Action 3 (APN-FN-2008-0091) and Action 4 (APN-FN-2008-0091)
- o Several actions assigned in GENUS that pertain to document updates and revisions of EOPs/ checklists/forms. Those tasks were re-scheduled to Oct. 31/08 due to curtailment conditions and higher priorities. Some updates were related to references of positions (i.e. admin team for filing), while the intent of the procedure did not significantly change. The Silviculture EOP has been updated, but others, such as the Roads, Harvesting, Facilities EOP has been postponed to the fall.

12. Chain of Custody

- o Need to assign COC responsibilities, since the Wood purchase Coordinator left the division. Recommend to train Ops Superintendent (Doug) or Area Coordinator (Lee) in the procedure, as both handle the contracts for purchase wood.
- o Currently transitioning Woodlands accountant;

Action 6 (APN-FN-2008-0093):

Need to re-assign Chain of Custody responsibilities since the Wood Purchase Coordinator left the division. SFG rep is to train Ops Superintendent Doug Tofte in the COC by June 30, 2008.

13. Next Meeting

KPMG audit is scheduled for June 30th to July 2nd

Next Management Review scheduled for Oct. 15th/08 (scheduled in ITS: APN-FN-2008-0088), any outstanding items that are required to be addressed will be reviewed during the next scheduled management review.



**FMS/SFM MANAGEMENT REVIEW
AGENDA**

AGENDA

Fort Nelson Woodlands
Liard Division
June 11th, 2008 3:00 pm to 4:30 pm
Conference call

1. Purpose of Management Reviews (section 17 FMS manual)

Evaluate trends toward or away from the Canfor Environment Policy, the Forestry Principles, SFM commitments, Chain of Custody and objectives and targets. Management Reviews look backward at progress to date, and look forward to anticipate the need for changes to the FMS. Management Reviews also evaluate the effectiveness of the FMS itself. Management Review is the Act in Plan-do-check-act continual improvement cycle, comparing actual results with the original objectives and targets to determine where further improvement is needed.

**2. Review of Action Items from Aug. 24th, 2006 and October 3rd, 2007
Management Review Minutes**

<i>MTG</i>	<i>#</i>	<i>ACTION</i>	<i>STATUS</i>
Oct. 3/07	1	Change the rating of these incidents (ITS-2007-002 and ITS-2007-0016) from a moderate to low significance. Assigned to Alena Terry; due Oct 15/07.	Completed
Oct. 3/07	2 (APN-FN-2007-0043)	Re-inform staff on the definition of what constitutes a low, moderate and high incident. Assigned to Alena Terry; due Oct 30/07.	Completed Oct. 31/07
Oct. 3/07	3	Review 2007 ITS harvest incidents at the harvest contractors meeting (currently tentatively scheduled October 30/07) and inform staff and contractors that they need to walk boundaries on blocks with older layout. Assigned to Dawn Griffin; due Nov 30/07.	Completed Nov. 6/07
Oct. 3/07	4	Review details ITS-FN-2006-0017 to confirm whether it should be classified as 'Other' or as a conformance or compliance issue. Assigned to Alena Terry; due Oct 30/07.	Completed Nov. 6/07
Oct. 3/07	5	Update the progress report of the 2006/2007 environmental program for action #3 with the culverts, to show a list and percentage of the roads surveyed to date. Assigned to Ken Walsh and Bill McKenzie, due Oct 30/07.	Completed Oct. 30/07
Oct. 3/07	6	Measure 1-2.1 b) – Stand Level Retention (also not met in 2005) permits submitted instead of cutblocks harvested for the reporting period. Assigned to Alena Terry, due Dec 6/07.	Redundant; measure has not been changed, but PAG agreed to reference in future FSP/SFMP update to indicate balancing of retention on a CP level (Feb/08)
Oct. 3/07	7	Measure 1-3.2 – Management Strategies Review BCTS species at risk SOP. Review and revise current measure. Assigned to Brad Mitchell, due Feb 15/08.	Completed Dec. 12/07
Oct. 3/07	8	Measure 2-3.3 – Free Growing (also not met in 2005) Determine a reasonable variance to the current target and revise. Assigned to Doug Toffe, due Feb 15/08.	Proposed to discuss at June 12 th PAG meeting; add a variance of 10% to

FMS/SFM MANAGEMENT REVIEW AGENDA



MTG	#	ACTION	STATUS
			allow for processing time of amendment
Oct 3/07	9	Measure 5-1.1 – Potential for Marketed Non-timber Benefits. Change the target met from 'no' to 'pending'. Assigned to Alette Seigel, due Oct 15/07.	Completed Nov. 10/07
Oct 3/07	10	Measure 3-2.1 – Carbon Pool – Forest Products: Re-evaluate measure. Assigned to Darrell Regimbald, due Dec 30/07.	Completed Nov 10/07
Oct. 3/07	11	Ensure new accountant has been trained on coc. Assigned to Alena Terry, due October 30/07.	Completed Nov. 10/07
Aug/06	4	Silviculture department to develop action plans for areas of lower stocking in naturally regenerated blocks and where required submit amendments to extend regen delay date at least 6 month prior to expiry date.	Ongoing GENUS entry seems ineffective as tracking would have to occur on a block by block basis
Aug/06	7	Silviculture department to develop action plans for areas that are likely to not meet late free growing requirements and where required submit amendments to extend late free growing dates at least 6 month prior to expiry date.	Ongoing GENUS entry seems ineffective as tracking would have to occur on a block by block basis

3. Summary of Results from December 17-21st, 2007 External Audit

4. Environmental Non-conformances and Non-compliances

ITS summaries for 2007 and 2008 Year to Date
Trends in non-conformances and non-compliances
(and other issues where reported)

- Preventative and Corrective Actions taken:
- (a) Status on Actions Taken (and outstanding).
 - (b) Lessons learned; continuous improvement.
 - (c) Further actions required.

5. Trends from Corrective & Preventative Action, and Lessons learned from Experience

6. Status of 2007/2008 Objectives & Targets, and Significant Environmental Aspects

7. SFM

- a) Public Process for SFM
- b) 2007 SFM Annual Report

FMS/SFM MANAGEMENT REVIEW AGENDA



- 8. Communications from External Interested Parties & First Nations, including complaints**
Review communication summary report (from COP1).
- 9. Need for modifying the FMS in response to:**
 - (a) Changing Legislation or other environmental requirements
 - (b) Changes in the DFA
 - (c) Advances in science and technology
 - (d) Input from parties with an interest in Canfor's environmental performance and SFM
- 10. Recommendations for Improvement**
- 11. Records and Documentation**
- 12. Chain of Custody**
- 13. Next Meeting**

Date	#	Description (review of incidents occurred during April 1, 2007 to March 31, 2008)	Status
07/05/10	07-12	Shannon Wylie: camp/facilities/ fuel leak Jet A drum → reported to PEP; compliance There was fuel delivered to the cache in the last part of March 2007. When the camp attendant moved some of the drums he noticed that one was empty. Both bungs were intact and the drum was positioned correctly at 9 & 3. He reported it to the Canfor office. The spill was dug up Upon further inspection the drum was found to have a very small crack in the bottom seam. The fuel did not enter any water bottles. The spill reporting number from PEP is #700380.	closed
07/06/11	07-14	<p>During the winter restocking of the fuel cache located at the Beaver Airstrip a drum of fuel was punctured and approximately 80-90% of the drum split.</p> <p>Bob Dunn made arrangement to have two loads of Jet A drums delivered to the airstrip during the winter months when there is road access. Prior to the delivery of fuel Bob made arrangements with Questerre Energy to clear snow from around the fuel cache in order to accommodate the new fuel. Bob had asked Questerre to wait until he had a chance to visit the site and flag out where the remaining fuel drums were stored. Upon visiting the site we noticed that that area had already been cleared of snow by Questerre.</p> <p>During the snow removal by Questerre the cat caught one of the fuel drums puncturing it. The date of the snow removal is unknown and it is assumed from the puncture hole in the drum that the spill happened at that time. See photo 1. Questerre did not alert us that the incident happened and it is assumed that they did not know it had happened. Later when we visited the site we did not notice any crushed fuel drums at this time (I'm assuming the drum was in the plied up snow). Nor could we smell any amounts of fuel.</p> <p>Upon visiting the site on May 9th during our Beaver survey program we noticed the crushed fuel drum and the spill. No remedial actions were taken at that time as we did not have the proper equipment due to the remote access (no spill kit, shovels etc). The full drums were all moved to one location to centralize the drums and to remove the drums off of the spill.</p> <p>Upon returning to the office I alerted Mike B and Doug T of the spill. Mike asked me to report the spill to PEP. I contacted PEP on May 10th and alerted them of the spill. Reporting of the spill to PEP and Mike B was done on May 10th at the first opportunity due to the limited communication in the Beaver area.</p> <p>Root Cause of the incident was the Cat hitting the fuel drum with his blade when removing the snow for the new drums being delivered.</p> <p>Action: Complete remedial actions on the actual spill and install some barrier system to prevent similar incidents.</p> <p>On May 22nd, 2007 Dean Dickinson and Doug Tofe spread some sphag sorb and overturned the soil on the spill area as remediation practices. Due to the remote access situation these was deemed as the best option.</p> <p>Doug Tofe also installed some posts with flagging to alert everyone that fuel is located there. This should be effective as the cache is not on a road and the posts will alert everyone even during with high snowfall. See attached photos.</p> <p>All actions complete.</p> <p>No government action entered into GENUS – no recommendations</p>	closed
07/06/18	07-16	<p>Roads: Allan Manuck</p> <p>A ditch along Highway 77 accumulates water for 1.8 km where it turns and crosses our winter road at 68km. Once it crosses our road thru a shallow X-ditch it drains into a natural gully. This water has drained this way for at least 20 years probably 30. Downstream from our road X-ing shows signs of previous sluffs of the gully walls. These sluffs now have 10-15cm dbh spruce trees growing on them. This spring the sluffs have migrated eastward to our winter road and have caused our road to sluff down into the gully creating a 25ft long by 20ft wide by 14 ft deep hole in our winter road surface.</p> <p>Action: Repair Rd washout with fill from patry camp and riprap from YRB reject pile at 69km install 1000mmX20m culvert. See attached prework #01953</p> <p>Repaired with PRR in July All fixed up!</p>	closed
07/06/18	07-18	<p>Adrienne Allam, James Fischer noticed some smoke along 22km of the 317 Hwy at 5:25pm on June 15, 2007. He called the Duty Officer, Adrienne Allam. The duty officer contacted Operations manager Kevin Chantson, who advised DO to report the fire to PG Fire Centre (Moi) - done, refer to attachment for info reported. Kevin phoned DO back after to inform that this was a prescribed fire, under burn permit #Luyben R0660935 conducted by Allan Manuck. Allan contacted PG Fire Centre to inform them that this was a prescribed burn. Root Cause - Duty officer not informed of active prescribed burning activities.</p> <p>Action: Send email to woodlands staff to notify staff that they must inform the Fire Duty Officer the location of and supply copy of burning permit to Fire Duty Officer package when conducting prescribed burning activities.</p>	closed
07/06/08	07-13	<p>Public or Client issue:</p> <p>Creek thru residences on Walsh road loaded with silt. Public raised concerns about our Pipeline Rd at 16 where that creek crosses. I determined a minimum amount of silt came from our road but we will fix the small erosion trench that is in our ditch line. 90% of silt at residences came from the top half of Walsh rd and recently cleared land from one of the residences.</p> <p>Actions completed:</p> <p>Diverted water on old winter rd back into original creek channels and out of trench that drained to higrade ditch. Removed the trench itself on old winter road and reshaped the ditch line of higrade. And grass seeded outslope</p>	closed
07/08/27	07-19	<p>Bob Dunn: natural event</p> <p>Debris Torrent: Location: Tributary south of the Beaver/Crow river junction</p> <p>Approximate Lat. 59 49' 58" Long. 124 23' 28"</p> <p>A creek approximately S3 in size had a mass wasting event take place triggering a debris torrent that scoured out the creek bed and banks. Unsure of the size as the site was seen from a poor angle, however, the visible area was approximately 4-8m wide by 200-400m long. Cause - natural disturbance (from excessive rain). No Canfor past or present activities located in the vicinity of this debris torrent.</p>	open
07/08/27	07-20	<p>CP499 Elk 902: Bob Dunn – natural event</p> <p>Two slides in the southwestern portion of the opening no visible cause, likely due to heavy spring rain events. Refer to attachments for more details. Natural event</p>	closed

Incident summary April 1, 2007 to March 31, 2008 (Year 2007)

Date	#	Description (review of incidents occurred during April 1, 2007 to March 31, 2008)	Status
07/09/10	07-22	Brad Mitchell: Brush pile fire reported by Ken Walsh to After Hours Duty Officer (Brad Mitchell) at 5:35 p.m. on August 27, 2007. See attached Canfor Initial Fire Report Form for further details. Kevin Charlston (Canfor) and Ralph Kermer (MOFR) notified of report. No action update and government notification entered into GENUS.	closed
07/10/18-07/10/22	07-33/ 34/ 35/ 36	Findings and actions related to the internal audits.	33/34 closed
08/01/02	08-41	Rod Higgins/Chan Chas/Compliance Riparian areas Enviro aspect, TSO 239 Buncher crossed MFZ line in an area (12 x 5 m). It didn't cross or go into the creek as the creek was blk boundary. Not following procedure. Logging map didn't show MFZ area though it was shown to contractor to pass on to the operators. Action taken: Employee created new map after reviewing consultants blk files to check if anymore MOFZ areas were on blk. Other areas were identified and shown to contractor to pass on to their employees.	closed
08/01/06	08-42	Rod Higgins/ Chan Chas: No inspection tag on fire extinguisher TSO 239 – audit finding extern. Audit. Action was contractor had to have fire extinguisher inspected and tagged within a week.	closed
08/01/06	08-43	Ca65332: PTR: buncher crossed MFZ: conformance: Reference to attached document, but there is nothing other than a map showing location of incident. Document missing, no recommendations or actions indicated – need contact Rod again	Open-recomm end to delete
08/01/09	08-45	Ken Walsh: NDD121; LLG: Bernard Leblanc is employed by Llard Logging Ltd. and was falling block boundary on the South-West corner of block NDD121 and made one pass through the boundary to the other side of an inside finger. The buncher traveled 15m outside the block and felled two birch trees outside the boundary. The incident happened on Jan. 2008 and was reported to Canfor Supervisor on Jan. 5/08. The incident was discovered by another buncher operator, Serge Berube, who informed the Llard Logging foreman. The root cause was an inexperienced operator not stopping and contacting his supervisor when he was having trouble following the boundary. Heavy snow and poor layout could have obscured the boundary markings and been a contributing factor. Warning ticket; FRPA Section 52; compliance Procedures not followed; training records are not attached??? No damage to streams or soils. Actions taken: Contractor had to review falling EI and field marking standards with employee and test him to see that he is proficient with working along boundaries and if not sure only to work in low risk areas. Contractor to provide Canfor supervisor with signed off training records. It seems that incident 08-43 is the same, but has not been removed. (duplication):	Closed
08/01/06	08-46	Rod Higgins: Buncher crossed MFZ while bunching. No damage was done to the stream due to the deep snow in the area. Some brush was run over by the buncher tracks but no loose debris was found in the MFZ area. SEE ATTACHMENTS UNDER ACTION BELOW Root cause: inadequate training. EA: Riparian area Description: Buncher went through MFZ in CA5332 blk stream ML-S6. Delay in reporting due to holidays. Operator thought he was allowed one pass with the machine across a MFZ, the same as an NCD while bunching. NO damage was done to the stream due to deep snow. *Action: Action has been taken already. PTR foreman talked to the operator about the crossing. This is when the operator explained that he thought the crossing was acceptable. The foreman explained that they are not allowed to go through the MFZ areas. I consider this matter completed Conformance: gov. contact listed, but no indicated that MOFR was contacted by us or what party; No damage done to stream. Note: Occur date not entered in GENUS – (might not pull report); recommend reviewing with staff what fields are mandatory to fill out. Attachments, occur date, name the attached files; be more specific around dates and government involvement.	closed
08/01/16	08-47	Ken Walsh: compliance: roads trespass: Llard Logging: On Jan. 3, 2008, cat operator (Gordy Piere - Llard Logging Ltd.) was constructing the 119A Road. From its junction on the North Duredin Mainline he followed the road centerline ribbons for 25m in a westerly direction before veering off to the southwest and 30m outside of right-of-way in a patch of immature black spruce. There was heavy snow in the trees and the operator should have stopped when he could not see the ribbons. Inexperience could have been part of the cause. At this time there is a right-of-way deck located at the junction of the road and the trespass. Action: Contractor to review Field Marking Standards with employee and Road Construction E.I. to ensure operator understands map reading, field marking and when to stop work if unsure. Contractor to provide Canfor Supervisor with signed off review by Jan. 25, 2008. Contractor says that employee has been terminated and will not be returning. → end of action. Compliance, LLG No indication if Government has been contacted.	closed

Incident summary April 1, 2007 to March 31, 2008 (Year 2007)

Date	Description (review of incidents occurred during April 1, 2007 to March 31, 2008)	Status
08/01/24	<p>08-48 Trespass, Chas Chas, Rod Higgins, compliance TSO239</p> <p>Buncher cut outside the blk a small section about 12 x 25 m, no damage done except that 10-15 trees, mostly birch, were cut down on crown land.</p> <p>Action: Due to the closure of both, Canfor Fort Nelson mills the contractor employees left town for work elsewhere and the contractor is finished. No action will be taken to prevent future occurrences.</p> <p>Email sent to MOF (mike D'Albia) – still shown as open</p>	open
08/02/01	<p>08-49 Ken Walsh: Boundary trespass NDD120</p> <p>Liard Logging Ltd. buncher drove through a narrow (30m) section of a WTP. No damage to merchantable timber, some smaller stems damaged. All falling and skidding activities are finished.</p> <p>Root cause: procedures not followed.</p> <p>No government notification, no actions or recommendations.</p>	closed
08/05/22	<p>2008-19 On May 22 Jason White local Resident of Walsh Road reported Siltation of creek thru 3 Walsh road residences and washouts of their driveways. I went out to there to inspect. Jason & Neighbors are saying it's caused by our road at 16 km where their creek crosses our rd in 2 places. We walked up the ROW between Walsh rd and the pipeline.</p> <p>#1 This ROW (NOT CANFOR) is rutted badly from locals using quads and 4X4s. The ruts intersect a fork of the creek & divert the creeks water down all the ruts. These ruts are eroding at 2 spots along the ROW contributing to their silt deposits.</p> <p>#2 Last summer (2007) Canfor reshaped the ditch lines of the pipe, fixed a culvert at 16.6km, reset creek into proper channel on old pipe winter road, and grass seeded the whole area. There is no significant amount of silt being deposited into creek from Canfor road.</p> <p>#3 Trail below old winter road that goes to Radar Road (Not Canfor) is eroding somewhat and depositing some silt into 1 of the culverts that runs under our road. Not a huge amount but some none the less.</p> <p>#4 I walked entire creek channel from our road to Walsh residences (Alone, Jason didn't want to) to discover that creek gradient drops about 80ft in 100m at a spot that is confined by steep V shaped gully walls. The high amount of rain (72hrs non stop from May20 thru May 22 has caused a raging torrent in the gully. The creek is eroding the base of the slopes of the gully and causing failures of the slopes. The slopes are sliding into the raging creek which the creek then washes downstream to the residences. This is happening at least 100m away from our ROW. Therefore the creek water which is a little murky but mostly clear leaving our ROW becomes very silt laden and looks like chocolate milk by the time it gets to the residences.</p> <p>#5 When the creek enters the first property (Steeppers) it is eating into the slope of their lagoon picking up more silt. The first driveway (Also steeppers) has washed out depositing his driveway material in the next neighbors yard. The second property downstream also has a driveway washing out and depositing its material into Jason Whites yard.</p> <p>#6 None of the driveways have culverts large enough to deal with the high intensity volumes produced by big rain events. They should have at least 600mm but they have 300-400mm. When I visited, their culverts were flowing at 100%capacity and not even close to keeping up with the flow.</p> <p>#6 Other creeks along the old Alaska HWY which do not cross our road had deposited a large amount of material in the ditches of the highway as a result of this large rain event. AI informed MOF of incident. Cause: Natural cause</p>	open
2008/06/10	<p>08-21 Slash piles on KLU2321 were burnt April 30th; smoldering and flare up reported by MOFR to Canfor on May 5, 2008 (late afternoon) Ken Walsh rec'd and assessed situation right away (May 6th) and decision was made to put the fire out the next morning. Entire woodlands office (7 people plus \$100 instructor - training scheduled for that day) went to fight the fire and took advantage of presence of \$100 instructor. Weather was extremely windy and dry. Fire reporting procedure was followed (see attachment). Woodlands staff put fire/hot spots out all day May 6th (note weather conditions continued to be extremely windy) - no more smoldering visible; staff followed up on block the next day (May 7th and May 8th). Protection branch attended May 7th to ensure the fire is out.</p> <p>However, Canfor informed Protection on May 10th that the fire flared up again and protection put the fire out due to short staffing of Canfor. Ken Walsh used protection scanner on may 13th to scan all burn piles in blk KLU2321 and was unable to detect any more hot spots. Further monitoring was conducted afterwards.</p> <p>Wildfire act Section 6(1) – Section 22 Wildfire Regulations – Warning ticket. Recommendations: closer monitoring should have occurred based on weather conditions. Burning should be completed earlier in the year if possible</p> <p>Uncontrolled Wildfire Compliance</p>	closed

2006 (April 1, 2006 – March 31, 2007)

#	Date	Compliance/Conformance	Program	Description
1	07/01/05	Compliance	Roads	Temp log fill in S3 instead of temp bridge
2	07/01/11	Compliance	Harvesting	Trespass
3	07/01/29	Compliance	Harvesting	Trespass
4	07/02/08	Compliance	Harvesting	Trespass
5	07/02/14	Conformance	Harvesting	Spill – leak at stationary tank, quantity not known
6	07/02/19	Conformance	Roads	Buncher cut outside ROW (not trespass, didn't follow procedures)
7	07/03/01	Conformance	Planning	Terrain issues not identified LAS
8	07/03/07	Compliance (changed to Conformance since no damage done to creek and to do with SOP)	Harvesting	Layout MFZ done wrong, machine entered 1.8 m into MFZ – no damage (not reported)
9	07/03/08	Compliance (changed to conformance since only actual spills have to be reported)	Roads	Antifreeze stored in MFZ
10	06/07/10	Compliance	Silviculture	Herbicide
11	06/08/24	Compliance	Silviculture	Herbicide
12	06/08/30	Compliance	Harvesting	Antifreeze
13	06/08/31	Compliance	Silviculture	Herbicide
14	06/08/31	Compliance	Silviculture	Herbicide
15	06/08/31	Compliance	Silviculture	Herbicide
16	06/08/31	Compliance	Silviculture	Herbicide
17	06/08/31	Compliance	Silviculture	Herbicide
18	06/08/31	Compliance	Silviculture	Herbicide
19	06/08/31	Compliance	Silviculture	Herbicide
20	06/08/31	Compliance	Silviculture	Herbicide
21	06/11/18	Conformance	Roads	Excavator sild of temp. bridge
22	06/12/28	Compliance	Silviculture	Herbicide
23	06/12/28	Compliance	Silviculture	Herbicide
24	06/12/28	Compliance	Silviculture	Herbicide
25	06/12/28	Compliance	Silviculture	Herbicide
26	06/12/28	Compliance	Silviculture	Herbicide
27	06/12/28	Compliance	Silviculture	Herbicide
28	06/12/28	Compliance	Silviculture	Herbicide
29	06/12/28	Compliance	Silviculture	Herbicide
30	06/12/28	Compliance	Silviculture	Herbicide

2006 (April 1/06 to March 31/07):

- 30 incidents 24 compliances and 6 non-conformance (6 harvesting, 4 roads, 19 silviculture, 6 harvesting, 4 roads, 1 planning)
- Silviculture (19) All 19 incidents that occurred in Silviculture related to herbicide → dealt with through last environmental program
- Roads (4): 3 related to not following procedures (no map, wrong crossing, antifreeze stored in MFZ), 1 – machine slide off bridge
- Harvesting (6): 3 trespasses, 1 layout MFZ, 2 fuel related,
- Planning (1): Terrain issues not identified by LAS contractor (should be operations)

2007 (April 1, 2007 to March 31, 2008)

#	Date	Compliance/Conformance	Program	Description
1	07/05/10	compliance	Facilities	Leak Jet A drum. reported to PEP
2	07/06/11	compliance	Silviculture	Leak Jet A drum. cat punctured
3	07/06/18	Natural event	Roads	Washout along ditchline
4	07/06/18	Other (as not part of any SOP)	Planning	Slash burning reported as fire (not communicated internally)
5	07/08/27	Natural Event	Other	Debris Torrent
6	07/08/27	Natural Event	Other	2 slides

Incident summary April 1, 2007 to March 31, 2008 (Year 2007)

7	07/09/10	Other	Planning	Burning brush piles reported to DO and MOFR
8	08/01/02	Compliance	Harvesting	Machine went into MFZ (mapping mistake)
9	08/01/06	Compliance	Harvesting	No inspection tag on fire ext.
10	08/01/09	Compliance	Harvesting	trespass
11	08/01/06	Conformance	Harvesting	Machine enters MFZ
12	08/01/16	Compliance	Harvesting	Roads trespass
13	08/01/24	Compliance	Harvesting	trespass
14	08/02/01	Compliance	Harvesting	Trespass into WTPP
	08/05/22	Public or Client Issue	Roads	Siltation Pipeline Km 16 Walsh Rd.
	07/06/08	Public or Client Issue	Roads	Siltation Pipeline Km 16 Walsh Rd.
	07/10/18	4 - Findings and actions related to Internal audit	various	Actions completed

2007 (April 1/07 to March 31/08):

- 14 incidents plus one client issue (07/06/08 – walsh road) plus 4 audit findings
- 8 compliances, 1 nonconformance, 3 natural events and 2 other (7 harvesting, 1 roads, 1silviculture, 1 planning, 2 other)
- Harvesting (7): 4 trespasses, 2 MFZ, 1 fuel related (fire extinguisher),
- Planning (1): ‘Other’ reporting fire
- Roads (1): natural event (washout)
- Facilities (1): Jet A leak
- Silviculture: (1): Jet A leak
- Other (2): Natural events

Trend:

- No Silviculture incidents reported: question is, did it improve or just not reported/checked?
- Less compliance issues (57% in 2007 versus 80% in 2006)
- Slight increase in trespasses in harvesting (2006 – 50% in 2007 – 57%)
- More natural events reported in 2007
- First reported fuel drum leaks (higher awareness)

	2008			
	08/05/22	n/a Public or Client issue	Roads	Pipeline km 16, siltation
	08/06/10	Compliance	Harvesting	Flare up of burnt piles KL U2321

Recommendations/Observations:

Inconsistencies in reporting consist of the following:

- Actions/incidents not closed off once done
- Occur date not entered, might result in not pulling reports correctly
- Government involvement mentioned in general description, but not entered into government section
- Progress/corrective action often not updated
- Email function not used correctly, which means Action tracking and Incident reporting EOP not followed
- Attachments should have file names
- Descriptions should be more specific around dates and who was involved
- Inconsistency with reporting to government/PEP, i.e. compliance issues, but not reported and vice versa, conformance issue and has been reported to government
- Actions are not always adequate, i.e. employees causing/contributing to incidents left contractor or were laid off, but no further action for contractor required
- Proof of completed actions, such as sign off with employees/formen need to be verified and attached into GENUS
- It should be related to contractor’s what the potential impact on the environment could be
- Have WIM delete IT# 2007-0040 and 2008-0043 – wrong entries (test) – clean up

Incident summary April 1, 2007 to March 31, 2008 (Year 2007)



**RECOMMENDED FMS/SFM TRAINING AND ACTIVITIES SCHEDULE FOR
CANFOR STAFF AND CONTRACTORS**

- Recommended schedule for SFM related activities
- Recommended schedule for FMS related activities

DATE	WHO	CONTENT OF TRAINING
January	PAG/Area Participants	<ul style="list-style-type: none"> ▪ Review of the TOR with PRISM ▪ Review of SFM matrices (focus on Knowledge gap matrix and Action plan matrix) with area participants and/or PAG ▪ PAG survey (committed to 2 annual) ▪ Field tour (if not done in summer)
February	SFG/SFM rep	<ul style="list-style-type: none"> ▪ Performance review of Environmental program and update of actions completed ▪ Review of SFM related SOPs
Feb/March	SFG/SFM rep	<ul style="list-style-type: none"> ▪ Review of SFM related SOPs
March 31 st	ALL Canfor staff as identified in the Responsibility Action matrix	<ul style="list-style-type: none"> ▪ Submission of all SFM Annual Report relevant information for reporting year to the SFG/SFM rep
March/April	SFG/SFM Rep	<ul style="list-style-type: none"> ▪ Revision of EPRP (as per Safety Management System)
May	Summer students	<ul style="list-style-type: none"> ▪ FMS/SFM General Awareness (same as annual refresher staff training)
May	Planting Contractors	<ul style="list-style-type: none"> ▪ FMS/SFM General Awareness (same as contractor training specific to Silviculture)
May	PAG/Area Participants	<ul style="list-style-type: none"> ▪ Annual PRISM field tour (if not done in winter)
May/June	ALL Canfor staff	<ul style="list-style-type: none"> ▪ S100 training (coordinate with Safety Coordinator)
May 15 th	SFG/SFM rep	<ul style="list-style-type: none"> ▪ SFM Annual Report due
June	PAG/Area Participants	<ul style="list-style-type: none"> ▪ Review of SFM matrices (focus on Knowledge gap and action plan matrix) with area participants and/or PAG ▪ Review of Annual Report with PAG ▪ PAG survey due (2 annual)
July	Representatives of each team	<ul style="list-style-type: none"> ▪ Re-ranking of Environmental Aspects
July/Aug.	ALL Canfor staff	<ul style="list-style-type: none"> ▪ Mock drill for fire and medical emergency (followed by staff review to identify improvements)
July/Aug.	Spray Contractors	<ul style="list-style-type: none"> ▪ FMS/SFM General Awareness (same as



FMS/SFM Training and Activities Schedule

DATE	WHO	CONTENT OF TRAINING
August	Managers/Super-Intend./SFG/SFM rep	<ul style="list-style-type: none"> contractor training specific to Silviculture) ▪ FMS/SFM Management Review
Aug/Sept	SFG/SFM rep	<ul style="list-style-type: none"> ▪ Posting Annual Report on Canfor's external website and FMS website
September	ALL Canfor staff	<ul style="list-style-type: none"> ▪ Roll-out of Environmental Program to staff
Every FALL (prior to harvest start-up) and all new staff as part of the orientation	ALL Canfor staff	<ul style="list-style-type: none"> ▪ Refresher training ▪ FMS/SFM General Awareness ▪ FMS Environment Program ▪ Fuel Management ▪ FMS Website ▪ SFM Annual Report Action items ▪ FMS/SFM outstanding audit action plan action items ▪ SFM Reporting checklist ▪ Record Keeping <p>In addition review of all significant changes to the FMS, such as</p> <ul style="list-style-type: none"> - Updates of all FMS related documents - Updates on EOP's/EI's - Discussion on audits/field audits - other
Ongoing (effective Oct. 15 th , 2007)	All Canfor teams/groups	<ul style="list-style-type: none"> ▪ Review of FMS documentation on a regular basis during group/team meetings Sign off on reviewed documents and comments to be provided to SFG/SFM rep (NEW – Form needs to be developed and will follow the principle of the safety sign off sheet). Goal is that individual group reviewed all FMS documents within a given year. This includes the review of the relevant EOP's and EPRP as outlined in the training needs matrix. Review of EPRP sections will be scheduled in accordance with season – i.e. fire reporting in march/April – spill towards the fall.
September	ALL Canfor staff	<ul style="list-style-type: none"> ▪ FMS Questionnaire (as required)
Sept/Oct.	Canfor staff and invitation to contractors	<ul style="list-style-type: none"> ▪ Spill training, if possible include a mock training exercise
October	SFG/SFM rep	<ul style="list-style-type: none"> ▪ Update of SFM Responsibility Action Matrix (RAM) on any changes on Criteria/Indicators/Measures/Targets and



DATE	WHO	CONTENT OF TRAINING
October	ALL Canfor staff	<ul style="list-style-type: none"> ▪ notification to staff ▪ One on One FMS website review with questions regarding location of documents and retrieving specific information
October/Nov.	Contractors	<ul style="list-style-type: none"> ▪ Harvesting Contractor training/refresher ▪ FMS/SFM General Awareness ▪ Fuel Management ▪ Record Keeping ▪ Preworks/Inspections ▪ SFM knowledge and skills ▪ Waste ▪ Training documents ▪ EPRP related to FMS ▪ Updates on internal/external audits/field audits ▪ other
December	PAG/Area Participants	<ul style="list-style-type: none"> ▪ identification of annual meeting schedule for upcoming year – present at last meeting of the year
Prior to any internal/external audit	ALL Canfor staff	<ul style="list-style-type: none"> ▪ FMS/SFM review and discussion on relevant issues; review of previous audit findings
As per Safety Management system	ALL Canfor staff	<ul style="list-style-type: none"> ▪ WHIMIS and TDG ▪ Coordinated through Safety Coordinator

Appendix 2

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**FMS FORT NELSON WOODLANDS
OBJECTIVES, TARGETS AND ENVIRONMENTAL PROGRAM FOR 2007-08**

PROGRAMS	OBJECTIVES AND TARGETS				FUNCTIONAL AREA/ACTIVITY																																														
Due	Who	Action item	Target	Owner	Objective	Significant Environmental Aspect																																													
Sept 30/08	Area Co. (Ops)	1. *Development of a maintenance schedule for culverts. Progress report of culvert inspections for Fort Nelson high-grade roads (from 2006/2007 Environmental Program):	Target is to reduce riparian habitat, and stream morphology	Woodlands Manager	I. Prevent alteration of stream morphology and alteration of riparian areas. II. Reduce sedimentation and disruption of waterflow. III. Ensure fish passage is not altered or blocked and sediment transport in to stream crossings on fish habitat is minimized.	Roads: Culvert Installation/ Maintenance /Removal (id 5, 40,14) *I) Alteration or disturbance of: A riparian area (id 5) *II) Alteration or disturbance of: Stand Level Drainage Patterns (id 40) *III) Alteration or disturbance of: Fish Habitat (id 14)																																													
		<table border="1"> <thead> <tr> <th>Road</th> <th>Km Completed</th> <th>Km Remaining</th> <th>% Complete</th> </tr> </thead> <tbody> <tr> <td>Pipeline</td> <td>0-51km</td> <td>0</td> <td>100</td> </tr> <tr> <td>Patry</td> <td>68-91km</td> <td>0</td> <td>100</td> </tr> <tr> <td>Luyben</td> <td>0-48km</td> <td>48-120km</td> <td>67</td> </tr> <tr> <td>Kledo</td> <td>0-13km</td> <td>13-20km</td> <td>65</td> </tr> <tr> <td>Steamboa</td> <td>0-13km</td> <td>13-21km</td> <td>62</td> </tr> <tr> <td>Kiwi</td> <td>0</td> <td>0-37km</td> <td>0</td> </tr> <tr> <td>2400</td> <td>0</td> <td>10.5-27km</td> <td>0</td> </tr> <tr> <td>Liard</td> <td>0</td> <td>0-16km</td> <td>0</td> </tr> <tr> <td>Elleh</td> <td>0</td> <td>22-41km</td> <td>0</td> </tr> <tr> <td>Total:</td> <td>148km</td> <td>175.5km</td> <td>46%</td> </tr> </tbody> </table>	Road	Km Completed	Km Remaining	% Complete	Pipeline	0-51km	0	100	Patry	68-91km	0	100	Luyben	0-48km	48-120km	67	Kledo	0-13km	13-20km	65	Steamboa	0-13km	13-21km	62	Kiwi	0	0-37km	0	2400	0	10.5-27km	0	Liard	0	0-16km	0	Elleh	0	22-41km	0	Total:	148km	175.5km	46%					
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PROGRAMS		OBJECTIVES AND TARGETS					Functional Area/Activity
Due	Who	Action item	Target	Owner	Objective	Significant Environmental Aspect	Y
Dec 30/07	Area Co. (Ops), WIM	2. *Development of a Business Process on the reporting for culvert and ditch maintenance schedules, and road monitoring.					
Jan 30/08	Area Co. (Ops)	3. *Develop a drainage management/culvert installation and maintenance SOP.					
March 31/08	Area Co. (Ops)	4. *Provide training to staff in the above SOP.					
Nov 30/07	Planning	5. *Complete sites of Biological significance SOP.					
Dec 30/07	Planning	6. *Staff training on Site of Biological Significance SOP.					
* Continuation of outstanding action items from the 2006/2007 Environmental Program.							
May 31/08	Silvicultu re Sup.	1. Update Herbicide Application SOP (to incorporate new procedures to minimize potential of incidents regarding herbicide).	Reduce potential of unnecessary alteration to habitat	Woodlands Manager	Prevent unnecessary alteration of habitat	IV) Alteration or disturbance of: Stand Level Habitat (id 25)	Chemical Brushing (id 25)
Aug 31/08	Silvicultu re Sup.	2. Staff and contractor training of updated Herbicide Application SOP.	stand level alteration to habitat		stand level alteration of habitat		



Forest Management System

2009 Fort Nelson Operation” MANAGEMENT REVIEW

Review of system requirements for:

- ISO 14001 Environmental Management System
- CSA Z809 Sustainable Forest Management System
- PEFC Chain of Custody

Participants: [Kristine Bock](#), [Darrell Regimbald](#), [Alette Seigel](#), [Diane Beaudoin \(CoC\)](#)
Date: July 10th, 12:00 AM via phone Mike Breisch absent and assigned Darrell Regimbald his responsibilities

PART 1: FMS

Purpose:

For the operation’s management team to stand back from the daily “noise” of the operation, and evaluate trends toward or away from the *Canfor Environment Policy*, the *Forestry Principles*, *Chain of Custody*, SFM commitments, and objectives and targets.

Management Reviews look backward at progress to date, and look forward to anticipate the need for changes to the FMS.

Management Reviews also evaluate the effectiveness of the FMS itself. **Management Review is the "Act"** in the Plan-Do-Check-Act continual improvement cycle, comparing actual results with the original objectives and targets to determine where further improvement is needed.

Previous FMS Management Review Actions:

Action 1	<p>ITS - APN-FN-2008-0088</p> <p>Review the topics that were not discussed at the June 11th, 2008 management review meeting, which are the following:</p> <ul style="list-style-type: none"> a) Review of SFM Performance, Annual Report 2007 b) Evaluation of compliceance to legal and other requirements c) The status and effectiveness of corrective and preventative actions d) Chain of Custody procedures and results <p>Covered in today's review.</p>
Action 2	<p>ITS - APN-FN-2008-0089</p> <p>Brad Mitchell is to initiate discussion on variance of Free Growing measure (2-3.3) at next Pag meeting on June 12th, 2008.</p> <p>Completed; A variance of 10% has been endorsed by the PAG at the Nov. 6th, 2008 meeting.</p>
Action 3	<p>APN-FN-2008-0091</p> <p>SFG/SFM Rep is to schedule and conduct ITS training with staff, review the FMS/ITS Best Practices (PDD), focus on main mistakes during ITS entry.</p> <p>To be done</p>
Action 4	<p>ITS-APN-2008-0092</p> <p>Operations Superintendent is to include the review of FMS incidents as a regular agenda item during montly safety meetings to ensure incidents are reviewed with staff. Update: incidents were reviewed during FMS staff training on June 23rd/08.</p> <p>Update: only small group of three remains and incidence are communicated during meetings.</p>
Action 5	<p>Aliette to update the 07/08 Enviromental Program by June 25th/08; the herbicide SOP related action item will be scheduled for completion prior to June 30th/08 (APN-FN-2007-0078) and the culvert related action itmes will be extended by a year. Completed – Enviornmental Program action items were updated June 16th, 2008 and June 16th, 2009.</p>
Action 6	<p>ITS: APN-FN-2008-0093</p> <p>Need to reassign CoC responsibilities, since the Wood Purchase Coordinator has left the division. Recommend to train Ops Superintendent (Doug)or Area Coordinator (Lee) in the procedure, as both handle the contracts for purchase wood. Currently transitioning Woodlands Accountant.</p> <p>Done – Diane Beaudoin is responsible for CoC. Since indefinite shutdown very low priority – no activities.</p> <p>Update: no Purchase Wood Coordinator has been assigned, instead general CoC procedure in regards to Purchase Agreements has been reviewed with remaining staff and with the Woodlands Accountant during training on March 11th, 2009</p>

Update on FMS Policy Modifications (If Any)

- **Recent:** No changes to Environment Policy and Principles
- **Upcoming:** SFG is working on combining the SFM Framework and Principles (Principles are included under our policies); Due to cost conversion SFG decided to not rework the Principles as major re-write is needed. Marketing continues to rely heavily on the Forestry Principles document and it serves the purpose for now.
- Dec. 2008 internal audit identified as an OFI that the Forestry Principles should be signed and sealed by President and CEO.

Summary of Actions and Results from FMS Audits:

➤ Internal

Audit held between Dec. 3rd and Dec. 15th, 2009

See audit action plan Feb. 15th, 2009 (attached)

- 6 OFIs (2 of those are 100% completed – 2 will be completed at the end of Management review (includes 2007 Annual Report Performance review and CoC review). The other two remaining ones are pertaining to a task assigned to the SFG (review of Forestry Principles and signed off by new president and CEO) and the improvement/refinement of 5 measures to be discussed with the PRISM/PAG.
- 3 Minor NCs (2 pertaining to CoC – Log Purchase Agreement prompts and % of certified wood not always filled in – both actions have been 100% completed; the 3rd one has been assigned to the SFG and has to do with the update of the document owner of the PEFC risk assessment)

➤ External

Audit held between June 30th and July 2nd, 2008

See audit action plan Oct. 9th, 2008 (attached)

- 4 OFIs (1 has been completed – completion of 2007 Annual Report); OFI 2 pertains to inclusion of a new aspect of disturbance of pipelines; during the re-ranking of Significant Environmental Aspects (SEA) pipeline disturbance has been accounted for and been considered, but an individual aspect has not been assigned. Procedures will eventually be addressed when the fieldwork SOP is updated (need to extend the completion date to “when operation resumes”). OFI 3 pertains to inclusion of SAR specific questions into knowledge and skills questionnaires – this will be dealt with when next set of triplicate forms are ordered – at this time SAR is discussed at preworks and during training. OFI 4 pertains to contractor records of drills for fire and spills – not completed at this time.

➤ Effectiveness of Actions

- Actions related to COC seem not effective at time of indefinite mill closure since no harvesting or purchase activities are done, but will be of value once operations are starting up. Other actions, such as SAR questions or drill testing are still valid during silviculture activities and should be pursued.

Communication from external Interested Parties, Including Complaints:

- No complaints regarding FMS

Extent To Which Objectives and Targets (Environmental Program) Have Been Met:

➤ **Actual Results vs Targets**

The 2008/09 Environmental Program is a continuation of the 2007/08 EP. The program was extended due to curtailment conditions within the company. Most action items were extended by 1 year. Since Aug. 2007 (Fort Nelson and FSJ Woodlands were joint to one Peace-Liard Woodlands office) staff has been significantly reduced. In 2008 the OSB (Spring 08) and Tackama Plywood (Fall 08) were indefinitely shut down. Since then, staff was significantly reduced from 6 (June 08) to 3 in Nov (08). Completion of any of the actions was not a priority due to the lack of resources/staffing. Any actions that related to updates of documents/procedures seem reasonable to extend until operations resume. However, road maintenance is and remains an issue since monitoring of road conditions is reduced due to the lack of staffing and regular activities; in the meantime, third party road use (namely oil and gas companies) still continues and poses a potential risk to the roads.

➤ **Status of Programs**

Overall, actions in 08 program have only been partially completed and have been rolled over into the 09 EP program

2009 Environmental Program has been updated based on the re-ranking of Environmental Aspects in March 2009; the SEA stayed the same as in 08/09, which are Riparian areas, Stand Level Drainage patterns and Fish Habitat – all are related to the activity of culvert installation, maintenance and removal. Maintenance of roads poses currently the highest risk.

The SEA "Stand Level Habitat Attributes" is carried forward, which relates to Chemical Brushing.

In addition to the above, the SEA "Uncontrolled fire" has been added as a new one. The action related to the SEA is to create a burning SOP and to provide training to staff.

All actions are entered in GENUS/ITS.

➤ **Review / Approve significant environmental aspects (Top 5)**

Environment Program 09/10 has been reviewed and approved.

Summary of Non-Compliances, Non- Conformances and Status of Corrective and Preventative Action:

Between June 1st, 2008 and July 7th, 2009 there were 5 incidents :

Compliance: 2 (1 moderate – 1 low)

Conformance: 3 (all low)

1. ITS-FN-2009-0106 (compliance – moderate): Fuel spill caused by Road User (Imperial Oil Road Use Agreement # 1 Add # 1 Aug 8/08) during road maintenance on section of winter road. Cat ran into old Canfor fuel cache located beside the winter road, which was covered under snow and not marked. Imperial Oil (IMP) reported the spill to PEP, conducted clean up and provided report below (see also attachments). – Action: included a revision of the road use agreements, where location of fuel caches have to be reviewed; incident was reported to PEP by IMP and cleaned up.
2. ITS-FN-2008-0021 (compliance – low): Slash piles on Klu2321 were burnt April 30th; smoldering and flare up reported by MOFR to Canfor on May 5, 2008 (late afternoon) Ken Walsh rechecked and assessed situation right away (May 6th) and decision was made to put the fire out the next morning. Entire woodlands office (7 people plus S100 instructor - training scheduled for that day) went to fight the fire and took advantage of presence of S100 instructor. Weather was extremely windy and dry. Fire reporting procedure were followed (see attachment). Woodlands staff put fire/hot spots out all day May 6th (note weather conditions continued to be extremely windy) - no more smoldering visible; staff followed up on block the next day (May 7th and May 8th). Protection branch attended May 7th to ensure the fire is out. However, Canfor informed Protection on May 10th that the fire flared up again and protection put the fire out due to short staffing of Canfor. Ken Walsh used protection scanner on May 13th to scan all burn piles in blk KLU2321 and was unable to detect any more hot spots. Further monitoring was conducted afterwards. Recommendations: closer monitoring should have occurred based on weather conditions. Burning should be completed earlier in the year if possible. – Actions: to use protection scanner on block to ensure that no more hot spots remain on site and close monitoring to ensure no more flare ups.
3. ITS-FN_2009-0109/110/111 (conformance – low): all three non conformities are pertaining to the internal audit Dec 2008 PEFC (COC) findings related to the content requirements of Log Purchase Agreements.

➤ Lessons learned

- Communication to third parties (road users) is more important than ever, since reduced monitoring takes place due to staff reductions;
- Monitoring on burnpiles should be done more frequently

To be discussed

- Effectiveness of actions in preventing further occurrences
- Actions are effective, however, more staffing to monitor burn piles is needed; ensure burning in fall/winter is done only when snow is on the ground

Changing Circumstances Related to Environmental Aspects:

Legal No significant changes affecting EAs

Other requirements

- No significant changes

Changes in operations

- OFI # 2 June 2008 external audit: Recommended the assessment as a potential SEA the activity of road construction/maintenance in proximity to pipelines. Action plan: include a section in the FN Fieldwork SOP describing procedures to consider when constructin/maintaining roads that cross pipelines. And revise the EA list to include the activity – ‘road construction and maintenance’ and the aspect “disturbance of pipelines”. → EA has not specifically included, but risk to pipelines has been considered in t he ranking.
- Since no harvesting activities take place, all impacts from harvesting are zero and we shouldn’t need to consider implementing actions in the Environment Program is they are related to harvesting

Advances in science and technology

Bio products (chips, sawdust, hog) starting to have value and technology advancing for use in bioenergy. Certification implications as we eventually work towards CoC issues.

Summary of Management Input: (effectiveness, lessons learned, recommendations to improve)

- Continue to streamline FMS within the SFG
- Considering that staffing is greatly reduced and in reallion to the size of the DFA, the amount of road that needs to be monitored and maintained and in respect to the size of the silviculture program it seems that all controls are still effective.
- Continue to focus on the apsects that we actually have a high potential to impact.

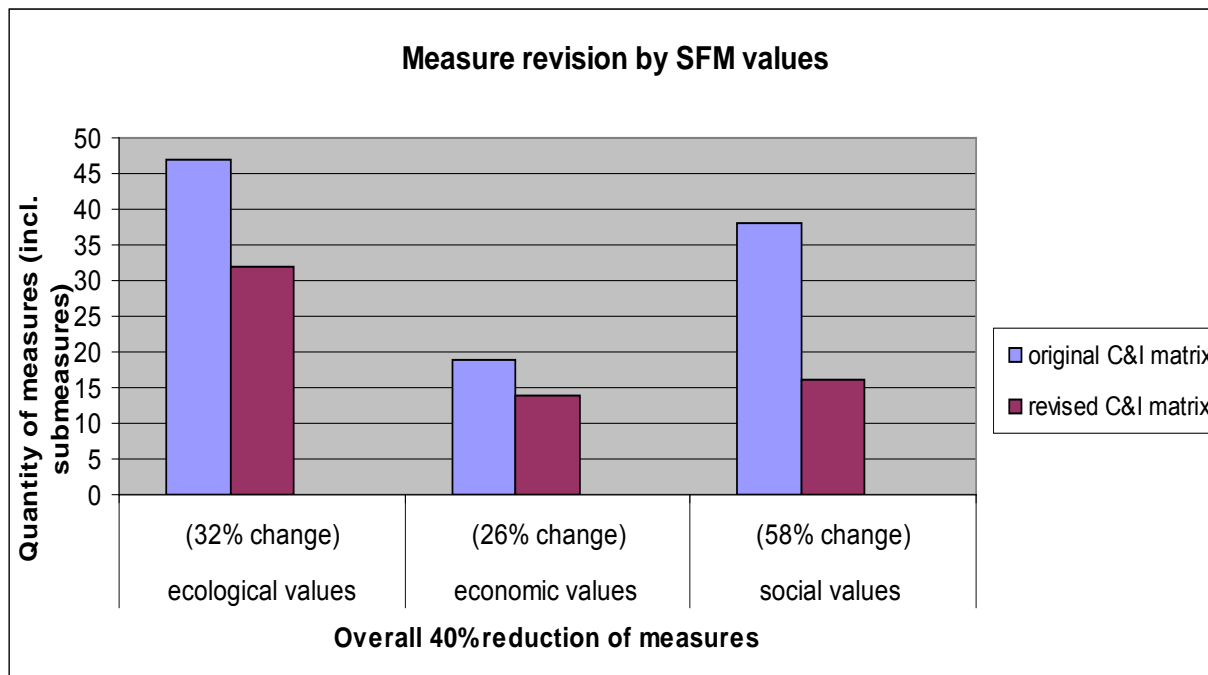
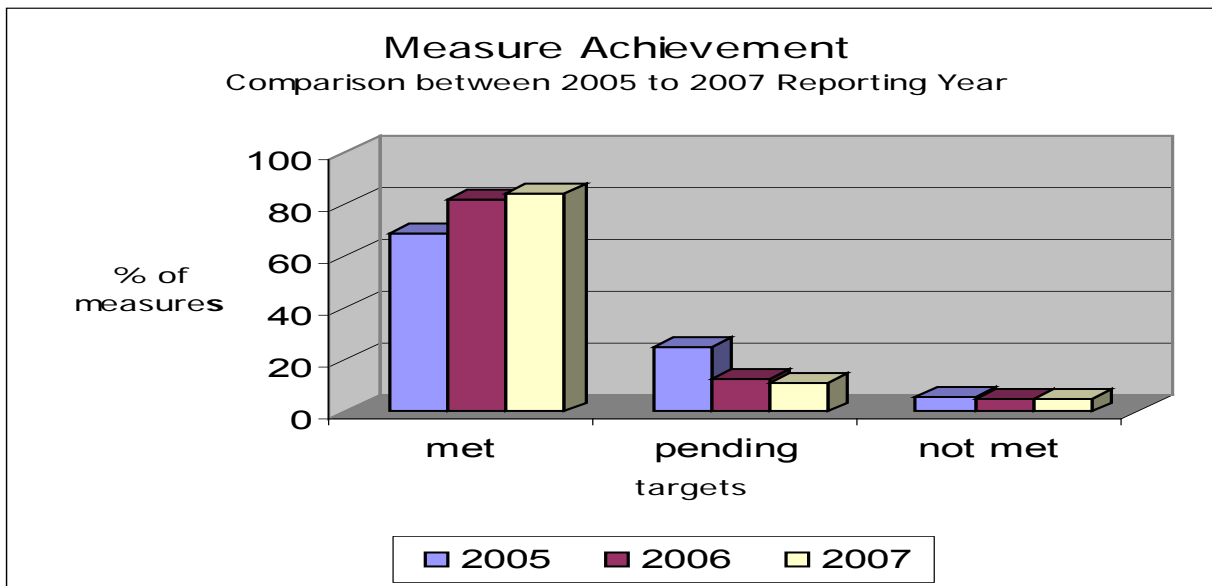
PART 2: Sustainable Forest Management Plans

Previous SFM Management Review Actions:

- See Management Review Actions under Environmental Program section

Performance in Relation to Targets:

SFM Plan	# Indicators	# Objectives Met	# Objectives Pending	# Objectives Not Met
	89	75 (84%)	10 (11%)	4 (5%)



Measure not met	# Indicators	Issue/next steps
1-2.1b	Stand Level Retention	It is recommended that the target statement(s) for this measure be realigned to improve transparency, simplify reporting, and better represent practices currently employed for managing stand level retention (CP balancing). It could be considered to report out on completed cutting permits (i.e. CPs that expire within the reporting period), rather than on an individual block basis by LU/BEC combination.
2-3.2	Compliance with Regeneration Standards	Due to the delays in the submission/approval process a variance of 10% was proposed to address administrative limitations. [70% staff reduction as of August 2008 contributed to delays of survey submissions and any required amendments]. 10% variance was endorsed by the PRISM at the Nov. 6th, 2008 meeting
2-3.3	Compliance with Free Growing	Same as above
4-2.4	Percentage of Dollars Spent	Measure has been deleted and will not be reported on in the 2008 Annual Report;

Measure Pending	# Indicators	Issue/next steps
1-2.1e	Shrub areas	Since the current 2004 baseline is not reflective of the actual shrub component within the THLB, the current target should be adjusted to the appropriate baseline. The need to establish a reliable baseline that will remain consistent over time is crucial in order to identify meaningful changes over time. The target to this measure will be reviewed with the PRISM.
1-2.1f	Hardwood areas	Same as 1-2.1e
1-3.1	Vertebrate species population	Selected indicator species for the Fort Nelson DFA are currently songbirds and woodpeckers based on the report from Isabell Houde, Dec. 2004. The monitoring of those species is underway for the third season and a scientifically sound baseline will be available after March 2010 (2009 Annual Report).
3-2.1	Carbon Pool – Forst Prodcuts	This measure has been removed/dropped at Feb. 7th, 2008 PRISM meeting due to insufficient baseline data and inability of licensee to follow up on the product once it leaves the mill, thus no information on shelf live of products and the use of product could be obtained. This measure will not be reported out in the 2008 annual report.
4-3.2	Personal Income Taxes Paid	Measure 4-3.2 has been removed during the measure revision at the Oct. 25th, 2007 meeting and will not be reported out on in the 2008 Annual Report.
4-5.1	Competitiveness of Delivered Log Costs	Measure 4-5.1 has been replaced with: "Perceptions of Canfor/BCTS and other local manufacturing facilities' senior managers about local events and factors influencing main drivers of competitiveness of Fort Nelson area forest industry". Target: "Rating of satisfactory or higher (report annually)". The data will be obtained from a questionnaire (administered to senior managers of Canfor and BCTS); Considerations for what defines local competitiveness, to include in questionnaire: wood supply, access, labour, market, transportation. The PRISM accepted the change to the measure and target at the Oct. 25th, 2007 meeting. The new measure will be reported out on in the 2008 SFM Annual Report.

Measure Pending	# Indicators	Issue/next steps
5-1.2	Number of Jobs in Non Timber Forest (NTF) sector	Measure 5-1.1 has been identified as a knowledge gap and entered into Canfor's Incident Tracking System. The project is partially completed; a report was developed by Royal Roads University March, 2006: "NTPF indicator development for the Fort Nelson DFA – Phase 1A Prelim. Report; A Forest Investment Account project tender was submitted in July 2008 to continue with the project; The project is scheduled for completion by March 31, 2009.
5-1.3	Income from Jobs in NTF – Sector	Measure 5-1.3 has been removed during measure revision at the Oct. 25th, 2007 PRISM meeting with acceptance of the PAG. This measure will not be reported out on in the 2008 Annual Report.
8-2.3	Satisfaction with Access to Resources for First Nations	The current indicator 8-2 has been revised and this measure was dropped at the Dec. 6th, 2007. The current measure will not be reported out on in the 2008 Annual Report.

- **Action 1 (APN-FN-2009-0524):**
Kristine or SFG rep to issue WIM task to complete another inventory analysis and use this to establish the baseline for measure 1-2.1e and 1-2.1f until next TSR data is available for THLB. Contact Eric Anderson (WIM) to complete analysis by March 31st, 2010.
- **Action 2 (APN-FN- 2009-0525):**
Kristine or SFG rep to establish baseline for measure 1-3.1 when data area compiled from bird monitoring project by March 31st, 2010 .

SFM policy commitments

- **Meeting Legal requirements**
 - SFM Annual Report shows that Free Growing requirements and Regeneration requirements are not always being met (consecutive for 3 years for Free Growing – in spite of action plans put in place during previous management review) ; The trend could improve in respect to SFM performance since the PAG endorsed a 10% variance to the target. However, legally, we are not in compliance with some blocks due to late submission of amendments after the Late Free Growing date. It could be anticipated that the situation becomes worse due to a lack of staffing (delay in submission);

- **Complying with Other requirements**
 - None

- **Achieve and maintain SFM**
 - Maintaining SFM is currently the challenge based on shutdown conditions; long list of action items that were assigned to people that left Fort Nelson; Those action items are tracked and should be revisited prior to starting up operation; many actions are related to updating documents, processes and forms, revising checklists and EOPs etc.

- **Set and review targets**
 - See Environmental Program in Part 1 and 2007 SFMP Annual report

- **Opportunities for other parties to have input into SFM**
 - Through PRISM

- **Promote environmental awareness**
 - Done through training and public advisory process; First Nation involvement PRFN; Carrier fair Chalo school; no additional efforts made to participate in tradeshow or publications in paper due to shutdown and staffing issues

- **Conduct regular audits**
 - Twice annually (one internal and one external) – last KPMG audit (on site) was in June 2008 and internal (off site) was in Dec. 08; next internal audit (off site) is July 15th/09 and next external KPMG audit (on site) is scheduled for Aug. 10th/09.

- **Communicate FMS performance to board of directors, shareholders, employees, customers and other interested parties**
 - FMS Annual Report is posted on Canfor's external website and distributed to PAG members and anyone that is interested. SFG arranges reporting on performance/audit findings to Board of Directors, shareholders, customers through corporate management review; monthly incident reports and posting of KPMG public audit summary reports. SFG meetings;

Public Participation Process:

➤ **Activities conducted to maintain a PAG and summary of the PAG meetings**

Since last management review in June 2008 we had 4 PRISM meetings including one field tour to discuss waste management issues. Due to the indefinite shutdowns of the mills in 2008 PAG activity in form of meetings was reduced. The PRISM TOR was changed to include operating provisions under curtailment conditions: TOR 08: "Meetings will be held at a minimum quarterly, or more often as required, except in situations of indefinite operational shutdowns caused by market conditions or events substantially out of the control of the participants."

So far, we have planned only 2 meetings for 2009 due to shutdowns. The consequence is that the 'momentum' to keep the PAG going might be lost.

BCTS has taken over PAG correspondence and taken on a bigger role in the PAG administration process.

➤ **Specific PAG concerns**

- when does the indefinite closure become a definite shut of the mill?
- Does Canfor block other potential licensees from obtaining the tenure while they are shut down?
- Moving forward with changes to Core indicators and the CSA Z809-08. Do not want a intense process (as per SFMP startup). Do not want to see local measures wiped away. Otherwise on board with moving forward and the coming changes.

➤ **Public Communications**

- Highly reduced due to indefinite shut down; no articles in the paper; SFM has not been specifically discussed during any information sharing processes; three appearances were made by Canfor between Sept 08 and May 09 to PRFN school, Chalo school and GW Carlson school to promote carriers in forestry.

➤ **Changing expectations / requirements of interested parties**

- Have maintained a few core members, have had to develop new members to represent interests

Audit Findings; see Part 1 review of audits

- **Internal**
- **External**
- **Corrective / Preventative Actions**

Changes and Need to Modify SFM:

- Changes in the DFA
 - No changes to the DFA
- Changes to organization/resources/forest operations
 - Indefinite shutdown of OSB and Plywood mill since 2008 – only silviculture activities
 - Staffing will be reduced to 1 person effective Sept 1/09 – question is how do we maintain the SFM Process and continue to meet SFM requirements?
 - Option that BCTS fully runs the SFM process and takes on more responsibility
 - Restructuring of Canfor into FMGs

Challenges:

- SFMP is still in a draft stage and needs to be completed;
- Z809-08 standard (new) will fully come into effect once French version is published (expected to be in the fall); from there on, we have to meet the new standards within a 3 year time frame; some groundwork has been done through a gap analysis between the current draft SFMP and the new standard (P. Carruthers report in Feb. 2009); Some significant work is anticipated to implement the new standard, including the many mandatory discussion items. At the same time, the PAG will lose some momentum due to reduced amount of meetings. Various PAG members were lost since the mills shut down and it might be difficult to convince new members to attend a meeting for an industry that is not fully operating.
- Changes in the SFM Partners
 - no
- Advances in science and technology
 - no

SFM and SFG Group Initiatives:

- Held a SFG workshop with UBC representatives, Fred Bunnell, Ralph Wells, Laurie Kremsater, and consultants, Aaron Deans, Karl Bachmann, Dan Bernier. With SFG group and other Canfor Staff reviewed direction for biodiversity strategy and projects that would work towards managing for biodiversity (biological richness).
- Fall 2008 updated wording for sustainability section of Canfor.com website and forwarded to Corporate to update site.
 - Working with subgroup to have updated sustainability information on Canfor.com soon.
 - Continuing work on the biodiversity strategy and base project list.
 - To develop corporate strategy direction for carbon
 - To continue work on core indicators and new CSAZ809-08
 - Spread the workload for FMS to all operations and their SFG designates

Summary of Management Input: (effectiveness, lessons learned, recommendations to improve)

- Continue to streamline SFM and find efficiencies through SFG
- Continue to show positive trend in the SFM indicators
- Recommendation to identify the absolute minimum that needs to be done to maintain certification in recognition of the fact that we have no resources
- Positive that BCTS has taken on more responsibility in managing the PAG, since Canfor carried the initial work to become certified.

PART 3: Chain of Custody

Previous CoC Management Review Actions

See Part 1 FMS

Audit Findings

➤ Internal

3 Minor NCs (2 pertaining to CoC – Log Purchase Agreement prompts and % of certified wood not always filled in – both actions have been 100% completed; the 3rd one has been assigned to the SFG and has to do with the update of the document owner of the PEFC risk assessment)

➤ External

Changes and Need to Modify CoC method:

➤ Changes to organization/resources

- No harvesting activities – no impact at this time
- OSB mill CoC has not been renewed on last certificate – not certified at this time
- Updated CoC scope and references in FMS manual. Updated CoC EOP to match corporate template and current practices.
- Major non conformance has been identified during corporate audit in May 2009; divisional actions were identified to make changes in their respective EOPs

Action 3 (APN-FN-2009-0526): Kristine or SFG rep to contact SFG chair and get directions what changes need to be done to the divisional EOPs in regards to CoC audit in May 09. Confirm with Diane B. that the changes make sense and ensure they are communicated. Due date Oct. 15th, 2009 to not loose sight of corp. action timelines.

➤ Changes in the suppliers /customers

none

➤ Changing expectations / requirements of interested parties

Customers beginning to ask for lumber stamped or labelled as certified for “green building”.

Assessment of Risk of Procurement From Controversial Sources

- The risk is low due to the highly regulated condition in British Columbia

PEFC Annex 4, Appendix 7, Section 3 Risk Assessment

Summary of Management Input (effectiveness, lessons learned, recommendations to improve)

- Keep the “infrastructure” in place and update SOP’s and other procedures as needed
- Not a lot of pressing need to update documents that relate to harvesting;
- Continue to focus to keep CoC documentation
- Liase with SFG group what the latest direction is in regards to the last CoC audit in May 09



Forest Management System

2009 North Operations MANAGEMENT REVIEW

Review of system requirements for:

- ISO 14001 Environmental Management System
- CSA Z809 Sustainable Forest Management System
- PEFC Chain of Custody

Participants: Peter Baird, Jason Neumeier, Jon Gibbons, Wes Neumeier, Dawn Griffin, Jeremy Srochenski, Don Rosen, Darrell Regimbald

Date: April 13, 2010

PART 1: FMS

Purpose:

For the operation’s management team to stand back from the daily “noise” of the operation, and evaluate trends toward or away from the *Canfor Environment Policy*, the *Forestry Principles*, *Chain of Custody*, SFM commitments, and objectives and targets.

Management Reviews look backward at progress to date, and look forward to anticipate the need for changes to the FMS.

Management Reviews also evaluate the effectiveness of the FMS itself. **Management Review is the "Act"** in the Plan-Do-Check-Act continual improvement cycle, comparing actual results with the original objectives and targets to determine where further improvement is needed.

Previous FMS Management Review Actions:

- > **FS John –**
 - Action – Update 2008-09 Obj & targets with actual # of SLPs created for intimate mixtures (WN) **Completed.**
 - Action – Staff assigned actions in the 2008-09 Obj & targets are to update the progress field with detail regarding actual achievements. (DR) **Complete, staff advised to update target status March 31/09.**
 - Action: by October 1, 2009 complete monthly review of progress in documenting root cause in ITS issues. (DR) **Complete, root cause documentation improved in 2009. Began requesting root cause analysis from contractors.**
 - Action: by June 30/ 2009 provide KPMG copy of 2009 internal audit results regarding compliance review completed by Meredith Spike. (DR) **Completed.**
- >
- > **Chetwynd –** There were no Actions determined in the 2009 Management Review.
- >
- > **Fort Nelson -**
 - Action 3 (APN-FN-2009-0526): Kristine or SFG rep to contact SFG chair and get directions what changes need to be done to the divisional EOPs in regards to CoC audit in May 09. Confirm with Diane B. that the changes make sense and ensure they are communicated. **Incomplete – replace with FMG COC SWP in 2010.**
 - Action 1 (APN-FN-2009-0524): Kristine or SFG rep to issue WIM task to complete another inventory analysis and use this to establish the baseline for measure 1-2.1e and 1-2.1f until next TSR data is available for THLB. Contact Eric Anderson (WIM) to complete analysis by March 31st, 2010. **Completed. In house THLB analysis was completed by WIM.**
 - Action 2 (APN-FN- 2009-0525): Kristine or SFG rep to establish baseline for measure 1-3.1 when data area compiled from bird monitoring project by March 31st, 2010 **Incomplete. 2009 bird monitoring report recommends compilation of trend analyses based on 5 years of sampling data. The FIA budget will be considered in decision to gather another year of monitoring data prior to completing population trend analyses.**
- >
- >

Update on FMS Policy Modifications (If Any)

- Recent:
- The Environmental Policy was updated in October 2009. The signature for Ronald Cliff replaced the old Chairman signature. No other changes were made.
- An ITS Kaizen was conducted on October 15, 2009. Replaced division specific Incident Reporting SOP's/EOP's with a common FMG Incident Reporting SOP. Also revised the ITS data entry instructions and developed a SWP that tied it all together.
- A FMS kaizen was conducted from November 24 to 27, 2009. Intent of the kaizen was to align with the Canfor Operation Systems while trying to standardize processes and procedures at an FMG level. With these goals in mind the following changes were made to the FMS system:
 - Update and streamline the FMS Manual as per the objectives above as well as to align the manual with the FMG organizational structure.
 - Update and standardize operational controls. Included converting SOP's/EOP's and WI's/EI's to SWP format. Developed a new SWP for Internal Forest Management System Audit. Removed duplicate and/or unnecessary SOP's/EOP's and WI's/EI's.
 - Update and align the Roles and Responsibilities Matrix and standardize at a FMG level.
 - Standardized the template for Environmental Aspect Ranking as well as the template for the Objectives, Targets and Environmental Program. Proceeding to regional environmental programs for 2010 and a FMG environmental program for 2011.
 - Moving forward management reviews will be conducted at a regional level (North, South, East, West, and Alberta) for 2010 (2009 review) with a goal to move to a FMG management review for late 2010 (2010 review).
-
- Upcoming:
- There has been a recommendation to update the Forestry Principles. The Forestry Principles would be replaced with a 1 to 2 page document of our forest management commitment that would point to the policies and plans that we have in place.
- Upcoming FMS policy modifications will be centered around continuing to implement the changes initiated above, as well as to identify additional opportunities to standardize and streamline the FMS operational controls.
- Scope the opportunities to conduct the management review at an FMG level moving forward.
- We are also redesigning the FMS website to align it with the FMG structure (Alberta, North, South, East, West, Silviculture, and Planning). Goal is to have this completed by the end of April or early May

Action – develop a package of FMS related info (operation specific SWPs, Fuel mgmt. Std., or safety info not contained in standardized FMG SWPs or EPRP) to be provided to contractors. Conduct training for harvesting contractors, silv contractors. Assigned to Jon Gibbons and Dawn Griffin. Completion target April 30/10.

Summary of Actions and Results from FMS Audits:

FS John – Andrew

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Internal Audit (Feb. 16 2009)

Findings:

- OFI 1 – Weakness in operator awareness of Cantor’s policy & the WI’s pertinent to their work..
- OFI 2 - Fuel Management Guidelines text refers to Appendices which do not exist in the document.
- OFI 3 - The wording in some of the SLP’s reviewed were not consistent with the Snag implementation Procedure & could lead to a non-compliance by specifying a definitive # of sang/cavity sites on a given block rather than achieving the targets on a landscape level.
- OFI 4 - Root cause not identified on 2 of the 7 incidents reviewed (Observation:- a disproportionate # of the incidents reviewed related to contract layout issues.)
- NC 1 (minor) - Root cause of trespass not addressed in action plans on one compliance issue.

Action Plan:

- OFI 1 - Harvesting supervisors to record the results of these knowledge reviews on inspection forms. Knowledge deficiencies should be addressed with an action plan to be entered in GENUS ITS. Darrell Regimbald – April 30, 2009 (Completed March 20, 2009)
 - OFI 2 - Fuel Management Guidelines document will be reviewed and revised to remove references to non existent appendices. Dawn Griffin – April 30, 2009 (completed – April 30, 2009)
 - OFI 3 - Remind forestry supervisors to review SLPs prior to initiation of harvesting pre-work, for consistency with the recommended SLP wording contained in the Snag Indicator Implementation Procedure. Wes Neumeier – April 30, 2009 (completed – March 23, 2009)
 - OFI 4 & NC 1- (1) For the next 6 months conduct monthly spot checks of ITS entries to verify if root cause is being completed by staff. Darrell Regimbald – April 30, 2009 (completed March 20, 2009)
 - (2) Conduct kaizen review of block layout practices and identify controls or procedures to reduce or prevent boundary trespass incidents. Wes Neumeier – April 30, 2009 (completed - March 3-6, 2009)
- Kaizen review of layout practices and procedures completed March 3-6, 2009. Practices and procedures updated to eliminate block layout issues that may lead to trespass incidents.

External Audit (Aug. 18-21 2009)

Findings:

NC-A1(2009)-02 (re: CSA 7.4.6 and 7.5.1) The field audit of Canfor operations determined that overall operational controls and monitoring requirements were effectively implemented to meet SFM and legal requirements. However, the following fuel handling-related nonconformities with TDG requirements were observed on active blocks field reviewed (which were not caught during operational monitoring or inspections):

- A diesel tidy tank with a capacity of >450 L without documented evidence of testing or of current certification status (S01277 and 04035);
- A diesel tidy tank with a capacity of 450 L without a visible 1202 placard and a diesel tidy tank with an estimated capacity of >450 L without a visible 1202 placard, capacity rating or specification (S04033). (Canfor)

OFI-A1(2009)-02 - Contractors utilize both specification and non-specification tidy tanks with capacities in excess of 450 L for delivery of diesel fuel to active operations, both of which have TDG requirements applied to them. Interviews with contractors highlighted weaknesses in awareness on the applicable TDG regulation requirements respecting these tanks (particularly respecting the requirements for annual and 5 year inspections for respectively non-spec and spec tanks greater than 450L and the expiration of grandfathered tanks after January 1, 2010)

OFI-A1(2009)-03 - The wording in Canfor’s 2009 Fuel Management Guideline does not align with TDG requirements, adding confusion for operators wanting to understand the requirements – i.e., it refers to tanks with a capacity of above 450 L and a capacity below 450 L but neglects to refer to tanks exactly 450 L (which do occur). All diesel fuel tanks with 450 L capacity or less are not required to meet TDG regulation as defined in the TDG Act (Canfor).

OFI-A1(2009)-06 - Canfor’s FSJ 2009 Harvesting, Roads and Facilities Operational Controls were determined to be vague with respect to what is considered a “major structure” that would require pre-works and inspections of contractors involved in installation or deactivation operations involving bridges or culverts. Interviews with key staff determined that the operation has always considered temporary bridges on existing roads as minor structures (regardless of size of installation) and has consequently not required implementation of these FMS requirements (This issue was uncovered when assessing the bridge on the 86 Road (over Blueberry River), which was installed in December 2008 and deactivated in March 2009 without pre-works and inspections (although interview evidence indicates that an Engineer certified the bridge and monitored its installation))

Action Plan:

NC-A1(2009)-02 - Corrective action plan: Fuel tanks found to be inadequately labeled and certified will be brought up to standard. Complete and document inspection of all active contractors addressing conformance to Canfor's fuel management guidelines respecting the testing, certification and labeling of diesel fuel tidy tanks. Kevin Shaw (Dec. 30 2009)

Preventive action plan: 2009 Harvesting, Roads, and Facilities Peace (FSJ) Operational Controls document has been updated to directly cover fuel tank certification and labeling in the inspection procedures (sec 3.4). Kevin Shaw (completed September 25, 2009)

An ITS action will be created to have Quota contractors provide a list of all fuel tanks in use specifying: capacity, date of last inspection and spec standard. Action is to be completed Nov. 30, 2009. An ITS action will be created to have Quota contractors provide a list of all fuel tanks in use specifying: capacity, date of last inspection and spec standard. Action is to be completed Nov. 30, 2009. Kevin Shaw

OFI-A1(2009)-02 Corrective action plan: During harvesting prework, fuel management guidelines will be covered in detail. Training/awareness for active contractors will be covered during FMS inspections. Kevin Shaw (prior to initiation of harvest operations)

Preventive action plan: 2009 Harvesting, Roads, and Facilities Peace (FSJ) Operational Controls document has been updated to place more emphasis on labeling and certification aspects of the fuel management guidelines (sec 3.3.4) Kevin Shaw (prior to initiation of harvest operations)

OFI-A1(2009)-03 - Documents will be updated with annual FMS document review, spring 2010. Document to be updated by April 1, 2010. Dawn Griffin/John McCracken (April 1 2010). **Partially complete - one guideline being prepared for FMG.**

OFI-A1(2009)-06 - Update the 2009 Peace Harvesting and Roads Operational Control document to include a project prework requirement for all bridge installations. Jim Schilling (completed September 24, 2009)

➤ Effectiveness of Actions

While the many of the corrective actions seem to have addressed their associated issues effectively, sustainment activities related to some of the actions may not be consistent (eg. Covering fuel mgt guidelines in "detail" during preworks, periodic confirmation of operators' understanding of policy and WI's etc.) and are required to ensure effectiveness.

Chetwynd –

Internal Audit (April 23/24 2009)

Findings:

The findings which were all OFIs were addressed in the CSA/SFM Management Review between Canfor and BCTS in August of 2009.

External Audit (Aug. 7 2009 (off-site); Aug. 10-12 2009 (On-site))

Findings:

OFI A1 – Element 5.4 (iv), (v) and (vi) of the CSA Z809 standard requires that the organization and the public participation process ensure that interested parties have opportunities to work with the organization and interact to: (1) review the SFM plan, (2) design monitoring programs, evaluate results and recommend improvements, and (3) discuss and resolve any issues relevant to SFM on the DFA. In attempting to address this requirement, the co-registrants have developed an SFM plan target in relation to indicator 3.49 (Public Advisory Committee) to establish and maintain a PAC and hold at least one PAC meeting annually. However, the audit found that the last PAC meeting was held in June 2008 and the next meeting is not scheduled until September 2009 (a period of approximately 15 months). While it is debatable (depending on one's definition of what "annually" means) whether this meets the requirements of this target, it is not clear that the current frequency of PAC meetings is sufficient to demonstrate that the public participation process has been sufficiently maintained to meet the intent of this element of the CSA Z809 standard.

Action Plan

Discuss with the PAC the groups expectations around annual meetings and when they are conducted.

➤ Effectiveness of Actions

The PAC were not concerned with the OFI; it was agreed that one meeting within the calendar year was acceptable during the curtailed operations.

Fort Nelson

➤ Internal Audit Findings

OFI 1- Due to the planned reduction in staff it would be beneficial to record all operational issues in ITS so

that these can be followed up on when operation resume in the future.

NC 1 - The Fort Nelson Woodlands operation has not met the intent of the ISO Standard Section 4.4.1 which requires that "Management shall ensure the availability of resources essential to establish, implement, maintain and improve the environmental management system. Resources include human resources ..." The Canfor Environmental Policy commits to complying with or exceeding legal requirements whereas the Management review records that, for late free growing declarations, the legal obligation has not been met for the past 3 years and that the situation is anticipated to become worse due to lack of staffing.

NC 2 - Test drills are not being conducted as per the FMS. Staff interview revealed that no EPRP drills had been conducted or scheduled even though field activities are taking place (Planting & surveys)

Action Plan

OFI 1 – Review finding with Kristine Bock and ensure that she will use ITS as a tracking tool for all operational issues. Complete ITS training with Kristine Bock. **Completed.**

NC 1 - Discuss finding within Silviculture Forest Management Group and inquire for additional help in completing FG declarations. Run a Crystal report on overdue FG declarations, prioritize and develop an action plan on how to deal with the outstanding and upcoming FG declarations. **Completed – Action plan developed and submitted to MFR for 59 blocks past LFG date. North ops based silv staff have assisted with declarations and amendments.**

NC 2 - Discuss EPRP drills during pre-works with contractors and obtain a copy of their drill. Develop appropriate emergency response procedure for remaining staff (1 person) after Sept.1, 2009 and link to FSJ system – test the new emergency response procedure once developed. **Partially complete – local EPRP to be replaced with FMG version.**

➤ External Audit Findings

The ISO 14001 and CSA Z809 standards (elements 4.4.1 and 7.4.1 respectively) require that the organization:

- Define roles, responsibilities, and authorities required to implement and maintain conformance with FMS and SFM requirements and that these be documented and communicate within the organization;
- Provide resources essential to the implementation and control of the FMS and SFM system, and;
- Appoint specific management representative(s) who have defined roles, responsibilities, and authority for: (1) ensuring that the FMS and SFM requirements are established and maintained, and (2) reporting on the SFM requirements to top management for review and as a basis for continual improvement.

However, while there is a Fort Nelson Responsibility Action Matrix assigning specific actions and the Fort Nelson SFM Plan does have a section addressing Structure and Responsibility (Sect. 2.2), there is no documentation to describe how Canfor will fulfill its roles and responsibilities in implementing the Fort Nelson DFA SFM Plan in light of the current staffing levels for Canfor Fort Nelson. (Fort Nelson)

Action Plan

The Fort Nelson Responsibility Matrix is to be updated to identify who is responsible for specific indicators. In the annual report identify indicators that will not be tracked or monitored while the Fort Nelson operations are indefinitely shut down.

Prepare a work activity responsibility transition plan for Canfor Fort Nelson.

Action plan for external audit findings completed - revised RAM, developed a work responsibility transition plan for Kristine. Hiring contractor to assist in SFM annual report development, identify that minimal reporting will occur for indicators impacted by harvest activities.

➤ Effectiveness of Actions

Actions have been effective, however Fort Nelson staffing has been reduced from 3 at the time of the audit to 1 staff member at this time. This may impact our ability to respond timely to any audit findings in 2010. BCTS have agreed to shoulder majority of work, load to manage the PAG and re-write the SFMP.

Communication from external Interested Parties, Including Complaints:

- **FS John**
 - 2 public issues – (one request from a First Nation to collaborate on involving band members in silviculture survey work, and one concern from a local First Nation’s members related to impending plans to harvest S26039)
 - 1 range issue – (grazing licensee not satisfied with level of post-harvest slash disposal on his grazing tenure)
 - 5 trapper issues – (two from same individual concerned about protection of his cabin and trails, two from individuals looking to leverage their trapline license into control of logs or compensation from Canfor for harvesting on their trapline, and one from the Blueberry River FN on behalf of a member who wanted logging stopped in a particular area in anticipation of building a cabin on “their” trapline)
 -
- **Chetwynd –**
 - There were no issues or complaints from external parties since the previous Management Review.
- **Fort Nelson**
 - PAG have inquired when harvest activities will resume
 - First Nations have expressed concern regarding perceived lack of utilization of the decid fibre at Polarboard
 - Local Oil & gas related businesses have requested agreements to take over our roads
-
-

Extent To Which Objectives and Targets (Environmental Program) Have Been Met:

FMG FS John Environment Program

➤ Actual Results vs Targets

There were 7 Targets identified in the 09/10 Environmental Program. 7 of the 7 Targets have been met. 18 of 18 related implementation actions have been confirmed complete.

[..\OBJECTIVES & TARGETS\2009 Aspects Ranking & Objectives and Targets\2009-2010 Objectives & Targets 2009_05_26 Final.xls](#)

Status of Programs

➤ Review / Approve significant environmental aspects (Top 5) **yet to be completed.**

Current significant environmental aspects remain relevant to Fort St. John operations.

Chetwynd – Jeremy S/Don R

There were 4 Targets in the 09/10 Environmental Program. Two of the 4 targets were met. The other two targets are tied to the SFMP Plan and have yet to be determined as there has been no review of the SFM Annual Report as of yet.

Fort Nelson Env. Prog

Actual Results vs Targets

Program developed in 2008 extended to 2009 with slight revisions – focus on roads – culvert maintenance and chemical brushing. 5 targets were identified, 1 target was achieved. 1 of 7 actions was achieved. Reduction in available staff from 3 to 1 contributed to not achieving targets.

Status of Programs

Review / Approve significant environmental aspects (Top 5) yet to be completed. Current significant environmental aspects remain mostly relevant to Fort Nelson operations. Surrender of road permits on mainline roads has reduced liability.

Suggest that one Environmental program for the North Ops region be prepared for 2010-11.

Action – complete the significant aspect ranking and Environmental Program development for North Ops by May 5/10. (planning supervisors and reps from Ops and silv. to complete action)

Summary of Non-Compliances, Non- Conformances and Status of Corrective and Preventative Action:

FS|John

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Three Non Compliance Incidents

- Logging debris not removed from stream crossings prior to final inspection. Contractor instructed to remove debris. Material removed. Not reported to MFR as no actual non – compliance.
- 2 trespass incidents – equipment (skidder, dozer) left road/block and traveled outside authorised area. Required contractor to submit root cause investigation. Inspected both incidents with MFR – no damage found. No compliance penalty action taken by MFR.

Six Non Conformance Incidents

- *Trespass* - 2 trespass incidents – buncher crossed common boundary of 2 adjacent blocks, minor harvest in adjacent authorised bk. Buncher cutting road R/W began cutting wrong road R/W. Road was authorized. Required contractor to submit root cause investigation. Road R/w issued reported to MFR, Incident investigation conducted with MFR, to date no penalty action.
- *Suspected fuel spill* in harvested block, internal investigation confirmed that spill was caused by seismic activity post logging completion. Incident reported to us by local FN member.
- *Herbicide overspray* - 10 blocks from 2008 herbicide program with overspray outside planned treatment area. Increased level of review of herbicide layout with 2009 program. Discussed incidents with layout contractors and spay application contractor. Investigated in field by Canfor staff. Reported to MOE, no penalty action taken.
- *Burning crew burnt another contractors debris piles* – incident occurred along a road extending from authorized block to adjacent block worked by a different contractor. Contractor investigated incident – no prework was completed, crew did not have a map. Reported to MFR, no investigation ensued (not a compliance issue).
- MSQ compilation errors – strata areas noted incorrect for 2 blocks, issue brought to our attention by MFR while reviewing 2008 AR. Developed SWP for MSQ compilation.
- **Lessons learned / Effectiveness of actions in preventing further occurrences**
- Trends noted – of 9 incidents in 2009 4 are trespass. However this is an improvement from 2008 when there were 9 incidents of harvesting contrary to plan. Revised layout procedures have reduced incidents of harvesting contrary to plan. Trend of herbicide application contrary to plan noted in 2007 herbicide program continued with 2008 program. Hired a more experienced implementation contractor for 2009 program.

Action – Ops staff to confirm the categorization fo the 3 trespass incidents as either non conformance or non compliances. May1/2010.

Chetwynd – Jeremy S/Don R

- Lessons learned: Review Incidents **ITS-Chet-2009-0015**, and **ITS-Chet-2009-0016**
- Effectiveness of actions in preventing further occurrences:

Fort Nelson - Darrell

- 2 Non compliance incidents – failure to achieve free growing requirements on 1 block and failure to achieve regen delay requirements on a small number of blocks. Action plans developed to deal with these issues.

Action – Dawn to confrim with Jason and Carl V. a plan for the ITS capture and categorization of the regen delay and FG non compliances in Fort Nelson – if one incident is recorded for multiple blocks ensure that the significance assigned is appropriate. Ensure an action plan is developed for each incidence of non compliance (i.e. an action plan is developed for each block in non compliance). May30/2010

- **Lessons learned / Effectiveness of actions in preventing further occurrences**
- Delay in implementation of reforestation activity in boreal forest types results in increased brushing requirements. FMG reorganization has resulted in North Ops based silv staff providing assistance to FN based silv staff member to deal with the backlog of regen delay and free growing acievement failures.
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-

Changing Circumstances Related to Environmental Aspects:

FMG North Environment Program – Andrew / Reg, Jeremy S/ Don R

- Legal

Recent amendment to FSJPPWG allowing extension of SFMP. Drafting of new SFMP. Canada Warbler and Olive Sided Flycatcher added to Species at Risk Act Sched. 1.

- Other requirements

Revision of Mixedwood Mgt Strategy as per recent kaizen involving Canfor and BCTS. Revision included in draft SFMP.

- Changes in operations

No funding for Mountain Pine Beetle related suppression activities. General acceptance by government that MPB will run its course. No reliable information on rate of spread, or extent of spread, in 2009.

Resumption of operations in Chetwynd.

- Advances in science and technology

Additional work done by Dr. Bunnell and team to forward Biodiversity Conservation framework that is basis of new Canfor Biodiversity Strategy (related to *Habitat for species at risk and rare ecosystems* and *Stand Level Habitat Elements*) . Initiation of PEM work.

-

Summary of Management Input: (effectiveness, lessons learned, recommendations to improve)

- Focus on trying to learn from other experienjces in FMG around consolidating and standardizing programs such the Environmental Program.
- Focus on recognizing gaps in SFMPs and FMS in Fort Nelson as soon as possible.
- Provide instruction to staff regarding categorization of non conformance vs. non compliance issues.
-

PART 2: Sustainable Forest Management Plans

Previous SFM Management Review Actions:

- **FS John** – There were no Actions from the previous Management Review
- **Chetwynd** – There were no Actions from the previous Management Review
- **Fort Nelson** - see Section 1.
-
-

Performance in Relation to Targets: 2008 SFM annual Reports

SFM Plan	# Indicators	# Objectives Met	# Objectives Pending	# Objectives Not Met
FS John	61	61	0	0
Chetwynd	54	?	?	?
Fort Nelson	61	50	7	4

- Annual Report: VOIT's, and performance relation to targets
- Knowledge gaps – none in FSJohn. Description of NTFP utilized in FNelson is outstanding.
- Procedures and BMPs – Procedures regarding management for Species at risk will be reviewed in FSJohn for alignment with Canfor strategy for biodiversity conservation.
- Progress towards selected forecast scenario – Reduced harvesting has resulted in reduced level of accomplishment of economic targets in SFMPs across the North Ops area. However when considering the extended time frames on which forest planning is conducted, this should be viewed as a minor incident of short duration.

SFM policy commitments -

- Meeting Legal requirements – Non Compliance issues to forestry legislation noted.
- Complying with Other requirements - No issues of non compliance noted.
- Achieve and maintain SFM – 2008 Annual report completed, rolled out and endorsed by PAG. Will begin work on 2009 annual reports in May.
- Set and review targets – The SFMP re-write in FtSt John has reviewed the targets. Fnelson SFMP is being re-written. Will begin movement to rewrite Chetwynd SFMP to align with canfor common indicators. This will require review of targets with local PAGs and significant effort by local planning supervisors.
- Opportunities for other parties to have input into SFM – First Nations and public invited to attend PAG meetings. Fns and public afforded opportunity to comment on FSJ SFMP. Comments received will be noted in PAG meeting summaries and in COPI.
- Promote environmental awareness – as noted above, and by way of PAG field trips, participation in local trade shows.
- Conduct regular audits
 - Internal Audits have been scheuled for 2010.
 - Fort St John – May 5-7 Document review by Phil Carruthers
 - Fort Nelson – May 12-13 Document review by Meredith Spike
 - Chetwynd – June 15-17 Document and Field review by Meredith Spike
 - External Audits will be conducted by KPMG for the North operations between July 19-30, 2010.
- Communicate FMS performance to board of directors, shareholders, employees, customers and other interested parties
 - FMS performance results are communicated to the board of directors and ultimately shareholders via the CEMC. Other interested parties can aquire reports on the internet via the Canfor.com website. The FSJPP participants maintain a website where copies of audit reports, PAG meeting summaries, the SFMP and other documents are available to the public.

Public Participation Process:

FS|John – Andrew

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- Lessons learned
 - Maintain PAG facilitation continuity when possible.
- Activities conducted to maintain a PAG and summary of the PAG meetings
 - A total of seven PAG meetings were conducted between May 28 2009 and Feb 1 2010. The primary focus of most of the meetings was the development of a replacement SFMP for the Pilot Project area. One meeting focused on the Annual Report.
- Specific PAG concerns
 - As captured in PAG meeting minutes. Related to wording or approaches proposed during the revision of the SFMP. Generally speaking the PAG runs very well and is constructive.
- Public Communications
 - Several interested members of the public showed up at PAG meetings. One notable individual read the entire draft SFM Plan and provided the participants with written comments.
- Changing expectations / requirements of interested parties
 - Several new PAG members were confirmed during the mgt review period. One representing West Moberly First Nation, one representing Halfway River First Nation, and one representing the Energy sector (newly created representative category). Two long-standing PAG members have stepped down. The dynamic of the PAG will likely change. Necessity for strong facilitation and Pilot Participant continuity to manage this change.

Chetwynd – Jeremy S/Don R

- Lessons learned: at Sept PAC meeting the external OFI was addressed, PAC group satisfied that Canfor conducts their annual meeting based on a calendar year and not a 12 month period
- Activities conducted to maintain a PAG and summary of the PAG meetings: June PAC meeting
- Specific PAG concerns: restarting of operations and getting people back to work
- Public Communications: ads will be posted in paper prior to the meeting
- Changing expectations / requirements of interested parties: NA

Fort Nelson - Darrell

- Lessons learned
 - - Difficult to maintain continuity with PAG and keep PAG interest up with no harvest and milling operation and with loss of staff familiar to PAG.
- Activities conducted to maintain a PAG and summary of the PAG meetings
 - - A total of 2 PAG meetings held in 2009. Meeting summaries prepared by BCTS with Canfor staff input. Meetings dealt with procedural items such as review and revision of TOR, Annual Report, description of changes to CSA standard and identification of intent to begin process to revise FNelson SFMP in 2010.
- Specific PAG concerns
 - - Lack of economic benefit to local community from indefinite shutdown. Lack of opportunity to mill fibre harvested by O&G activity.
- Public Communications
 - none other than with the PAG.
- Changing expectations / requirements of interested parties
 - change to the PAG membership includes new member Doug Tofte
 - PAG has expressed strong desire to be kept informed of the status of the Fort Nelson mills and the opportunity to resume their operation

Audit Findings;

FS|John – Andrew

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Internal Audit ((Feb. 16 2009)

Reviewed during management review conducted May 26, 2009.

External Audit (Aug. 18-21 2009)Findings:

OFI-A1(2009)-01 - An opportunity exists to establish a more timely and robust process for periodically reviewing species and ecological communities at risk lists and adding the applicable ones (i.e., those potentially present and impacted by forestry operations) to the participants' planning and training processes.

OFI-A1(2009)-04 - The 2007 SFMP CSA annual report relating to Indicator 34 (Peak Flow Index) inaccurately states that no new harvesting occurred in the Charlie Lake watershed, however harvesting on one block in the watershed commencing prior to this period ran into the 07-08 period covered by this annual report (BCTS, TSL A63404, which was completed in February 2008).

OFI-A1(2009)-05 - ...However, the 2008 CSA public summary audit report has not yet been posted on the Canfor (or BCTS) public website and the 2007 and 2008 CSA public summary reports have not yet been posted on the FSJPP website.

Corrective / Preventative Actions:

OFI-A1(2009)-01 - As part of the development of the 2010-2016 SFMP, conduct reviews of (i) species and plant communities "at risk" in Fort St. John TSA to ensure most current information is incorporated in SFMP and supporting management guidelines.

2. Review and revise Stand Level Management Guidelines for Selected Forest-Dwelling Species at Risk in the Fort St. John Timber Supply Area as required to incorporate most up-to-date information available.

Include annual review process in Implementation and Monitoring section for Species At Risk indicator in 2010-2016 SFMP (eg. Could have as part of Annual Reporting function) Andrew Tyrrell (April 1 2010)

OFI-A1(2009)-04 – Include a note in the 2008 SFMP CSA Annual report write-up for Indicator 34 (Peak Flow Index) that harvesting occurred in the Charlie Lake watershed in the 07–08 reporting period Darrell Regimbald (completed Sept. 24 2009)

OFI-A1(2009)-05 - Post the 2008 CSA public summary audit report to the Canfor public website by November 1, 2009.

Post the 2007 and 2008 CSA public summary to the FSJPP website by November 1, 2009. Darrell Regimbald (completed Sept. 23 2009)

Chetwynd – Jeremy S/Don R

- Internal: OFIs addressed at previous Management Review

- **External Audit (Aug. 7 2009 (off-site); Aug. 10-12 2009 (On-site))**

Findings:

OFI A1 – Element 5.4 (iv), (v) and (vi) of the CSA Z809 standard requires that the organization and the public participation process ensure that interested parties have opportunities to work with the organization and interact to: (1) review the SFM plan, (2) design monitoring programs, evaluate results and recommend improvements, and (3) discuss and resolve any issues relevant to SFM on the DFA. In attempting to address this requirement, the co-registrants have developed an SFM plan target in relation to indicator 3.49 (Public Advisory Committee) to establish and maintain a PAC and hold at least one PAC meeting annually. However, the audit found that the last PAC meeting was held in June 2008 and the next meeting is not scheduled until September 2009 (a period of approximately 15 months). While it is debatable (depending on one's definition of what "annually" means) whether this meets the requirements of this target, it is not clear that the current frequency of PAC meetings is sufficient to demonstrate that the public participation process has been sufficiently maintained to meet the intent of this element of the CSA Z809 standard.

Corrective / Preventative Actions:

Discuss with the PAC the groups expectations around annual meetings and when they are conducted.

Fort Nelson - see Section 1 for discussion of audit results.

- Internal
- External
- Corrective / Preventative Actions

Changes and Need to Modify SFM:

FS|John – Andrew

- Changes in the DFA
 - New SARA Schedule 1 species list (2010-03-17), with organisms present in DFA. Review and document how this will be addressed.
- Changes to organization/resources/forest operations
 - New SFMP (2010-2016). Communication with staff re: implementation, key changes, etc.
 - Move to Canfor common indicators in near future.
- Changes in the SFM Partners
 - None requiring changes to SFMP
- Advances in science and technology
 - VRI phase I complete for DFA
 - PEM project initiated

Chetwynd – Jeremy S/Don R

- Changes in the DFA: NA
- Changes to organization/resources/forest operations
 - Move to Canfor common indicators in near future.
 - Development of 2011 SFMP
- Changes in the SFM Partners
 - None requiring changes to SFMP
- Advances in science and technology: NA

Fort Nelson - Darrell

- Changes in the DFA
 - New SARA Schedule 1 species list (2010-03-17), with organisms present in DFA. Review and document how this will be addressed.
- Changes to organization/resources/forest operations
 - No additional changes expected. If decision to resume harvesting in Fort Nelson is made sufficient staffing resources will need to be supplied. Anticipate the need to complete planning for 1 years worth of harvest prior to resumption of harvest operations.
- Changes in the SFM Partners
 - None occurred, none anticipated
- Advances in science and technology
 - VRI phase 1 incomplete.

SFM and SFG Group Initiatives:

- Recent:
 - Held a SFM kaizen January 25-29, 2010. The goal was to standardize the structure and content of the SFMP's when re-writing the plans to improve manageability and reduce costs. A list of Canfor common indicators was developed that will meet the CSA Z809-08 standard. There was no consensus on the Biodiversity indicators (see below). Developed a time line for SFM plan re-writes. The target is to be completed by the end of the first quarter 2011.
 - Biodiversity Strategy kaizen was held March 17-19, 2010. Implement the move to the Canfor Biodiversity Strategy and focus FIA funding on the transition. Finalized the Canfor common biodiversity indicators.
- Upcoming:
 - SFM plan transition and re-writes to comply with the CSA 08 standards.
 - Updating the Forestry Principles document.

Summary of Management Input: (effectiveness, lessons learned, recommendations to improve)

- Opportunity to standardize process and timing of preparation of SFMP annual reports.
- Provide list of revised SFMP indicators and associated practices to staff that need to be implemented in order to prevent having to amend ourselves back into compliance.
- Evaluate opportunities to combine SFMPs and TFL management plans (consider all TFLs) considering changes to TFL Management regulation and Forest Act, where possible.
- Minimise plan revisions not associated with moving to the biodiversity management strategy and the new CSA SFM std.
- .
- .

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PART 3: Chain of Custody

Previous CoC Management Review Actions

- **FS John** – no actions identified in the 2009 Management review of 2008 activities.
-
- **Chetwynd** - There were no Actions from the previous Internal audit.
-
- **Fort Nelson** - Action 3 (APN-FN-2009-0526): Kristine or SFG rep to contact SFG chair and get directions what changes need to be done to the divisional EOPs in regards to CoC audit in May 09. Confirm with Diane B. that the changes make sense and ensure they are communicated. Due date Oct. 15th, 2009 to not loose sight of corp. action timelines.
Incomplete – local CoC EOP has not been updated. Recommend that North Ops EOPs be consolidated as much as possible. Confirmed that Canfor will be developing one CoC SWP for use by all of FMG.
-
-

Audit Findings

FS John

- Internal
 - An internal audit of CoC was not conducted in 2009. This has been identified as a requirement for the 2010 internal audit.
- External
 - The external audit did not identify any findings specific to FS John. External audit preliminary results indicated that a review and revision of COC SOP specific to record keeping in the event we begin branding our products might be required. This did not become an audit finding. We do not brand our sawmill products as certified.

Chetwynd

- Internal – no findings in the internal audit.
- External – no Chetwynd specific findings in the external audit.

Fort Nelson

- Internal
 - The internal audit did not disclose any findings.
- External
 - The external audit did not identify any findings specific to Fort Nelson
-

Insert list of audit findings relative to each area

Changes and Need to Modify CoC method:

FS|John

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- Changes to organization/resources
 - Purchase agreements have been modified to note the proportion of certified fibre within the purchase.
- Changes in the suppliers /customers
 - None in 2009, none expected in 2010
- Changing expectations / requirements of interested parties
 - None in 2009, none expected in 2010. Public and FNs desire that we utilize as much O&G sourced fibre as possible.
 - SFI certification acquired for purchase wood delivered to PVOSB in December 2008, PVOSB certification is under LPs SFI registration. To date PVOSB's SFI certification has not revealed any need to revise Canfor's COC procedures.

Chetwynd

- Changes to organization/resources
 - No purchase made in 2009
- Changes in the suppliers /customers
 -
- Changing expectations / requirements of interested parties

Fort Nelson

- Changes to organization/resources
 - No purchase made in 2009, none anticipated in 2010
- Changes in the suppliers /customers
 - No purchases expected to be made in 2010
- Changing expectations / requirements of interested parties
 - None in 2009, none expected in 2010. Public and FNs desire that we utilize as much O&G sourced fibre as possible and that we utilize as much of the stock plied fibre at Polarboard as possible.

Insert list of changes relative to each area

Assessment of Risk of Procurement From Controversial Sources

- The risk is low due to the highly regulated condition in British Columbia
-

Summary of Management Input (effectiveness, lessons learned, recommendations to improve)

- Complete a check of the FMG CoC SWP to ensure it is applicable/appropriate for the North Ops mills.
-

**BCTS Fort Nelson
2009 SFMP Annual Management Review Meeting Agenda
June 10 and June 26, 2009**

Business Area: Peace-Liard
Location of Meeting: Fort Nelson, BC
Date of meeting: June 10, 2009 and June 26, 2009

Attendees
Timber Sales Manager: Brian Wesleyson
Operations Manager: Shawn Sullivan
Area Forester: Jason Smith
Practices Forester: Stephanie Smith
Forest Technician: Michelle Edwards

Meeting Objectives:
<ul style="list-style-type: none"> • To review the materials provided for the 2009 Annual Management Review of the Environmental Management System and 2008-2009 Draft Sustainable Forest Management Plan; • To review recommendations brought forward to the Annual Management Review; and • To identify and assign responsibility and timelines for taking corrective actions and implementing continual improvement initiatives.

Discussion Topics:

Topic Discussed: Environmental Aspects <ul style="list-style-type: none"> • Consider suitability of existing aspects evaluation in light of: <ol style="list-style-type: none"> a. New CSA Standard b. Updates from PAG
Recommendations: <ul style="list-style-type: none"> • Environmental aspects acceptable as laid out in the draft SFM
Discussion/Decisions: <ul style="list-style-type: none"> • Reviewed current environmental aspects. The SFM is still in Draft mode, but the environmental aspects are still adequate (some changes made for grammar and spelling). • See Appendix 1 for a summary of questions and clarifications from the review of the 2008 2009 draft SFMP

Topic Discussed: Objectives and Targets <ul style="list-style-type: none"> • Consider suitability of current measures and targets in light of: <ol style="list-style-type: none"> a. New CSA standard
Recommendations: <ul style="list-style-type: none"> • Proceed with planned changes and no further revisions required until at least 12 months of performance data is obtained. As the SFM plan was jointly prepared BCTS is satisfied that the values and measures identified in the SFM plan can be achieved. • Plan was reviewed by Brenda Hopkins and Brad Mitchell (Canfor CSA consultants) to ensure all objectives and measure still meet the new CSA standard. We currently believe that this is the case. • Summary of changes to the draft plan should be passed on to Canfor for review and comment. As the plan is joint no changes can be made directly to the draft plan without consultation with both participants.

Discussion/Decisions:

- Every Objective and measure was reviewed by the panel for the purposes of this review. As the objectives and measures were deemed to meet the certification standard no changes were made to the draft plan.

Topic Discussed: **Monitoring and Measurement Results:**

- The 2007 draft annual report reviewed in detail

Recommendations:

- Small changes suggested to the body of the report, mostly grammatical and spelling changes.

Discussion/Decisions:

- 2007 annual report to be completed and sent for posting on BCTS website by July 31, 2009

Topic Discussed: **Non-Conformance and Corrective Actions**

- Present a summary of the SFMP-related incidents reported to date (if any):
 - a. trends in issues or activities associated with incidents;
 - b. common root causes of incidents;

Recommendations:

- If incidents have occurred, recommend changes to the SFMP to prevent re-occurrences.
- Monitor any non conformance trends over the next year.

Discussion/Decisions

- No non conformities noted for correction

It was the finding of this management review that the Ft Nelson DFA's SFM system is in full conformance with the requirements of the CSA Z809 requirements included within the scope of the audit, continues to be effectively implemented, and is sufficient to systematically meet the commitments included within the Company's SFM policy, provided that the system continues to be implemented and maintained as required.

Signature:

Brian Wesleyson
TSM Peace-Liard

APPENDIX 1: Questions and clarifications from Draft SFMP

- Page 8 Was Prophet River First Nation involved in the SFM Plan?
Prophet River was involved and they are referred to as the Tse K'nai First Nation
- Page 38 Why is BWBSmw2 highlighted in table 14?
BWBSmk2 is the most common ecotype for forestry operations
- Page 50 Is table 19 the same as our FSP riparian management zones?
This table is from the Riparian Management Guidebook and is standard through the industry.
- Page 54 Do we have the 2006 CWD report?
It is located here: \\Plank\s63034\BCTS\04 Fort Nelson FT\Certification\SFMP\reports
- Page 55 Do we have the 2004 Biodiversity measures report by Houde (2004) in indicator 1-3?
*Email request made to Kristine Bock at Canfor June 30, 2009. Follow up by July 31, 2009 – Jason Smith
COMPLETE*
- Page 69 Is the Inventory Type Group 0 a typo/
*Email request made to Mary Vizslai-Beale and Gary Fetterly at MoFR June 30, 2009. Follow up by July 3, 2009 Jason Smith
COMPLETE – class 0 is leading species unclassified*
- Page 76 Update current condition under Measure 2-3.1 to reflect BCTS regen delays on deciduous blocks
Completed
- Page 79 Update current condition under measure 2-3.3 to reflect BCTS Free Growing Data
*Data to be added by July 31, 2009 Stephanie Smith
COMPLETE*
- Page 86 Update Forecasting and Probable Trends of measure 3-1.1 to reflect the addition of Canadian Forest Service carbon budget model data.
*To be discussed with Darrell Regimbald at Canfor before July 31, 2009. Jason Smith
COMPLETE:REFERENCE TO CFS WILL BE REMOVED*
- Page 96 Add table 30 or remove reference to it.
*I recommend that we remove reference to this table as the value will vary so much annually – To be discussed with Darrell regimbald before July 31, 2009. Jason Smith
COMPLETE – WILL BE REMOVED*
- Page 99 Drop Measure 4-4.2
Discuss with the PAG at the October meeting – Jason Smith
- Page 100
Develop the questionnaire for measure 4-5.1
*Work with Canfor personnel to develop this – Discuss with Darrell Regimbald before July 31, 2009 Jason Smith
COMPLETE*
- Page 103
Find out if the report for this measure is supposed to be July 2006 or 2009 for measure 5-1.2?
*Ask Darrell Regimbald about this before July 31, 2009 Jason Smith
COMPLETE - 2009*
- Page 105

Where is the summary that goes under “How are targets established” for measure 6-1.1
Ask Darrell Regimbald about this before July 31, 2009 Jason Smith
TBD

Page 107

Discuss with Darrell the possibility of buying the Census Canada data for measure 6-1.2
Ask Darrell Regimbald about this before July 31, 2009 Jason Smith
COMPLETE – Not Feasible

Page 110

Delete Ministry of Sustainable Resources and Ministry of Water, Land and Air Protection from
Current Condition of measure 7-1.1
Ask Darrell Regimbald about this before July 31, 2009 Jason Smith
COMPLETE – TO BE REMOVED

Page 116

Contact Geoff Moyse about the use of the term “title” as pertains to aboriginal rights for measure
8-1.1
Contact Geoff Moyse by July 31, 2009 Jason Smith
COMPLETE – DO NOT DISCUSS TITLE AS IF TREATY IN PLACE

Page 120

1. Does the FSP articulate strategies for dealing with culturally sensitive areas/features for
measure 8-3.1
2. Do FSP’s articulate when AIA’s will be required for measure 8-3.1
1. The FSP does articulate the strategies for dealing with these sites and areas
2. The FSP does not deal with when AIA’s will be conducted. Therefore, Ask Darrell Regimbald
about this working before July 31, 2009. Jason Smith
COMPLETE

Page 123

Does the ILMB maintain the data for the VQO’s for measure 9-2.1
Email confirmation has been sought for this. Confirm with Bob or Mark by July 31, 2009 Jason
Smith
COMPLETE - YES

Page 126

What does VAC stand for for measure 9-2.1
VAC stands for Visual Absorption capability. Discuss adding the term in the SFMP with Darrell
Regimbald by July 31, 2009. Jason Smith
COMPLETE _ ADDED

Page 131

Add date for BCTS SAFE Company registration for measure 9-4.1
080818 passed external audit to become certified.
COMPLETE

Page 131

Confirm the wording of Measure 9-4.2 with updated matrix
Wording confirmed

Page 132

Add BCTS data to measure 9-4.2
BCTS data is contained within the Canfor spreadsheets as we have an agreement in place as part
of our road use of Canfor roads that we will report and accidents or incidents on Canfor roads.
COMPLETE

Page 152

Find my data for section 7.2 regarding operating plans and schedules

Data submitted to Canfor contractor Brad Mitchell on March 6, 2009. Email request in to Bob Phipps to create a FSP Summary for the Report. Jason Smith to follow up by July 31, 2009

COMPLETE – ADDED

Appendix 2 Questions and Clarifications from the 2007 Annual Report

Page 17 Check table 5 with the numbers on Canfor's report

Complete by July 31, 2009, Stephanie Smith

Page 51 Clarify the date on report for measure 5-1.2

Will be dealt with in appendix 1 questions

Page 76 Check the format of Measure 8-4.3 against the original plan

Measure format matches the original plan

COMPLETE – Matches format

APPENDIX 3: Documents Reviewed

Management Review copy of the SFMP Draft:

\\Plank\s63034\BCTS\04 Fort Nelson FT\Certification\SFMP\SFM Plan\2009 Draft

2007 Annual Report

\\Plank\s63034\BCTS\04 Fort Nelson FT\Certification\Annual Reports\Annual reports\2007 annual report

100914 Management Review of the Fort Nelson 2008 SFMP Annual Report

Mandatory Discussion

A) Public Participation Process

- Discussed meeting from the 2008 reporting year
- Defined the reporting period April 1 2008 to March 31, 2009

B) 2008 Performance

- Reviewed Table 1 – Summary of BCTS 2008 measures
- 1-1.1 Clarified that BCTS has strategies for maintaining red and blue listed ecosystem communities
- 1-2.1 Clarified that non-BCTS activities may affect hardwood areas across the CFLB
- 1-5 Corrected discussion to reflect water values and deleted carry over from 1-4
- 1-5.1 Explained that the WQCR analysis was completed for the Klua Bridge, but was completed late, so the measure is missed
- 2-1.1 Clarified that this measure was pending due to the fact we are missing data on how site index was calculated on Free Growing blocks reported in 2008 and as such we could not speak to this measure in a meaningful way
- 2-3.1 Explained the variances for this measure
- 2-3.3 discussed the late free growing date reporting and new process created to avoid missing reporting in results
- 3-1 discussed the potential results of BCTS non-harvest. Deemed unlikely to affect Carbon storage, given the estimated 1.75 MT of carbon in the DFA.
- 4-1.1 Discussed the non-harvest issue surrounding the measure. Noted that as we harvested no volume we were in no way close to being within the variance for this measure
- 4-2.1 Added the number of contracts (2) to the discussion section
- 4-3.1 Added “sold” to the discussion
- 4-4.1 discussed the person who won the contract and which first nation the person belonged too
- 4-5.1 Discussed that we called this measure not met where Canfor called it met, based on the date the management survey was created and sent out to management.
- 5-1.1 Discussed that we have found no evidence of NTFP in the DFA to date
- 7-1.1 Discussed that our stakeholder database was not updated and that it will need to be.
 - ◆ **ACTION 1 BCTS to complete Stake Holder Analysis by December 17th.**
- 7-1.2 Discussed why this measure was not met and why
- 8.1.1 Corrected advertisement to auction and discussed the meeting of the target.
- 8-2.1 Confirmed that we have an SOP for culturally important sites
- 8-3.1 Confirmed that all the blocks advertised had consultation completed

- 8-3.2 Confirmed that the blocks with AIA's were the ones in the Zus Creek area.
 - 9.4 Explained that the measures were listed as pending due to the difficulty in getting data from WorkSafeBC and then differentiating it for our area.
 - Appendix 1
 - ◆ Table 2 discussed the addition on the table and how it was derived
 - ◆ Table 3 Discussed the meaning of the charts and table
 - ◆ Table 5 Clarified that the "Other" designation was for lands not classified as having a leading forest class
 - ◆ Table 7/8 Discussed the activities that took place on the blocks within these tables
 - ◆ Table 9 clarified the Free Growing dates within the table
 - ◆ Table 11 Discussed the action plans for the forest health pests in the table
 - Appendix 4
 - ◆ Discussed who will hold the community forest agreement (CFA) when and if it is issued
 - ◆ Reviewed the PAG survey results
 - ◆ Reviewed the Summary of the changes table
- C) Audit findings
- Discussed that the 2010 surveillance audit found that the lateness of the annual reports had become a minor non-conformance. An action plan has been completed.
- D) Corrective and Preventative Measures
- The need for BCTS to develop in house expertise to complete the analysis required for completing the annual report was identified as requiring action.
 - ◆ **ACTION 2 Area forester to confirm with the PAG if we can use the new 2010 plan for the 2010 reporting period to gauge the need for analysis knowledge exchange with Canfor. Due September 16th.**
- E) SFMP Policy Updated July 1st, 2010, so no need for changes was identified
- F) No impacts from legislation were noted for this reporting period
- G) No changing expectations, requirements or responsibilities of interested parties were identified for this reporting period
- H) No forest operations or activities took place in this reporting period
- I) No changes in the organization or resource requirements or availability took place in this reporting period
- J) No advances in science or technology pertinent to the SFM plan took place during this reporting period
- K) Timeliness was noted as a lesson learned during this reporting period. Specifically prioritization of workload around the 2008 annual report and the creation of the silviculture declaration SOP to avoid missed reporting dates.
- L) No changes to the DFA were noted during this reporting period

Management review completed, September 13, 2010.