



# Mackenzie SFMP



## Mackenzie Sustainable Forest Management Plan

### Facilitator Report

March 31, 2016



## Mackenzie SFMP



# Mackenzie Sustainable Forest Management Plan

## Public Advisory Group

Facilitator Report  
2015-2016

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101-2666 Queensway,  
Prince George, BC,  
V2L 1N2

March 31, 2016

Jeremy Beal, RPF  
Planning Forester  
Canadian Forest Products Ltd.  
Admin Building – Mill Road  
Box 310  
Mackenzie, BC  
V0J 2C0

Dear Jeremy,

Here is the 2015/2016 Facilitator's Report for the "Fort St James SFM Plan Public Advisory Group."

This report contains the following:

1. Terms of Reference for the PAG
2. PAG Meetings (schedule of meetings, agendas, sign-in sheets, minutes)
3. Evaluations (sample of evaluation forms, feedback chart, feedback comments)
4. Mailing list and attendance list
5. Public Correspondence
6. First Nations Correspondence
7. CII Matrix and SFM Indicator Matrix
8. Annual Report
9. Audit Reports
10. Meeting Handouts

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Wiensczyk". The signature is fluid and cursive, with a large loop at the end.

Alan Wiensczyk, RPF  
Trout Creek Collaborative Solutions

**Alan Wiensczyk, RPF**  
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# Mackenzie SFMP



## Mackenzie Sustainable Forest Management Plan

Public Advisory Group

Terms Of Reference

March 19, 2014

## Background

### 1.1 Purpose of a Sustainable Forest Management Plan

As society has been increasingly affirming a wider set of values that forests can provide, the forest industry has witnessed a distinct change in the philosophy of forest management. Though timber may still be the primary economic value from the forests, a wider range of economic, environmental and social values is being demanded.

Forest management now involves the sustainable management of a much larger spectrum of values and at the same time ensuring that the benefits we enjoy from the forests today do not impact on the ability of subsequent generations to enjoy benefits from the forests in the future. This concept is commonly referred to as "Sustainable Forest Management" (SFM). Sustainable Forest Management (SFM) refers to being economically sustainable on public land, respecting the social needs of the public, and sustaining viable ecosystems. The objective of SFM is to concurrently balance the sustainability of forestry-related ecological, social and economic values for a defined area.

SFM has gained acceptance at the international, national, and local levels. Furthermore, SFM has attracted the attention of buyers of forest products who are increasingly demanding that the industry demonstrate that products are derived from forests managed on a sustainable basis. As a result, forest certification has emerged as a dominant factor in the forest industry in order to provide assurances to buyers of wood products that the management of forests meets identified standards that are considered critical for SFM. As British Columbia forest companies have evolved and have become dependent on the global marketplace for the export of forest products, the issues of sustainable forest management and forest certification have become paramount.

Canadian Forest Products Ltd., in partnership with other licensees, academics, resource specialists, government agency staff, interested parties, and other related organizations has designed an integrated framework for sustainable forest management across its divisions. This Sustainable Forest Management (SFM) Framework has become a credible alternative to current forest management planning in the interior of British Columbia.

The primary purposes of Canadian Forest Products Ltd. are to:

- a. Rely on the SFM Framework as the conceptual forest management strategy for the certification effort in Mackenzie;
- b. Jointly develop a Sustainable Forest Management Plan (SFMP) within the geographic area of the Mackenzie Forest District to meet the SFM standard requirements (Z809-08) developed by the Canadian Standards Association (CSA). This standard and subsequent revisions may be viewed online at <http://shop.csa.ca> by searching CSA Z809;
- c. Support a public advisory process to:
  - Identify and select indicators, and targets, based on the SFM framework and any other criteria relevant to the DFA;
  - Develop, assess, and select from alternative strategies;
  - Review the SFMP;
  - Design monitoring programs, evaluate results and recommend improvement; and
  - Discuss and resolve any issues relevant to SFM in the DFA;
- d. Work together to fulfill the SFMP commitments including data collection and monitoring, participating in public processes, producing public reports, and continuous improvement.

The SFMP may be used by Canadian Forest Products Ltd. to prepare for eventual certification under the Canadian Standards Association's (CSA) SFM Standard (Z809-08).

This SFMP is intended to be consistent with all existing legislation and other strategic plans.

## 1.2 Mackenzie SFMP Steering Committee

The current Mackenzie SFMP Steering Committee for the Mackenzie SFMP consists of representatives from Canadian Forest Products Ltd. (Canfor).

## 1.3 Defined Forest Area

The SFMP applies to only the Defined Forest Area (DFA). A DFA is a specified area of forest, including land and water. The DFA for this SFMP is within the Mackenzie Forest District, excluding areas such as private lands, woodlots, Williston Reservoir, Indian reserves, Large Parks and Treaty 8 Lands<sup>1</sup>. The DFA boundaries are shown on the map provided in Appendix A.

## 1.4 Public Advisory Group

The Public Advisory Group (PAG) for the Mackenzie SFMP is comprised of individuals representing the interests listed in section 6.1.1. who voluntarily participate in the PAG process. As outlined in these terms of reference, the PAG will specifically work under the Defined Goals (section 2) as an open, transparent and accountable process. The Mackenzie SFMP Steering Committee and the PAG recognize and agree that Aboriginal participation in the public participation process will not prejudice Aboriginal and Treaty rights.

## 1.5 Legislation

The Mackenzie SFMP Steering Committee and the PAG shall ensure that the indicators, and targets are consistent with current relevant government legislation, regulations and policies. The Mackenzie SFMP Steering Committee and the PAG must also respect the findings of any formal public participation processes that have developed values, objectives, indicators, or targets relating to the CSA SFM elements at a landscape or regional level in the area in which the DFA is situated.

## 2. Defined Goal

The goal of the Mackenzie SFMP is to demonstrate commitment to sustainable forest management for the DFA. The Mackenzie SFMP Steering Committee, with input from the PAG, will be responsible for developing and implementing the SFMP.

The PAG will have the opportunity to work with the Mackenzie SFMP Steering Committee to:

- a. Identify and select indicators, and targets, based on the SFM framework and any other criteria relevant to the DFA;
- b. Develop, assess, and select from alternative strategies;
- c. Review the SFMP;
- d. Design monitoring programs, evaluate results and recommend improvement; and
- e. Discuss and resolve any issues relevant to SFM in the DFA.

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<sup>1</sup> Refers to fee simple and reserve lands

### 3. Timelines

Key dates for developing the SFMP:

	<u>To be completed by:</u>	<u>Completed on:</u>
a. Invitations sent to potential participants and newspaper ads published	January 15, 2006	Letters - January 10, 2006 Ads - January 17 & 24, 2006
b. Public Open House	January 21, 2006	January 23, 2006
c. Initial Public Advisory Group meeting	January 28, 2006	January 31, 2006
d. PAG input into the CSA matrix	June 2006	May 9, 2006
e. Strategic scenario analysis	September 2006	October 17, 2006
f. Review of draft SFMP by PAG	October 2006	October 2006
g. SFM Certification Audits	November 2006	November 2006 – February 2007
h. Review of Final SFMP by PAG	April 29, 2008	April 29, 2008
i. Plan updated and reviewed by the PAG		January 2010
j. Plan updated to the Z809-08 Standard and reviewed by the PAG		March 1, 2012

Following the completion of the SFMP, it is estimated that the PAG meeting schedule would include 3–4 meetings per year (as required) beginning in 2007.

### 4. Communication

#### 4.1 Between the PAG and Mackenzie SFMP Steering Committee

- The Mackenzie SFMP Steering Committee will ensure that the PAG meeting summaries are distributed to the PAG with the meeting notice.
- The Mackenzie SFMP Steering Committee will strive to provide background and technical information to the PAG as related to the PAG's defined role, including information related to the DFA and SFM requirements. Confidential business information of the Mackenzie SFMP Steering Committee such as financial or human resource information may be deemed sensitive or proprietary and may not be released.
- The Mackenzie SFMP Steering Committee will respond to all recommendations from the PAG. The Mackenzie SFMP Steering Committee will indicate how they applied the recommendations or provide reasons for not applying them. The meeting summary will capture the reasons for not implementing any PAG recommendations, whole or in part.
- The Mackenzie SFMP Steering Committee will provide a copy of the SFMP and annual reports to the PAG.
- The Mackenzie SFMP Steering Committee may caucus prior to responding to the PAG.

#### 4.2 With the Public

- The Mackenzie SFMP Steering Committee will make copies of the SFMP and annual reports available to the public.
- When communicating to the media and external parties about the SFMP and PAG process, the PAG and the Mackenzie SFMP Steering Committee will speak only on behalf of their own personal perspectives, will be respectful of each other, and avoid characterizing their comments as representing the PAG or the Mackenzie SFMP Steering Committee. They will also inform the PAG and Mackenzie SFMP Steering Committee of their communication with the media.

- c. The PAG and Mackenzie SFMP Steering Committee may invite the media to attend meetings as observers with advance notification to the PAG and Mackenzie SFMP Steering Committee.

## **5. Resources**

### **5.1 Travel Expenses**

- a. Air travel from Tsay Keh and Fort Ware will be reimbursed for PAG representatives (or in their absence, their alternates). When necessary, mileage between these villages to catch flights to attend Mackenzie PAG meetings will be reimbursed.
- b. Mileage to and from PAG meetings for those PAG representatives (or in their absence, their alternates) traveling more than 25 kilometers each way to the meeting site will be reimbursed per kilometer at the provincial government rate. Mileage for those PAG representatives (or in their absence, their alternates) traveling between Tsay Keh or Kwadacha to/from Mackenzie will be reimbursed at the discretion of the Mackenzie SFMP Steering Committee. PAG representatives (or in their absence, their alternates) traveling from outside the Mackenzie Forest District must obtain approval for travel expenses from the Mackenzie SFMP Steering Committee before the meeting.
- c. Overnight accommodation for PAG representatives and alternates traveling to PAG meetings will be reimbursed if pre-approved by the Mackenzie SFMP Steering Committee. As a general principle, accommodation should be economical.
- d. Expense forms with copies of receipts for the above must be submitted to the facilitator within two weeks following the PAG meeting.

### **5.2 Meeting Expenses**

- a. The Mackenzie SFMP Steering Committee will provide meeting rooms, meals, refreshments, a facilitator, and a scribe.
- b. The Mackenzie SFMP Steering Committee will provide adequate material and other resources to assist the PAG in understanding the relevant concepts.

## **6. Responsibilities**

### **6.1 Public Advisory Group**

#### **6.1.1 Membership Structure**

The PAG reflects a range of interests in the DFA. Members of each identified sector will select one representative and one alternate to participate in the PAG. Each representative and alternate will be allowed to represent only one of the sectors listed in Appendix B.

In addition to members of the public participating in the PAG, Aboriginal peoples have a unique legal status and may possess special knowledge concerning Sustainable Forest Management based on their traditional practices and experience. Each of the local First Nations listed below will be encouraged to invite their members to participate in the Mackenzie SFMP PAG. Members of each of the local First Nations attending PAG meetings will be invited to select a representative and alternate to participate in the PAG:



- Kwadacha First Nation
- McLeod Lake Band
- Nak'azdli First Nation
- Saulneau First Nations
- Takla Lake First Nation
- Tsay Keh Dene
- West Moberly First Nations

#### 6.1.2 Selection of the PAG

- a. The Mackenzie SFMP Steering Committee will recruit potential local PAG representatives and alternates through mailed invitations to individuals, an open house, posters, and advertisements through local media.
- b. Interested parties and the Mackenzie SFMP Steering Committee will review the potential membership at the initial PAG meeting. The Mackenzie SFMP Steering Committee will compile all names of potential representatives. Potential representatives for each interest area will discuss and agree as to who will stand as representative(s) and alternate(s). If they are unable to select a representative or alternate for the interest area, then the Mackenzie SFMP Steering Committee will recommend a solution.
- c. Once the PAG is established, the PAG and the Mackenzie SFMP Steering Committee can recommend changes in PAG structure, list of interests, and potential members.
- d. The Mackenzie SFMP Steering Committee, in consultation with the PAG, approves appointments and replacement of PAG representatives and alternates.

#### 6.1.3 Responsibilities of PAG Representatives

PAG representatives are responsible for:

- a. Providing input related to the Defined Goals (defined in Section 2);
- b. Being prepared, informed and ready for meetings;
- c. Requesting of the Mackenzie SFMP Steering Committee an advisor to provide information when the PAG considers this necessary;
- d. Acting as a liaison between the PAG and others from the interest area they are representing;
- e. Assuming responsibility towards reaching consensus on recommendations to the Mackenzie SFMP Steering Committee;
- f. Attending meetings. It is recognized that PAG representatives may miss some meetings due to the nature of their work or other activities;
- g. Informing their alternate and the facilitator if unable to attend a PAG meeting. If a PAG representative misses more than two consecutive meetings without a valid reason and without notifying his/her alternate and the facilitator, the Mackenzie SFMP Steering Committee may, based on consultation with the PAG, replace or remove that representative;
- h. Ensuring that the alternate is informed, up-to-date and prepared prior to the alternate participating in a PAG meeting. This includes providing the alternate with a past meeting summary in a timely, effective fashion; and
- i. Providing their input on upcoming agenda items when they are aware that they will be absent from a PAG meeting. They may provide their information to another PAG member or the Mackenzie PAG Steering

Committee to present at the PAG meeting or forward it in writing to the facilitator who will then provide to the Mackenzie PAG Steering Committee or a specified PAG member to present at the meeting.

#### 6.1.4 Responsibilities of PAG Alternates

An alternate may be appointed for each PAG representative. The PAG alternate is responsible for:

- a. Attending PAG meetings on behalf of the representative. When doing so, the alternate agrees to work according to the Terms of Reference; and
- b. Coming informed, up-to-date, and prepared for discussions and decision-making based on briefings by the representative when attending on behalf of the representative.

### 6.2 Mackenzie SFMP Steering Committee

The Mackenzie SFMP Steering Committee is responsible for:

- a. Providing and clarifying information to the PAG as related to the Defined Goals. Where possible, this material will be provided in advance of the meeting;
- b. Providing the PAG with necessary and reasonable human, physical, financial, information and technological resources;
- c. Where possible, informing the PAG (via the agenda) of any advisor attending a meeting;
- d. Not participating in reaching consensus on recommendations by the PAG;
- e. Considering and responding to the recommendations of the PAG;
- f. Making decisions regarding sustainable forest management and certification; and
- g. Preparing the PAG meeting agendas and summaries.

### 6.3 Advisors

The Mackenzie SFMP Steering Committee will invite advisors, as required, to provide technical information and advice to the PAG. These advisors could be from government agencies, professional organizations, academia, consulting firms, or other sources. Advisors are responsible for:

- a. Providing and/or clarifying technical or legal information as requested; and
- b. Not participating in reaching consensus on recommendations by the PAG.

### 6.4 Observers

The public is welcome to participate in discussions at PAG meetings. They may not participate in reaching consensus on recommendations by the PAG.

### 6.5 Facilitator

The PAG facilitator is responsible for:

- a. Ensuring that PAG meetings address the agreed-upon agenda items;
- b. Starting and ending meetings at the times stated in the agenda;
- c. Managing and implementing the Terms of Reference, including the appropriate participation of the PAG, the Mackenzie SFMP Steering Committee, advisors, and observers;

- d. Enabling equitable opportunity by all PAG representatives (or in their absence, their alternates) to participate in the meetings;
- e. Working to clarify interests and issues, and help the PAG build recommendations;
- f. Not participating in reaching consensus on recommendations by the PAG;
- g. Distributing the agenda prior to each PAG meeting; and
- h. Distributing the PAG meeting summaries following each PAG meeting.

## 7. Conflict of Interest

The PAG recognizes that a conflict of interest could occur if there is a potential for a representative (or his or her alternate) to personally and directly benefit from specific recommendations from the PAG. Therefore, if a PAG representative or alternate has a perceived or real conflict of interest that could result in a potential exclusive personal economic benefit in relation to his or her input to the Defined Goals, that representative or alternate, other PAG representatives and alternates, or a member of the Mackenzie SFMP Steering Committee must state the potential conflict. The PAG and the Mackenzie SFMP Steering Committee will then decide on what actions are needed.

Potential actions could include asking the representative or alternate to:

- a. Serve as an observer for the relevant specific issue(s) and recommendation(s);
- b. Take a leave from the PAG (length of term to be defined); or
- c. Carry on with normal participation.

## 8. Operating Guidelines

### 8.1 Meetings Guidelines

All participants in this process agree to:

- a. Arrive on time;
- b. Be prepared for each meeting;
- c. Follow the speakers list;
- d. Be respectful;
- e. Be concise; and
- f. Stay on topic.

### 8.2 Meeting Agenda and Schedule

The meeting agenda and schedule may change if agreed to by the PAG and Mackenzie SFMP Steering Committee.

#### 8.2.1 Meeting Agenda

- a. Meeting agendas will address the needs of the SFMP and CSA requirements.
- b. The PAG may provide input to meeting agendas during each meeting.
- c. The agenda will include proposed objectives for the meeting.

### 8.2.2 Meeting Schedule

- a. The PAG and Mackenzie SFMP Steering Committee will agree upon meeting dates.
- b. Meetings will be held as needed to monitor and review the SFMP.

### 1.1.1 PAG Satisfaction

- a. PAG satisfaction with the meeting and public participation process is gauged and measured at each meeting through a satisfaction survey. The results and comments from these surveys are then reported out at the following PAG meeting. Specific sections are measured and reported out through the SFMP Indicator entitled "Satisfaction (PAG)" in the Annual Report.

## 9. Decision Making and Methodology

- a. Anyone attending PAG meetings may participate in the discussions. However, only representatives will participate in making decisions, that is, recommendations to the Mackenzie SFMP Steering Committee.
- b. The PAG agrees to work by consensus. Consensus is defined as no PAG representative substantially disagreeing on an issue and being willing to proceed to the next step. The PAG will work to identify the underlying issues, seek compromise, identify alternatives, and clarify information. The PAG shall make every effort to achieve consensus in a positive and respectful manner, and commits to arriving at the best solution possible.
- c. The PAG will not revisit past decisions unless the PAG representatives agree to do so.
- d. A quorum for any meeting of the PAG shall be greater than 50% of the average number of PAG representatives attending the past five (5) meetings.

## 10. Dispute Resolution Mechanism

### 10.1 Process Issues

The facilitator will resolve process issues.

### 10.2 Technical Issues

- a. Where an impasse is reached, the representation(s) with the outstanding issue shall offer solutions or options for resolution.
- b. If the impasse remains, the generally agreed-upon decision, along with the dissenting view(s), will be forwarded to the Mackenzie SFMP Steering Committee.

## 11. Review and Revisions

The PAG and Mackenzie SFMP Steering Committee will review and agree upon the Terms of Reference at least annually.

### Approved:

Public Advisory Group  
Mackenzie SFMP Steering Committee

Date: January 31, 2006

Date: January 31, 2006

### Revised:

Public Advisory Group  
Mackenzie SFMP Steering Committee

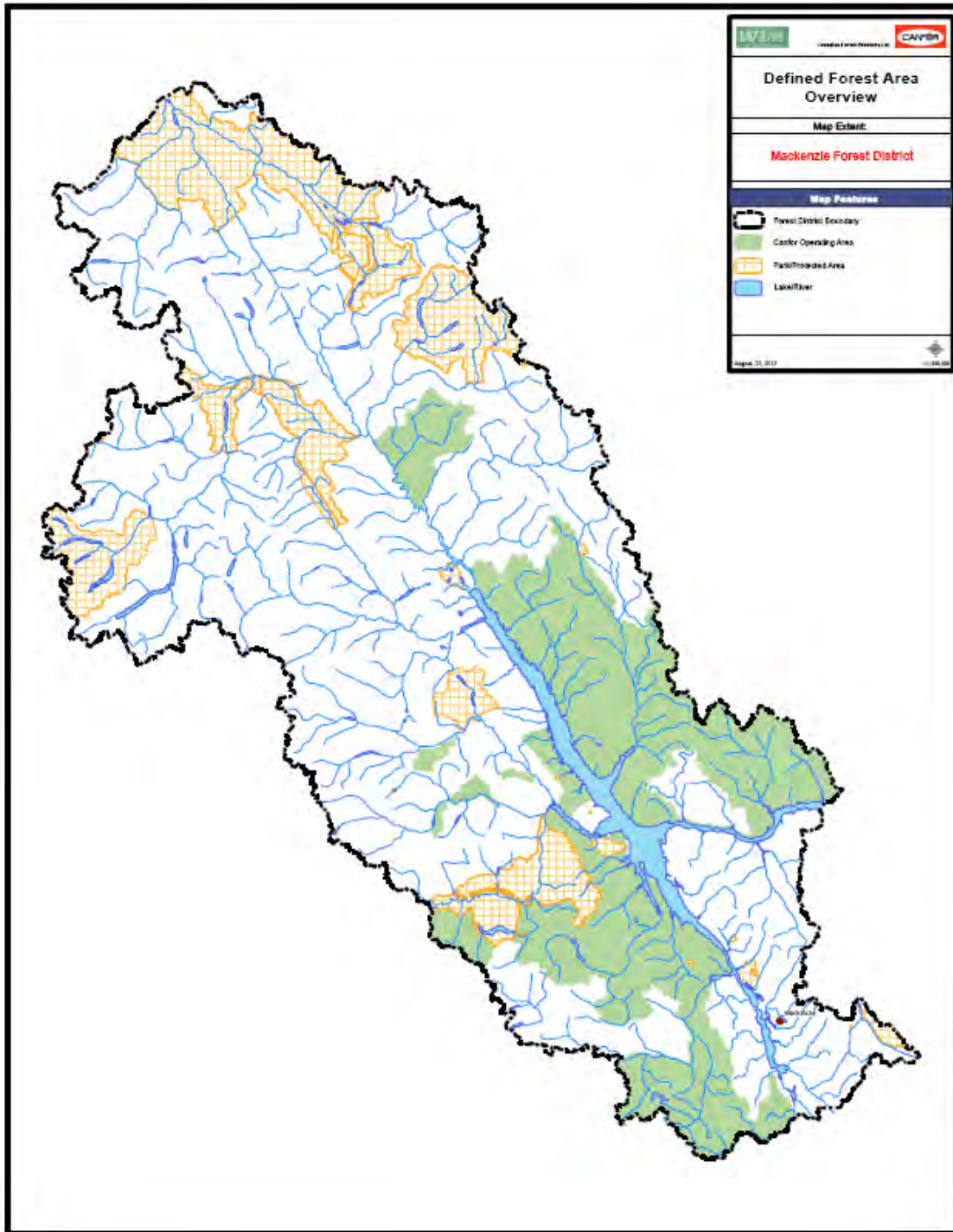
Date: March 19, 2014

Date: March 19, 2014



# Appendix A

## Map of the Defined Forest Area (DFA)



## Appendix B

### Public Advisory Group Sectors

Academia  
Agriculture/Ranching  
Contractors – Forestry  
Environment/ Conservation  
First Nations<sup>2</sup>  
General Public  
Germansen Landing  
Labour – CEP  
Labour – PPWC  
Local Government  
McLeod Lake Indian Band  
Mining/Oil & Gas  
Noostel Keyoh  
Public Health & Safety  
Recreation – Commercial  
Recreation – Non-commercial  
Recreation – Non-commercial (motorized)  
Saulteau First Nations  
Small Business – Germansen Landing  
Small Business – Mackenzie  
Small Community  
Trapping  
West Moberly First Nations  
Woodlot

**Approved:**

Public Advisory Group	Date: January 31, 2006
Mackenzie SFMP Steering Committee	Date: January 31, 2006

**Revised:**

Public Advisory Group	Date: February 23, 2011
Mackenzie SFMP Steering Committee	Date: February 23, 2011

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<sup>2</sup> This sector is open to allow participation of any First Nations person wishing to contribute



# Mackenzie SFMP



## PAG Schedule of Completed Meetings

<b>Date</b>	<b>Time</b>	<b>Key Agenda Items</b>
Sept 30, 2015	10:30 AM – 4:30 PM	<ul style="list-style-type: none"><li>- Field tour</li><li>- Drag scarification</li><li>- Tree planting</li><li>- Protection of other values</li></ul>
Oct 28, 2015	10:30 AM – 2:30 PM	<ul style="list-style-type: none"><li>- Review of field tour stops from last meeting</li><li>- 2013-14 Annual Report</li><li>- Mackenzie Fibre joining the plan</li><li>- Updates to CSA Z809 standard</li><li>- Review of Terms of Reference</li><li>- Tour of Williston Lake Transporter</li></ul>



**Mackenzie SFMP**



**PAG Meetings  
Quorum Table**

A quorum for any meeting of the PAG shall be greater than 50% of the average number of PAG members attending the past five (5) meetings. (Mackenzie PAG Terms of Reference)

<b>Date</b>	<b>PAG members present</b>	<b>Quorum required</b>
January 31, 2006	13	
February 14, 2006	13	
February 28, 2006	13	
March 14, 2006	12	
March 28, 2006	14	
April 11, 2006	10	
April 25, 2006	12	
May 9, 2006	10	
October 17, 2006	9	
February 20, 2007	8	6
March 28, 2007	9	5
March 13, 2008	3	5
April 29, 2008	4	4
May 27, 2008	3	4
October 28, 2008	5	3
January 21, 2009	5	3
May 26, 2009	8	3
June 24, 2009	6	3
October 14, 2009	3	3
December 15, 2009	5	3
February 10, 2010	8	3
June 2, 2010	9	3
October 20, 2010	4	4
February 23, 2011	7	3
October 26, 2011	5	4
March 7, 2012	4	4
June 19, 2012	4	3
October 24, 2012	5	3
March 27, 2013	6	3
August 21, 2013 (field tour)	3	3
March 19, 2014	8	3
June 4, 2014	7	3
Dec 3, 2014	5	3
March 25, 2015	3	3
Sept 30, 2015 (field tour)	4	3
Oct 28, 2015	7	3







## Mackenzie SFMP



## PAG Field Tour

Sept 30, 2015

10:30 AM – 4:30 PM

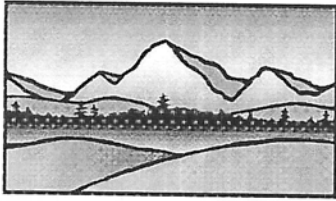
Mackenzie Defined Forest Area

## Agenda

### Item

Welcome and organizing transportation; Mackenzie Rec Center	Al
Travel from Mackenzie along highway to Finlay FSR to the Holder Mainline	
Stop #1: Site Preparation	Jason
• Drag Scarification for naturals	
<i>Lunch</i>	
Stop #2: Tree planting	Jason
• Recently planted block	
• Block declared Free Growing	
Stop #3: Protection other values	Jason
• Protection of the Mackenzie Grease Trail	
Travel back to Mackenzie Rec Center	
Wrap-up	Al and Jason

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# Mackenzie SFMP



## PAG Meeting

September 30, 2015  
Mackenzie, BC

NAME (Please Print)	SIGNATURE	PAG Rep / Alt Observer SC / Advisor
John McLeod	<i>John McLeod</i>	BCTS
Lyle Mortenson	<i>Lyle Mortenson</i>	HRFN
LAURENCE NAPIER	<i>Laurence Napier</i>	REP.
George Desjarlais	<i>George Desjarlais</i>	WMFN
Sandra Desjarlais	<i>Sandra Desjarlais</i>	<del>Guest</del>
Emma Tysick	<i>Emma Tysick</i>	Guest
Teena Boruch	<i>Teena Boruch</i>	Guest
John Stokmans	<i>John Stokmans</i>	GUEST
Cornelia Thani	<i>Cornelia Thani</i>	<del>Guest</del> -fasite
Doug Ambediani	<i>Doug Ambediani</i>	Canfor
Jason Neumeier	<i>Jason Neumeier</i>	Canfor



- Members Present:** George Desjarlais, Lawrence Napier, Lyle Mortenson, John Stokmans  
**Absent:** Dave Forshaw, Stephanie Killam, Ron Crosby, Justin Keutzer, Ryan Bichon, Alec Chingee, Vi Lambie, Janet Besherse, Jim Besherse  
**Ex-Officio Members:** Jason Neumeyer, Doug Ambedian  
**Present:**  
**Advisors/Guests:** Cornelia Thomi, John McLeod, Sandra Desjarlais, Emma Tysick (12), Teena Boruch (6)  
**Chair:** N/A  
**Facilitator:** Alan Wiensczyk  
**Scribe:**  
**Quorum Present:** Yes:  No:

**1.0 Welcome and Introductions:**

- Members signed in.

**2.0 Review of Agenda for this Meeting:**

- Motion to accept the agenda as written.
- Agenda accepted.

**3.0 Minutes of Previous Meeting:**

- Minutes from Mackenzie meeting (March 25, 2015) handed out.
- Decision made to defer review and approval of meeting minutes until next indoor meeting.

**4.0 PAG Satisfaction Survey Results:**

- The results of the PAG satisfaction survey from the March 25<sup>th</sup> meeting were presented.
- All indicators above target.

**5.0 Field tour:**

Field tour was lead by Doug Ambedian (Canfor) and Jason Neumeyer

- Stop 1 – Block 0432
  - Recently harvested
  - High rust hazard
  - Conducted drag scarification for naturals but also plan on planting the block
  - Planned planting density 1000 stems per hectare
  - Will likely plant pine but may plant some Douglas-fir as part of the governments assisted migration strategy.
  - Need to ensure high density because of the stem rust hazard
  - 90% of planting conducted in the first or second years after harvest
  - Will revisit the block several years after planting and conduct a regeneration survey.
  - If any not satisfactorily restocked (NSR) areas identified then a fill plant will be prescribed.
  - The viability of the seed in the pine cones is uncertain as the trees have been dead for several years, having been killed by the mountain pine beetle.

Q – how big would the naturals be after a season?

A – the new germinants will likely be 1-2 cm

PAG member commented that have done some experimental planting of Douglas-fir in the Moberly Lake area.





- Also of interest in this area is an old trail that passes through the block. This trail may be the Duz Cho Grease Trail used in the past by local First Nations. The block is very close to the McLeod Lake Indian Band (MLIB) community.
- There were many Culturally modified trees (CMTs) in the area.
- Uses of trees which could result in a CMT. Pine cambium used for food, bark used as a fire starter, or trail blazes in the bark.
- CMT identification
  - o Scar
  - o May be cut branches in the scar
  - o The angle of the top cut of the scar
  - o May be hatchet/knife marks at the top of the scar
  - o Scar usually doesn't go to the ground
  - o There may be a little area at the base of the scar that looks like a tail back up into the scar
- Crews conducting block layout and other data gathering are trained on what to look for and how to identify CMTs as well as how to identify trails.
- If anything is found then the crew will contact the planning forester from Canfor who may contact an archaeologist.
- Whether the CMT is from pre 1846 or post 1846 determines the potential management options. Pre 1846 CMTs are regarded as cultural heritage sites while post 1846 trees are designated as special features.
- To help determine the age of the CMT, the ages of other trees of similar size in the area are determined to determine a 'stand' age. Information on the stand history is also gathered.
- If the age of the other trees in the area and the site history indicate that the CMT could be pre 1846, an archaeologist is called and will visit the site and will age the CMT. Only an archaeologist is allowed to core the CMT tree to determine its age.
- The CMTs in this area were determined to be post 1846.
- The trail and the CMTs were discussed with MLIB community during the harvest block planning phase and decisions made on what to protect and how to best protect both the trail and the CMTs.
- CMTs were stubbed above the scar and the trail was protected with a machine-free zone although the trees along the trail were harvested by reaching in and removing them. A strip of trees left along the trail would likely blow over.
- In addition a spur road into the north side of the block was built to access the timber on the north side of the trail.
- The site was harvested and was drag scarified for natural regeneration.
- The site was ideal for drag scarification as the stand was a pine dominated stand with not many residual stems and a thin duff layer.
- The equipment operator tries to avoid going up and down hills with drag scarification equipment as it can create channels that could result in erosion. However, travelling along hill contours can be challenging as well.
- Question: Are cone surveys done prior to treatment?
- Answer: No not normally.
- If they were not planning on planting then a regeneration survey would be done in 4 years to assess stocking levels and a fill plant would be prescribed if required.



- Stop 2 – Adjacent older plantation
  - Area harvest in 1996
  - Planted in 1997 – 1400 sph
  - Helicopter-based surveys in 2002 and 2005
  - Plantation looked good
  - 2009 Free-growing ground survey
  - 56% comandra blister rust
  - Not Free growing
  - 2012 planted spruce and some Douglas-fir
  - Re-surveyed in 2015
  - Still not Free Growing
  - Next steps
    - 1) Wait a few more years for planted trees to grow, or
    - 2) Make a section 97.1 application to government asking to be relieved of obligations as the licensee has done everything practicable to reforest the site.
  - Lessons learned
  - Helicopter surveys are not an effective tool in high rust areas.
  - Need a ground-based survey.
  - Would have identified comandra blister rust issues earlier and fill planted earlier.
  - Prescribed fire may have helped to reduce the rust hazard.
  
- Stop 3 – Block HOL001
  - Planted summer 2015
  - 20% Pli and 80% Sx
  - Target – 1400 sph in low rust areas, 1800 sph in high rust areas
  - This is a high rust area
  - Planting density 1150 sph due to high levels of sub-alpine fir advanced regeneration
  - There was a lot of bastard toadflax in the area.
  - Toadflax is the alternate host for comandra stem rust.

**13.0 Next PAG meeting Date:**

- October 28, 2015

**Action Summary:**

- None



A Culturally modified tree



Planted spruce seedling



Doug Ambedian speaking to the group



## Mackenzie SFMP



**PAG Meeting**  
October 28, 2015  
10:30 AM – 2:30 PM  
Canfor-Mackenzie Office

## Agenda

1. Welcome and Introductions
2. Review Agenda
3. Review and Approve Meeting Summary – March 25 and September 30, 2015
4. Evaluation Results (September 30, 2015)
5. 2014/15 Annual Report – Jason Neumeyer

*~ Lunch ~ (12:00 – 12:45)*

6. Mackenzie Fibre – Joining the plan – Jason Neumeyer
7. Presentation: Updates to the CSA Z809 Standard – Al Wiensczyk (TCC Solutions)
8. Update previous actions – Jason Neumeyer and Al Wiensczyk
9. Tour of the Williston Lake Transporter – Jeremy Srochenski (Transportation Superintendent - Canfor)
10. Evaluation forms
11. Next PAG meeting:
  - a. TBD





Mackenzie SFMP



PAG Meeting
October 28, 2015
Mackenzie, BC

Table with 3 columns: NAME (Please Print), SIGNATURE, and PAG Rep / Alt Observer SC / Advisor. Rows include names like Dave Forshaw, Loni Spletzer, Stephanie Killam, Al Wiensczyk, John Sokman, Vi Lambie, John D Lambie, Lawrence Napier, Fat Cook, Jason Neumeyer, and Carrelia Thomi.



**Members Present:** Vi Lambie, Dave Forshaw, Lawrence Napier, Stephanie Killam, John Stokmans  
**Absent:** Jim Besherse, Janet Beshere, George Desjarlais, Ron Crosby, Alec Chingee, Lyle Mortenson, Peter Weeber  
**Ex-Officio Members Present:** Jason Neumeyer, Jeremy Srochenski (Transporter tour guide)  
**Advisors/Guests:** Cornelia Thomi – Forsite, Pat Crook – Mayor, John Lambie  
**Chair:** N/A  
**Facilitator:** Alan Wiensczyk  
**Scribe:** Loni Spletzer  
**Quorum Present:** Yes:  No:

**1.0 Welcome and Introductions:**

- Members signed in.

**2.0 Review of Agenda for this Meeting:**

- Addition to agenda – Discussion of dead spruce in the area noted from tour of watersheds
- Motion to accept the agenda as modified.
- Agenda accepted.

**3.0 Minutes of Previous Meeting:**

- Minutes from Mackenzie meeting reviewed (March 25, 2015 & Sept 30, 2015 Field Tour).
- Motion to accept the minutes as written.
- Minutes accepted.

**4.0 Review of Field Tour in the Holder Operating Area: Jason Neumeyer**

- Discussed silviculture plans for the first block visited. Recently harvested block that had drag scarification to promote nature regeneration and also plan to plant seedlings (also discussed evidence of disease). Second block adjacent to the first block had significant disease present and had under planted with spruce and Douglas-fir.
- PAG member asked about methods to prevent/containing disease (ex. blister rust). Canfor responded that it is eliminated when the tree is cut down, can be challenging to identify for ground crew. And the disease typically attacks only juvenile pine (<25 years old). The alternate host for the disease is bastard toad flax.
- PAG member asked if blister rust on bastard toad flax can be identified. Another PAG member responded that if infected the veins in the leaf are yellow rather than green.
- PAG member asked about rationale for replanting pine if this area is susceptible to disease. Canfor responded that pine is native in this environment and not all pine will be affected (because of dry sandy soil, spruce does not grow as well as pine in this area and it is good management to plant what is native to the area).
- PAG member asked about potential for larch planted in this area; also re: replanting are there



considerations re: native species and considerations for what the mill needs? Canfor responded that larch is not native to this area and although there has been some experimentation with planting it does not always do well. In terms of mill use, a variety of species is used (native species as much as possible) for regeneration considerations and future wood needs are not always the biggest driver for regen planning now as it was in the past. It was pointed out that it would be 80-100 years out before harvesting and fiber use/needs will likely be different in that time period.

#### **5.0 PAG Satisfaction Survey Results:**

- The results of the PAG satisfaction survey from the March 25th meeting were presented. Above all targets.

#### **6.0 2014/15 Annual Report:** Jason Neumeyer

- Reporting period – April 1, 2014 to March 31, 2015.
- Out of 48 indicators:
  - Objectives met for 45
  - Objectives pending for 1
  - Objectives not met for 2
- **Objectives pending – Summary**
  - 2.2.2a – Actual harvest volume compared to the apportionment across the DFA over each 5 year cut control period
  - 2014 was year 2
  - Will not know if indicator met until 2017 when 5 year cut control period is complete.
- **Indicators not met - Summary**
  - 1.1.3a - % of blocks within LU/BEC Groups that meet prescribed old growth targets
    - 1 block was harvested within the Nation LU/EC Group 4 (SBSmk1, SBSmk2, SBSwk1)
    - CP L32 block 3501 – 12.9 ha logged that was 77% pine
    - Action: work with other licensee's to develop a plan for operating within the Nation LU/BEC Group 4
  - 2.2.2b – % of area harvested that are damaged or considered a high risk to stand damaging agents
    - 63 blocks harvested – 22 identified to be < 40% pine in the cruise therefore not deemed to be salvaged
    - With mill upgrade and start-up during reporting period higher amount of “green volume” harvested
    - 69% of total ha was considered high risk

#### **Discussion:**

- PAG member asked about being allowed to make-up any allotment that was not used. Canfor responded that there is provision to make up the difference up to about 5 years. There are also undercut licenses available.



- PAG member re: volume going to PG & Vanderhoof mills. Is it Vanderhoof tenure? Canfor responded that the tenure is Mackenzie's not Vanderhoof (L&M is transferring some of their cut to Mackenzie). PAG member concerned about this transfer. Canfor responded that much of the area in the northern part of the Mackenzie district is still quite inaccessible, and so any licensees coming into the Mackenzie TSA will be looking to harvest in the southern part of the district. However, this is where the local licensees would like to operate as well so that could create some issues.
- PAG member asked about Mackenzie's ability to handle large-sized trees – Canfor responded that Polar in Bear Lake is being modified to accommodate larger-sized trees (Canfor working towards a "send the right log to the right mill strategy")
- PAG member re: Ft. St. James/Conifex – some of their license will go to Mackenzie
- Canfor commented that Mackenzie has upgraded within the last 2 years – fairly recent significant upgrade to the planer mill. Current deficiency is kiln – there is a current arrangement with Conifex to use their kilns. There has been approvals for a new "continuous" kiln (PAG member quipped it will "stay hot like a pizza oven!") in Spring 2016 and an upgrade of the debarker.
- PAG member asked about tax (stumpage rates) effecting Mackenzie operations. Canfor responded that rates have increased. Although pine has lower stumpage rate than spruce, the current rate is a hindering factor for Mackenzie mill this year with lumber and pulp pricing going down and stumpage rates going up.
- PAG member re: looking at energy side of operations to offset lumber. Canfor responded that there is energy side in Grande Prairie; also pulp mills in PG have successfully implemented co-gen projects for energy and sell back to the open market(have partnered with pellet plants in Houston and Chetwynd). Fiber availability in Mackenzie may not justify another energy plant at this time, but good topic for future.

#### **7.0 Mackenzie Fibre – Joining the Plan:** Jason Neumeyer

- Canfor has recently signed an agreement to manage a large forest license with Mackenzie Fibre, Mackenzie Pulp and McLeod Lake Indian Band.
- Canfor will be assisting Mackenzie Fibre and their licence with the move to CSA standards (from SFI). Will involve very little change to the SFM plan (will be similar to when BCTS was also a licensee).
- Indicators would remain the same and the additional 800,000 metres/year of harvest volume will be planned for by Canfor (this includes taking on responsibility for block layout, permitting and the loggers). Canfor is growing in staff to respond to this new opportunity.
- Will be utilizing more volume (fibre from the forest will be smaller types) because of commitment to manage the chips for Mackenzie Pulp.

#### **Discussion:**

- PAG member asked about Mackenzie Fibre current process (SFI). Canfor responded that there is an SFM plan that is run through an auditor but there is no public reporting component (absence of PAG).
- PG member commented that it is good to see that there is cooperation that was not there a year ago with respect to procurement and utilization of chips, hog fuel, etc



**8.0 Presentation: Updates to the CSA Z809 Standard:** Al Wiensczyk

- Proposed changes to 16 areas
- Aboriginal Relations, Public involvement, Water, Heritage values, Safety, Economics and social benefits, Forecasts, Volume-based tenures\*, Group certification, Annual internal audits, SFM Plan Implementation, Streamlining plans, System requirements, Preventative Action, Definitions, and Readability.
- \*One of those areas doesn't apply to the current Canfor SFMP.
- New criterion created for Aboriginal relations – brings all the indicators related to Aboriginal relations under one criterion.
- Water – added a new indicator.
- Heritage values added to the list of special sites
- Safety – separate element created
- Forecasts – clarified
- Annual internal audits – requirement removed.
- Comments can be submitted on-line at
- <http://publicreview.csa.ca/Home/Details/1712>
- Or comments can be email/mailed to the PAG facilitator who will compile and submit to CSA Z809 review committee
- Next steps
  - CSA committee will gather input from a number of sources including the PAG's. Compile them and then come up with final revised standards.
  - Once they do they will send them to the licensees and then the licensees will have a couple of years to bring their plans up to the new standard.
  - The only element that will require PAG involvement will be the development of the new indicator for Water.

**Discussion:**

- PAG member asked for clarification of "heritage values". Canfor responded that examples may include Culturally Modified Trees (CMT's), old trappers' cabins, archeological trails and so on.
- PAG member re: what is the age range of "heritage values"? Canfor responded that this is subjective and can be decided by Canfor with input from the PAG.

**9.0 Review of the Terms of Reference:**

- Motion to accept new members and replacements as follows:
  - Pat Crook replacing Stephanie Killam as Mayor
  - Cornelia Thomi – new rep for Consultants
  - John Stokmans – replacing Mike Freer for Saulteau First Nations
- Motion accepted unanimously



**10.0 Tour of the Williston Lake Transporter:** Jeremy Srochenski (Transportation Superintendent-Canfor)

PAG members and guests were given a guided tour of the deck, engine rooms, bridge, crew living quarters and fire/bilge systems of the Williston Lake Transporter.

**Highlights of the Transporter:**

- An ice-breaker used to transport logs from the reload area to the mill (91 log-truck load capacity or 1.1 million cubic metres)
- The Transporter is 360 feet long and 110 feet wide
- Currently being upgraded and started back up with start date planned for Nov 9, 2015
- Crew of 12 that work two-week on and two-week off shifts
- Estimated that 80-90% of the volume of logs will be brought to the mill by the Transporter
- Has 4 engines, one of which is a 12 cylinder 2000 hp Mitsubishi engine, while the other three are 16 cylinder 1700 hp Mitsubishi engines.
- Flat hull designed to ride up onto ice and crush up to 4 ft thickness of ice.



- Needs 25 feet of water to operate safely.
- Largest operating cost is fuel: capacity is 135,000 litres, but only filled to 80% capacity; each motor consumes 1700 litres of fuel per hour
- Top speed in good weather is 11 knots (~20 km/hr) and will take 4.5 hrs per trip (longer in winter months)

Top photo by John Stokmans, bottom photo by Al Wiensczyk.

**11.0 Update previous actions:** Jason Neumeyer & Al Wiensczyk

- Deferred until next meeting

**12.0 PAG Meeting Satisfaction Survey for this meeting:**

- PAG reminded to fill out and hand in the survey before they leave.

**13.0 Next PAG meeting Date:**

- TBD





**Action Summary:**

- Facilitator and Licensee to ensure that discussion of spruce beetle situation in the Mackenzie DFA is included in the agenda for the next PAG meeting.



Mackenzie PAG + FLNRO reps after tour of Williston Transporter (photo by Jeremy Srochenski)



PAG Meeting Date: \_\_\_\_\_ PAG Member \_\_\_\_\_ Licensee Team \_\_\_ Guest \_\_\_

The purpose of this form is to provide an opportunity for PAG members to evaluate the effectiveness of the public participation process with the goal of facilitating continual improvement.

Please evaluate the following:	Very poor (1)	Poor (2)	Average (3)	Good (4)	Very good (5)
<b>A. Meeting and PAG Process</b>					
1. I have a good understanding of the purpose of the PAG and my role as part of that group.					
2. Information provided in advance of meetings allows me to effectively contribute at meeting.					
3. The meeting agenda is reviewed prior to the meeting and followed					
4. The meeting minutes capture important aspects of the meeting including actions, progress updates, and any decisions.					
5. Communication with PAG members between meetings is adequate.					
6. Licensees' share new information with PAG members regarding impacts to the environment, sustainability, forestry, etc.					
7. The PAG Terms of reference are followed.					
8. Were most PAG members involved in meeting?					
9. Was there a positive atmosphere for the meeting?					
10. Was information presented clearly at the meeting?					
11. What is your overall satisfaction with the PAG process?					
12. Ex-officio, licensee, or technical team members were organized and prepared for meeting.					
<b>B. PAG Meeting Facilitation:</b>					
13. PAG meeting facilitator was organized and prepared.					
14. PAG meeting facilitator strived for consensus decision making.					
15. Facilitator actively listened to concerns and viewpoints expressed during the meeting.					
16. PAG meeting facilitator addressed process issues.					
17. PAG meeting facilitator remained neutral on content issues					
18. PAG meeting facilitator kept the meeting focused and moving.					
<b>C. Meeting Logistics:</b>					
19. Was the meeting location convenient?					
20. Was the timing of the meeting convenient?					
21. Was the meal provided for the meeting good?					
<b>D. Yearly Assessment (Pertains to Annual Reporting, PAG Recruitment and PAG Representation):</b>					
22. Efforts have been made to incorporate concerns related to SFM values and objectives into the SFM Plan.					
23. Concerns related to SFM indicators and targets are being adequately listened to at PAG meetings.					
24. Efforts have been made to incorporate my concerns related to SFM indicators and targets into the SFM Plan.					
25. The outputs generated through discussion with the PAG (SFM Plan and annual monitoring reports) are clear and concise.					
26. Licensees' have made an effort to recruit new PAG members as needed.					
27. A broad cross-section of the community is represented at PAG meetings.					

(OVER)



**Mackenzie SFMP**



**Public Advisory Group (PAG) Evaluation Form**

**Your Suggestions** – Please list ways to improve on subsequent PAG meetings:

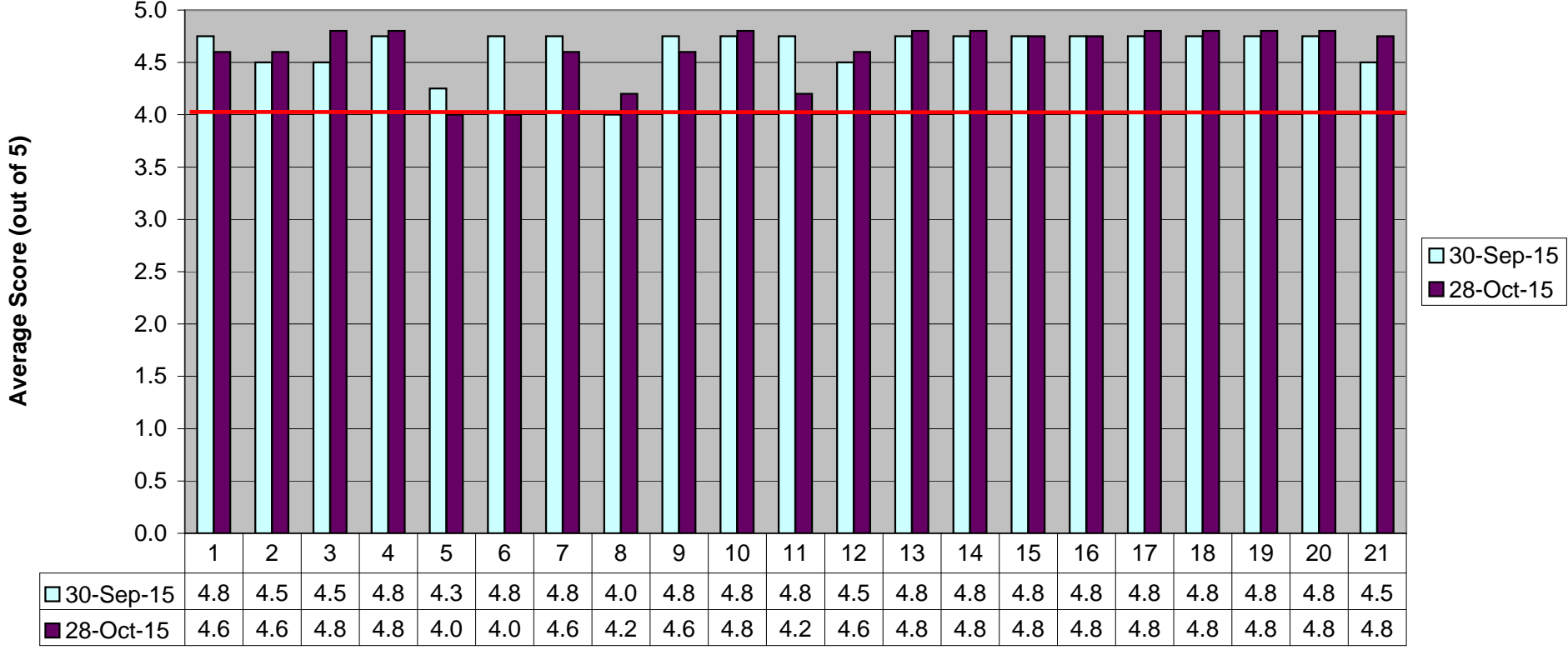
1.

2.

3.

**General Comments** – Please provide any comments or suggestions that you feel would improve the PAG process, the SFM Plan or Annual Report or subsequent meetings:

### Mackenzie PAG evaluation Summary - 2015-16



**Question**

## **PAG Evaluation Comments**

September 30, 2015 Field tour

Very informative – thank you  
Field trip was excellent

October 28, 2015

No comments from PAG members



# Mackenzie SFMP

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## Letters of Invitation

During the 2015-16 Fiscal Year there were no:

- Letters of Invitation
- Advertisements and Articles



**Mackenzie SFMP**

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The following was handed out at the Mackenzie Trade Fair that was held at the Mackenzie Recreation Centre on Friday May 1, 2015-Saturday, May 2, 2015.





### **Certification**

- The Canadian Standards Association (CSA) Sustainable Forest Management (SFM) standard is the leading certification standard in Canada. It is an independent third-party certification standard which was developed in 1996 and updated in 2010.
- Currently almost all of Canadian Forest Products Ltd's (Canfor) woodlands operations are certified to the CAN/CSA Z809 Sustainable Forest Management standard. This includes the Chetwynd, Fort Nelson, Fort St. James, Grand Prairie, Morice, Mackenzie, Prince George, Radium, Vanderhoof and Vavenby defined forest areas.
- Comprehensive and continuing public participation is one of the key components of the CSA standard for sustainable forest management. Public Advisory Groups (PAGs) have been formed to address this component.
- PAGs provide a forum for information exchange and communication and dialogue with members of the public on Sustainable Forest Management.
- This website ([www.sfmptsa.com](http://www.sfmptsa.com)) provides information on the Sustainable Forest Management Plans and Public Advisory Groups for the Fort St. James, Morice, Mackenzie, Prince George (including TFL 30), and Vanderhoof Defined Forest Areas (DFA's). Currently Canfor is the sole signatory to the plans.
- For more information on the CSA certification standard for SFM and Canfor's efforts please visit [www.csasfmforests.ca/](http://www.csasfmforests.ca/) or [www.canfor.com/responsibility/environmental/certification](http://www.canfor.com/responsibility/environmental/certification).

### **Public Advisory Group**

- The public advisory groups are comprised of local residents who represent values and specific interests within the community related to sustainable forest management. The groups also may include First Nations, Métis and municipal representatives. Also participating on the Public Advisory Group team are Licensee team members (non-voting) and ex officio members who provide technical and policy advice and support (non-voting). The PAG process is managed by a facilitator.
- The PAG specifically works towards the goals listed in their terms of reference in an open, transparent and accountable process.
- The Public Advisory Group has the opportunity to work with Canadian Forest Products Ltd. (Canfor) to:
  - Identify and select values, objectives, indicators, and targets, based on the CSA Sustainable Forest Management elements and any other elements relevant to the Defined Forest Area (DFA);
  - Develop, assess, and select alternative strategies;
  - Review the Sustainable Forest Management Plan;
  - Design monitoring programs, evaluate results, and recommend improvements; and
  - Discuss and resolve any issues relevant to sustainable forest management in the DFA.

### **Contact Info**

Mackenzie Public Advisory Group – Al Wiensczyk (250) 614-4354, [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)

Canfor Mackenzie – Jason Neumeyer (250) 997-2531, [Jason.neumeyer@canfor.com](mailto:Jason.neumeyer@canfor.com)

## Mackenzie SFMP Public Advisory Group

(as of March 31, 2016)

<b>Sector:</b>	<b>Representative</b>	<b>Alternate</b>
Academia		
Agriculture/Ranching		
Contractors – Forestry	Cornelia Thomi	
Environment/ Conservation	Vi Lambie	Ryan Bichon
First Nations		
General Public		
Germansen Landing		
Halfway River First Nation	Lyle Mortenson	
Labour – CEP		
Labour – PPWC		
Local Government	Stephanie Killam	Peter Weeber Pat Crook
McLeod Lake Indian Band	Alec Chingee	
Mining/Oil & Gas	Dave Forshaw	
Noostel Keyoh	Jim Besherse	Sadie Jarvis
Public Health & Safety		
Recreation – Commercial		
Recreation – Non-commercial		
Recreation – Non-commercial (motorized)		
Saulteau First Nations	John Stokmans	Chief Harley Davis
Small Business – Germansen Landing	Janet Besherse	Don Jarvis
Small Business – Mackenzie	Bruce Bennett	
Small Community		
Trapping	Lawrence Napier	
West Moberly First Nations	George Desjarlais	
Woodlot	Ron Crosby	

## Contact Information

### Mackenzie PAG Members

Alec Chingee	<a href="mailto:alchingee@mlib.ca">alchingee@mlib.ca</a>	General Delivery, McLeod Lake, BC, VOJ 2G0
Bruce Bennett	<a href="mailto:b-bvent@telus.net">b-bvent@telus.net</a>	Private, Mackenzie, BC VOJ 2C0
Dave Forshaw	<a href="mailto:dave@district.mackenzie.bc.ca">dave@district.mackenzie.bc.ca</a>	Private, Mackenzie, BC, VoJ 2C0
Don and Sadie Jarvis	<a href="mailto:sjarvis@xplornet.com">sjarvis@xplornet.com</a>	Private, Prince George, BC V2K 5N8
George Desjarlais	<a href="mailto:forestry@westmo.org">forestry@westmo.org</a>	Private, Moberly Lake, BC, VOC 1X0
Jim and Janet Besherse	<a href="mailto:Besherse.noostel@outlook.com">Besherse.noostel@outlook.com</a>	General Delivery, Germansen Landing, BC VOJ 1T0
Lawrence Napier	<a href="mailto:napierlr@hotmail.com">napierlr@hotmail.com</a>	Private, Mackenzie, BC, VOJ 2C0
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Vi Lambie	<a href="mailto:jlambie@telus.net">jlambie@telus.net</a>	Private, Mackenzie BC, VOJ 2C0
Lyle Mortenson	<a href="mailto:lyle@lrm.ca">lyle@lrm.ca</a>	9133 8 <sup>th</sup> Street, Dawson Creek, BC V1G 3N5
John Stokmans	<a href="mailto:forestry@saulteau.com">forestry@saulteau.com</a>	PO Box 1020 Chetwynd, BC VOC 1J0 1-250-788-7290
Cornelia Thomi	<a href="mailto:cthomi@forsite.ca">cthomi@forsite.ca</a>	5-600 Mackenzie Blvd. Mackenzie, BC VOJ 2C0 Tel: 1-888-976-0410
Peter Weeber	<a href="mailto:pweeber@district.mackenzie.bc.ca">pweeber@district.mackenzie.bc.ca</a>	Bag 340, 1 Mackenzie Blvd Mackenzie, BC, VOJ 2C0 1.250.997.3221 1.877.997.9940

### Correspondence only

Chief Richard Mclean	<a href="mailto:chief.mclean@tahltan.ca">chief.mclean@tahltan.ca</a>	Box 46, Telegraph Creek, BC, VOJ 2W0
Chief Fred Sam	<a href="mailto:chief@nakazdli.ca">chief@nakazdli.ca</a>	PO Box 1329, Fort St. James, BC VOJ 1P0
Chief Roland Willson	<a href="mailto:rwillson@westmo.org">rwillson@westmo.org</a>	PO Box 90, Moberly Lake, BC V0C 1X0
Chief Darlene Hunter	<a href="mailto:dhunter@hrfn.ca">dhunter@hrfn.ca</a>	Halfway River First Nation
Daniel Pierre	<a href="mailto:dpierre@tkdb.ca">dpierre@tkdb.ca</a>	
Dave Jeans	<a href="mailto:r19ddt@telus.net">r19ddt@telus.net</a>	Private, Mackenzie, BC, VOJ 2C0
Elke Lepka	<a href="mailto:forestry.takla@gmail.com">forestry.takla@gmail.com</a>	
Ingo Hinz	<a href="mailto:Ingo.Hinz@canfor.com">Ingo.Hinz@canfor.com</a>	
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Michelle Gunter	<a href="mailto:danshellade@hotmail.com">danshellade@hotmail.com</a>	
Mike Broadbent	<a href="mailto:mrstar58@telus.net">mrstar58@telus.net</a>	Private Mackenzie, BC VOJ 2C0
Nancy Perreault		Private, Germansen Landing, BC - VOJ 1T0
Pat Crook	<a href="mailto:pat@district.mackenzie.bc.ca">pat@district.mackenzie.bc.ca</a>	
PPWC (Local 18)	<a href="mailto:ppwc18@persona.ca">ppwc18@persona.ca</a>	PO Box 398 Osilinka St. Mackenzie, BC VOJ 2C0
Rob Weaver	<a href="mailto:weaver00@telus.net">weaver00@telus.net</a>	Private, Mackenzie, BC, VOJ 2C0
Todd Walter	<a href="mailto:twalter@bpei.ca">twalter@bpei.ca</a>	



## Mackenzie SFMP

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September 4, 2015

Stephanie Killam  
Private  
Mackenzie, BC V0J 2C0

Dear Stephanie

Here is a copy of the CSA Z809 Sustainable Forest Management standard as requested.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Wiensczyk".

Alan Wiensczyk, RPF  
Trout Creek Collaborative Solutions  
250.614.4354 tel, [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)



## Mackenzie SFMP

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September 8, 2015

Jim and Janet Besherse  
General Delivery  
Germansen Landing, BC V0J 1T0

Dear Jim and Janet,

The next meeting of the Mackenzie Public Advisory Group will be a **field tour**.

**When:** Wednesday, September 30, 2015

**Departure Time:** 10:30 am

**Return time:** 4:30 pm

**Location:** Meet at the Mackenzie Rec Centre

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone: 250-614-4354 or [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) by **September 18, 2015**, if you plan on attending this Field trip.

A response by the 18<sup>th</sup> is requested so that I can accommodate and coordinate the transportation requirements for the group – thanks.

We will be travelling to the Holder area southwest of Mackenzie. Please wear suitable clothing and boots. Lunch and transportation will be provided.

The draft agenda for the field tour is attached.

Planned stops include

- Site preparation
- Regeneration
- Protection of other values.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Wiensczyk".

Alan Wiensczyk, RPF  
Trout Creek Collaborative Solutions  
Tel: 250.614.4354 email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)



## Mackenzie SFMP

---



September 8, 2015

Nancy Perreault  
Private  
Germansen Landing, BC V0J 1T0

Dear Nancy,

The next meeting of the Mackenzie Public Advisory Group will be a **field tour**.

**When:** Wednesday, September 30, 2015  
**Departure Time:** 10:30 am  
**Return time:** 4:30 pm  
**Location:** Meet at the Mackenzie Rec Centre

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone: 250-614-4354 or [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) by **September 18, 2015**, if you plan on attending this Field trip.

A response by the 18<sup>th</sup> is requested so that I can accommodate and coordinate the transportation requirements for the group – thanks.

We will be travelling to the Holder area southwest of Mackenzie. Please wear suitable clothing and boots. Lunch and transportation will be provided.

The draft agenda for the field tour is attached.

Planned stops include

- Site preparation
- Regeneration
- Protection of other values.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Wiensczyk".

Alan Wiensczyk, RPF  
Trout Creek Collaborative Solutions  
Tel: 250.614.4354 email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)



From: Alan Wiensczyk

Sept 8, 2015

To: Mackenzie PAG distribution list  
CC: Jason Neumeyer

Fall field tour – Wed Sept 30, 2015

Hello Mackenzie PAG members

Hope that everyone had an enjoyable summer.

The next meeting of the Mackenzie Public Advisory Group will be a **field tour**.

**When:** Wednesday, September 30, 2015

**Departure Time:** 10:30 am

**Return time:** 4:30 pm

**Location:** Meet at the Mackenzie Rec Centre

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone: 250-614-4354 or [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) by **September 18, 2015**, if you plan on attending this Field trip.

Notification by the 18<sup>th</sup> is requested so that Jason and I can accommodate and coordinate the transportation requirements for the group.

We will be travelling to the Holder area south of Mackenzie. Please wear suitable clothing and boots. Lunch and transportation will be provided.

The draft agenda for the field tour is attached.

Planned stops include

- Site preparation
- Regeneration
- Protection of other values.

Sincerely,

Al Wiensczyk  
Trout Creek Collaborative Solutions  
Phone: 250-614-4354  
Cell: 250-640-0496  
Email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)  
Website: [www.tccsolutions.ca](http://www.tccsolutions.ca)  
Facilitating informed natural resource management decision-making.



MacPAG  
agenda\_Sept\_30\_20

From: Alan Wiensczyk

Sept 18, 2015

To: Mackenzie PAG distribution list  
CC: Jason Neumeyer

Reminder - Mackenzie PAG field tour – Wed Sept 30

Hello folks

Just a friendly reminder to please let me know if you plan on attending the Mackenzie PAG field tour.

**When:** Wednesday, September 30, 2015

**Departure Time:** 10:30 am

**Return time:** 4:30 pm

**Location:** Meet at the Mackenzie Rec Centre

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone: 250-614-4354 or [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) by **September 18, 2015**, if you plan on attending this Field trip.

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- Site preparation
- Regeneration
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Website: [www.tccsolutions.ca](http://www.tccsolutions.ca)  
Facilitating informed natural resource management decision-making.



MacPAG  
agenda\_Sept\_30\_20

From: Alan Wiensczyk

Sept 29, 2015

To: Mackenzie PAG field tour confirmed attendees  
CC: Jason Neumeyer

Mackenzie PAG field tour tomorrow

Hello folks

Just a reminder about the Mackenzie PAG field tour tomorrow. We will be convening at the Mackenzie Rec Centre at 10:30 am. A few minor business items to take care of first and then we will load up the vehicles and head to the field. Weather forecast looks fair for tomorrow. Cloudy/mix of sun and cloud and a high of 19.

See you tomorrow and safe travels for those coming in from away.

Cheers

Al

Al Wiensczyk  
Trout Creek Collaborative Solutions  
Phone: 250-614-4354  
Cell: 250-640-0496  
Email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)  
Website: [www.tccsolutions.ca](http://www.tccsolutions.ca)  
Facilitating informed natural resource management decision-making.

From: Alan Wiensczyk

Oct 16, 2015

To: Mackenzie PAG distribution list  
CC: Jason Neumeyer

Mackenzie PAG field tour summary – Sept 30, 2015

Hello folks

Attached is the summary from the Mackenzie PAG field tour held on September 30, 2015 for your information.

Please let me know if you have any comments or corrections.

The meeting summary has also been posted on the SFMP website – [www.sfmptsa.com](http://www.sfmptsa.com)

Cheers

Al

Al Wiensczyk  
Trout Creek Collaborative Solutions  
Phone: 250-614-4354  
Cell: 250-640-0496  
Email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)  
Website: [www.tccsolutions.ca](http://www.tccsolutions.ca)  
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1 Attachment



MK PAG Minutes  
093015 field tour Dra



## Mackenzie SFMP

---



October 15, 2015

Jim and Janet Besherse  
General Delivery  
Germansen Landing, BC V0J 1T0

Dear Jim and Janet,

The next meeting of the Mackenzie Public Advisory Group is scheduled for **Wednesday, October 28, 2015**.

**Time:** 10:30 am – 2:30 pm

**Location:** Canfor Mackenzie Office

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone: 250-614-4354 or [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) if you plan on attending this meeting.

At this meeting we will be reviewing the annual report, discussing the addition of Mackenzie Fibre to the SFM plan, hearing a presentation on the proposed updates to the CSA Z809 standard and taking a tour of the Williston Lake Transporter.

As the tour of the Transporter will be outside please wear suitable clothing and boots. Lunch and transportation will be provided.

The draft agenda for the meeting is attached.

Sincerely,

A handwritten signature in black ink, appearing to read "Al Wiensczyk".

Alan Wiensczyk, RPF  
Trout Creek Collaborative Solutions  
Tel: 250.614.4354 email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)



## Mackenzie SFMP

---



October 15, 2015

Nancy Perreault  
Private  
Germansen Landing, BC V0J 1T0

Dear Nancy,

The next meeting of the Mackenzie Public Advisory Group is scheduled for **Wednesday, October 28, 2015**.

**Time:** 10:30 am – 2:30 pm

**Location:** Canfor Mackenzie Office

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone: 250-614-4354 or [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) if you plan on attending this meeting.

At this meeting we will be reviewing the annual report, discussing the addition of Mackenzie Fibre to the SFM plan, hearing a presentation on the proposed updates to the CSA Z809 standard and taking a tour of the Williston Lake Transporter.

As the tour of the Transporter will be outside please wear suitable clothing and boots. Lunch and transportation will be provided.

The draft agenda for the meeting is attached.

Sincerely,

A handwritten signature in black ink, appearing to read "Al Wiensczyk".

Alan Wiensczyk, RPF  
Trout Creek Collaborative Solutions  
Tel: 250.614.4354 email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)

From: Alan Wiensczyk

Oct 15, 2015

To: Mackenzie PAG distribution list  
CC: Jason Neumeyer

Mackenzie PAG meeting – Wed Oct 28 2015.

Hello folks

The next meeting of the Mackenzie Public Advisory Group is scheduled for Wednesday, October 28, 2015.

Time: 10:30 am – 2:30 pm

Where: **\*\*Canfor Mackenzie Office\*\***

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone 250-614-4354 or email [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) if you plan on attending this meeting.

At this meeting we will be

- 1) reviewing the 2014/15 Annual Report
- 2) discussing the addition of Mackenzie Fibre to the SFMP
- 3) hearing a presentation on the proposed updates to the CSA Z809 standard, and
- 4) taking a tour of the Williston Lake Transporter.

As the tour of the transporter will be outside, please wear suitable clothing and boots.

Lunch and transportation to the transporter site will be provided.

A draft agenda for the meeting is attached.

**\*\*PLEASE NOTE the change in location for the meeting.** We are meeting at the **Canfor Mackenzie office** to allow easier access to the transporter.

Hope to see you there

Cheers

Al

Al Wiensczyk  
Trout Creek Collaborative Solutions  
Phone: 250-614-4354  
Cell: 250-640-0496  
Email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)  
Website: [www.tccsolutions.ca](http://www.tccsolutions.ca)  
Facilitating informed natural resource management decision-making.

1 Attachment



MacPAG agenda\_Oct  
28\_2015.pdf



From: Alan Wiensczyk

Oct 21, 2015

To: Mackenzie PAG distribution list  
CC: Jason Neumeyer

Mackenzie PAG Meeting – Wed Oct 28, 2015

Hello folks

Just a reminder to please let me know if plan on attending the upcoming Mackenzie Public Advisory Group meeting which is scheduled for Wednesday, October 28, 2015.

Time: 10:30 am – 2:30 pm

Where: **\*\*Canfor Mackenzie Office\*\***

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone 250-614-4354 or email [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) if you plan on attending this meeting.

At this meeting we will be

- 1) reviewing the 2014/15 Annual Report
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As the tour of the transporter will be outside, please wear suitable clothing and boots.

Lunch and transportation to the transporter site will be provided.

A draft agenda for the meeting is attached.

**\*\*PLEASE NOTE the change in location for the meeting.** We are meeting at the **Canfor Mackenzie office** to allow easier access to the transporter.

Hope to see you there

Cheers

Al

Al Wiensczyk  
Trout Creek Collaborative Solutions  
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Website: [www.tccsolutions.ca](http://www.tccsolutions.ca)  
Facilitating informed natural resource management decision-making.

1 Attachment



MacPAG agenda\_Oct  
28\_2015.pdf

From: Alan Wiensczyk

Oct 27, 2015

To: Mackenzie PAG distribution list  
CC: Jason Neumeyer

Reminder – Mackenzie PAG Meeting tomorrow – 10:30 – Canfor office

Good morning folks

Just a quick reminder about the PAG meeting tomorrow (Oct 28, 2015) 10:30 am at the Canfor admin office at the mill site – 1801 Mill Road.

Below is a link to a map to the mill site.

<https://www.google.ca/maps/place/Canadian+Forest+Products+Ltd/@55.3094619,-123.1517877,14z/data=!4m2!3m1!1s0x538c2193eb6f751d:0x26b31d315f9604e3>

Please remember that we will be touring the transporter in the mill yard as part of the meeting so bring appropriate clothing and footwear.

See you tomorrow.

Ciao

Al

Al Wiensczyk  
Trout Creek Collaborative Solutions  
Phone: 250-614-4354  
Cell: 250-640-0496  
Email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)  
Website: [www.tccsolutions.ca](http://www.tccsolutions.ca)  
Facilitating informed natural resource management decision-making.

From: Alan Wiensczyk

Nov 4, 2015

To: Mackenzie PAG distribution list  
CC: Jason Neumeyer

MK PAG Meeting summary – October 28, 2015

Hello folks

Attached is the meeting summary from the October 28, 2015 PAG meeting.

Please let me know if you have any comments or questions.

Ciao

Al

1 Attachment



MK PAG Meeting  
Summary Oct\_28\_20

From: Alan Wiensczyk

May 4, 2015

To: Mackenzie PAG distribution list  
CC: Jason Neumeyer

FW: Spruce Beetle Town Hall: May 11

Hello Mackenzie PAG members

Jason asked me to forward this information regarding a town hall meeting taking place at the Mackenzie Rec Centre on **Monday, May 11<sup>th</sup> – 7:00-8:30 pm.**

The purpose of the meeting is to share information on the Spruce Bark Beetle population growth in the Mackenzie Forest District.

Robert (Bob) Hodgkinson, the regional entomologist with FLNRO, will be speaking.

Cheers

Al

Al Wiensczyk  
Trout Creek Collaborative Solutions  
Phone: 250-614-4354  
Cell: 250-640-0496  
Email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)  
Website: [www.tccsolutions.ca](http://www.tccsolutions.ca)  
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---

**From:** Neumeyer, Jason [mailto:Jason.Neumeyer@canfor.com]  
**Sent:** Monday, May 04, 2015 8:33 AM  
**To:** Al Wiensczyk  
**Subject:** FW: Spruce Beetle Town Hall: May 11

Hi Al,

I'm sure this is going out to a lot of contacts around the Mackenzie area but I was wondering if you could forward it to the PAG members/ distribution as well. Anything that will help get the word out.

Jason

1 Attachment: Spruce Beetle Poster 11 by 17.jpg

From: Alan Wiensczyk

Aug 7, 2015

To: Mackenzie PAG distribution list  
CC: Jason Neumeyer

CSA Z809 standard now available for public review

Hello folks

Hope that everyone is having a good summer.

I have been asked to pass the following information on to all PAG members.

The CSA Z809 standard is now available for public review. The attached file provides a summary of the proposed changes.

The full CSA Z809 standard can be accessed and comments provided by visiting the following website.

<http://publicreview.csa.ca/Home/Details/1712>

If anyone would like a hard copy of the revised standard please contact me and I will arrange for a copy to be mailed to you.

Please let me know if you have any comments, questions or concerns.

Cheers

Al

Al Wiensczyk  
Trout Creek Collaborative Solutions  
Phone: 250-614-4354  
Cell: 250-640-0496  
Email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)  
Website: [www.tccsolutions.ca](http://www.tccsolutions.ca)  
Facilitating informed natural resource management decision-making.



Major Changes in  
Z809\_2.pdf

**Mackenzie PAG First Nations Contact List  
March 31, 2016**

Chief Roland Willson  
West Moberly First Nation  
PO Box 90  
Moberly Lake, BC  
V0C 1X0

Chief Rena Benson  
Gitksan Nation (Nii Kyap)  
PO Box 128  
Kitwanga, BC  
V2J 2A0

Chief Darlene Hunter  
Halfway River First Nation  
PO Box 59  
Wonowon, BC  
V0C 2N0

Chief Terri Brown  
Tahltan First Nation  
PO Box 46  
Telegraph Creek, BC  
V0L 2W0

Chief Donny Van Somer  
Kwadacha Band Office  
497 3<sup>rd</sup> Ave  
Prince George, BC  
V2L 3C1

Chief Derek Orr  
McLeod Lake First Nation  
General Delivery  
McLeod Lake, BC  
V0J 2G0

Chief Dennis Izony  
Tsay Keh Dene Band  
1877 Queensway St.  
Prince George, BC  
V2L 1L9

Chief Dolly Abraham  
Takla Lake First Nation  
General Delivery  
Takla Landing, BC  
V0J 1T0

Chief Fred Sam  
Nak'azdli First Nation  
P.O. Box 1329  
Fort St. James, BC  
V0J 1P0

Chief Nathan Parenteau  
Saulteau First Nations  
PO Box 1020  
Chetwynd, BC  
V0C 1J0





## Mackenzie SFMP

---



September 8, 2015

First Nations mailing list

Dear Chief Last Name,

The next meeting of the Mackenzie Public Advisory Group will be a **field tour**.

**When:** Wednesday, September 30, 2015

**Departure Time:** 10:30 am

**Return time:** 4:30 pm

**Location:** Meet at the Mackenzie Rec Centre

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone: 250-614-4354 or [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) by **September 18, 2015**, if you plan on attending this Field trip.

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The draft agenda for the field tour is attached.

Planned stops include

- Site preparation
- Regeneration
- Protection of other values.

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Alan Wiensczyk, RPF

Trout Creek Collaborative Solutions

Tel: 250.614.4354 email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)



## Mackenzie SFMP

---



October 15, 2015

First Nations Mailing List

Dear Chief Last Name,

The next meeting of the Mackenzie Public Advisory Group is scheduled for **Wednesday, October 28, 2015**.

**Time:** 10:30 am – 2:30 pm

**Location:** Canfor Mackenzie Office

**Action Requested:** Please contact the facilitator, Alan Wiensczyk, (phone: 250-614-4354 or [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)) if you plan on attending this meeting.

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Trout Creek Collaborative Solutions  
Tel: 250.614.4354 email: [alan@tccsolutions.ca](mailto:alan@tccsolutions.ca)



# Continuous Improvement Matrix

May 9, 2006

The purpose of this matrix is to capture issues presented by PAG members that can contribute to the continuous improvement of sustainable forest management but are either outside the scope of the PAG process or cannot be addressed by Canfor (Mackenzie) and BCTS (Prince George Forest District) at the present time. These issues are to be reviewed at PAG meetings for further discussion and prioritization.

No.	Perf. Matrix Ref.	Description of Issue	Suggested Strategies	Suggested Dates
1.	2-1.1	Develop baseline data for coarse woody debris.		June 2007
2.	3.1	Recognize advances in carbon accounting and incorporate that information once it becomes available.		On-going – June 2010
3.	1.2	Examine possibility for measures associated with shrubs, snags, and large live trees.		June 2008
4.	3	Consider opportunity for adding an indicator on forest product carbon pools.		
5.	3	Consider a new measure with carbon associated with slash burning.		
6.	1-3.1	Consider a measure for management strategies from the Northern Caribou Recovery Action Plan as it is finalized.		
7.	1.2	Develop a measure to deal with pesticide use.		
8.	9-2	Consider a measure for the management of visual quality areas recommended within the Mackenzie LRMP.		
9.	9-1.2	Consider a measure for Canfor and BCTS to sponsor and maintain new recreation sites and rest areas.		
10.	9-3 & 1-4	BCTS and Canfor to solicit public for input on additional resource features.		
11.	9-5	Develop a measure around road maintenance.		

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12.	9-5	Develop a smoke management strategy in consultation with the local communities.		
13.	9-5	Develop a measure on dust control for road safety.		
14.	9-5	Develop a measure to protect domestic water intake and/or supply.		
15.	<u>5-1 &amp; 9-1</u>	<u>An opportunity to incorporate marketed and non-marketed, non-timber values into one measure</u>	<u>Revisit Measures 5-1.1 and 9-1.1 and look at incorporating marketed and non-marketed, non-timber values into one Measure</u>	<u>September 2008</u>

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# Mackenzie

## Sustainable Forest Management Plan



Mackenzie SFMP



## 2014 - 2015 Annual Report

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## 1.0 Introduction

This Annual Report of the Mackenzie Sustainable Forest Management Plan covers the reporting period of April 1, 2014 to March 31, 2015. This annual report is solely reporting the efforts of Canadian Forest Products Ltd. operating under Forest License A15384 within the Mackenzie TSA. Canfor completed a revision to the SFM plan with a significant change to the format/ template of the plan to align with a number of other Canfor SFMP's. Indicators were rearranged and re-numbered to align with the CSA standard, however there were no specific changes to the wording of the indicator statements. Additional background and support information was added to the SFM plan to complement the new plan format/ template. These minor changes to the plan will not change the operational practices of Canfor.

The CSA Standard provides SFM specifications that include public participation, performance, and system requirements that must be met to achieve certification. These specifications were the framework for the development of the Mackenzie SFMP. Canfor has existing management systems that contribute to the overall SFM strategy. These may include existing management systems such as ISO 14001 Forest Management Systems, standard work procedures, and internal policies.

One of the public participation strategies suggested in the CSA SFM Standard is the formation of a local group of interested and affected members of the public to provide input on an ongoing basis. This strategy provides the base for the formation of a Public Advisory Group (PAG) whose purpose is to achieve CSA standard's public participation requirements. A PAG was initially developed to assist with the development of the SFMP, this group is maintained to date and meets regularly to discuss changes to the plan when necessary as well as to discuss licensee performance and review audit results etc. A wide range of public sector interest groups from within the Mackenzie Forest District were invited to participate in the SFM process through the PAG. After completing the Terms of Reference in January 2006, the PAG established the SFMP Criteria and Elements Performance Matrix with the SFMP being completed in June of 2006. It is important to note, the Mackenzie SFMP is a working document and is subject to continual improvement. Over time, the document will incorporate new knowledge, experience and research in order to recognize society's environmental, economic and social values. For example, PAG involvement during 2010-11 was critical in updating the SFMP from the CSA Z809-02 to the CSA Z809-08 standard.

This Annual Report summarizes Canfor's performance in meeting the indicator targets outlined in the SFMP over the Mackenzie Defined Forest Area (DFA). The DFA is the Crown Forest land base within the Mackenzie Resource Management District and the operating areas of Canfor, excluding woodlots, Community Forest, Parks, Protected Areas and private land. The intent of this Annual Report is to have sustainable forest management viewed by the public as an open, evolving process that is taking steps to meet the challenge of managing the forests of the Mackenzie DFA for the benefit of present and future generations.

The following Table summarizes the results for the current reporting period. For clarification of the intent of the indicators, indicators, objectives or the management practices involved, the reader should refer to the Mackenzie Sustainable Forest Management Plan Document.

## 1.1 List of Acronyms

Below is a list of common acronyms used throughout this annual report. For those wishing a more comprehensive list should consult the Mackenzie Sustainable Forest Management Plan.

AAC – Annual Allowable Cut  
BCTS – BC Timber Sales  
BEC – Biogeoclimatic Ecosystem Classification  
BEO – Biodiversity Emphasis Option  
BWBS – Black and White Boreal Spruce  
CFLB – Crown Forested Land Base

CSA – Canadian Standards Association  
 CWD – Coarse Woody Debris  
 DFA – Defined Forest Area  
 ESSF – Engelmann Spruce Sub-alpine Fir  
 FMG – Forest Management Group  
 FRPA – Forest and Range Practices Act  
 FSR – Forest Service Road  
 GIS – Geographic Information System  
 LOWG – Landscape Objective Working Group  
 LRMP – Land and Resource Management Plan  
 LU – Landscape Unit  
 MoFR – Ministry of Forest and Range  
 NCI – North Central Interior  
 NDT – Natural Disturbance Type  
 NDU – Natural Disturbance Unit  
 NHLB - Non-Harvestable Land Base  
 OGMA – Old Growth Management Area  
 PAG – Public Advisory Group  
 PFI – Peak Flow Index  
 RMA – Riparian Management Area  
 RMZ – Resource Management Zone (landscape-level planning)  
 RMZ – Riparian Management Zone (riparian management)  
 RRZ – Riparian Reserve Zone  
 SAR – Species at Risk  
 SBS – Sub-Boreal Spruce  
 SFM – Sustainable Forest Management  
 SFMP – Sustainable Forest Management Plan  
 SWB – Spruce Willow Birch  
 THLB – Timber Harvesting Land Base  
 TOR – Terms of Reference  
 TSA – Timber Supply Area  
 VIA – Visual Impact Assessment  
 VQO – Visual Quality Objective

## 1.2 Executive Summary

Of the **48** indicators listed in Table 1, **43** indicators were met within the prescribed variances, **4** indicators are pending due to incomplete information, and **1** indicator was not met within the prescribed variances.

**Table 1: Summary of results for the 2012-13 Reporting Year.**

Indicator Number	Indicator Description	Target Met	Pending	Target Not Met
1.1.1	Productive forest representation	X		
1.1.2	Forest Area by Species Composition	X		
1.1.3a	Old forest			X
1.1.3b	Interior forest	X		
1.1.3c	Biodiversity reserve effectiveness	X		
1.1.3d	Patch size	X		
1.1.4a	Wildlife Trees	X		
1.1.4b	Riparian Management area effectiveness	X		
1.1.4c	Dispersed Retention Levels	X		
1.2.1a	Species within the DFA	X		
1.2.1b	Sites of Biological Significance	X		
1.2.3	Proportion of Genetically Modified Trees in Reforestation Efforts	X		
1.4.2a	Heritage Conservation	X		

Indicator Number	Indicator Description	Target Met	Pending	Target Not Met
1.4.2b	Protection of Identified Sacred and Culturally Important Sites	X		
2.1.1a	Regeneration Delay	X		
2.1.1b	Free Growing	X		
2.2.1a	Site Conversion	X		
2.2.1b	Permanent Access Structures	X		
2.2.2a	Harvest Volumes		X	
2.2.2b	Prioritizing harvest of damaged stands			X
3.1.1a	Sedimentation	X		
3.1.1b	Stream Crossings	X		
3.1.1c	Road re-vegetation	X		
3.1.1d	Road environmental risk assessments	X		
3.1.1e	Soil Conservation	X		
3.1.1f	Terrain Management	X		
3.1.2	Coarse Woody Debris	X		
3.2.1	Peak Flow Index	X		
5.1.1a	Non Timber Benefits	X		
5.1.1b	First-order Wood Products	X		
5.2.2	Investment in Training and Skills Development	X		
5.2.3	Level of Direct and Indirect Employment	X		
5.2.4	Contract Opportunities for First Nations	X		
6.1.1	Understanding the Nature of Aboriginal Rights and Title	X		
6.1.2a	First Nations Concerns	X		
6.1.2b	First Nations Input into Forest Planning	X		
6.3.1	Local Investment	X		
6.3.2	Accidents	X		
6.3.3a	Signage	X		
6.3.3b	Safety Policies	X		
6.4.1	Satisfaction (PAG)	X		
6.4.2a	Input into Forest Planning	X		
6.4.2b	Public and Stakeholder Concerns	X		
6.5.1a	SFM Educational Opportunities	X		
6.5.1b	People Reached through Educational Outreach	X		
6.5.2a	Access to SFM Information	X		
6.5.2b	Communication of planned Deactivation Projects	X		
	Reportable Spills	X		
	<b>Totals</b>	<b>45</b>	<b>1</b>	<b>2</b>

### 1.3 SFM Performance Reporting

This annual report will describe the success in meeting the indicator targets over the DFA. The report will be available to the public and will allow for full disclosure of forest management activities, successes, and failures. Canfor has reported performance within its operating areas. Canfor is committed to work together to fulfill the Mackenzie SFMP commitments including data collection and monitoring, participation in public processes, producing public reports, and continuous improvement.

## 2.0 SFM Indicators, Targets and Variances

### Indicator 1.1.1 Productive Forest Representation

Indicator Statement	Target and Variance
Total hectares logged in rare and un-common ecosystems.	Target: 0 ha Variance: 0%

Maintaining representation of a full range of ecosystem types is a widely accepted strategy to conserve biodiversity in protected areas and is suggested for landscapes managed for forestry. Most species, especially those for which knowledge is sparse or absent, are best sustained by ensuring that some portion of each distinct ecosystem type is represented in a relatively unmanaged state. Unmanaged stands act as a precautionary buffer against errors in efforts intended to sustain species in the managed forest.

This is the first year to report on this indicator in this fashion. Reported are the past 3 years of harvesting in rare and uncommon ecosystems according to an analysis of all ecology units harvested. The table below shows all of the ecosystems which are considered to “rare” or “un-common” as well as the amount in hectares harvested over the past three years.

#### Rare and Un-common Ecosystems

Rare Ecosystem	Amount harvested by year in hectares		
	2012	2013/14	2014/15
SBSvk\03	0	0	0
SBSWk1\05	0	0	0
ESSFmv3\06	4.7	0	0
ESSFmv2\06	0	0	0
ESSFmv4\05	0	0	0
BWBSdk1\09	0	0	0
BWBSdk1\07	0	0	0

**Source:** GIS analysis of all Site Plans harvested. WIM report for eco summary.

**Indicator Discussion:** GIS analysis identified that there were no overlaps with blocks harvested during the reporting period and the rare eco GIS layer.

### Indicator 1.1.2 Forest Area by species composition

Indicator Statement	Target and Variance
Percent composition of forest type (treed conifer, treed broad leaf, treed mixed) >20 years old across DFA.	Target: Maintain baseline ranges and distribution into the future (measured every 5 years)  Variance: +/-1%

Tree species composition, stand age, and stand structure are important variables that affect the biological diversity of a forest ecosystem - providing structure and habitat for other organisms. Ensuring a diversity of tree species within their natural range of variation, improves ecosystem resilience and productivity and positively influences forest health. Reporting on this indicator provides high level overview information on area covered by broad forest type, forest succession and management practices that might alter species composition.

The different stand types will be run using GIS analysis and VRI data. The baseline data was revised in 2013 after the DFA changed as a result of BCTS operating areas being removed from the DFA. Subsequent analysis will be done every 5 years in an effort to eliminate any bias from short term trends

on the land-base, and to allow for the periodic updating of data sources. The indicator will be considered to have been met if the area for the 5 year reporting window maintains its area spread within 1 percent of baseline areas.

Analysis Year	Treed Conifer	Treed Broadleaf	Treed Mix
2013 (baseline)	90%	3%	7%
2014	90%	3%	7%
2015	90%	3%	7%

Source: GIS analysis of VRI data.

Indicator Discussion:

### Indicator 1.1.3a Old forest

Indicator Statement	Target and Variance
Percent of blocks that are within LU/BEC Groups that meet prescribed old-growth targets.	Target: 100% Variance: 0%

This indicator was chosen to monitor the amount of old forest within each Landscape Unit (LU) group. It is assumed that maintenance of all seral stages across the landscape will contribute to sustainability because doing so is more likely to provide habitat for multiple species as opposed to creating landscapes of uniform seral stage. Emphasis is placed on old forest because many species use older forests and the structural elements found therein (e.g. large snags, coarse woody debris, and multilayer canopies). These structural elements are difficult to recreate in younger forests. The targets for old forest are taken from the approved Mackenzie TSA Biodiversity Order.

#### Old Forest:

Landscape Unit	BEC Group	Number of blocks	Target % of Old Growth	Actual % of Old Growth	Number of Blocks that meet Old Growth Targets	Result
Philip	2		9	14.5		
	4	15	11	15.4	15	
Blackwater	2		9	12.4		
	4	19	11	12.7	19	
	5	10	0	10	10	
Tudyah	4	3	11	16.9	3	
Nation	4	1	16	14.5	0	
Gaffney*	2	1			1	
	4	4			4	
	5	1			1	
Eklund*	4	1			1	
Manson River*	2	1			1	
	4	2			2	
Gillis*	4	2			2	
	7	1			1	
S.Germansen*	4	1			1	
	7	1			1	

Total Blocks	63	Total Blocks that meet target	62	98.4
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**Source:** Mackenzie LOWG Analysis.

**Indicator Discussion:** The 2014-2015 Analysis for old and old interior forest was completed by BCTS. Our records indicate that one block was harvested in BEC Group 4 within the Nation Landscape unit. The analysis identified that the Old growth % is 14.5% which is below the target of 16% for that LU/BEC Group.

In the 2014/15 reporting year there were 63 blocks harvested in 9 LUs. \*Gaffney, Eklund, Manson River, Gillis and South Germansen LU's contain spatially defined OGMAs, therefore there are no targets for old growth as it is spatially defined and protected. These blocks automatically meet the objective. Analysis identified that old forest target was not met with one block being harvested in a Landscape unit BEC group that is below the target for that LU/BEC group. Action: Collaborate with LOWG signatory licensees to develop a plan for operating within the Nation Landscape unit BEC group 4.

### Indicator 1.1.3b Interior Forest

Indicator Statement	Target and Variance
Percent of blocks that are within LU/BEC Groups that meet prescribed Interior Old targets.	Target: 100% Variance: 0%

Interior forest conditions refer to a situation where climatic and biotic characteristics are not significantly affected by adjacent and different environmental conditions (e.g., other seral stages, other forest or non-forest types, etc.). This indicator is important because provision of habitat for old-forest dependent species (see Indicator #1) can only occur if old forests are not significantly affected by adjacent environmental conditions. Historically, natural disturbance events such as fire, insects, and wind led to diverse landscapes characterized by forests having these interior old forest conditions. Thoughtful planning of harvesting patterns can minimize "fragmentation" of the forested landscape and help create interior old forest conditions. Furthermore, the intent of this indicator is to have interior old forest conditions represented within all ecosystem types to further enhance ecosystem resilience. The targets for interior old are taken from the approved Mackenzie TSA Biodiversity Order.

#### Interior Old

Landscape Unit	BEC Group	Number of blocks	Target % of Old Interior	Actual % of Old Interior	Number of Blocks that meet Old Interior Targets	Result
Philip	2		10	239		15
	4	15	10	99		
Blackwater	2		10	472		19
	4	19	10	97.6	19	
	5	10	0		10	
Tudyah	4	3	10	123	3	
Nation	4	1	25	108	1	
Gaffney*	2	1			1	
	4	4			4	
	5	1			1	

Eklund*	4	1			1
Manson River*	2	1			1
	4	2			2
Gillis*	4	2			2
	7	1			1
S.Germansen*	4	1			1
	7	1			1
Total Blocks		63		Total Blocks that meet target	63
					100

**Source:** Mackenzie LOWG Analysis

**Indicator Discussion:** The 2014-2015 Analysis for old and old interior forest was completed by the BCTS.

In the 2014/15 reporting year there were 63 blocks harvested in 9 LUs. \*Gaffney, Eklund, Manson River, Gillis and South Germansen LU's contain spatially defined OGMA's, therefore there are no targets for old interior as it is spatially defined and protected. These blocks automatically meet the objective.

### Indicator 1.1.3c Biodiversity Reserve Effectiveness

Indicator Statement	Target and Variance
Percentage of blocks and roads harvested that do not comply with Orders which legally establish protected areas, ecological reserves, or OGMA's.	Target: 0% Variance: 0%

Landscape level biodiversity reserves/ Protected Areas are areas protected by legislation, regulation, or land-use policy to control the level of human occupancy or activities (Canadian Standards Association, 2003). These include legally established Old Growth Management Areas (OGMA's), parks, ecological reserves, and new protected areas. As forestry activities may occur near these areas the chance exists for unauthorized harvesting or road construction to happen within these sites. The OGMA's in Mackenzie do allow for certain, small amounts of disturbance where necessary. Please see SFM plan for more information on this.

### Biodiversity Reserves

Signatory	Number of Blocks and roads harvested			Blocks and roads harvested that are within protected areas, ecological reserves, or OGMA's	%in DFA
	Blocks	Roads	Total		
Canfor	63	152	215	0	0%

**Source:** GIS query.

**Indicator Discussion:** If OGMA's are harvested, this will be summarized here, but not reported as a violation of this indicator.

### Indicator 1.1.3d Patch Size

Indicator Statement	Target and Variance
Percentage of blocks harvested that meet the prescribed patch size target ranges or are trending towards the target range.	Target: 100% Variance: -30%



Patches often consist of even aged forests because most are the result of either a natural disturbance such as fire, wind or pest outbreaks, or from harvesting timber. Patches may be created through single disturbance events or through a series of events (i.e. a combination of natural disturbance and harvesting). Mature forests and younger forest patches represent a land base created from a history of disturbances, natural and otherwise. As such, forest stands and patches are often composed of a variety of species, stocking levels and ages. Currently, forest management practices have reduced the occurrence of many natural disturbance events, such as wildfire. In the absence of natural disturbance, timber harvesting is employed as a disturbance mechanism and thus influences the distribution and size ranges of forest patches in the same fashion as historical natural disturbance events. Harvesting activities serve to mimic natural disturbance events characteristic within the Mackenzie DFA. Past social constraints associated with harvesting and resulting patch size have led to fragmentation of the landscape beyond the natural ranges of variability, which has developed over centuries from larger scale natural disturbance. In order to remain within the natural range of variability of the landscape and move toward sustainable management of the forest resource, it is important to develop and maintain patch size targets based on historical natural patterns. This indicator will monitor the consistency of harvesting patterns compared to the landscape unit group and the natural patterns of the landscape.

### Patch Size

Signatory	Number of Blocks Harvested	Blocks harvested that meet or trend towards prescribed patch size target ranges	Percent
Canfor	63	63	100

**Source:** Mackenzie LOWG Analysis Results.

**Indicator Discussion:** Blocks that are harvested for pest or disease (salvage) are considered to have met patch, as harvesting for forest health reasons takes precedence over patch size targets. Through the Landscape Objectives Working Group (LOWG) more precise data has been provided by adjacent licensees (BCTS, Conifex, MK Fibre, Three Feathers Consortium) and the LOWG is jointly managing Landscape Biodiversity.

The 2014-2015 Patch analysis was completed by BCTS.

The 2014-2015 Patch analysis combined with analysis information from 2013 and 2014 is indicating that the patch distribution is resulting in larger patch size classes where Canfor has been harvesting. Higher percentages within the larger patch size classes is a positive trend for NDT3 areas, however is not trending towards the targeted distribution range for NDT2 areas. Pine salvage harvesting is the leading cause for the higher percentage of larger patch size classes as there has been an increase in large blocks that have been harvested.

### Indicator 1.1.4a Wildlife Trees

Indicator Statement	Target and Variance
Percentage of cutblocks that meet or exceed wildlife tree patch requirements.	Target: 100% Variance: 0%

Stand level retention, including wildlife tree patches, is managed by Canfor in the DFA on a site-specific basis. During the development of a cut block, retention areas are delineated based on a variety of factors. Stand level retention generally occurs along riparian features and will include non-harvestable and sensitive sites if they are present in the planning area. Stand level retention also aims to capture a representative portion of the existing stand type to contribute to ecological cycles on the land base. Retention level in each block is documented in the associated Site Plan, recorded in the signatories' respective database systems and reported out in RESULTS on an annual basis.

### Wildlife Trees

Signatory	Total Number of Cutblocks Harvested	Number of Cutblocks Harvested exceeding WTP requirements	Overall %
Canfor	63	63	100%

**Source:** Site Plans

**Indicator Discussion:** WTP targets come from Canfor's approved Forest Stewardship Plan and are specific to ecotype and Landscape Unit. Each block harvested in the reporting period had WTP associated with the block with a low of 5.6% and a high of 34.2%.

### Indicator 1.1.4b Riparian Management Area Effectiveness

Indicator Statement	Target and Variance
The percentage of forest operations consistent with riparian management area requirements as identified in operational plans and/or site plans.	Target: 100% Variance: 0%

Riparian features found in the field are assessed during the block lay-out stage to determine its riparian class and associated RRZ/RMZ/RMA. Appropriate buffers are then applied, considering other factors such as operability and wind firmness. Prescribed measures, if any to protect the integrity of the RMA are then written into the Site Plan. The target is a legal requirement. The target value of 100% has been established to reflect this and to ensure that all riparian management practices, specifically RRZ designation and management, continue to remain consistent with the pre-harvest operational plans.

#### Riparian Management

Signatory	Number of Forest Operations with Riparian Management Strategies identified in Operational Plans				Forest Operations Completed in Accordance with riparian management requirements	%in DFA
	Roads	Harvest	Silviculture	Total		
Canfor	152	63	8	223	223	100%

**Source:** Site Plans, Incident Tracking Systems.

**Indicator Discussion:** There were no instances identified and reported where riparian areas were compromised, other than where required for road crossings during harvesting, road building or site preparation activities.

### Indicator 1.1.4c Dispersed retention levels

Indicator Statement	Target and Variance
Percent of blocks meeting dispersed retention levels as prescribed in the site plan/logging plans	Target: 100% Variance: 0%

Operationally, harvest plans often include retention of dispersed trees such as snags, large live trees, deciduous trees, stub trees and understory trees. Dispersed retention provides stand level complexity and long term recruitment of coarse woody debris. Harvest value and ecological value can be optimized by selecting the variety of tree types (e.g., species, size, live and dead, etc.) that have high ecological value and low economic value, and through the number of trees retained.

Signatory	Total Number of Blocks Meeting Dispersed Retention Levels Defined in Site Plan	Total Number of Blocks Harvested	Percent
Canfor	63	63	100.0%

**Source:** Internal databases, and Incident Tracking Systems.

**Indicator Discussion:** There were no instances identified and reported were dispersed retention levels were not met. Harvesting supervisors review levels of dispersed retention post-harvest.

### Indicator 1.2.1a Species within the DFA

Indicator Statement	Target and Variance
Percentage of blocks and roads harvested that adhere to management strategies for Species at Risk, Ungulate winter ranges, and other local species of importance.	Target: 100% Variance: -10%

Fundamental to the correct identification of species and habitats is the incorporation of appropriate management strategies where forest activities have the potential to impact species and habitats. Identification of those animals, invertebrates, bird species, vascular plants, and plant communities that have been declared to be at risk is crucial if they are to be conserved. Appropriate personnel are key staff and consultants that are directly involved in operational forest management activities. By implementing

training to identify species within the DFA the potential for disturbing these species and their habitat decreases. Maintaining all populations of native flora and fauna in the DFA is vital for sustainable forest management, as all organisms are components of the larger forest ecosystem.

There are various sources to draw upon when developing the comprehensive list of species that are legally protected or species of importance within the DFA. The list of species in Appendix C includes species from the following sources:

1. Species at Risk Act
2. Legally established Ungulate Winter Ranges
3. Local species of importance.

Incorporation of local species of importance recognizes potential species that are not legally protected. Local species of importance can be proposed by First Nations, PAG members, the licensees, or by members of the public.

### Species within the DFA

Signatory	Number of Forest Operations that coincide with Species at Risk, Ungulate Winter Ranges, or other local species of importance as identified in Operational Plans				Number of Forest Operations with Species at Risk, Ungulate Winter Ranges, or other local species of importance as identified in Operational Plans that adhere to specific management strategies.	% in DFA
	Roads	Harvesting	Silviculture	Total		
Canfor	0	1	0	0	1	100%

**Source:** Site Plans

**Indicator Discussion:** During the reporting period Canfor harvested one block (5650) that had an identified Goshawk nest removed from the proposed block area and protected from the harvesting activities.

### Indicator 1.2.1b Sites of Biological Significance

Indicator Statement	Target and Variance
Percentage of blocks and roads harvested that adhere to management strategies for sites of biological significance.	<u>Target:</u> 100% <u>Variance:</u> 110%

Sites of biological significance include areas that are critical for wildlife habitat, sensitive sites, and unusual or rare forest conditions or communities. Specific management strategies may be required to ensure that these sites are maintained within the DFA. This indicator will ensure that specific management (fine filter) strategies are developed to conserve and manage sites of biological significance. Many types of sites of biological significance are sufficiently known to allow the development of special management areas, or prescribe activities that will appropriately manage these areas. The management strategies will be based on information already in place (e.g., National Recovery Teams of Environment Canada, IWMS Management Strategy), legislation (provincial and national parks), Land and Resource Management Plans (LRMPs), and recent scientific literature. Management strategies will be implemented in operational plans such as site plans to ensure the protection of these sites. Training of appropriate personnel in the identification of these sites of biological importance is critical to the management and protection of these sites. Appropriate personnel include key signatory staff and consultants that are directly involved in operational forest management activities. Having appropriate personnel trained to identify sites of biological significance will reduce the risks of forestry activities damaging these sites.

This indicator evaluates the success of implementing specific management strategies for sites of biological significance as prescribed in operational, tactical and/or site plans. Operational plans such as site plans describe the actions needed to achieve these strategies on a site specific basis. Once harvesting and other forest operations are complete, an evaluation is needed to determine how well these strategies were implemented. Developing strategies and including them in operational, tactical and/or site

plans are of little use if the actions on the ground are not consistent with them. Tracking this consistency will ensure problems in implementation are identified and corrected in a timely manner.

### Sites of Biological Significance

Signatory	Number of Forest Operations with Sites of Biological Significance Management Strategies Identified in Operational Plans				Forest Operations Completed in Accordance with Identified Strategies	% in DFA
	Roads	Harvesting	Silviculture	Total		
Canfor	0	0	0	0	0	100%

**Source:** Site Plans

**Indicator Discussion:** During the reporting period Canfor did not have any blocks or roads that had management strategies pertaining to sites of biological significance.

### Indicator 1.2.3 Proportion of genetically modified trees in reforestation efforts

Indicator Statement	Target and Variance
Regeneration will be consistent with provincial regulations and standards for seed and vegetative material use	<p><u>Target:</u> 100% conformance with the standards</p> <p><u>Variance:</u> 0%</p>

One of the primary management objectives for sustainability is to conserve the diversity and abundance of native species and their habitats. Silviculture practices that promote regeneration of native species, either through planting or other natural programs assists in meeting these objectives. The well-being and productivity of future forests is dependent upon the structure and dynamics of their genetic foundation.

Seed used in Crown land reforestation that is consistent with provincial regulations and standards ensure regenerated stands are genetically diverse, adapted, healthy and productive, now and in the future. Suitable seed and vegetative lots must also be of a high quality and available in sufficient quantities to meet the specific stocking and forest health needs of a given planting site.

Regeneration will be consistent with provincial regulation and standards for seed and vegetative material use. Target - 100% conformance with the standards (0 percent variance). The Chief Forester's Standards for seed use allows for up to 5 percent of the seedlings planted in a year to be outside the seed transfer guidelines. In addition, there is an avenue in the standards to apply and receive approval for an Alternative Seed Use Policy. This built in variance and flexibility with the standard is why there is no acceptable variance in the target of the SFMP indicator.

Signatory	Total Number of Seedlings Planted in Compliance with Legislative Requirements	Total Number of Seedlings Planted	Percent
Canfor	4,966,720	4,966,720	100%

**Source:** Internal databases.

**Indicator Discussion:** 47,800 trees were planted outside of the transfer limit. Trees were planted outside of limits on 7 blocks. The Chief Forester's Standards allows for up to 5% per year to be planted outside of the seed transfer guidelines. 99% of the trees were planted within the seed transfer guideline areas therefore we are technically still in compliance with legislative requirements.

### Indicator 1.4.2 Heritage Conservation

Indicator Statement	Target and Variance
Percentage of forest operations consistent with the Heritage Conservation Act.	<p><u>Target:</u> 100%</p> <p><u>Variance:</u> 0%</p>

The protection of cultural heritage values assures they will be identified, assessed and their record available to future generations. A cultural heritage value is a unique or significant place or feature of social, cultural or spiritual importance. It may be an archaeological site, recreation site or trail, cultural

heritage site or trail, historic site or a protected area. Cultural heritage values often incorporate First Nation's heritage and spiritual sites, but they can also involve features protected and valued by non-Aboriginal people. Maintenance of cultural heritage values is an important aspect to sustainable forest management because it contributes to respecting the social and cultural needs of people who traditionally and currently use the DFA for a variety of reasons.

The indicator is designed to ensure that operational plans with identified strategies to conserve cultural heritage values have those strategies implemented on the ground. Tracking the level of implementation will allow Canfor to evaluate how successful this implementation is and improve procedures if required.

### Heritage Conservation

Signatory	Total Number of Forest Operations that have associated sites protected under the Heritage Conservation Act (pre 1846)				Number of Forest Operations Completed in Accordance with the Heritage Conservation Act	Percent
	Roads	Harvesting	Silviculture	Total		
Canfor	0	0	0	0	0	100.0%

**Source:** Site plans.

**Indicator Discussion:** There were no cultural or heritage areas noted in any of the blocks harvested during the reporting period. Four blocks harvested within the reporting period had AIA's completed on the blocks with no archaeological sites identified. Within the 4 assessment areas there were 5 High Potential Zones that were identified and removed from the blocks. These HPZ's are areas where there is a higher likelihood of identifying archaeological findings with further testing. Canfor's practice in most situations is to remove the areas from our plans instead of completing additional field work. There were also 4 Traditional Use Sites (post 1846 CMT's) identified in the assessments.

### Indicator 1.4.2b Protection of identified sacred and culturally important sites

Indicator Statement	Target and Variance
Percent of identified Aboriginal forest values, knowledge and uses accommodated in forestry planning processes.	Target: 100% Variance: 0

Efforts have been made to understand which First Nation traditional territories fall within the Plan area and company Defined Forest Areas. Information sharing agreements are made with willing First Nation communities to promote the use and protection of sensitive information.

Planned blocks are shared with Aboriginal communities. Open communication with First Nations that includes a sharing of information enables the participants to understand and incorporate traditional knowledge into forest management options is the means to achieve the objective of the indicator.

The objective will be achieved as the participants become aware of culturally important, sacred and spiritual sites leading to appropriate management of and protection. This will be achieved by specifying measures in operational plans. The proper execution of plans will provide desired results of First Nations culturally important values and resources. Post-harvest evaluations and other inspections will assess plan conformance.

Signatory	Number of Aboriginal forest values, knowledge and uses brought forward that have been considered	Number of Aboriginal forest values, knowledge and uses brought forward	Percent
Canfor	1	1	100.0%

**Source:** Internal tracking databases.

**Indicator Discussion:** In the fall of 2013 Canfor, FLNRO and representatives from the Takla Lake FN met to discuss Canfor's proposed harvesting in the Manson and Germansen areas. A large area was identified as to be no harvesting, however no specific sites were identified by the Takla Lake FN within the area. The input was considered, however not included into operational plans. In the fall of 2014 the Takla Lake FN and Canfor had further discussions regarding their area of concern and some of the

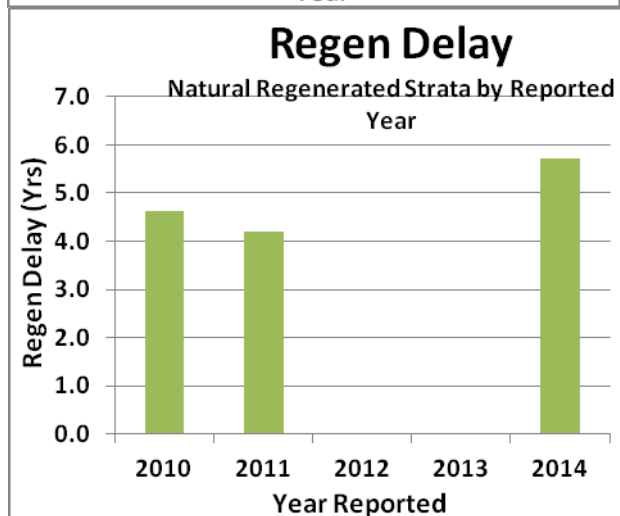
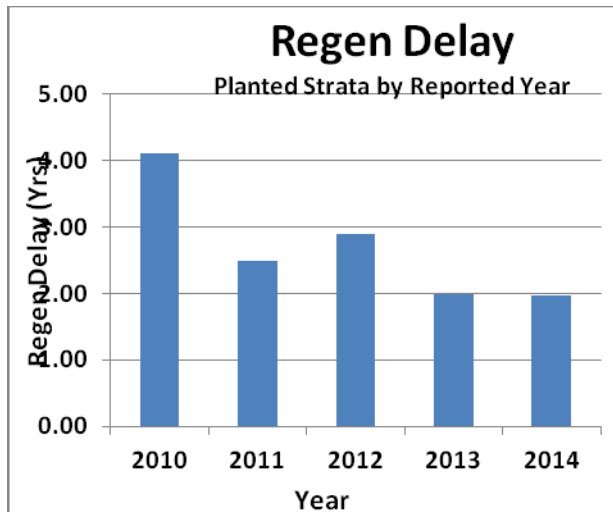
specifics. The area of concern was narrowed down to one drainage and a proposed road and blocks within that drainage. The FN family in the area has a trapline and historic trails they want to protect as well as they have concerns about opening access to the area. Canfor proposed a number of operational controls and practices to the Takla Lake FN to address their concerns.

**Indicator 2.1.1a      Regeneration Delay**

Indicator Statement	Target and Variance
The regeneration delay, by area, for stands established annually.	Artificial Regen: <4yrs Natural Regen: <7yrs Variance: +/- 5%

Regeneration delay is defined in this SFM plan as the time allowed in a prescription between the start of harvesting in the area and the earliest date by which the prescription requires a minimum number of acceptable, well-spaced trees per hectare to be growing in that area. There is a maximum permissible time allowed and comes from standards developed and/or approved by government. The regeneration delay period is usually within four years where planting is prescribed and seven years where the stand is expected to reforest naturally. Operationally, it is desirable to reforest as soon as possible post-harvest and the majority of blocks artificially regenerated (e.g. planted) meet regeneration delay within 2 years. Ensuring that all harvested stands meet the prescribed regeneration delay date within the specified time frame is an indication that the harvested area has maintained the ability to recover from a disturbance, thereby maintaining its resiliency and productive capacity. It also helps to ensure that a productive stand of trees is beginning to grow for use in future rotations. The current status of this indicator was derived from a review of signatories' records for the reporting period.

**Regeneration Delay**



**Source:** Canfor Resources database.

**Indicator Discussion:** Included previous years as well to show trends where they exist. In 2014 there was 5687 ha declared Regen met through artificial (planted) regen, and 77ha declared as natural regenerated.

### Indicator 2.1.1b Free Growing

Indicator Statement	Target and Variance
The % of block area that meets free growing requirements as identified in site plans.	Target: 100% Variance: -5%

A free growing stand is defined in this SFM plan as a stand of healthy trees of a commercially valuable species, the growth of which is not impeded by competition from plants, shrubs or other trees. The free growing status is somewhat dependent on the regeneration delay date of a forest stand and could be considered the next reporting phase. A free growing assessment is conducted on stands based on a time frame indicated in operational plans. The late free growing dates are established based on the biogeoclimatic classification of the site and the tree species prescribed for planting after harvest.

In order to fulfill mandates outlined in legislation, standards are set for establishing a crop of trees that will encourage maximum productivity of the forest resource (BC MOF 1995b). The free growing survey assesses the fulfillment of a Licensee's obligations to the Crown for reforestation and helps to ensure that the productive capacity of the forest land base to grow trees is maintained. Continued ecosystem

productivity is ensured through the principle of free growing. This indicator illustrates the percentage of block area that meets free growing obligations across the DFA.

### Free Growing

Signatory	Number of hectares Required to Meet Free Growing During Period	Number of hectares declared Free Growing	% in DFA
Canfor	4080.0	4059.6	99.5%

**Source:** Resources.

**Indicator Discussion:** During the reporting period there were 216 Standards Units due for free growing. Two SU's in block 6476 totaling 20.4 ha were declared FG after the FG due date. The due date was Nov 1, 2014 and they were declared Nov 6, 2014.

### Indicator 2.2.1a Site conversion

Indicator Statement	Target and Variance
The percent of gross land base in the DFA converted to non-forested land use through forest management activities.	Target: <5% Variance: 0%

In addition to maintaining the resources necessary for sustaining the resiliency of forest ecosystems, a stable land base within which productive capability is assessed is also required. In order to assess the maintenance of the productive capability of the land base, this indicator specifically tracks the amount of productive land base loss due to various non-forest uses. Removal of the productive land base occurs as a result of permanent access structures, including roads, landings and gravel pits, as well as converting forested areas to non-forest land use, such as range, seismic lines and other mineral exploration.

Conversion of the landbase to non-forest land also has implications for carbon sequestration. A permanent reduction in the forest means that the removal of carbon from the atmosphere and carbon storage will be correspondingly reduced. The data that is required for monitoring is the number of hectares of productive forest area lost due to conversion to a non-forest use.

### Site Conversion

Signatory	Total CFLB	Area Converted to Non-forest Land	Percent of THLB Area
Canfor	1,309,196	11225	0.86%

**Source:** GIS analysis

Indicator Discussion:

### Indicator 2.2.1b Permanent Access Structures

Indicator Statement	Target and Variance
The percentage of gross cutblock area occupied by total permanent access structures.	Target: <5% Variance: +1%

This indicator measures the amount of area developed as permanent access structures (PAS) within cutblocks, in relation to the gross area of the blocks logged during that period. Limits are described in legislation in the Forest Planning and Practices Regulation, section 36. Permanent access structures include roads, bridges, landings, gravel pits, or other similar structures that provide access for timber harvesting. Area that is converted to non-forest, as a result of permanent access structures and other development is removed from the productive forest land base and no longer contributes to the forest ecosystem. Roads and stream crossings may also increase risk to water resources through erosion and sedimentation. As such, minimizing the amount of land converted to roads and other structures protects the forest ecosystem as a whole.

### Permanent Access Structures

Signatory	Total Gross Cutblock Area	Total Cutblock Area in Permanent Access Structures	Percent
Canfor	3181.2	97.5	3.1%



**Source:** Site Plans

**Indicator Discussion:** This is a calculation using all of the blocks that had active harvesting during the reporting period.

**Indicator 2.2.2a Harvest volume**

Indicator Statement	Target and Variance
Actual harvest volume compared to the apportionment across the DFA over each 5-year cut control period.	Target: 100%. Variance: +/- 10%.

To be considered sustainable, harvesting a renewable resource such as timber cannot deteriorate the resource on an ecological, economic or social basis. It is expected that certain resource values and uses will be incompatible; however, a natural resource is considered sustainable when there is a balance between the various components of sustainability. During Allowable Annual Cut (AAC) determination, various considerations are examined including the long term sustainable harvest of the timber resource, community stability, wildlife use, recreation use, and the productivity of the DFA. The AAC is generally determined every five years by the Chief Forester of British Columbia, using a number of forecasts to assess the many resource values that need to be managed. On behalf of the Crown, the Chief Forester makes an independent determination of the rate of harvest that is considered sustainable for a particular Timber Supply Area (TSA).

The harvest level for a TSA must be met within thresholds that are established by the Crown. By following the AAC determination, the rate of harvest is consistent with what is considered by the province to be sustainable ecologically, economically and socially within the DFA. As stated above, the Chief Forester makes a determination of the rate of harvest for a particular TSA. The licensee then by law must achieve the AAC within the specified thresholds. Each truckload of wood is assessed and accounted for at a scale site if the cutting permit is billed as “scale-based” and if the cutting permit is “cruise-based” the timber is billed according to the volume in the timber cruise. The MFLNRO uses this information to apply a stumpage rate to the wood, and monitors the volume of wood harvested and compares it to the AAC thresholds.

The volume of timber actually harvested within the DFA will be determined annually by a review of MFLNRO timber scale billing summaries for the period of January 1st to December 31st each year, on an annual basis. Canfor will report the volumes harvested for the current cut control period they are in.

**Harvest Volumes**

Signatory	Volume Harvested						5 year Apportionment	Percent of 5 year cut in DFA
	Year 1	Year 2	Year 3	Year 4	Year 5	Total		
	2013	2014	2015	2016	2017			
Canfor	860,326	909,303					5,414,520	

**Source:** Cut control letters, Harvest Billing System

**Indicator Discussion:** 2013 was the beginning of a new cut-control period and Canfor expects that at the end of that period the entire cut will be harvested. Canfor’s annual allowable cut (AAC) is 1,082,904 m3. In 2014 Canfor cut 84% of the annual allocation.

**Indicator 2.2.2b Prioritizing harvest of damaged stands**

Indicator Statement	Target and Variance
Percentage of area (ha) harvested that are damaged or considered a high risk to stand damaging agents.	Target: 100%. Variance: -20%.

Damaging agents are considered to be biotic and abiotic factors (fire, wind, insects etc.) that reduce the net value of commercial timber. To reduce losses to timber value it is necessary to ensure that if commercially viable timber is affected by damaging agents, that the timber is recovered before its value deteriorates. At the time of this SFMP’s preparation, the most serious stand damaging agent in the

Mackenzie DFA is the Mountain Pine Bark Beetle, which has killed millions of mature, commercially viable lodgepole pine. Prioritizing infested stands for treatment can contribute to sustainable forest management in several ways. Removing infested trees can slow the spread of beetles to adjacent un-infested stands and allow Licensees to utilize trees before they deteriorate. Also, once harvesting is complete the area can be replanted, turning an area that would have released carbon through the decomposition of dead trees into the carbon sink of a young plantation.

Treating areas with stand damaging agents will provide other societal benefits. Burned and diseased killed stands may be aesthetically unpleasing, and their harvesting and reforestation will create a more pleasing landscape. Wind thrown stands restrict recreational use and can foster the growth of insect pests such as the spruce bark beetle. Thus, prioritizing areas with stand damaging agents for treatment will help to maintain a more stable forest economy and achieve social benefits through enhanced aesthetics and recreational opportunities.

### Prioritizing Harvest of Damaged stands

Signatory	Number of hectares harvested in the stands considered a high risk to stand damaging agents	total number of hectares harvested during the reporting period	% in DFA
Canfor	2002.5	2896.9	69.1%

**Source:** Site plans, cruise compilations.

**Indicator Discussion:** Calculated using net area to reforest (NAR + Rd area). 63 blocks harvested 22 of those had less than 40% net pine at the cruise, therefore were not deemed to be salvage.

### Indicator 3.1.1a Sedimentation

Indicator Statement	Target and Variance
The percentage of identified unnatural sediment occurrences where mitigating actions were taken.	<u>Target:</u> 100% <u>Variance:</u> -5%

Sedimentation occurrences are detected by forestry personnel during stream crossing inspections, road inspections, silviculture activities, and other general activities. In addition, Canfor supervisors routinely fly their operating areas annually following spring freshet to look for any such occurrences. While in some situations the sites may have stabilized so that further sedimentation does not occur, in other cases mitigating actions may have to be conducted. This may involve re-contouring slopes, installing siltation fences, re-directing ditch lines, grass seeding, or deactivating roads.

### Sedimentation

Signatory	Number of identified unnatural sediment occurrences	Number of identified unnatural sediment occurrences with mitigating actions taken	% in DFA
Canfor	1	1	100%

**Source:** ITS

**Indicator Discussion:** Upon inspecting a bridge site for removal it was noticed that forwarders traveling over the bridge deck had tracked mud onto the deck which then ran off the sides into the stream. The majority of the mud appeared to be contained on geotextile which was laid under the bridge at the time of install and on the snow however a portion of the mud did enter the stream. Actions were taken to remove the bridge and the mud on the fabric and snow. The stream had been default classified, after the incident a biologist assessed the stream and declared it non-fish bearing.

### Indicator 3.1.1b Stream Crossings

Indicator Statement	Target and Variance
Percentage of stream crossings appropriately designed and properly installed and/or removed.	<u>Target:</u> 100% <u>Variance:</u> -5%

Forestry roads can have a large impact on water quality and quantity when they intersect with streams, particularly by increasing sedimentation into water channels. Sediment is a natural part of streams and lakes as water must pass over soil in order to enter a water body, but stream crossings can dramatically

increase sedimentation above normal levels. Increased sedimentation can damage spawning beds, increase turbidity, and effect downstream water users. When stream crossings are installed and removed properly, additional sedimentation may be minimized to be within the natural range of variation. Erosion control plans and procedures are used to ensure installations and removals are done properly. To calculate the success of this indicator it is important to ensure that a process is in place to monitor the quality of stream crossings, their installation, removal, and to mitigate any issues as soon as possible.

### Stream Crossings

Signatory	Number of Stream Crossings			Number of Stream Crossings			% Total
	Installed	Removed	Total	Appropriately designed and properly installed	Properly removed	Total	
Canfor	19	11	30	19	11	30	100%

**Source:** Incident Tracking System, Supervisor Communication.

**Indicator Discussion:** No issues were identified in ITS and in conversations with harvesting supervisors.

### Indicator 3.1.1c Road Re-vegetation

Indicator Statement	Target and Variance
Percentage of road construction or deactivation projects where prescribed re-vegetation occurs within 12 months of disturbance.	Target: 100% Variance: -10%

This indicator was chosen as a way to assess our ability to minimize or at least reduce the anthropogenic effect of forest roads on adjacent ecosystems. In keeping with the common assumption of coarse-and medium-resolution biodiversity, our underlying assumption with this indicator was – re-vegetating roads will reduce the potential anthropogenic effects that roads have on adjacent ecosystems by minimizing potential for silt runoff or slumps, the amount of exposed soil, the potential for invasive plants to become established, and returning at least a portion of forage and other vegetation to conditions closer to those existing prior to management. Typically Canfor vegetates and mulches stream crossings which show a potential for erosion, as well as any other sections of road deemed necessary by Forestry Supervisors.

### Road Re-vegetation

Signatory	Total Number of Projects Where Re-vegetation is Prescribed	Number of Prescribed Re-vegetation Projects Completed within 12 months of disturbance	% in DFA
Canfor	24	24	100%

**Source:** Licensee tracking systems, Supervisor communication.

**Indicator Discussion:** **This indicator is measured by identifying the number of bridge and major culver installs and deactivations and then determining the number of these sites that are re-vegetated (seeded). It's Canfor's policy to re-vegetate these site to control water flow and reduce siltation risk.**

### Indicator 3.1.1d Road Environmental Risk Assessment

Indicator Statement	Target and Variance
Percentage of planned roads that have an environmental risk assessment completed.	Target: 100% Variance: -10%

Environmental risk assessments provide an indicator of "due diligence" in avoiding accidental environmental damage that has potential to occur from forest development in conditions of relatively unstable soil. Through the implementation of risk assessments, we expect to maintain soil erosion within the range that would normally occur from natural disturbance events under unmanaged conditions. Our assumption was – the more we can resemble patterns of soil erosion existing under unmanaged conditions, the more likely it will be that we do not introduce undue anthropogenic effects, from road construction, on adjacent ecosystems. The completion of environmental risk assessments on roads is completed by field staff during road layout. The assessments highlight areas of special concern that may require professional geotechnical or design work.

### Road Environmental Risk Assessment

Signatory	Total Number of roads constructed	Number of constructed roads with environmental risk assessments completed	% in DFA
Canfor	152	152	100%

**Source:** Genus

**Indicator Discussion:** All layout is signed off by the person conducting this work as well as their supervisor in the layout package Certification Statement.

### Indicator 3.1.1e Soil Conservation

Indicator Statement	Target and Variance
Percentage of forest operations consistent with soil conservation standards as identified in operational plans and/or site plans.	Target: 100% Variance: 0%

Conserving soil function and nutrition is crucial for sustainable forest management. To achieve this, forest operations have limits on the amount of soil disturbance they can create. These limits are described in legislation in the Forest Planning and Practices Regulation, section 35. Soil disturbance is defined in this SFM plan as disturbance caused by a forest practice on an area, including areas occupied by excavated or bladed trails of a temporary nature, areas occupied by corduroy trails, compacted areas, and areas of dispersed disturbance. Soil disturbance is expected to some extent from timber harvesting or silviculture activities, but these activities are held to soil conservation standards in Site Plans (where they are more commonly known as "soil disturbance limits"). The Site Plan prescribes strategies for each site to achieve activities and still remain within acceptable soil disturbance limits.

Soil information is collected as a component of site plan preparation, and soil conservation standards are established based on the soil hazards for that block. To be within those limits there are several soil conservation strategies currently used. Forest operations may be seasonally timed to minimize soil disturbance. For example, fine-textured soils such as clays and silts are often harvested when frozen to reduce excessive compaction. EMS prework forms require equipment operators to be aware of soil conservation indicators outlined in the site plans. Once an activity is complete the final inspection form assesses the consistency with site plan guidelines. If required, temporary access structures are rehabilitated to the prescribed standards. Road construction within blocks is minimized, and low ground pressure equipment may be used where very high soil hazards exist.

### Soil Conservation

Signatory	Number of Forest Operations			Forest Operations Completed in Accordance with Soil Conservation Standards	% in DFA
	Harvesting	Silviculture	Total		
Canfor	63	8	71	71	100%

**Source:** Site Plans, ITS, Harvest Inspections.

**Indicator Discussion:** There were no instances where operations were not consistent with targets for soil conservation set out in site plans.

### Indicator 3.1.1f Terrain Management

Indicator Statement	Target and Variance
The percentage of forest operations consistent with terrain management requirements as identified in operational plans and/or site plans.	Target: 100% Variance: 0%

Some areas subject to forest operations occur on slopes that warrant special terrain management requirements in operational plans (usually the site plan). These unique actions are prescribed to minimize the likelihood of landslides or mass wasting. Terrain Stability Assessments (TSA) are completed on areas with proposed harvesting or road development that has been identified as either unstable or potentially unstable. The recommendations of the TSA are then integrated into the site plan or road layout/design and implemented during forest operations.

### Terrain Management

Signatory	Number of Forest Operations with Terrain Management Requirements Identified in Operational Plans				Forest Operations Completed in Accordance with Requirements	% in DFA*
	Roads	Harvesting	Silviculture	Total		
Canfor	0	5	0	0	5	100%

**Source:** Site Plans

**Indicator Discussion:** During the reporting period there 5 blocks that were harvested that had Terrain Stability Assessments completed on them prior to harvesting. Recommendations from the assessments were incorporated into the site plans and operations were consistent with the recommendations.

### Indicator 3.1.2 Coarse Woody Debris

Indicator Statement	Target and Variance
The percent of blocks harvested that exceed coarse woody debris requirements.	Target: 100% Variance: 0%

Coarse woody debris (CWD) as a habitat element provides: 1) nutrients for soil development, 2) structure in streams to maintain channel stability, 3) food and shelter for animals and invertebrates, and 4) growing sites for plants and fungi. Past forestry practices have encouraged the removal of CWD from sites for a number of economic and/or safety reasons, presumably to the detriment of biological diversity. We use this indicator following harvesting to quantify CWD retained in blocks, wildlife tree patches, riparian areas, and in areas of un-salvaged timber. Within the NHLB we assume that natural processes will result in the maintenance of appropriate levels of CWD.

Post-harvest CWD levels will be measured as a standard component of either the silviculture survey or residue and waste survey. The interim target for CWD was taken from the FRPA *Forest Planning and Practices Regulation, Sec. 68* default requirements (BC. Reg 14/2004). Although the PAG members felt that this number was inadequate to protect this element of biodiversity, they recognized that insufficient information exists to determine either the amount of CWD left behind after harvesting or the amount of CWD that occurs in natural pre-harvest stands. Even so, we expect significantly more CWD than the target is retained after harvest and have committed to developing a more comprehensive CWD strategy pending availability of more data supporting a new CWD regulation.

#### Coarse Woody Debris

Signatory	Number of Blocks harvested	Number of blocks harvested that exceed CWD requirements	%in DFA
Canfor	63	63	100%

**Source:** Final harvest inspections, Incident Tracking Systems.

**Indicator Discussion:** This indicator applies to blocks only.

### Indicator 3.2.1 Peak Flow Index

Indicator Statement	Target and Variance
Percent of watersheds containing approved or proposed development with Peak Flow Index calculations completed.	Target: 100% Variance: 0%

The peak flow index is an indicator that indicates the potential effect of harvested areas on water flow in a particular watershed. The H60 is the elevation for which 60% of the watershed area is above. The ECA or "Equivalent Clear-cut Area" is calculated from the area affected by logging and the hydrologic recovery of that area due to forest re-growth. After an area has been harvested, both winter snow accumulation and spring melt rates increase. This effect is less important at low elevations, since the snow disappears before peak flow. Harvesting at high elevations will have the greatest impact and is, therefore, of most concern. As a result, areas harvested at different elevations are weighted differently in the calculation of peak flow index. Most hydrologic impacts occur during periods of the peak stream flow in a watershed. In the interior of British Columbia, peak flows occur as the snowpack melts in the spring.

With PFI calculations now complete, the watersheds will next be evaluated to establish the watershed sensitivity and thereby the PFI risk (low to high). With the PFI risk ratings established, harvesting plans will have to consider the impact harvesting will have on the watershed in which it occurs. The goal, in watersheds with a high PFI risk rating, is to either postpone harvesting, or refer to a qualified registered professional for a detailed review.

### Peak Flow Index

Licensee	Number of watersheds with harvest activities in the DFA	Number of those watersheds with Peak Flow Index calculations	Total % DFA
Canfor	16	16	100%

**Source:** GIS analysis – See Appendix 1 for a table with the current Peak Flow Index status of all watersheds Canfor was active in during the harvest period.

**Indicator Discussion:** Sensitivity calculations were completed in 2010 and 2011 for the majority of the watersheds we are/will be active in. Canfor GIS staff recalculate the current state and future state ECA/PFI on a regular basis.

### Indicator 5.1.1a Non-timber Benefits

Indicator Statement	Target and Variance
Conformance with strategies for non-timber benefits identified in plans.	<u>Target:</u> No non-conformances for site level plans <u>Variance:</u> 0

For the purpose of this plan non-timber benefits include; resource features, range features as well as visual quality. Resource features are elements that have a unique importance because specific ecological factors exist in combination at one place and don't often occur similarly elsewhere. Examples of resource features are caves, karst, recreation sites or crown land used for research to name a few. These features are generally considered to have value to society so we assume that through conservation of these features we are contributing to social value. Range features are often used by ranchers to allow livestock to feed and thus very important to the ranching industry. Conservation of these areas will help to assure their availability in the future. Examples of such features include naturally occurring grass lands, naturally occurring barriers which contain livestock to a specific area as well as any area that a rancher has grazing or hay cutting permits on, or identified areas that may be suitable for such permits in the future. Visual quality is managed in order to maintain areas of perceived beauty within the DFA.

The signatories currently plan and design their activities and/or blocks so as to manage or adequately protect non-timber benefits when they become known. Once a non-timber benefit becomes known, means of managing or protecting the feature are either iterated in the operational plan or tactical and/or site plans. These requirements are tracked and managed by Canfor as well as by the Compliance and Enforcement branch of the MFLNRO.

Signatory	Number of blocks and roads harvested with non-timber benefits identified in the site plan	Number of blocks and roads harvested with non-timber benefits whereby the associated results and strategies were not achieved	Variance
Canfor	5	5	0

**Source:** Site plans.

**Indicator Discussion:** There were 5 blocks harvested during the reporting period that had visual impact assessments completed for the areas of these blocks. MAN005, MAN008, MAN072, 3501 and 6689.

### Indicator 5.1.1b First-Order Wood Products

Indicator Statement	Target and Variance
The number of first-order wood products produced from trees harvested	<u>Target:</u> 5

from the DFA.	Variance: -2
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This indicator helps to show how forest management activities can contribute to a diversified local economy based on the range of products produced at the local level. Forest management's contribution to multiple benefits to society is evident through this indicator, as well as an indication of the level of diversification in the local economy. First order wood products are often used to supply value-added manufacturers with raw materials for production, such as pre-fabricated house components. These provisions help to maintain the stability and sustainability of socio-economic factors within the DFA. By ensuring a large portion of the volume of timber harvested in the DFA is processed into a variety of products at local facilities, the local economy will remain stable, diverse, and resilient.

### First-Order Wood Products

Signatory	Sawlogs	Pulp Logs	House logs	Lumber	Custom cut lumber	Trim Blocks	Pulp chips	OSB strands	Hog	Wood shavings	Plywood	Veneer	Pole Logs	Railway tie logs	Sawdust	Instruments	Finger joint	Total
Canfor	1	1	0	1	0	1	1	0	1	1	0	0	0	0	1	0	0	8

**Source:** Canfor: Site Superintendent communication/contractor communications.

**Indicator Discussion:** Primary and by-products sold to other local manufacturing facilities were counted

### Indicator 5.2.2 Investment in training and skills development

Indicator Statement	Target and Variance
Training in environmental and safety procedures in compliance with company training plans.	<p><u>Target:</u> 100% of company employees and contractors will have both environmental and safety training.</p> <p><u>Variance:</u> -5%</p>

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.

Signatory	Total Number of Employees and Contractors Trained in EMS, FMS and Safety	Total Number of Employees and Contractors	Percent
Canfor	375	375	100.0%

**Source:** Eclipse, contractor records.

**Indicator Discussion:** Canfor supervisors train contractor foremen, principals and supervisors on our FMS, SFM and SWPs. It is then the responsibility of the contractor to train all other employees using the materials presented by Canfor.

### Indicator 5.2.3 Level of direct and indirect employment

Indicator Statement	Target and Variance
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Maintain the level of direct and indirect employment.	<b>Target:</b> 265 direct 53 indirect
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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.

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.

Targets for this indicator are based on 2010 baseline data of actual direct employment. Direct employment includes all staff and contractors paid directly by Canfor. Indirect employment levels are generated using the employment multiplier from the 2000 Timber Supply Review. Indirect employment is difficult to calculate therefore the multiplier is used, and is based on the number of direct jobs. If full-time employment targets are being met it will be assumed that indirect employment targets are also met.

Signatory	Number of Direct Jobs			Indirect Jobs Met (y/n)		
	2012-13	2013-14	2014-15	2012-13	2013-14	2014-15
Canfor	313	329	431	Y	Y	Y

**Source:** Human Resources documents, contractor communication.

**Indicator Discussion:** If the amount of direct jobs is met, it is assumed the amount of in-direct jobs will also be met. For this reporting period there was an increase in woodlands employment as volumes harvested increased and silviculture manpower increased. Previous reporting did not include block and road development workers. Unionized mill employment remained steady with an increase in mill salary staff.

#### Indicator 5.2.4 Contract Opportunities to First Nations

Indicator Statement	Target and Variance
The number of contract opportunities with First Nations within the DFA.	<b>Target:</b> >5 <b>Variance:</b> -2

This indicator is intended to monitor the impacts of forest industry and government activities on the ability of First Nations to access forestry related economic opportunities. At present, this indicator is not intended to assess how successful First Nations are at taking advantage of the opportunities. Canfor has explored forestry related opportunities with First Nations in the past. Capacity amongst the First Nations to take advantage of opportunities will likely have to be addressed in order for available opportunities to be acted upon. This indicator tracks the existence of opportunities available.

#### Contract Opportunities to First Nations

Signatory	Contract Opportunities							Total for DFA
	Employment	Road Building & Deactivation	Other Volume Purchased	Logging	Silviculture Forestry	Other Contracts	Management Services	
Canfor	0	0	0	3	5	0	0	8

**Source:** Signatory contract records.



Indicator Discussion: **Contracts are established with three separate First Nations for harvesting opportunities. One First Nation manages the harvesting themselves while two of the First Nations subcontract their volume to other harvesting contractors. Silviculture contracts tot First Nations consist of manual brushing and stand spacing activities.**

**Indicator 6.1.1 Understanding of the nature of Aboriginal Rights and Title**

Indicator Statement	Target and Variance
FMG employees will receive First Nations Awareness training as per the FMG Training Matrix.	Target: 100% Variance: 10%

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. Section 7.3.3 of the CSA Z809-08 Standard reinforces legal requirements for many reasons, including demonstrating that Aboriginal title and rights, and treaty rights have been identified and respected. The reality in 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. It is important for companies to have an understanding of applicable Aboriginal title and rights, and treaty rights, as well as the Aboriginal interests that relate to the DFA.

Both the desire of licensees to comply with laws and open communication with local First Nations requires that company staff members have a good understanding of Aboriginal title and rights and treaty rights.

Signatory	Number of staff who have completed First Nations Awareness training	Total number of staff who require the training.	Percent
Canfor	7	7	100%

**Source:** Employee training databases.

**Indicator Discussion:** Of the 8 FMG staff in Mackenzie, only 7 require this training as per the FMG training Matrix, WIM staff are exempt.

**Indicator 6.1.2a First Nations Concerns**

Indicator Statement	Target and Variance
Percentage of operational concerns raised by First Nations that are considered and incorporated into operational and/or tactical plans.	Target: 100% Variance: -10%

Incorporating management strategies into the planning process in order to resolve issues raised by First Nations leadership is a key aspect to sustainable forest management. This indicator contributes to respecting the social, cultural heritage and spiritual needs of people who traditionally and currently use the DFA for the maintenance of traditional aspects of their lifestyle.

Forest planning can include information sharing for both operational and tactical plans. The FSP process is an example of operational plans referred to First Nations. AIAs, operating plans, block and road referrals, and annual operating maps are examples of tactical plans that may be referred to First Nations. Active forest operations are considered to be current harvesting, road construction, and mainline deactivation projects, planned vegetation management projects, as well as forest planning of new blocks and roads.

**First Nations Concerns**

Signatory	Number of concerns brought forward that have been considered and incorporated into operational plans	Total number of operational concerns brought forward	Percent
Canfor	1	1	100%

**Source:** Signatory communication records and operational plans.

**Indicator Discussion:** One First Nation identified concerns with harvesting within a large general area, however did not provide any specific sites/areas/features within the larger general area therefore we were unable to incorporate the concern into operational plans. There were several meetings and conversations with the First Nation. A general plan including access strategies and concessions has been proposed to the First Nation, however it has not been finalized.

### Indicator 6.1.2b First Nations Input into Forest Planning

Indicator Statement	Target and Variance
The number of opportunities for First Nations to provide meaningful input into our planning processes where active operations are within their respective traditional territories.	Target: $\geq 2$ per First Nation Variance: 0

This indicator was designed to list and report out on all documented opportunities provided to First Nations people to be involved in forest management planning processes. Incorporation of First Nations people and their unique perspective into the forest planning process is an important aspect of SFM. This indicator will contribute to respecting the social, cultural and spiritual needs of the people who traditionally and currently use the DFA for the maintenance of traditional aspects of their lifestyle. The Mackenzie SFM PAG is a process designed to identify public values and objectives within the DFA. Within the PAG process, First Nations has been identified as an important sector for representation.

### First Nations Input into Forest Planning

Opportunity	Signatory	First Nation							
		Tsay Keh	Kwadacha	Takla Lake	Nak'az dli	McLeod Lake	West Moberly	Saulteau	Halfway River
Operational planning referrals	Canfor	2		2	2	2	2	1	1
Open house style meetings	Canfor								
AIA Referral	Canfor	4		4	6	5	6		6
Trade shows	Canfor	1	1	1	1	1	1	1	1
Formal operational meetings	Canfor			3		2		1	
Pest Management Prescriptions Meetings and referrals	Canfor				1	1			
FSP referrals / consultation	Canfor								
<b>TOTAL</b>		7	1	10	10	11	9	3	8

**Source:** Signatory communication records, COPI.

**Indicator Discussion:** Communication was in the form of information sharing for block planning, AIA referral as well as information sharing of the NIT. The Kwadacha and Saulteau First Nations were only identified to have been contacted once during the reporting period. Canfor has not been and does not plan to be harvesting within these First Nations traditional territories in the recent past or in the near future. Conducted a flight over the majority of the operating area with McLeod Lake and Saulteau FN's.

### Indicator 6.3.1 Local Investment

Indicator Statement	Target and Variance
The percent of money spent on forest operations and management on the DFA provided from local suppliers.	Target: 30% Variance: -5%

Forests provide many ecological benefits but they also provide substantial socio-economic benefits. In order to have sustainable socio-economic conditions for local communities associated with the DFA, local forest related businesses should be able to benefit from the work that is required in the management of the DFA. Furthermore, for small forestry companies to contribute to and invest in the local economy there must be assurances that there will be a consistent flow of work. In the same way that larger licensees depend on a secure flow of resources to justify investment in an area, small businesses depend on a sustained flow of opportunities to develop and invest in the local community.

Local is defined in this SFMP as the communities of Mackenzie, McLeod Lake, Germansen Landing, Manson Creek, Tsay Keh Dene, and Fort Ware. The total dollar value of goods and services purchased within the local communities will be calculated relative to the total dollar value of all goods and services used. This calculation will be used to derive the percentage of money spent on forest operations and management of the DFA from local suppliers. Woodlands employee salaries are considered goods purchased where the employee lives within the local area and therefore contribute to community stability.

Forest Operations and Management consider all money spent within the signatory's woodlands departments, excluding stumpage. Harvesting and road building costs, where applicable, will be included in the total.

#### Local Investment

Signatory	Money spent in local area on Forest operations and management	Total money spent on forest operations and management	% in DFA
Canfor	\$44,560,414.32	\$96,726,682.14	46.1%

**Source:** Accounting records

**Indicator Discussion:** Local spending includes logging, road building and maintenance, silviculture activities, woodlands related purchases at local vendors, staff salaries, etc.

2014-2015 saw a significant increase in total dollars spent in Canfor forest operation. The increase is a result of increased volume harvested, higher costs for harvesting and a couple of large road and infrastructure projects that were completed during the year.

### Indicator 6.3.2 Accidents

Indicator Statement	Target and Variance
Number of lost time accidents in woodlands operations.	Target: 0 Variance: 0

Health and safety of forest workers and members of the public is an important quality of life objective that is essential to SFM. Canfor considers employee and public safety as a primary focus of all forestry related operations. Evidence of this high priority can be seen in various company mission statements and individual safety policies. This indicator was developed to track and report out on the number of lost time workplace accidents that occur within Canfor's Forest Management Group (FMG). Operations conducted outside the woodlands division and field operations have been excluded from this indicator; however Canfor promotes safety in all aspects of forest management operations. Two types of workplace accidents are the most common within the forest industry including lost time accidents (LTA) or incidents where medical aid or treatment was necessary but no loss of work time was experienced by the employee. Through this indicator, only LTA will be tracked and monitored.

#### Accidents

Signatory	Number of Lost Time Accidents
Canfor	0

**Source:** Signatory safety records

**Indicator Discussion:** There were no lost time accidents reported for the Mackenzie FMG woodlands group.

### Indicator 6.3.3a Signage

Indicator Statement	Target and Variance
The percentage of operational activities in place that have the appropriate signage in place during the activity, and removed following the completion.	<u>Target:</u> 100% <u>Variance:</u> -20%

People value being informed of most activities that take place on public lands including those associated with industrial forestry. Signage establishes a standard for safety and otherwise helps inform public about the nature and extent of industrial activity. Conversely, if signage is not kept current, credibility of the signs declines resulting in a potential safety hazard. With this indicator we will monitor our commitment to making information about our activities current and available to those traveling the roads and trails of the Mackenzie DFA.

#### Signage

Signatory	Number of completed operational projects requiring signage where the signs were posted during the activity and removed following completion	Number of Completed operational Activities requiring signage	Percent
Canfor	63	63	100%

**Source:** Operational staff communication.

**Indicator Discussion:** This is managed almost exclusively by our logging contractors. Signs are posted for safety reasons during active operations, and the appropriate signs are removed when operations are complete.

### Indicator 6.3.3b Safety Policy

Indicator Statement	Target and Variance
Written safety policies in place and full implementation are documented.	<u>Target:</u> 1 <u>Variance:</u> 0

Each signatory has a written safety policy in place which is reviewed by the safety committee a minimum of once every year and revised as necessary and approved by management. If an incident occurs the cause of the incident is determined and recommendations are put forward. These recommendations may result in a change to a specific policy. Annual audits will be conducted and Action Plans developed for any item that requires attention detailing the person responsible for the item and the deadline for completion.

#### Safety Policy

Signatory	Written Safety Policies in Place and Implementation Documented? (Y/N)
Canfor	Y

**Source:** Canfor OH&S Manual and Occupational Health and Safety Statement.

**Indicator Discussion:** Canfor has a corporate safety policy that is reviewed and updated on a regular basis. The policy is part of the Safety Manual that is reviewed annually by the Canfor FMG and the Mackenzie Woodlands Safety committees.

### Indicator 6.4.1 Satisfaction (PAG)

Indicator Statement	Target and Variance
The average overall percent of the PAG's satisfaction with PAG meeting process.	Target: 100% Variance: -20%

The PAG is one of the key elements of public involvement in the SFM process. The Mackenzie PAG provides guidance, input and evaluation during development of the SFMP. It is also instrumental in maintaining links to current local values and forest resource uses within the DFA. Therefore, it is important that Canfor has a positive and meaningful working relationship with the PAG. This indicator will use an average of the PAG meeting evaluation forms to determine the level of satisfaction of the PAG with the public participation process.

Following all PAG meetings to date, PAG participants completed meeting evaluations. One question is in the PAG meeting evaluation form to address this indicator which asked participants "What is your overall satisfaction with the PAG process?" This indicator is specific to responses to question 11 during the reporting period.

#### PAG Satisfaction

Mackenzie DFA SFM Plan Public Advisory Group Meeting Evaluation Question			
Meeting Date	Score out of 5	Percent	Variance (from 100%)
June 4, 2014	4.2	84%	16%
December 3, 2014	4.5	90%	10%
March 25, 2015	4.3	86%	14%
Overall Score =		87%	13%

Source: PAG satisfaction surveys

Indicator Discussion: **PAG satisfaction surveys are conducted at the end of each PAG meeting and the results are presented and discussed at the next PAG meeting. The results are a measure for the PAG facilitator and the licensee to identify areas to address or work on to improve the PAG process and communication.**

### Indicator 6.4.2a Input into Forest Planning

Indicator Statement	Target and Variance
The number of opportunities for the public and/or stakeholders to provide meaningful input into forest planning.	Target: 6 Variance: -2

Forestry activities can impact a wide section of the public and individual stakeholders within the DFA. This indicator was designed to monitor the signatory's success at providing effective opportunities to residents and stakeholders to express concerns and be proactively involved in the planning process. This involvement may include the identification of areas of interest, definition of the nature of their interest in the land base, and any specific forestry activity that may impact their specific interests. This process ensures that when forestry activities are planned, information is exchanged in an effective and timely manner, so as to resolve potential conflicts before they occur. This process will help to identify the public values, interests and uses of the forest that will be considered within the signatories planning framework.

Stakeholders include the following forest sectors; trappers, guide outfitters, water license holders, range tenure holders, woodlot owners, private land owners, other licensees, and specific government agencies. Opportunities for input into forest planning will be offered to stakeholders where their tenured area coincides with the signatories planned activities.

#### Input into Forest Planning

Opportunity	The Number of Opportunities For Public And Stakeholders
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	Canfor
FSP ads	
FSP letters to stakeholders	
LRMP meetings	
PMP original ads	
PMP letters to stakeholders	1
PMP signage	
Other ads (deactivation plans)	
Field tours	0
Newsletters	
Open houses	1
PAG Meetings	3
Documented meetings	9
Documented phone calls/emails	
Information Sharing	3
<b>TOTAL</b>	<b>14</b>

**Source:** Signatory database/tracking systems.

**Indicator Discussion:** Canfor had many correspondences with members of the public including trappers, guides, general public as well as First Nations throughout the reporting period. One open house meeting was held in Germansen Landing and was attended by approximately 25 people from the local community and Manson Creek including local trappers and guide outfitter. We did one helicopter flight with representatives of two First Nations over the majority of our operating area and another heli flight for a number of members from another FN over a specific area of concern within our operating area. There were 4 documented meetings with First Nations and 3 documented meetings with Resource users (Trappers).

#### Indicator 6.4.2b Public and Stakeholder Concerns

Indicator Statement	Target and Variance
The number of operational concerns raised by the public and/or stakeholders that are considered and incorporated into operational and/or tactical plans.	Target: 100% Variance: -10%

All signatories solicit feedback for their public forest management plans in the DFA. As mentioned in previous indicators, public involvement is an important aspect of SFM as it promotes inclusiveness in how Crown forests are managed. Considering a diverse range of opinions and concerns will result in operational forest management decisions that consider views other than those of the forest industry. A forest industry that respects public and stakeholder input will maintain the support of the public, creating a more economically stable and open forest economy. Operational concerns from the public may be provided in many ways, including written letters, e-mails, or faxes received by Canfor. There may also be written comments made during an in-person or telephone meeting between a staff member and the person providing comment. This indicator will compare the number of operational concerns that have been acted on relative to the total number of operational concerns raised.

#### Public and Stakeholder Concerns

Signatory	Number of concerns brought forward that have been considered and incorporated into operational plans	Number of operational concerns brought forward	Percent
Canfor	2	2	100%

**Source:** COPI

**Indicator Discussion:** One of the concerns came to us from a First Nation through the PAG process. The concern was around the timing of pile/ debris burning and the impacts to small furbearers if burning is done in the later part of the winter. Burning procedures were amended and there is to be no burning past January each year. A trapper identified concerns with some proposed blocks within his trapline, concerns were around the amount of area and access impact to his area. The proposed block shapes have been modified a bit to include larger buffers on the wetland system in the area and discussions have occurred with the trapper regarding his other concerns and access control post harvest.

**Indicator 6.5.1a SFM Educational Opportunities**

Indicator Statement	Target and Variance
The number of SFM educational opportunities and interactions provided.	Target: 2 Variance: 0

This indicator was designed to monitor the signatories' success at providing training and educational opportunities in sustainable forest management. SFM relies on residents and stakeholders making informed decisions on forest management. To achieve this, it is incumbent on the signatories to ensure the public are sufficiently informed about SFM to make the choices we request of them. The indicator is intended to ensure that the signatory provides the required opportunities for residents and stakeholders to learn about SFM. It is anticipated that educational opportunities will come in the form of open houses, public presentations, PAG meetings, the Mackenzie Trade Fair, and field tours of the signatory's operations.

**SFM Educational Opportunities**

Opportunity	The Number of SFM Educational Opportunities
Field tours	
Newsletters	
Open houses	
Presentations	
PAG Meetings	3
Trade Shows, etc.	1
<b>TOTAL</b>	<b>4</b>

**Source:** Planning forester documentation.

**Indicator Discussion:**

**Indicator 6.5.1b People reached through educational outreach**

Indicator Statement	Target and Variance
The number of stakeholders and members of the public who took part in an educational opportunity.	Target: 50 Variance: -10

The signatories are committed to working with directly affected stakeholders and members of the public on forest management issues and have a well-established history of participation in community meetings, including local planning processes. The sharing of knowledge and contributes to informed, balanced decisions and plans acceptable to the majority of public. When informed and engaged, members of the public can provide local knowledge and support that contributes to socially and environmentally responsible forest management. Canfor staff provided educational opportunities both at the request of their employer and of members of educational community in Mackenzie. The Participants have held open houses and participated in local trade fairs. Staff have also provided field tours and in class presentations for the local secondary school.

Signatory	Number of stakeholders who attended educational opportunities

Canfor	400
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**Source:** Attendance records from events held.

**Indicator Discussion:** Tradefair; approx 400 public attendees; and PAG meetings.

### Indicator 6.5.2a Access to SFM information

Indicator Statement	Target and Variance
The number of opportunities provided annually for access to SFM related documents.	Target: 3 Variance: 0

With this indicator we intend to monitor our effort to ensure effective and comprehensive distribution of the SFMP, annual reports, and audit results for the Mackenzie DFA. In order to gain trust and confidence in the SFMP process, it must be an open and transparent process. By ensuring access to the Plan, annual reports, and audit results, the results of our efforts in achieving sustainable forestry and continuous improvement can be clearly seen and monitored by the public, stakeholders, and First Nations. In this manner, the public, stakeholders and First Nations can hold the signatories accountable for achieving the desired results and have confidence that forest resources are being managed sustainably.

#### Access to SFM Information

Opportunity	The Number of Distribution/Access Opportunities
Newsletters	
Open houses / Trade Shows	1
SFM & PAG Meetings	3
Website	1
Distribution of SFM information	
<b>TOTAL</b>	<b>5</b>

**Source:** Signatory database and tracking systems, planning forester documentation.

**Indicator Discussion:** Canfor participated in the Annual Mackenzie spring trade fair where the SFMP is available and staff are available to discuss the contents and the PAG process. Indicator 6.5.2b

#### Communication of Planned Deactivation Projects

Indicator Statement	Target and Variance
Percentage of off-block road deactivation projects that are communicated with applicable First Nations and Stakeholders.	Target: 100% Variance: -10%

The forest is utilized by a variety of users. Access to the forest resource is important to First Nations, stakeholders, and the general public. Deactivation of off-block access roads can limit or remove access to the forest for other users. Where the signatories need to deactivate off-block roads, communication of their intention is required. Our assumption with this indicator is simply that – by increasing communication regarding signatory deactivation plans among stakeholders, we can increase the efficiency of access to resources. For the purpose of this indicator, stakeholders include trappers, guides, private land owners, and woodlots.

#### Communication of Planned Deactivation Projects

Signatory	Number of deactivation projects communicated to First Nations and Stakeholders	Total number of deactivation projects completed	Percent
Canfor	0	0	100.0%

**Source:** Signatory communication records

**Indicator Discussion:** There were no major de-activation projects completed by Canfor during the reporting period.



**Indicator      Reportable Spills**

Indicator Statement	Target and Variance
The number of FMS reportable spills.	Target: 0 Variance: ≤ 5

Canfor uses the Emergency Response and Preparedness Plan (EPRP) to prevent, manage and report spills. Canfor's Fuel Management Guidelines also apply to managing and preventing spills. Reportable spills are entered into ITS where they are tracked.

**Reportable Spills**

Signatory	Number of EMS Reportable Spills						Total
	Petroleum Products	Pesticides	Antifreeze	Battery Acid	Grease	Paints and Solvents	
Number of spills	0	0	0	0	0	0	0
Amount (L)							

**Source:** ITS

**Indicator Discussion:** There were no reportable spills during the reporting period.

# Appendix 1

## 2014-2015 ECA Analysis for Active Watersheds

BASIN NAME	Wshed Area	Sensitiv	Max ECA	Target	Curr HAI	EC/Curr	EC/Curr	EC/Curr	PFI	FUTR HAI	EC/FUTR	EC/FUTR	EC/FUTR	PFI
BLACKWATER CREEK	49,379	2	63	16,140	8,419	8,419	8,419	17	17	16,365	8,341	8,341	8,341	17
BRUIN CREEK	13,931			1,318	901	901	901	6	6	1,318	819	819	819	6
CARP/WS000003	4,350	1	75	533	328	328	328	8	8	533	495	495	495	11
CARP/WS000006	3,868	2	63	1,165	598	598	598	15	15	1,165	533	533	533	14
CHOWIKA CREEK	47,468			133	65	65	65	0	0	133	118	118	118	0
CIARELLI CREEK	11,675	2	63	1,853	1,163	1,163	1,163	10	10	1,853	1,790	1,790	1,790	15
DEL CREEK	26,439	2	63	1,202	797	797	797	3	3	1,202	725	725	725	3
DES CREEK	3,332	1	75	634	446	446	446	13	13	634	560	560	560	17
DUNNE CREEK	9,433	2	63	663	430	430	430	5	5	663	638	638	638	7
EKLUND CREEK	24,587	2	63	4,351	2,402	2,402	2,402	10	10	4,351	3,141	3,141	3,141	13
FINA/WS000020	3,549			393	188	188	188	5	5	393	177	177	177	5
FINA/WS000035	5,922			41	26	26	26	0	0	41	23	23	23	0
FINA/WS000039	3,437	2	63	70	75	75	75	2	2	70	71	71	71	2
FINA/WS000040	5,092	2	63	581	205	205	205	4	4	581	495	495	495	10
FINA/WS000043	7,689	2	63	1,812	1,286	1,286	1,286	17	17	1,812	1,348	1,348	1,348	18
FINA/WS000044	3,682	2	63	130	85	85	85	2	2	130	381	381	381	10
FINA/WS000046	4,960	1	75	2,733	1,859	1,859	1,859	37	37	2,733	1,822	1,822	1,822	37
FINA/WS000050	3,409	2	63	1,892	1,020	1,020	1,020	30	30	1,892	981	981	981	29
FINL/WS000066	5,203			319	238	238	238	5	5	319	222	222	222	4
FRIES CREEK	7,544	2	63	1,583	809	809	809	11	11	1,583	774	774	774	10
GAFFNEY CREEK	49,229	2	63	14,366	10,081	10,081	10,081	20	20	14,367	10,649	10,649	10,649	22
GAUVREAU CREEK	20,292			164	119	119	119	1	1	164	108	108	108	1
GERMANSEN RIVER	22,918	2	63	1,387	1,224	1,224	1,224	5	5	1,387	2,106	2,106	2,106	9
GILLIS CREEK	62,145			8,301	7,167	7,167	7,167	12	12	8,301	7,256	7,256	7,256	12
GOODSANY CREEK	4,147	2	63	133	207	207	207	5	5	133	690	690	690	17
GRANITE CREEK	4,099	2	63	317	225	225	225	5	5	317	301	301	301	7
HOLDER CREEK	8,198	1	75	3,097	2,265	2,265	2,265	28	28	3,097	2,151	2,151	2,151	26
IVOR CREEK	4,536			125	92	92	92	2	2	389	883	883	883	19
JACKFISH CREEK	16,886	2	63	817	615	615	615	4	4	817	3,378	3,378	3,378	20
LAFFERTY CREEK	25,906			1,961	1,184	1,184	1,184	5	5	1,961	1,071	1,071	1,071	4
LIGNITE CREEK	16,549	2	63	2,023	1,573	1,573	1,573	10	10	2,024	1,916	1,916	1,916	12
LOST CABIN CREEK	8,283			235	188	188	188	2	2	235	178	178	178	2
MANSON RIVER	62,675	2	63	12,138	6,927	6,927	6,927	11	11	12,138	8,504	8,504	8,504	14
MCDUGALL RIVER	40,440	1	75	8,335	7,883	7,883	7,883	19	19	8,394	8,476	8,476	8,476	21
MUNRO CREEK	8,833	2	63	2,005	1,054	1,054	1,054	12	12	2,005	992	992	992	11
NATION RIVER	68,739	2	63	19,089	14,585	14,585	14,585	21	21	19,185	13,724	13,724	13,724	20
NATRW/SD000006	6,192	2	63	4,194	1,268	1,268	1,268	20	20	4,244	1,098	1,098	1,098	18
NATRW/SD000018	12,267	2	63	2,114	1,510	1,510	1,510	12	12	2,114	1,383	1,383	1,383	11
OSP/KA RIVER	108,945			1,898	1,650	1,650	1,650	2	2	1,898	1,621	1,621	1,621	1
OSP/KW/SD000032	6,335			859	584	584	584	9	9	859	530	530	530	8
OSP/KW/SD000034	8,321			497	364	364	364	4	4	497	336	336	336	4
PARAW/SD000024	2,382	2	63	1,280	393	393	393	17	17	1,280	364	364	364	15
PARAW/SD000036	6,226	2	63	473	239	239	239	4	4	473	208	208	208	3
PAUL RIVER	71,343			4,217	3,242	3,242	3,242	5	5	4,217	3,333	3,333	3,333	5
PEACE WILLISTON	543,359	2	63	100,912	58,498	58,498	58,498	11	11	101,525	57,456	57,456	57,456	11
PHILIP CREEK	69,398	2	63	26,180	16,666	16,666	16,666	24	24	27,516	18,024	18,024	18,024	26
POLICE CREEK	5,288			320	192	192	192	4	4	320	173	173	173	3
RAINBOW CREEK	30,872	2	63	9,718	7,453	7,453	7,453	24	24	9,731	7,559	7,559	7,559	24
SOUTH GERMANSEN RIVER	18,426	2	63	891	751	751	751	4	4	891	753	753	753	4
STEVENSON CREEK	13,302			386	279	279	279	2	2	386	256	256	256	2
STRANDBERG CREEK	18,308			4,470	1,738	1,738	1,738	9	9	4,470	2,636	2,636	2,636	14
TWENTY MILE CREEK	18,058			45	194	194	194	1	1	45	1,766	1,766	1,766	10
WEST DOG CREEK	8,326			46	38	38	38	0	0	46	985	985	985	12

# UPDATE Forest Certification



## Canadian Forest Products Ltd. 2015 CSA Z809 Re-certification/ISO 14001 Surveillance Audit Public Summary Report

Between March and August 2015 an audit team from KPMG Performance Registrar Inc. (KPMG PRI) carried out a combined CSA Z809 re-certification/ISO 14001 surveillance audit of Canadian Forest Products Ltd.'s (Canfor's) B.C. and Alberta woodlands operations. This Certification Summary Report provides an overview of the audit process and KPMG's findings.

### Canfor's B.C. and Alberta Woodlands Operations

Canfor's ISO 14001 and CSA Z809 certifications apply to the following defined forest areas (NB: The DFAs listed are based on the gross area under management, and are prorated estimates in the case of some of the volume-based forest tenures):

Defined Forest Areas (Canfor operations only)	DFA Areas (hectares)	Allowable Annual Cut (m <sup>3</sup> )
Radium <sup>1</sup>	392,400	221,005
Vavenby	227,709	546,138
Prince George <sup>2</sup>	2,070,802	3,773,769
Morice	949,820	1,448,455
Mackenzie	2,188,430	1,082,904
Ft. Nelson	7,045,416	1,163,716
Chetwynd	528,877	1,196,363
Grande Prairie	<u>644,695</u>	<u>715,000</u>
<b>Total</b>	<b>14,048,149</b>	<b>10,147,350</b>

- The above figures do not include operations in relation to 10,000 m<sup>3</sup>/year of Canfor's AAC in the Cranbrook Timber Supply Area which are certified to the ISO 14001 standard only.
- Canfor manages 3 DFAs within the Prince George Timber Supply Area (TSA). These 3 DFAs include Canfor's operating areas under the Prince George Forest District/TFL 30, Fort St. James and Vanderhoof sustainable forest management (SFM) plans. Operations under these plans are managed or co-managed by Canfor Forest Management Group East and West Operations.

### Audit Scope

The 2015 audit included site visits to all of the DFAs listed above to evaluate the forest management plans and practices carried out by the Company since the completion of the 2014 audit. It included an assessment against all of the requirements of the CSA Z809 standard, including those related to:

- Public participation;
- Maintenance of the sustainable forest management (SFM) plan;
- Monitoring of SFM performance, and;
- Implementation of the various management system components (e.g., rights & regulations, DFA specific performance requirements, operational controls, monitoring and inspections, corrective & preventive actions, internal audits, management review) that are required under the CSA Z809 standard.





Note: Full scope site visits were only conducted at 5 DFAs (Mackenzie, Vanderhoof, Chetwynd, Vavenby and Prince George), with the remaining DFAs being the subject of limited scope site visits that were used to evaluate those CSA Z809 requirements that are unique at the site level (i.e., DFA level SFM plans, annual monitoring reports and the functioning of the local Public Advisory Group (PAG)). This level of audit sampling exceeds the IAF audit sampling requirements for multi-site certifications.

## The Audit

- **Background** – The CSA Z809 and ISO 14001 standards require annual surveillance audits by an accredited Certification Body to assess the operation’s continuing conformance with the requirements of these standards. In addition, full scope re-certification audits are required once every 3 years.
- **Audit Team** – The audit was conducted by a 7 person audit team that included Dave Bebb, RPF, EP(EMSLA) – Lead Auditor, Yurgen Menninga, RPF, EP(EMSLA), Adrienne Hegedus, MF, EMS(LA), Del Ferguson, P.Geo, Dip.ForEng., Neil MacEachern, RPF, Dennis Lozinsky, RPF, EP (EMSLA) and Bodo von Schilling, RPF, EP(EMSLA). All members of the audit team have considerable experience conducting audits against the requirements of the ISO 14001 and CSA Z809 standards.
- **Document Review** – DFA-specific off-site document reviews were completed prior to the field audit in order to assess forest management system (FMS) documentation (e.g., SFM Plan and associated values, objectives, indicators and targets, documentation pertaining to the Public Advisory Group (PAG) process, etc.) and increase the efficiency of the field portion of the audit.
- **Pre-audit Questionnaires** – For 4 DFAs (Mackenzie, Vanderhoof, Vavenby and Prince George), pre-audit questionnaires were sent to PAG members and First Nations representatives whose asserted traditional areas overlap the DFA approximately 4-6 weeks in advance of the audit site visit. The responses were used by the audit team to help identify any concerns that the respondents may have regarding the Company’s forest management plans and practices within the applicable DFAs, and were followed up by phone and/or in person where feasible to do so. Only a limited number of responses to these questionnaires was received, some of which were provided to KPMG after the audit took place and as a result could not be taken into consideration for the 2015 site visits. PAG member responses to the questionnaire were generally positive and required little follow-up by the audit team. Of the limited number of responses from First Nations representatives, a few expressed concerns regarding: (1) the use of herbicides to control brush, and (2) a lack of compensation (by either industry or government) associated with forest harvesting within their traditional territories. The audit team followed up on these concerns during the audit but did not identify any non-conformities with the requirements of CSA Z809 as a result.
- **Field Audit** – The on-site field audit included interviews with a large sample (more than 100 Company staff and an equal or greater number of contractors, PAG members and external stakeholders) and examination of forest management system (FMS) and SFM system records, monitoring information and public involvement information. The audit team conducted field assessments of a large number of field sites (70 roads, 64 harvesting blocks, 28 silviculture sites and 3 logging camps) to assess the Company’s planning, harvesting, silviculture, camps and road construction, maintenance and deactivation practices. The 2015 audit took approximately 70 days to complete, 50 of which were on-site. The balance of audit time was spent preparing the audit plan, conducting off-site document reviews, completing various audit checklists and preparing the main and public summary audit reports.

### Canfor 2015 CSA Z809 Re-certification/ISO 14001 Surveillance Audit Findings

New major non-conformities	0
New minor non-conformities	5
Systemic opportunities for improvement	5
Open non-conformities from previous audits	0

#### Types of audit findings

##### Major non-conformities:

Are pervasive or critical to the achievement of the SFM Objectives.

##### Minor non-conformities:

Are isolated incidents that are non-critical to the achievement of SFM Objectives.

All non-conformities require the development of a corrective action plan within 30 days of the audit. Corrective action plans to address major non-conformities must be fully implemented by the operation within 3 months or certification cannot be achieved / maintained. Corrective action plans to address minor non-conformities must be fully implemented within 12 months.

##### Opportunities for Improvement:

Are not non-conformities but are comments on specific areas of the SFM System where improvements can be made.

## Audit Objectives

The objective(s) of the audit was to evaluate the sustainable forest management (SFM) system at Canadian Forest Products Ltd. to:

- Determine its conformance with the requirements of the ISO 14001 and CSA Z809 standards;
- Evaluate the ability of the SFM system to ensure that Canfor meets applicable regulatory requirements;
- Evaluate the effectiveness of the system in ensuring that the Company meets its specified SFM objectives, and;
- Where applicable, identify opportunities for improvement.

## Audit Conclusions

The audit found that the Company's SFM system:

- Was in conformance with the ISO 14001 and CSA Z809 requirements included within the scope of the audit, except where noted otherwise in this report;
- Continues to be effectively implemented, and;
- Is sufficient to systematically meet the commitments included in the Company's SFM Plans, provided that it continues to be implemented and maintained as required.

As a result, a decision has been reached that Canfor's B.C. and Alberta woodlands continue to be registered to the ISO 14001 and CSA Z809 standards.

## Good Practices

A number of good practices were noted during the 2015 audit. The following list highlights some of the examples noted:

- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Company is in the process of developing a variety of due diligence procedures to help address the risks that forest operations pose to migratory birds. (Corporate)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The Canfor Houston operation has recently developed a "Block, Road Permit, Site Plan and SUP Checklist" as a means to help ensure plan/permit consistency with FSP requirements. (Houston)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The audit noted good stand level retention throughout the blocks visited during the audit. This included patch design and individually retained trees. (Vavenby)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The audit found that the Vanderhoof operation had compiled thorough photo documentation of operations such as bridge installations and deactivations. This serves as a good tool for demonstrating due diligence in the implementation of operational controls. (Vanderhoof)
- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: The audit found that one of Canfor's logging contractors is using SiteDoc software as a centralized way to track training, incidents, inspections, mechanical work, pre-works and employee task



Canfor holds a multi-site certificate to the CSA Z809-08 standard issued by KPMG PRI. The certificate covers a total of 10 Defined Forest Areas in B.C. and Alberta that is valid until September 20, 2018.



observations. SiteDoc is a highly customizable app with the capability to store photos and signatures. (Chetwynd)

- ISO 14001 element 4.4.6/CSA Z809 element 7.4.6: In 2014/15 the Grande Prairie operation combined data from the Foothills Stream Crossing Partnership and Canfor's road maintenance database to improve the classification of risk and prioritization for implementation of impact mitigation strategies in medium and high risk watersheds. (Grande Prairie)
- CSA Z809-08 element 5.2: Canfor Chetwynd staff have expended considerable effort in promoting PAC participation with interested parties including cold calling community members, advertising PAC meetings and inviting the public, handing out flyers regarding the PAC at a trade fair, asking PAC participants to bring a buddy and other initiatives. (Chetwynd)
- CSA Z809-08 element 5.2: The audit found that the Mackenzie PAG continues to have very good representation from local First Nations. (Mackenzie)
- CSA Z809-08 Element 6.1: The Canfor Houston operation continues to work with government, First Nations and other parties in attempting to reduce the potential harvest level impacts associated with various draft government orders relating to spatially defined OGMAs, caribou habitat, etc. (Houston)
- CSA Z809- 08 Element 7.3.5: The Canfor Radium operation and PAG have spent a considerable amount of time over the past year revising the Radium SFM plan so that it can address both CSA Z809 and FSC requirements. Although there are separate CSA Z809 and FSC DFAs, there will be one common set of indicators and targets. Going forward, CSA Z809 and FSC performance results will also be included in the same annual report. (Radium)

## Follow-up on Findings from Previous Audits

At the time of this assessment there were a total of 3 open minor non-conformities from previous audits which related to ISO 14001 and/or CSA Z809 requirements. The audit team reviewed the implementation of the action plans developed by Canfor to address these issues, and found that they: (1) had been implemented as required, and (2) were largely effective in addressing the root cause(s) of these findings. However, isolated recurrences of the issues that gave rise to one of these findings (relating to the deactivation of on-block roads following logging) were noted during the 2015 audit. As a result, 2 out of the 3 open minor non-conformities identified during previous audits have now been closed and 1 has been downgraded to an opportunity for improvement. The Company's continued progress towards addressing the remaining findings will be revisited during the 2016 audit.

## New Areas of Nonconformity

A total of 5 new minor non-conformities were identified during the 2015 ISO 14001/CSA Z809 audit, as follows:

- ISO 14001 element 4.4.2 and CSA Z809 element 7.4.2 require the organization to establish and maintain procedures for staff and contractor training. These requirements are addressed in a variety of FMS documents and procedures including section 7 of the FMS manual, the training needs assessment, FMS training materials and staff and contractor training records. Under these procedures, contractors are responsible for providing applicable FMS training for their employees and maintaining training records. The audit found that that FMS



The audit team conducted field assessments of a large number of field sites (70 roads, 64 harvesting blocks, 28 silviculture sites and 3 logging camps) to assess the Company's planning, harvesting, silviculture, camps and road construction, maintenance and deactivation practices.

training requirements had been met in the majority of instances. However, the following weaknesses were noted during the audit:

- Interviews with contractor personnel working on an active logging site found that only 1 of them had completed the required S100 or S100A fire fighting training in the past year. (Chetwynd)
- The audit found that one harvesting contractor had only provided the required annual FMS training to 50% of his crew for the 2015 season. (Prince George)
- ISO 14001 element 4.4.6 and CSA Z809-08 element 7.4.6 require the organization to develop and implement operational controls to ensure that operations are carried out under specified conditions and SFM requirements are met. The Company has addressed this requirement by developing a series of standard work procedures (SWPs) and guidelines (e.g., Canfor Fuel Management Guidelines) that give direction to both staff and contractors regarding the implementation of various components of the FMS. The audit found that these operational controls had been implemented as required in the majority of instances. However, inspection of a sample of active and recently completed sites during the audit identified the following weaknesses in the implementation of operational controls for the management of fuel:
  - The Mackenzie site visit found the following weaknesses in the implementation of Canfor's fuel management procedures: (1) a truck-mounted fuel tank that was missing the required TDG label, (2) a truck-mounted fuel tank was attached to the truck with a nylon strap that would not have prevented the loss of the tank in the event of a roll-over, and (3) a <450 litre tidy tank that was being used to fuel a camp incinerator that was missing the required TDG label. (Mackenzie)
  - The fuel cache at one camp did not meet the requirements of Canfor's fuel management guidelines (i.e., lack of secondary containment or collision protection and a failure to post "no smoking" or WHMIS signage), despite the checklists provided by the contractor indicating that it did. (Vanderhoof)
  - A logging contractor working in the Weedon area was found to be using 2 specification fuel tanks that lacked the required TDG labels. In addition, a <450 litre tidy tank was attached to the truck with a nylon strap that would not have prevented the loss of the tank in the event of a roll-over. (Prince George)
- ISO 14001 element 4.5.1 and CSA Z809 element 7.5.1 require there be documented procedures to monitor key characteristics that can have an environmental impact. These requirements are addressed in FMS Manual section 12 and a number of related procedures and forms (e.g., various SWPs, Pre-work and Inspection Forms, etc.). The audit found that the Company's monitoring and measurement procedures had been implemented as required in the majority of instances. However, the following weaknesses in the implementation of these procedures were noted: (1)
  - A silviculture contractor had failed to complete the required brushing and fill planting of 1 block, and no final inspection of these activities could be located. (Vavenby)
  - A final inspection (completed aerially) for 1 block failed to identify a number of deficiencies (i.e., inadequate road deactivation, small roadside piles or merchantable wood that had not been loaded out and a log fill crossing on an S4 stream that had not been removed. (Prince George)



The audit noted a number of conservative riparian management practices on the sites included in the field sample (e.g., larger streams and wetlands that had been excluded from the harvest area and protected with well-sized buffers, good retention of understory vegetation, non-merchantable and scattered merchantable trees on internal S4s, S6s and NCDs, etc.). (Prince George)





- ISO 14001 element 4.5.3 and CSA Z809 element 7.5.2 require the organization to develop and implement procedures for dealing with actual or potential non-conformities and for taking corrective action to address the issue and minimize the potential for recurrence. These requirements are addressed in FMS Manual section 13 and a number of related procedures and forms (e.g., Incident Reporting SWP, Pre-work and Inspection Forms, etc.). The audit found that the Company's monitoring and measurement procedures had been implemented as required in the majority of instances. However, the following weaknesses in the implementation of these procedures were noted during the audit:
  - There was no formal closure in the Incident Tracking System (ITS) of action items that had been developed to address issues noted during the internal inspection of a logging camp. In addition, 2 of the action items associated with a June 2014 fuel storage and handling inspection of the same camp had not been completed. (Mackenzie)
  - Review of ITS reports found 2 corrective actions with expired completion dates where the required actions had not been completed. (Grande Prairie)
- CSA Z809 element 6.1 requires the organization to work with the PAG to: (1) establish performance requirements in relation to all of the SFM elements and associated core indicators included in the standard, and (2) prepare an annual monitoring report to communicate performance and (where targets have not been met) propose corrective actions in relation to all of the targets included in the applicable SFM plan. The audit found that this requirement had been met in relation to the majority of the SFM plans included within the scope of the Company's multi-site CSA Z809 certification. However, a weakness was noted during the audit regarding performance in relation to Chetwynd SFM plan indicator 36 (harvest method) which is intended to help ensure that the full timber profile is being harvested. The current target for this indicator is that a maximum of 84% of the coniferous landbase be harvested using conventional (ground-based) harvesting methods over a 5 year period, with the remaining 16% being harvested using other (cable or aerial) systems. However:
  - For the 2009-2013 cut control period Canfor Chetwynd had only harvested 11% of the coniferous landbase using non-conventional methods.
  - BCTS (the other SFM plan signatory) has to date not reported their performance in relation to this indicator. As such, the numbers included in the annual report may not provide an accurate indication of the licensee team's overall performance in relation to this indicator.
  - The licensee team has yet to develop a clear corrective action plan to address the gap between the target for non-conventional harvesting and the current level of performance. (Chetwynd)



The audit found that the Vanderhoof operation had compiled thorough photo documentation of operations such as bridge installations and deactivations. This serves as a good tool for demonstrating due diligence in the implementation of operational controls. (Vanderhoof)

## Systemic Opportunities for Improvement

A total of 5 new systemic opportunities for improvement was identified during the 2015 ISO 14001/CSA Z809 audit, as follows:

- The Canfor FMS Manual indicates that the FMS applies to all woodlands operations up to the point where the wood crosses the scales, after which activities may still fall under the PEFC CoC system. Canfor Mackenzie is planning to install a scale and dump at a remote camp and use the Williston Transporter to move wood south on Williston Lake. This situation is unique within the Company. At the time that the 2015 audit took place the transporter and associated de-watering activities and infrastructure at the Mackenzie operation



were not in scope for the Company's ISO 14001 and CSA Z809 certifications. The Company does not currently have FMS procedures to address the environmental risks associated with these activities. However, plans are in place to develop such procedures in fall 2015. (Mackenzie/Corporate)

- The audit found that the Company's staff training procedures had been implemented as required in the large majority of instances. However, the following isolated weaknesses in the implementation of these procedures were noted:
  - The Canfor Vavenby Planning Forestry Supervisor (who is new to the role of divisional FMS representative) has only received a brief orientation regarding the general requirements of the role. (Vavenby/Corporate)
  - The 2015 Prince George internal audit found that some woodlands staff were not up to date in their training. Although this weakness has since been remedied, this issue can in part be attributed to an over-reliance on the Eclipse system, which does not currently assign training needs based on the role/position of staff, but is instead linked to the person.
- The audit found a number of isolated weaknesses in the implementation of operational controls (e.g., Chetwynd - failure to include a small 0.2 hectare harvesting trespass in a site plan amendment; Chetwynd - no mention of fish timing window requirements in the pre-work for a bridge construction project; Chetwynd - lack of understanding/agreement between Canfor and BCTS regarding the proposed harvesting method for planned and reseed blocks provided to BCTS by Canfor; Vavenby - failure to show a small (0.35 ha) non-productive area on the site plan map or related documents for 1 harvest block; Prince George - lack of adequate sediment control measures on 1 recently installed bridge on an S4 stream).
- The audit noted a number of isolated weaknesses in the implementation of the Company's emergency preparedness and response procedures (e.g., Vanderhoof - missing grey (universal) pads in 2 machines working on a harvest block; Chetwynd - the contractor working on a harvest block had a number of fire extinguishers that were missing inspection tags or had last been inspected in 2013/early 2014; Vavenby - a small spill of hydraulic oil had not been remediated by the contractor prior to leaving the site; Prince George - a cat operator working on a road construction project did not have the required spill kit on his machine;
- The audit found that the Company's procedures for addressing FMS non-conformities had been implemented as required in the large majority of instances. However, a systemic weakness was noted at a number of divisions regarding the closure of incidents in ITS. A number of the divisions that were audited in 2015 are not using the attachments function in ITS to justify action plan closure. This creates challenges to staff when attempting to justify why a particular action plan item has been closed, and also weakens the ITS as a tool for demonstrating due diligence. (Corporate)



The audit noted good stand level retention throughout the blocks visited during the audit. This included patch design and individually retained trees. (Vavenby)

## Isolated Issues

A number of isolated (i.e., non-systemic) weaknesses in the implementation of FMS requirements were also identified during the 2015 audit. These have been reported to the woodlands operations where the issue(s) were noted, and the Company has developed divisional-level action plans to address these issues.

## Corrective Action Plans

Corrective action plans designed to address the root cause(s) of the non-conformities identified during the 2015 audit have been developed by Canfor's woodlands operations and reviewed and approved by KPMG PRI. The 2016 audit will include a follow-up assessment of these issues to confirm that the corrective action plans developed to address them have been implemented as required

## Focus Areas for the Next Audit

The following issues/topics have been identified as focus areas for the next audit:

- Implementation of the action plans developed by the Company to address the open findings from the 2015 and previous ISO 14001/CSA Z809 audits.
- The implications of the planned expansion in operations/harvest level associated with additional quota in the Mackenzie TSA obtained from other licensees, including local First Nations (e.g., hiring and training of additional staff, adequacy of quality control over block layout completed by contractors/Company staff, etc.). (Mackenzie)
- Efforts by the Mackenzie division to address the species and geographic harvest level partition requirements associated with the 2014 AAC determination. (Mackenzie)
- Evaluation of monitoring programs for roads and bridges in Fort Nelson (specifically the Pipeline Bypass and Kledo and related bridges). (Fort Nelson)
- Steep slope (>20%) harvesting at the Grande Prairie operation.
- Operational plans and public communication in the Upper Clearwater area. (Vavenby)
- Progress towards the completion of a new TSR for the PG TSA. (Prince George)
- Staff and contractor training in the procedures to address the habitat needs of migratory birds that are currently being developed by the Company. (Corporate)
- Changes in divisional plans and procedures that are required to address recently established fisheries sensitive watersheds. (Prince George)
- Follow-up on stakeholder concerns that were communicated to KPMG PRI after the 2015 audit was completed.

## Date of the Next Audit

The next CSA Z809/ISO 14001 audit of Canfor's B.C. and Alberta woodlands operations will take place over several months, commencing in winter 2016.



Inspection of a sample of silviculture sites during the 2015 audit found that the Company continues to meet its obligations to reforest harvested areas with preferred and acceptable tree species within specified timeframes.

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# SFM Annual Report

Mackenzie DFA  
2014/15







## **Mackenzie – Draft 2014/15 Annual Report**

- Reporting period April 1, 2014 to March 31, 2015



# Mackenzie – Draft 2014/15 Annual Report

Out of 48 indicators:

- Objectives met for 45
- Objectives pending for 1
- Objectives not met for 2



Mackenzie – Draft 2014/15 Annual Report  
**INDICATORS PENDING- SUMMARY**

2.2.2a – Actual harvest volume compared to the apportionment across the DFA over each 5-year cut control period.

- 2014 was year 2



Mackenzie – Draft 2014/15 Annual Report  
**INDICATORS NOT MET - SUMMARY**

1.1.3a - Percent of blocks that are within LU/BEC groups that meet prescribed old growth targets.

2.2.2b – Percentage of area (ha) harvested that are damaged or considered a high risk to stand damaging agents.



Mackenzie – Draft 2014/15 Annual Report  
**INDICATORS NOT MET in previous year  
(2013/14)**

10 (3.1.1b) - Percent of stream crossings appropriately designed and properly installed and or removed.





## Mackenzie – Draft 2014/15 Annual Report Indicators Not Met - Details

1.1.3a - % of blocks within LU/BEC Groups that meet prescribed old growth targets

- 1 block was harvested within the Nation LU BEC Group 4 (SBSmk1, SBSmk2, SBSwk1).
- CP L32 block 3501 – 12.9ha logged that was 77% pine.
- Action is to work with other licensee's to develop a plan for operating within the Nation LU BEC Group 4.



## Mackenzie – Draft 2014/15 Annual Report Indicators Not Met - Details

2.2.2b - % of area harvested that are damaged or considered a high risk to stand damaging agents.

- 63 blocks harvested – 22 identified to be less than 40% pine in the cruise therefore not deemed to be salvage.
- With mill upgrade and start-up during reporting period higher amount of ‘green volume’ harvested.
- 69% of total ha was considered damaged or at risk.

# Changes to the CSA Z809 Standard

Alan Wiensczyk, RPF  
TCC Solutions



# Outline

- CSA Z809 Standard
- Major Changes to the Standard
- Public Input
- What it means to the Licensee and PAG's.

# CSA Z809 Standard

- 4<sup>th</sup> Edition of the CSA Z809, Sustainable Forest Management (SFM)
- Describes the requirements for SFM of a Defined Forest Area (DFA)
  - Outlines requirements for
    - Public participation
    - Performance
    - Management systems
    - Review of Actions
    - Monitoring of Effectiveness, and
    - Continual improvement
  - Outlines the Auditing process

# Proposed Changes

1. Aboriginal Relations	9. Group certification*
2. Public Involvement	10. Annual internal audits
3. Water	11. SFM Plan Implementation
4. Heritage Values	12. Streamlining Plans
5. Safety	13. System Requirements
6. Economic and Social Benefits	14. Preventive Action
7. Forecasts	15. Definitions
8. Volume-based tenures*	16. Readability

# Proposed Changes

## 1. Aboriginal Relations

- New Criterion 7 – Aboriginal Relations
  - Important to build good relationships
  - Flexibility
  - Incorporation of Aboriginal and treaty rights

## 2. Public Involvement

- Section heading more descriptive and accurate
- Audit result report content expanded

## 3. Water

- Added core requirement for meeting prescriptions that protect water features.

## 4. Heritage Values

- Added to list of special sites of geological, biological or cultural significance.
- Management strategies will be developed and implemented.

## 5. Safety

- Separate element created for requirements
  - Employees, contractors, affected communities

# Proposed Changes

## 6. Economics and Social Benefits

- Requirements for management clarified

## 7. Forecasts

- Forecasting of indicators and targets clarified

## 8. Volume-based tenures

- Doesn't apply

## 9. Group certification

- Doesn't apply

## 10. Annual Internal audits

- Requirement removed

## 11. SFM Plan Implementation

- Requirement to demonstrate links between short-term operational plans and the SFM plan removed.



# Proposed Changes

## 12. Streamlining plans

- Requirements for management clarified

## 13. System Requirements

- Some of the detailed requirements within each section of the ISO14001 management system requirements removed.

## 14. Preventative Action

- Separate requirement removed. (already part of system requirements)

## 15. Definitions

- Some revised
- Others added or deleted (deleted ones for terms no longer in the standard after revisions)

## 16. Readability

- Standard and accompanying guidance separated.
- Eliminates duplication and possible confusion.

# Remaining Strengths

- Developed for Canada
  - Follows CCFM Framework for Sustainable Forest Management
- Active Community Voice
- Current, Relevant and Evolving
- Transparency
- Independent
- Labels for Forest Products with Integrity

# Opportunity for Input/Next Steps

- Online
  - <http://publicreview.csa.ca/Home/Details/1712>
- Mail in Comments
  - Send to me and I will email to Priya
  - Comment period closed on Oct 6, 2015.
- CSA Committee will compile comments and use them to develop the revised standard.
- Revised standard sent to Licensees
- Licensees will have a period of time to update their plans to the revised standard.
- Potential Impact on PAG?
  - One proposed new indicator.